

MVG 5—EUCALYPT WOODLANDS

- Form a transitional zone between the higher rainfall forested margins of Australia and the hummock grasslands and shrublands of the arid interior.
 - Include a series of communities that typify inland Australia—e.g. poplar box (*Eucalyptus populnea*), white box (*E. albens*), yellow box (*E. melliodora*) and ironbark woodlands of eastern Australia are included in this MVG.
 - Community complexity varies from communities with fewer than three dominant tree species to mixed communities with many tree species.
- This complexity is further increased by the diverse shrub and grassy understoreys that may occur.
- Understoreys may vary from grasses to shrubs and in some cases have attained a parkland appearance due to frequent fire and grazing. This ‘parkland’ now typifies the woodlands in the eastern and southern parts of Australia and is reflected in earlier landscape paintings providing a strong sense of place for many Australians.
 - Accounts from early explorers provide a slightly different picture of these communities—one where tall grasses were a more conspicuous component of the landscape than today.



Photo: M. Flegg

Eucalypt woodland over tussock grasslands, near Mount Armstrong, Blue Mountains, NSW

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Facts and figures

Major Vegetation Group	MVG 5—Eucalypt Woodlands
Major Vegetation Subgroups (number of NVIS descriptions)	Eucalypt woodlands with a shrubby understorey (996) Eucalypt woodlands with a grassy understorey (818) Eucalypt woodlands with ferns, herbs, sedges, rushes or wet tussock grassland (159)
Typical NVIS structural formations	Woodland (low, mid, tall)
Number of IBRA regions	80
Most extensive in IBRA region	Est. pre-1750: Brigalow Belt South (Qld and NSW) Present: Einsaleigh Uplands (Qld)
Estimated pre-1750 extent (km²)	1 362 263
Present extent (km²)	892 920
Area protected (km²)	72 589

Major groupings

Several major groupings of Eucalypt Woodlands are commonly recognised:

- tropical stringybark and box woodlands with annual grass understoreys, dominated by *Eucalyptus tetradonta* (Darwin stringybark) and *E. miniata* (Darwin woollybut)—see Tropical Eucalypt Woodlands/Grasslands (MVG 12);
- tropical stringybark woodlands with a perennial grass understorey;
- northern ironbark and bloodwood woodlands;
- box woodlands of the Brigalow Belt;
- woodlands occurring on inland riverine flats—e.g. *E. largiflorens* (black box), *E. coolabah* (coolabah) and *E. camaldulensis* (river red gum);
- box-ironbark woodlands of southern Queensland, New South Wales and Victoria;
- subalpine woodlands in New South Wales, Victoria and Tasmania;
- gum-barked eucalypt and box woodlands in South Australia;
- woodlands of the Tasmanian lowlands;
- woodlands over hummock grasses in the arid interior;
- *E. wandoo* (wandoo), *E. transcontinentalis* (redwood), *E. dundasii* (Dundas blackbutt), *E. torquata* (coral gum), *E. salmonophloia*

- (salmon gum), *E. flocktoniae* (merrit) and *E. socialis* (red mallee) in eastern locations of south-central Western Australia;
- E. marginata* (jarrah) and *E. wandoo* in the south-western corner;
- *E. microcarpa* and *E. ovata* in South Australia;
- *E. fasciculosa* as well as *E. leucoxydon* in South Australia; and
- *E. odorata* in South Australia, as well as similar communities of *E. porosa*, *E. microcarpa* box woodlands.

Eucalyptus camaldulensis (river red gum) woodlands are the most geographically widespread of all woodlands because this community occurs along the majority of inland waterways and creeklines.

Eucalypt Woodlands with low shrubs occur in south-western Western Australia and include *E. wandoo*, *E. accedens* (powderbark wandoo) and *E. salmonophloia* (salmon gum) in South Australia and Victoria, *E. leucoxydon* and *E. tetradonta* in Queensland, and *E. sieberi* and *E. macrorhyncha* and *E. sideroxydon* (red ironbark) in New South Wales.

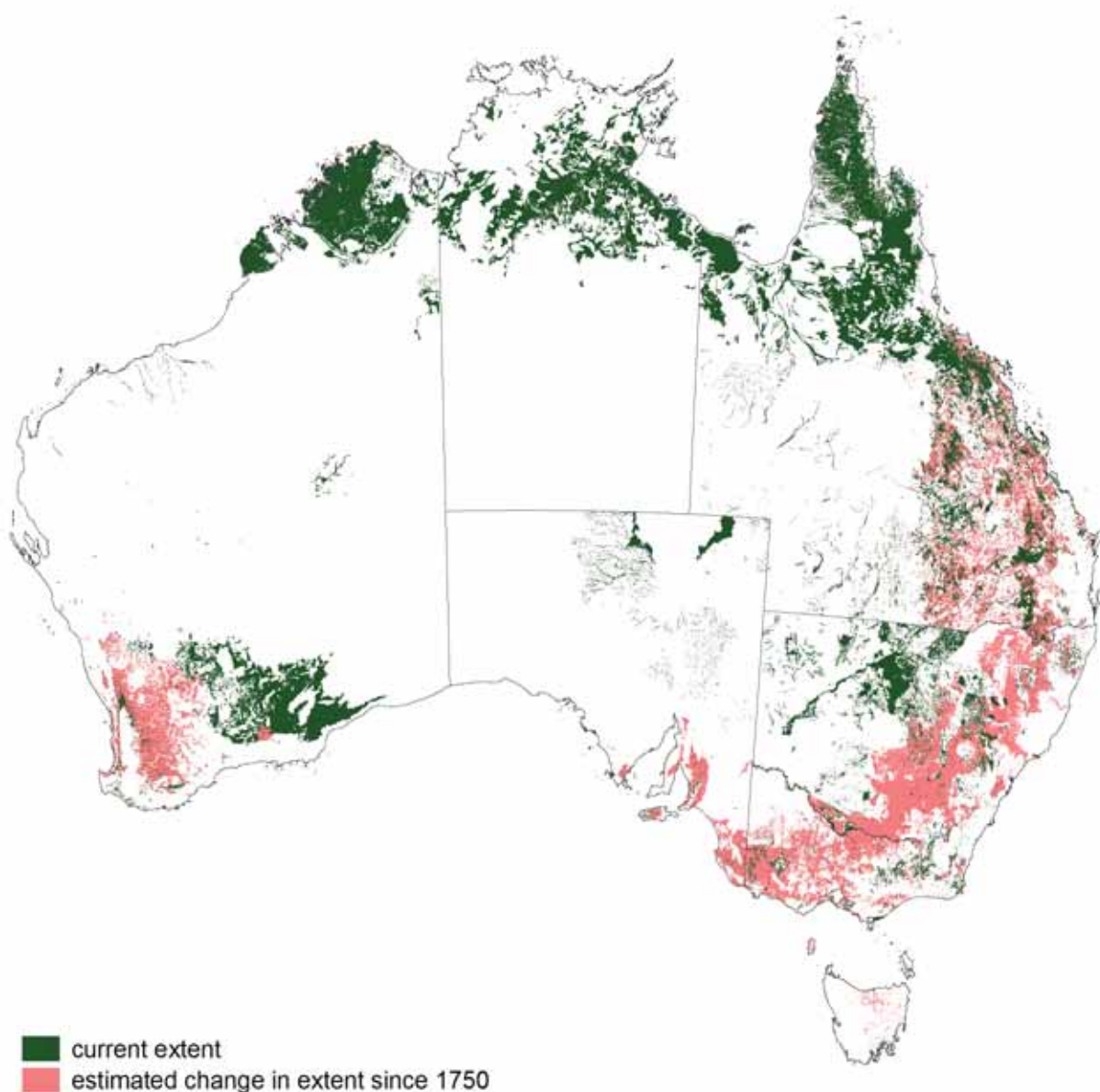
Eucalypt Woodlands with a tussock grass understorey occur in many places in the wetter parts of northern and eastern Australia, from the Kimberley region of Western Australia, to south-eastern South Australia.

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These grassy woodlands tend to be associated with heavier or more fertile soils than those with a shrubby or hummock grassland and consequently large areas of Eucalypt Woodlands have been cleared for agriculture.

Eucalypt Woodlands in the northern monsoonal areas include some of the few deciduous eucalypt species, such as *E. alba*, *E. grandifolia* and *E. latifolia*. Dominant species in this subform include *E. tetradonta* and *C. dichromophloia* in northern Australia (see MVG 12—Tropical Eucalypt Woodlands/Grasslands), *E. miniata* in Northern

Territory, *Corymbia polycarpa* (long-fruited bloodwood) in Queensland, *E. crebra*, *E. populnea* and *E. melanophloia* in areas west of the coastal ranges of Queensland and New South Wales, *E. tereticornis* in coastal valleys, and *E. albens* and *E. melliadora* on the inland side of ranges in New South Wales and Victoria, with *E. microcarpa* further west. *E. viminalis* is common in the ranges from New South Wales to South Australia and Tasmania. *E. leucoxylon* and *E. camaldulensis* are major species in South Australia and Victoria.



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Species

Northern Territory

Corymbia dichromophloia (small-fruited bloodwood),
E. miniata (Darwin woollybutt), *E. tetradonta*
 (Darwin stringybark), *C. polycarpa*, *C. bella*,
E. oligantha, *E. confertiflora*, *E. tectifera*, *E. patellaris*,
C. terminalis, *C. ferruginea*, *E. pruinosa*, *E. microtheca*,
E. phoenicea (scarlet gum), *E. leucophloia* and
E. papuana

Northern Queensland

E. tetradonta, *C. clarksoniana*, *C. hylandii*,
E. phoenicea

Central Queensland

E. populnea (poplar box or bimple box), *E. crebra*
 (narrow-leaved red ironbark), *E. melanophloia*
 (silver-leaved ironbark) and *Angophora leiocarpa*

South-east Queensland

E. umbra (broad-leaved white mahogany),
C. trachyphloia, *E. crebra*, *E. melliodora* and *E. albens*.

Southern coastal New South Wales

Angophora costata (smooth-barked apple)
 and *A. floribunda* (rough-barked apple).

New South Wales

E. microcarpa (grey box) and *E. largiflorens* (black
 box), *E. melanophloia*, *E. populnea* and *E. blakelyi*.

Australian Capital Territory

E. stellulata (black sally), *E. pauciflora* (snow gum),
E. melliodora, *E. dives* (broad-leaved peppermint)
 and *E. blakelyi*.

Victoria

E. ovata (swamp gum), *E. obliqua*, *E. baxteri*
 (brown stringybark), *E. viminalis*, *E. leucoxydon*
 (yellow gum), *E. gonicalyx*, *E. arenacea*,
E. melliodora, *E. microcarpa*, *E. dives*, *E. rubida*,
E. pauciflora, *E. macrorhyncha*, *E. blakelyi*, *E. tricarpa*
 and *E. albens*.



Photo: D. Shepherd

Eucalyptus loxophleba (York gum) woodland with grazed understorey, near Gnowangerup, WA

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Tasmania

E. globulus (blue gum), *E. amygdalina* (black peppermint), *E. pauciflora*, *E. viminalis*, *E. ovata*, *E. obliqua*, *E. delegatensis*, *E. rodwayi* and *E. subcrenulata* (Tasmanian alpine yellow gum).

South Australia

E. ovata (swamp gum), *E. odorata* (peppermint box), *E. obliqua*, *E. viminalis*, *E. leucoxydon*, *E. gonicocalyx*, *E. fasciculosa* (pink gum), *E. porosa*, *E. microcarpa*, *E. camaldulensis*, *E. cosmophylla*, *E. cladocalyx* (sugar gum), *E. baxteri*, *E. arenacea* and *E. largiflorens*.

Western Australia

E. wandoo, *E. accedens* (powderbark wandoo), *E. salmonophloia*, *C. calophylla* (marri), *E. le souefii* (goldfields blackbutt), *E. loxophleba* (York gum), *E. marginata*, *E. transcontinentalis*, *E. dundasii* and *E. victrix* (Ewart's mallee). See Northern Territory above, for an indicative list of tropical species in Western Australia.

Geography

- Found across a wide range of climatic conditions and usually on the fringes of forested areas and watercourses or where soil moisture or nutrients may be limiting for tree growth.
- The large number of eucalypts and their associated species occur on a wide range of environmental gradients. These relationships have been further complicated by the impact of land use following European settlement.
- Gillison (1994) summarises the variability of woodlands and the difficulty of using simple structural and/or floristic definitions to fully characterise them.
- Largest distribution of woodland type in Australia and occurs in all states and territories.
- Largest distribution is found in Western Australia (219 846 km²).
- Makes up the largest MVG in New South Wales and Queensland.

Change

- Approximately 470 000 km² cleared since European settlement: approximately 34% of the estimated pre-1750 extent cleared accounting for 46% of total clearing in Australia.
- An important part of cereal cropping and pastoral zones. Much of the cleared areas are extensive so that the broad fabric of the landscape from a vegetation perspective has been lost.
- Removed from many cereal cropping and sheep grazing lands in the south-east and the far south-west of Australia.
- Modified by pastoral activities and altered fire regimes in many places.
- In Queensland, New South Wales and Victoria pasture improvement and tree thinning have been extensively employed in the grassy woodlands, while the shrubby understorey of other Eucalypt Woodlands has been removed to increase pasture growth.
- Shrubby understorey of remnants have often been removed either mechanically or by frequent fire, the native tussock grasses have been invaded by exotic species or have been subject to overgrazing, with annuals replacing perennials. In many cases, native vegetation mapped as Eucalypt Open Woodlands (MVG 11) may be highly modified Eucalypt Woodlands, and from a condition perspective, may be low in nature conservation values.
- Spread of urban development has encroached on these woodlands so that some are considered to be threatened ecological communities under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth), while others are under consideration for listing.
- In recognition of fire hazard and their proximity to intensive agricultural and urban areas the fire regime in these communities have been modified in the last few centuries and many of the woodlands have been invaded by aggressive introduced plant species. A good example of woodlands subject to urban pressures is the Cumberland Plain woodlands of western Sydney.

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- Foremost amongst threats to this vegetation are the fragmentation of woodland areas, inappropriate fire regimes, and unsustainable grazing management. In view of recent changes to land clearing policies in Australia, there has been a shift away from the clearing of woodlands to the protection and management of these areas, including use of native pasture grasses. Consequently, there are issues associated with understanding and managing grazing in these woodland areas.
- Rural communities are rehabilitating and fencing off selected remnants. These stewardship activities are often spurred on by dieback, the need to control dryland salinity and a recognition that in many of the agricultural landscapes only senescent trees remain.



Photo: M. Fragg

Eucalypt Woodland, 30 km north of Cairns, Cook Highway, Qld

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Tenure

Eucalypt Woodlands mainly occur on leasehold land, freehold land, in protected areas or in state forests.

New South Wales:	leasehold land, protected areas, freehold land and some state forests
Northern Territory:	largely leasehold land, some freehold land, protected areas
Queensland:	largely leasehold and freehold land, some protected areas and state forests
South Australia:	leasehold land, freehold land, some protected areas and little in state forests
Tasmania:	protected areas, state forests and freehold land
Victoria:	protected areas, state forests and some freehold land
Western Australia:	vacant crown land, leasehold land, protected areas, fragmented areas in freehold land and some state forests

Key values

- Biodiversity including a wide variety of understorey grasses and shrubs.
- Geodiversity as a result of the range of locations and site conditions.
- Refuge for a wide range of vertebrate and invertebrate species.
- Ecotourism, including bushwalking, walkways and landscape features.
- Water balance—much of the area affected by groundwater rise coincides with area of Eucalypt Woodlands.

The values of Eucalypt Woodlands for Indigenous communities, conservation and tourism have started to be recognised. Less than 10% remains in secure protected areas with most areas under private or leasehold management.

Management considerations

- Control of clearing, edge effects, disease (e.g. dieback) and weeds.
- Restoring connectivity between remnant (e.g. wildlife corridors).
- Remnant protection and expansion.
- Fire (sometimes from surrounding land uses) is used as a tool in some areas, although the understorey species can be modified by the intensity and regularity of fire regimes.
- Weed control.

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Notes

- With new vegetation descriptions for Western Australia's vegetation types, many areas previously treated as Tropical Eucalypt Woodlands/ Grasslands (MVG 12) were assigned to woodland in NVIS 3.0.
- *E. largiflorens* (black box) communities in western NSW have mostly been interpreted as this group, rather than Low Open Forests (MVG 4).
- See the [Introduction to the MVG fact sheets](#) for further background on this series.



Photo: M. Bolton

E. populnea (poplar box) woodland (thinned in the foreground), near Charleville, Qld