

MVG 2—EUCALYPT TALL OPEN FORESTS

- Comprise forests over 30 m tall, reaching heights of 100 m.
- Most commonly contain a dense, broad leaved understorey.
- Previously described as ‘wet sclerophyll forest’.
- Contain the tallest tree species in Australia and the tallest flowering plant in the world, *Eucalyptus regnans* (mountain ash), found only in Tasmania and Victoria.
- Rainforest species do occur within sheltered areas and valleys of tall open forests in the eastern states. In Tasmania, there are areas where the understorey is closed by *Nothofagus cunninghamii* (AUSLIG, 1990).
- Understorey varies widely from a dense rainforest layer to a series of other trees and shrubs, through to tree fern or other ferns on the ground layer, depending on soil types, climatic zoning and period since fire.



Photo: M. Fagg

Dandenong Ranges, Vic.

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Facts and figures

Major Vegetation Group	MVG 2—Eucalypt Tall Open Forests
Major Vegetation Subgroups (number of NVIS descriptions)	Eucalypt tall open forest with a dense broad-leaved understorey (wet sclerophyll) (117) Eucalypt tall open forest with a fine-leaved shrubby understorey (75) Eucalypt tall open forests and open forests with ferns, herbs, sedges, rushes or wet tussock grasses (59)
Typical NVIS structural formations	Tall open forest Mid open forest Tall woodland
Number of IBRA regions	29
Most extensive in IBRA region (Est. pre-1750 and present)	Est. pre-1750 and Present: NSW North Coast
Estimated pre-1750 extent (km²)	40 801
Present extent (km²)	35 344
Area protected (km²)	11 870



Photo: M. Fagg

Eucalyptus dalrympleana (mountain gum) and rainforest understorey, near Bell Mountain, Tas

MVG 2—EUCALYPT TALL OPEN FORESTS

Species

- *Eucalyptus delegatensis* subsp. *delegatensis* (alpine ash), *E. obliqua* (messmate stringybark) and *E. viminalis* subsp. *viminalis* (manna gum) in Tasmania, Victoria, Australian Capital Territory and New South Wales.
- *E. pilularis* (blackbutt), *E. saligna* (Sydney blue gum), *E. grandis* (flooded gum), *E. microcorys* (tallowwood), *Syncarpia glomulifera* (turpentine) and *Lophostemon confertus* (brush box) and *E. laevopinia* (silver-top stringybark) in New South Wales and Queensland.
- *E. cypellocarpa* (mountain grey gum), *E. fastigata* (brown barrell), *E. radiata* (narrow-leafed peppermint) in Victoria and New South Wales.
- *E. acmenoides* (white mahogany), *E. muelleriana* (yellow stringybark), *E. elata* (river peppermint), *E. smithii* (gully gum) and *E. deanii* in New South Wales.
- *E. diversicolor* (karri) and *E. marginata* (jarrah) only found in Western Australia.
- *E. diversicolor* (karri) in association with *E. jacksonii* (red tingle), *E. guilfoylei* (yellow tingle), *E. brevistylis* (Rate's tingle), *Corymbia calophylla* (marri) in Western Australia.

Geography

- Usually occur in temperate and subtropical climates in areas with no dry season and regular seasonal rainfall that exceeds 1000mm annually.
- Restricted to mainly sheltered areas of mountainous terrain in Tasmania and on the mainland from Victoria to south-east Queensland and in south-western Western Australia.
- Largest area is in New South Wales (17 788 km²).

Change

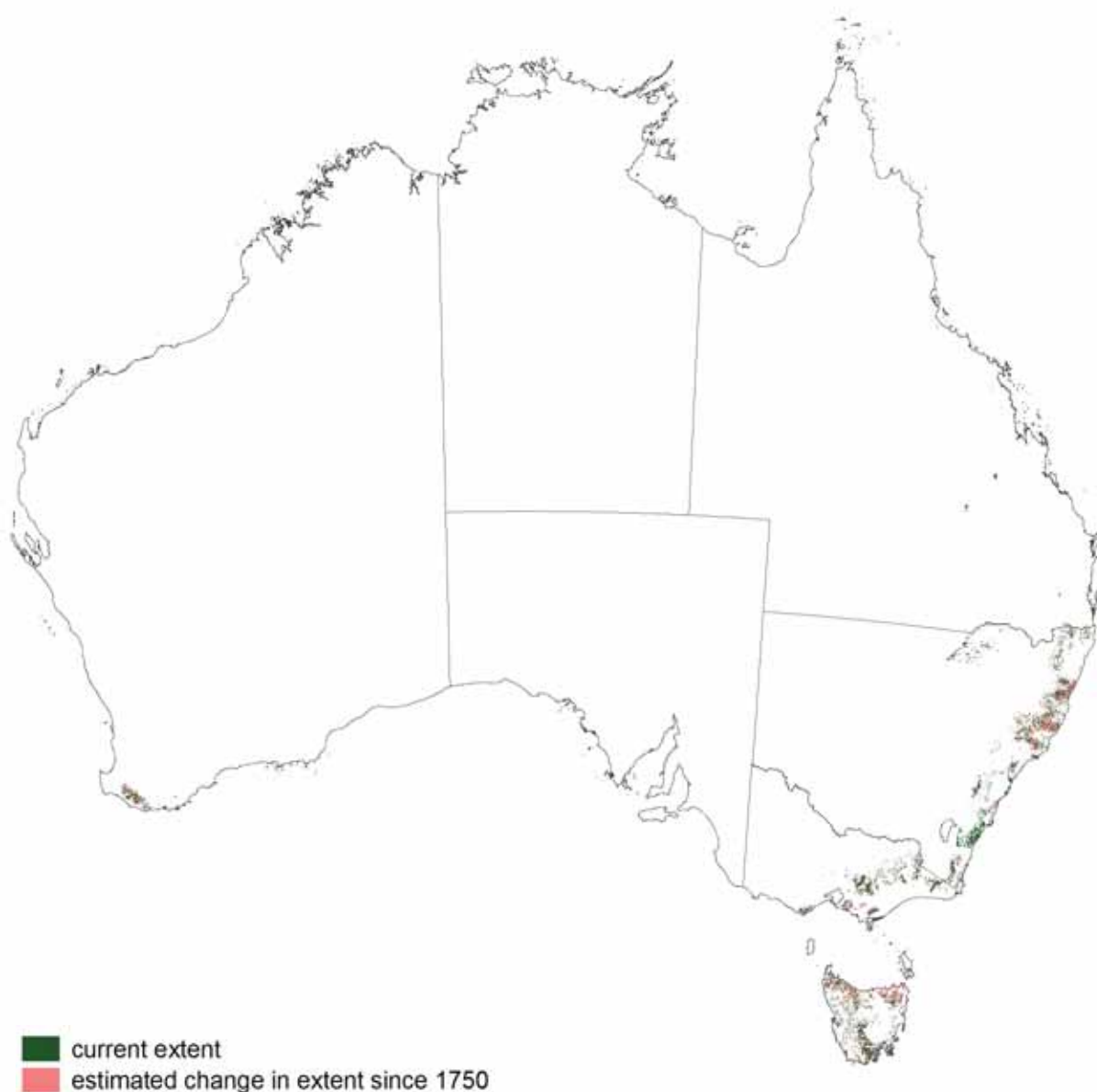
- Approximately 13% of the estimated pre-1750 extent has been cleared, accounting for less than 1% of total vegetation clearing in Australia. Clearing has been primarily for forestry (leading to changes in forest composition), agriculture and dams.
- The value of the timber resource in the Eucalypt Tall Open forests meant a number of them were the first to be afforded protection from clearing by governments. The early management of forest reserves was initially based primarily on achieving sustained timber production. More recently governments have sought to address issues associated with understanding and managing forest areas for a wider set of values, including biodiversity, water catchment and recreation.
- Many of these forests have the capacity to re-establish and provide multiple values for the community (e.g. regrowth karri forest around Pemberton cleared over 100 years ago and now regenerated).
- Threats to these forests include regular or intense wildfires, unsustainable logging and clearing, and diseases and pests that may attack specific species or taxa (e.g. brown rot in the *Eucalyptus diversicolor* forests in Western Australia).

MVG 2—EUCALYPT TALL OPEN FORESTS

Tenure

Most of Australia's remaining tall open forests occur within protected areas or state forests.

New South Wales:	central north areas on freehold land along river courses; coastal areas in protected areas and state forests
Queensland:	protected areas and state forests, some freehold land
Tasmania:	protected areas and state forests, some freehold land
Victoria:	protected areas and state forests, some freehold land
Western Australia:	protected areas and state forests, very small areas on freehold land



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Key values

- Biodiversity that includes some of the richest and most varied plant communities in Australia.
- Water catchments.
- Geodiversity since they occur across a range of locations and site conditions.
- Remnant populations of a wide range of vertebrate and invertebrate fauna species.
- Timber.
- Ecotourism, including bushwalks, wilderness experiences and tree-top walks (e.g. tree-top walk at Nornalup Western Australia).
- The public have placed a high value on the cultural and heritage values associated with the stature of the larger and taller trees in these communities (e.g. Bird tree in Camden Haven, Gloucester and Diamond tree lookouts near Pemberton and Manjimup).

The value of these tall open forests for Indigenous communities, forestry activities, conservation and tourism have been recognised through the recent joint Commonwealth and States data collation and review process associated with the Regional Forest Agreements.

Management considerations

- Clearing/edge effects.
- Wildlife corridor re-establishment between remnants.
- Isolation and faunal barriers caused by roads/powerlines. The establishment of public roads, which encourages access and enjoyment, can also lead to the degradation of these forests and the values that the tourists wish to see.
- Tourist/visitor management.
- Fire (e.g. from surrounding land uses). Fire is used as a tool in some areas (karri forest) for regenerating forests, while in other areas the intensity and frequency of fire is critical in the management of the forested areas (mountain ash and flooded gum).
- Disease management.
- Weed control (e.g. aggressive weeds such as lantana).

The Regional Forest Agreement process has seen an increasing focus on achieving ecologically sustainable forest management in the Eucalypt Tall Open Forests. Achieving this in the context of increasing pressures from human settlement and risk of fires has led to wide ranging and often competing public expectations of the managing authorities and agencies.

References

- Ashton D.H and Attiwill P.M. (1994) Tall open-forests. In: *Australian Vegetation*. (ed. R.H. Groves) pp. 157–196. Cambridge Univ. Press, Cambridge.
- Australian Surveying and Land Information Group (1990) *Atlas of Australian Resources. Volume 6 Vegetation*. AUSMAP, Department of Administrative Services, Canberra, 64pp. & 2 maps.
- Beadle N.C.W. (1981) *The Vegetation of Australia*. Cambridge Univ. Press, Cambridge, 690pp.
- Brooker M.I.H. and Kleinig D.A. (1999) *Field guide to Eucalypts, South-eastern Australia, Volume 1*, 2nd edition. Bloomings Books, Melbourne, 353pp.
- Brooker M.I.H. and Kleinig D.A. (2001) *Field guide to Eucalypts, South-western and Southern Australia, Volume 2*, 2nd edition. Bloomings Books, Melbourne, 428pp.
- Harris S. and Kitchener A. (2005) *From Forest to Fjaeldmark. Descriptions of Tasmania's vegetation*. Dept of Primary Industries and Water, Hobart, 432pp.
- National Land & Water Resources Audit (2001) *Australian Native Vegetation Assessment 2001*. National Land & Water Resources Audit, Canberra, 332pp.
- Keith D. (2004) *Ocean Shores to Desert Dunes. The native vegetation of New South Wales and the ACT*. Dept of Environment and Conservation (NSW), Hurstville, 353pp.
- Kirkpatrick J.B., Peacock R.J., Cullen P.J. and Nyland M.G. (1988) *The Wet Eucalypt Forests of Tasmania*. Tasmanian Conservation Trust, Hobart, 156pp.

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Data sources

Interim Biogeographic Regionalisation for Australia (IBRA), Version 6.1.

National Vegetation Information System, Version 3.0.

1996/97 Land Use of Australia, Version 2.

Collaborative Australian Protected Areas Database —CAPAD 2004 —Terrestrial.

Notes

- This fact sheet should be read in conjunction with that for MVG 3: Eucalypt Open Forests.
- Previously, the greatest area of this MVG was estimated to be in Victoria. Revisions of height class data in NVIS version 3 has reduced its extent in Victoria.
- Increases in present extent arise largely from improved NVIS 3 data in New South Wales.
- See the [Introduction to the MVG fact sheets](#) for further background on this series.



Photo: J. Tomkins & DEW

Tingle with coolamon scar in Valley of the Giants, WA