

MVG 9—MELALEUCA FORESTS AND WOODLANDS

- The preferred common name for the larger species with the appropriate bark character is “paperbark” with some qualifying adjective (Boland et al., 1994).
- The northern Australian melaleucas are dominated by the broad-leaved paperbark (*Melaleuca viridiflora*), weeping paperbark (*M. leucadendra*), silver paperbark (*M. argentea*), blue paperbark (*M. dealbata*) and yellow-barked paperbark (*M. nervosa*) with forb and grassy understoreys. Other species in the Northern Territory include *M. citrolens*, *M. cajuputi*, *M. stenostachya*, *M. minutifolia*, *M. acacioides* and in Queensland, *M. tamariscina*, *M. bracteata*, *M. stenostachya*, *M. saligna*, *M. arcana*, *M. clarksonii*, *M. citrolens*, *M. foliolosa* and *M. fluviatilis*.
- In southern and eastern Australia the melaleucas are confined mainly to the wetter watercourses and swamps with the paperbarked tea-tree (*M. quinquenervia*), the most widespread coastal species. In New South Wales additional coastal woodland and forest species include *M. decora*, *M. sieberi*, *M. nodosa* and *M. linariifolia*.



Photo: M. Fagg

Melaleuca sp. low open forest, 30 km north of Grafton, NSW

MVG 9—MELALEUCA FORESTS AND WOODLANDS

- In Western Australia, Melaleuca Forests and Woodlands are restricted to pockets in specific sites, such as the swamp paperbark (*M. preissiana*) on subcoastal swamp areas and (*M. raphiophylla*) on creek lines and watercourses.
- Very small coastal areas in South Australia and Victoria include *M. lanceolata* (moonah), *M. halmaturorum* ssp. *halmaturorum*, *M. brevifolia*, *M. lanceolata* ssp. *lanceolata*.
- Associated species vary throughout Australia, depending on the underlying site conditions. In drier areas of Australia, emu bushes (*Eremophila* spp.) and other shrubs dominate the understorey, whilst in damper and wetter areas in the east and south the understorey is dominated by sedges and aquatics.

Facts and figures

Major Vegetation Group	MVG 9—Melaleuca Forests and Woodlands
Major Vegetation Subgroups (number of NVIS descriptions)	Melaleuca open forests and woodlands (299)
Typical NVIS structural formations	Closed forest (low, mid) Open forest (tall, mid, low) Woodland (tall, mid, low) Open woodland (mid, low)
Number of IBRA regions	50
Most extensive in IBRA region	Est. pre-1750 and present: Gulf Plains (Qld)
Estimated pre-1750 extent (km²)	106 057
Present extent (km²)	99 561
Area protected (km²)	10 023

Geography

- While Australia is the home of most melaleucas, some tropical species extend beyond Australia to New Guinea, New Caledonia, Malaysia, India and Indonesia (Boland et al., 1994).
- Primarily in the coastal and subcoastal areas of monsoonal northern Australia in the Northern Territory and in far north Queensland on the areas adjacent to the Gulf of Carpentaria and on the Cape York Peninsula.
- Largest area occurs in Queensland (70 657 km²).
- Small pockets along the subtropical and temperate coasts of Queensland, New South Wales and Western Australia, and around fringes of rivers and coastal wetlands.
- Some of the better known species have a marked preference for damp or wet sites which dry out seasonally, particularly on or near the coast including brackish and saline areas (Boland et al., 1994).

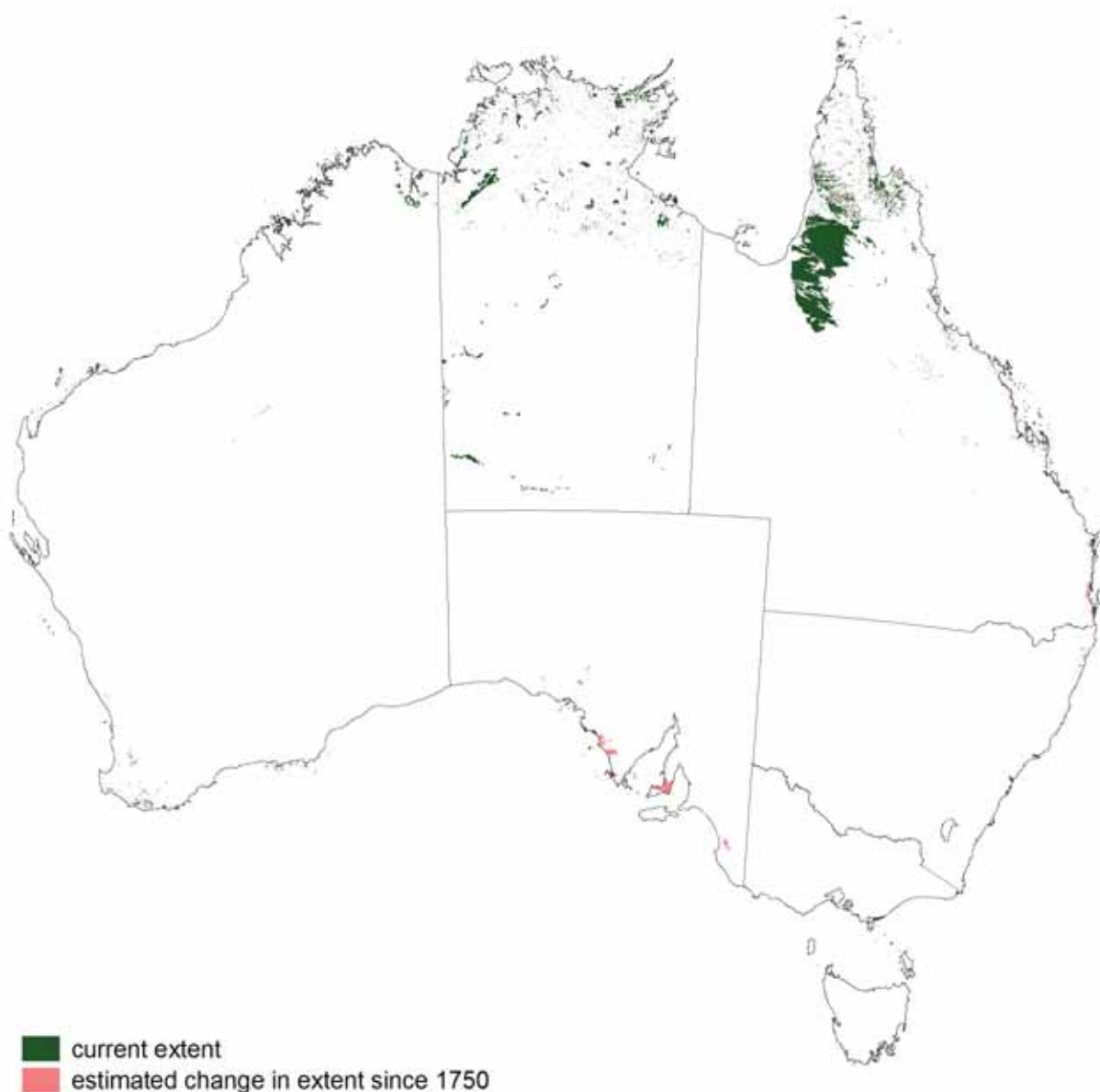
Change

- Approximately 6% of the estimated pre-1750 extent cleared accounting for 0.6% of total clearing in Australia.
- Approximately 6 500 km² cleared since European settlement.
- The remoteness of the extensive monsoonal Melaleuca Forests and Woodlands and their

MVG 9—MELALEUCA FORESTS AND WOODLANDS

comparatively harsh site conditions, particularly during periods of seasonal inundation, has protected them from major changes.

- In less remote coastal areas the wetlands have been extensively cleared and in-filled for development or urban expansion. Historically some of the swamp areas have also been developed for intensive agriculture (cropping and grazing), particularly where the soils have been high in peat.
- Many of the early settlers grew potatoes in the seasonally drier parts of melaleuca swamps to sustain their small settlements. Selected swamps have also been mined for peat and other materials used in horticulture. Drainage of these systems also has a high likelihood of disturbing acid sulphate soils.
- Areas have been cleared for grazing and cropping (e.g. for sugar cane on the Herbert floodplain).



MVG 9—MELALEUCA FORESTS AND WOODLANDS

Many melaleuca wetlands in coastal northern New South Wales and Queensland have been altered by changes to natural drainage patterns and waterway flows (e.g. construction of floodgates as part of floodplain management programs of

the 1970s and 1980s). In dryland salinity areas, melaleuca communities along watercourses have been impacted by increased waterlogging and salinity.

Tenure

Melaleuca Forests and Woodlands occur across a range of land tenures.

Northern Territory:	largely leasehold land, some in protected areas and on freehold land
Queensland:	largely leasehold land, then freehold land and protected areas, some state forest and reserved crown land
South Australia:	protected areas, leasehold land
Victoria:	largely in protected areas, some freehold land
Western Australia:	protected areas, some on freehold land and in state forest

Key values

- Biodiversity including understorey grasses and shrubs, coastal and estuarine systems.
- Flood retention basins and nutrient sinks—a key part of floodplain systems.
- Honey and florist products—flowers and foliage.

management. Melaleuca species exposed to dryland salinity are also under threat, resulting in changes to the floristic composition of wetland communities, for example in many of the freshwater lakes of south-west Western Australia.

Management considerations

- Maintenance of local site conditions that support these communities (e.g. hydrological and tidal regimes).
- Clearing and edge effects.
- Isolation of fauna populations by barriers such as roads or powerlines.
- Weed control (e.g. aggressive weeds such as arum lily).
- Rehabilitation as part of improved floodplain management.

Management of melaleuca stands along watercourses and wetlands provides challenges in many parts of Australia, particularly as part of integrated floodplain

References

- 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.
- Boland D.J., Brooker M.I.H., Chippendale G.M., Hall N., Hyland B.P.M., Johnston R.D., Kleinig D.A., and Turner J.D. (1994) *Forest Trees of Australia*. CSIRO Publishing, Collingwood, Australia.
- National Land & Water Resources Audit (2001) *Australian Native Vegetation Assessment 2001*. National Land & Water Resources Audit, Canberra, 332pp.

MVG 9—MELALEUCA FORESTS AND WOODLANDS

Data sources

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

Land Tenure in Australia's Rangelands (1955 to 2000), National Land and Water Resources Audit.

National Vegetation Information System, Version 3.0.

1996/97 Land Use of Australia, Version 2.

Collaborative Australian Protected Areas Database —CAPAD 2004—Terrestrial.

Species Profile and Threats (SPRAT) database
Australian Government Department of the
Environment and Water Resources, <<http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>>.



Litchfield National Park, NT

MVG 9—MELALEUCA FORESTS AND WOODLANDS

Notes

- Additional areas of this group were identified in the Northern Territory arising from improved NVIS data.
- See the [Introduction to the MVG fact sheets](#) for further background on this series.

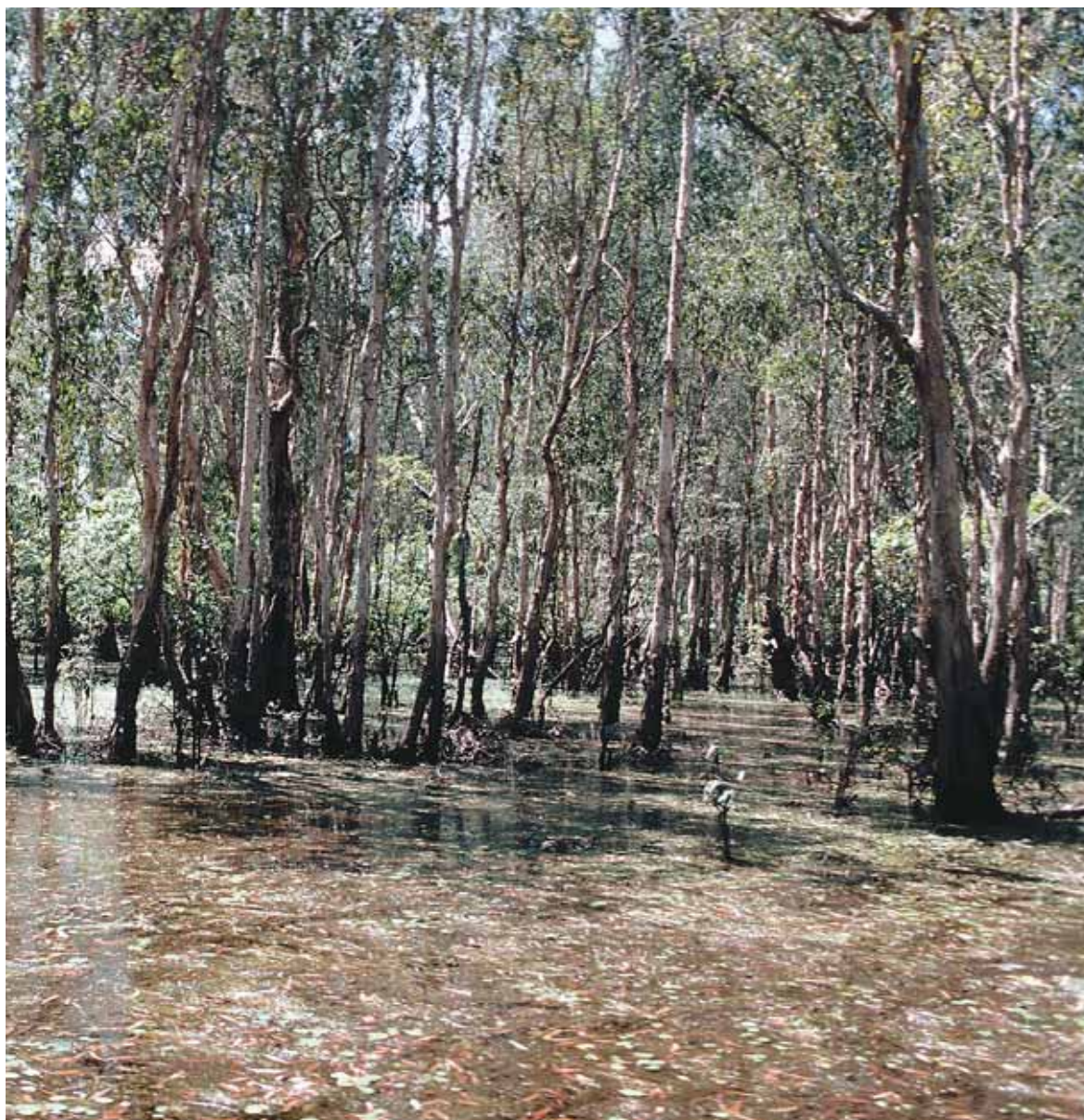


Photo: M. Fagg

Paperbark swamp, Nourlangie, Kakadu National Park, NT