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Australian forest profiles

Australia's forests



Australia has 134 million hectares of forest, which is 17% of Australia's land area. This is about 3% of the world's forest area, and the seventh-largest reported forest area worldwide.

Australia's forests are recognised and valued for their diverse ecosystems and unique biodiversity and for their provision of products such as wood. They perform important environmental functions, including storing carbon and protecting soil and water.

Forests are also places with cultural, aesthetic and heritage values and provide recreational opportunities.

However, Australia's forests are subject to many pressures, including land clearing for agriculture; urban development; mining and infrastructure; extreme weather; drought; climate change; invasive weeds, pests and diseases; changed fire regimes; urban development; agricultural management practices such as grazing; and the legacy of previous land management practices.



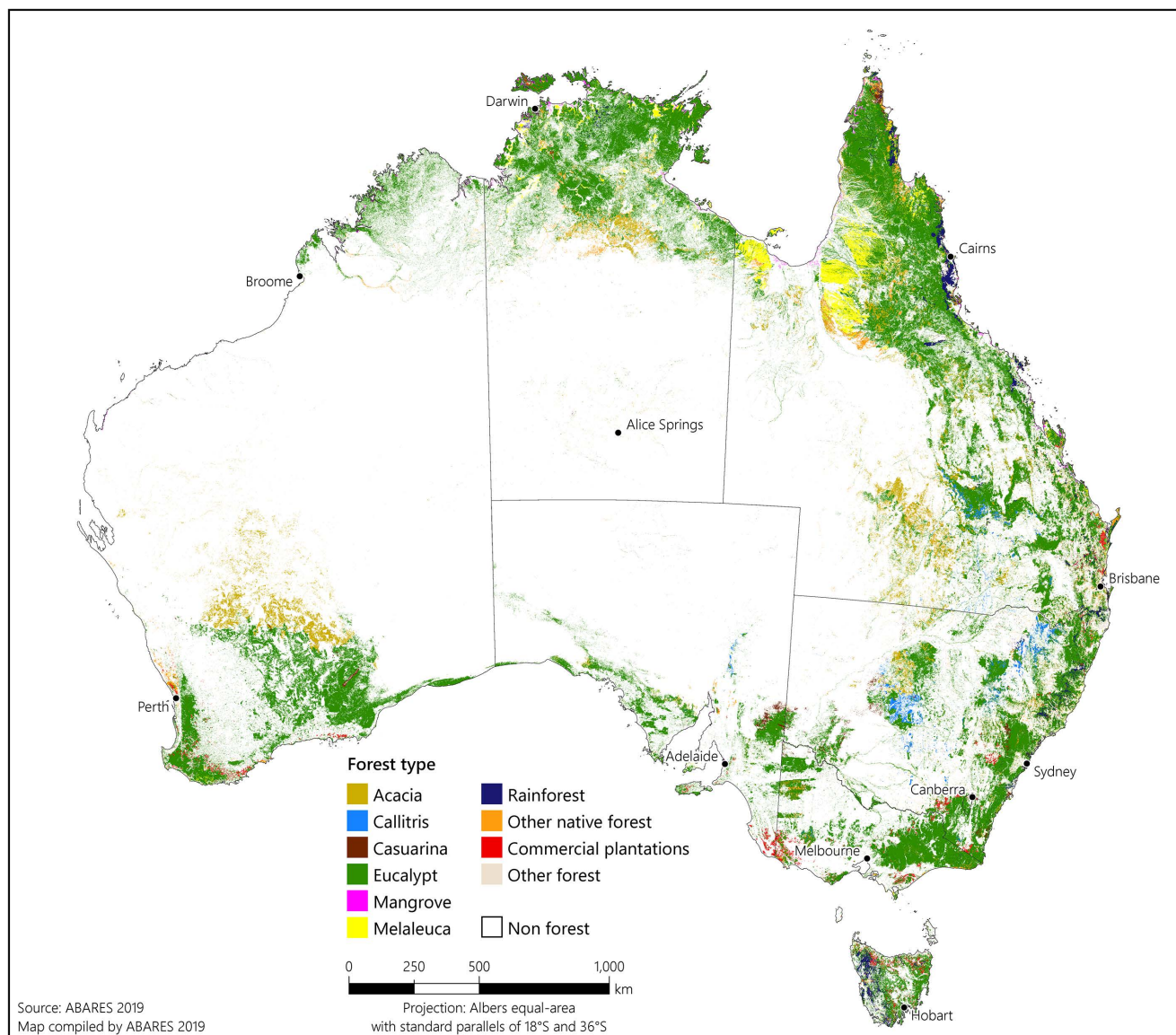
Eucalypt forest, New England National Park, New South Wales
Rohan Jacobsen

Distribution

Forests extend across Australia's northern tropical regions, east coast subtropical regions, and warm and cool temperate zones in the south-east (Map 1). They are also found in Mediterranean climate zones in the south-east and south-west. In some regions,

forests extend from the wetter coastal and sub-coastal areas into drier parts of the continent, and into sub-alpine and alpine zones. They grow on a range of soils, from ancient, fragile and infertile soils, to more recent, fertile soils of volcanic origin.

MAP 1 Distribution of Australia's forest types, 2018



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

Queensland has the largest proportion of Australia's total forest area (39%), followed by Northern Territory (18%) (Table 1).

Australia's National Forest Inventory

The [National Forest Inventory](#) (NFI), housed in the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), provides comprehensive information and reporting on Australia's forests. The NFI is also the repository for a range of data about Australia's forests compiled from state, territory and Australian government agencies.

TABLE 1 Area of forest by state and territory, 2018

	Forest area '000 hectares	Proportion of total forest area %
ACT	142	0.1
NSW	20,368	15
NT	23,735	18
QLD	51,830	39
SA	5,060	4
Tas.	3,699	3
Vic.	8,222	6
WA	20,981	16
Total	134,037	100

Note: Totals may not tally due to rounding.

Source: ABARES (2019)

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

How a forest is defined in Australia

A forest is an area of land dominated by trees that have a height of at least two metres and a crown cover of at least 20%. Crown cover is the area of ground covered by tree canopies, ignoring overlaps and gaps within individual canopies.

Forest definition used by Australia's National Forest Inventory

In Australia, a forest is defined as an area, incorporating all living and non-living components, that is dominated by trees having usually a single stem and a mature or potentially mature stand height exceeding 2 metres and with existing or potential crown cover of overstorey strata about equal to or greater than 20%. This includes Australia's diverse native forests and plantations, regardless of age. It is also sufficiently broad to encompass areas of trees that are sometimes described as woodlands.

Large expanses of tropical Australia where trees are spread out in the landscape are forest, as are many areas of multi-stemmed eucalypt mallee. What many people would typically think of as forests—stands of tall, closely spaced trees—comprise a relatively small part of the country's total forest area.



Woodland forest, Undara Volcanic National Park, Queensland
Claire Howell

Forest types

Australia's forests are classified in the National Forest Inventory into three categories: 'Native forest', 'Commercial plantations' and 'Other forest'. 'Commercial plantations' were previously known as 'Industrial plantations'.

Australia's native forests are grouped into eight types:

- Acacia
- Callitris
- Casuarina
- Eucalypt
- Mangrove
- Melaleuca
- Rainforest
- Other native forest.

A total of 83% of Australia's total forest area is dominated by Eucalypt forest and Acacia forest (Table 2).

Commercial plantations are plantations grown on a commercial scale for wood production.

'Other forest' comprises non-commercial plantations and planted forest of various types.

TABLE 2 Australia's forest area by forest type, 2018

Forest type	Forest area '000 hectares	Proportion of total forest area %
Acacia	10,813	8
Callitris	2,011	2
Casuarina	1,236	1
Eucalypt	101,058	75
Mangrove	854	1
Melaleuca	6,382	5
Rainforest	3,581	3
Other native forest	5,679	4
Total native forest	131,615	98
Total Commercial plantation	1,949	2
Other forest	474	0.4
Total forest	134,037	100

Note: Totals may not tally due to rounding.

Source: ABARES (2019)

[Download Table 2 data as an Excel workbook](#)

Forest structure

Australia's native forests are divided into three classes based on their crown cover and three classes based on mature tree height. Crown cover is the area of ground covered by tree canopies, ignoring any overlaps and gaps.

The crown cover classes are:

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

The height classes are:

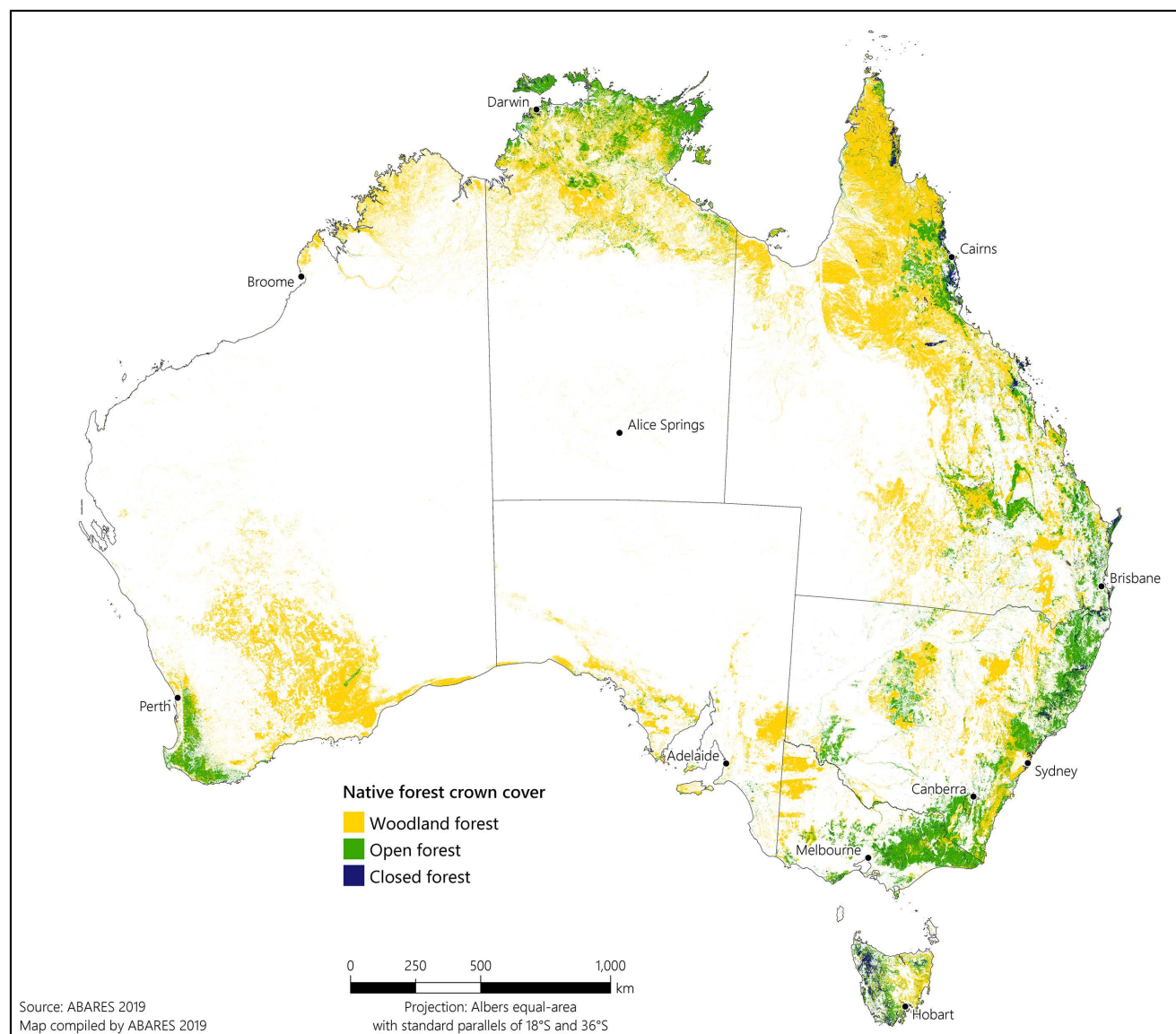
- **low** (2 to 10 metres)
- **medium** (>10 to 30 metres)
- **tall** (>30 metres).

Distribution of Australia's native forest by crown cover class is shown in Map 2. A total of 91 million hectares (69%) of Australia's native forest area is woodland forest (Table 3). Open forests comprise 34 million hectares (26%) and closed forests comprise 3.6 million hectares (3%).

The Eucalypt forest type is the largest component of both woodland forests (73 million hectares, 80%) and open forests (28 million hectares, 82%) (Table 3). The Rainforest forest type is the largest component of closed forests (2.6 million hectares, 71%).



Buttressed rainforest tree, Dorrigo National Park, New South Wales
Rohan Jacobsen

MAP 2 Distribution of native forest by crown cover, 2018

[Open a high-resolution version of Map 2 that can be saved as a PNG file](#)

TABLE 3 Area of native forest by crown cover, 2018 ('000 hectares)

Native forest type	Woodland	Open	Closed	Unknown	Total
Acacia	8,536	2,233	44	0	10,813
Callitris	951	1,060	0	0	2,011
Casuarina	1,070	150	16	0	1,236
Eucalypt	72,829	27,776	454	0	101,058
Mangrove	63	370	420	0	854
Melaleuca	5,416	938	28	0	6,382
Rainforest	0	1,006	2,574	0	3,581
Other native forest	2,590	429	85	2,576	5,679
Total native forest	91,455	33,962	3,622	2,576	131,615

Totals may not tally due to rounding.

Source: ABARES (2019)

[Download Table 3 data as an Excel workbook](#)

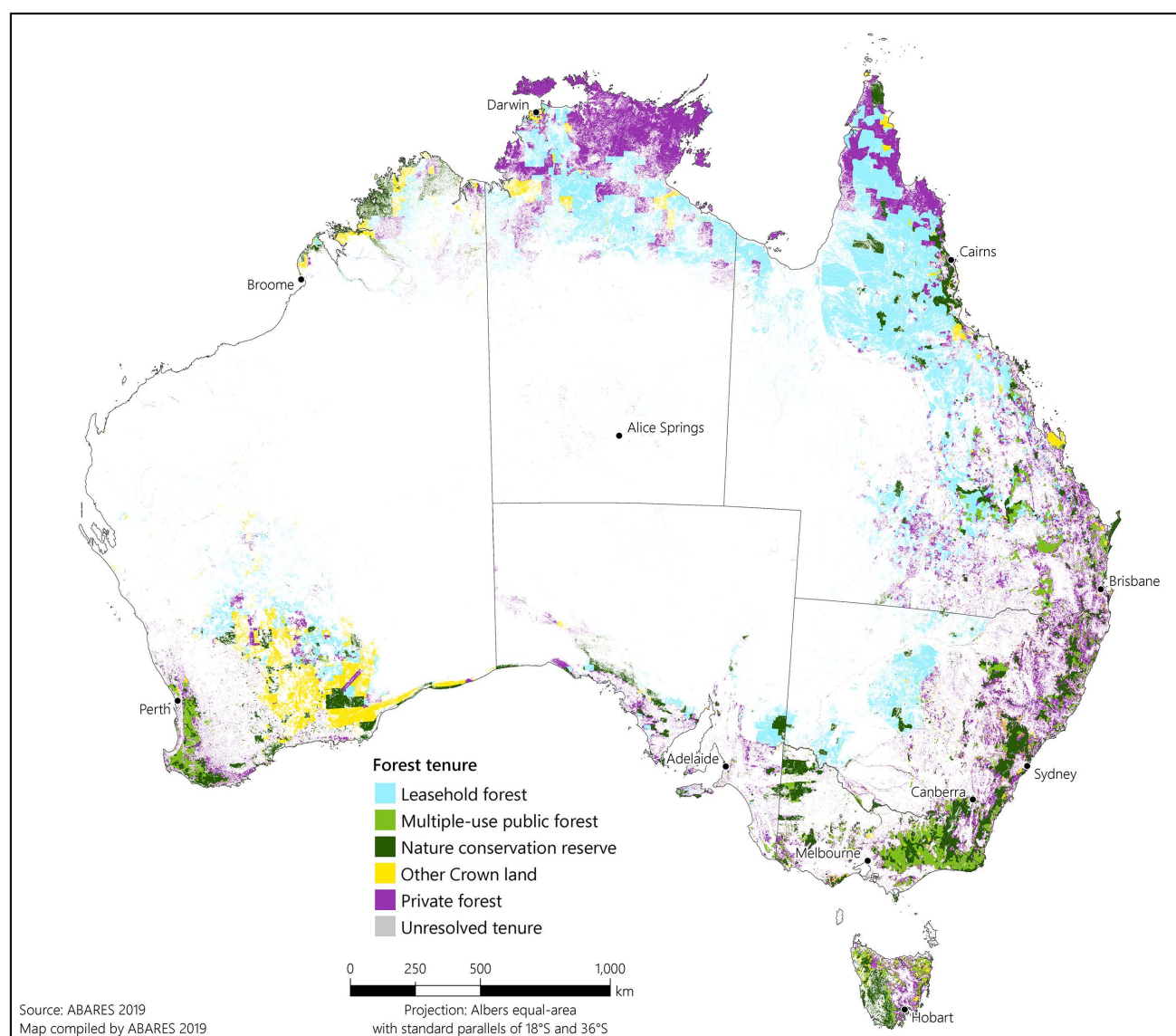
Ownership

The ownership of a forest (or tenure), especially native forest, has a major bearing on its management. Six tenure categories are recognised nationally:

- **Leasehold forest**—Crown land held under leasehold title, and generally privately managed.
- **Multiple-use public forest**—publicly owned state forest, timber reserves and other land, managed by state and territory government agencies for a range of forest values.
- **Nature conservation reserve**—publicly owned lands managed by state and territory government agencies that are formally reserved for environmental, conservation and recreational purposes, including national parks, nature reserves, and state and territory recreation and conservation areas.
- **Other Crown land**—Crown land reserved for a variety of purposes, including utilities, scientific research, education, stock routes, mining, use by the defence forces, and to protect water-supply catchments, with some areas used by Indigenous communities.
- **Private forest**—land held under freehold title and private ownership, and usually privately managed.
- **Unresolved tenure**—land where data are insufficient to determine land ownership status.

Distribution of Australia's native forest by tenure is shown in Map 3. A total of 88 million hectares (67%) of Australia's native forest is privately managed on leasehold forest and private forest (Table 4), while 22 million hectares (17%) are in formal nature conservation reserves.

MAP 3 Distribution of native forest by tenure, 2018



[Open a high-resolution version of Map 3 that can be saved as a PNG file](#)

TABLE 4 Area of native forest by tenure, 2018

Tenure	Forest area '000 hectares	Proportion of total native forest area %
Leasehold forest	47,246	36
Multiple-use public forest	9,772	7
Nature conservation reserve	21,719	17
Other Crown land	11,042	8
Private forest	41,031	31
Unresolved tenure	805	1
Total native forest	131,615	100

Note: Totals may not tally due to rounding.

Source: ABARES (2019)

[Download Table 4 data as an Excel workbook](#)



Stream through mountain ash (*Eucalyptus regnans*) forest, Victoria
Stuart Davey

Certification of forest management and forest products

Certification of forest management and forest products assures Australian and international buyers that the forest products they purchase come from sustainably managed and legally harvested native forests and plantations. Several private, accredited bodies conduct forest management and supply chain certification in Australia. They use standards developed under the Responsible Wood Certification Scheme or the Forest Stewardship Council. As at 2018, a total of 8.9 million hectares of native forests and plantations are certified under these standards.

Australia's State of the Forests Report series

Data on Australia's forests are compiled in the National Forest Inventory. These data are used to complete the [Australia's State of the Forests Report](#) series. A report is produced every five years through a collaboration between the Australian, state and territory governments, led by the Australian Bureau of Agricultural and Resource Economics and Sciences in the Department of Agriculture. This Australian forest profile series is based on information in [Australia's State of the Forests Report 2018](#).



Criteria for sustainable forest management

Australia is a member of the [Montreal Process](#), which provides a framework for describing, monitoring and assessing forests. The framework uses seven broad criteria to characterise the essential components of sustainable forest management:

Criterion 1: Conservation of Biological Diversity

Criterion 2: Maintenance of Productive Capacity of Forest Ecosystems

Criterion 3: Maintenance of Ecosystem Health and Vitality

Criterion 4: Conservation and Maintenance of Soil and Water Resources

Criterion 5: Maintenance of Forest Contribution to Global Carbon Cycles

Criterion 6: Maintenance and Enhancement of Long-Term Multiple Socio-Economic Benefits to Meet the Needs of Societies

Criterion 7: Legal, Institutional and Economic Framework for Forest Conservation and Sustainable Management.

Each criterion has a set of quantitative and qualitative indicators that are designed to measure progress and trends. A set of 44 indicators for use in Australia was adapted from the broader international list to suit the specific characteristics of Australian forests, the products and environmental benefits they provide, and the people who depend on or use them. These criteria and indicators are used in the [Australia's State of the Forests Report](#) series.

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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.

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