Australian Government
Department of the Environment and Energy

NVIS Fact sheet
MVG 15 – Low closed forests and tall closed shrublands

Australia's native vegetation is a rich and fundamental element of our natural heritage. It binds and nourishes our ancient soils; shelters and sustains wildlife, protects streams, wetlands, estuaries, and coastlines; and absorbs carbon dioxide while emitting oxygen. The National Vegetation Information System (NVIS) has been developed and maintained by all Australian governments to provide a national picture that captures and explains the broad diversity of our native vegetation.

This is part of a series of fact sheets which the Australian Government developed based on NVIS Version 4.2 data to provide detailed descriptions of the major vegetation groups (MVGs) and other MVG types. The series is comprised of a fact sheet for each of the 25 MVGs to inform their use by planners and policy makers. An additional eight MVGs are available outlining other MVG types.

For more information on these fact sheets, including its limitations and caveats related to its use, please see: 'Introduction to the Major Vegetation Group (MVG) fact sheets'.

Overview

Typically, vegetation areas classified under MVG 15 – Low closed forests and tall closed shrublands:

- are characterised by stunted, woody vegetation with dense foliage in the upper layers usually between five m and 10 m in height, sometimes referred to as 'scrubs'
- are generally dominated by non-eucalypt species from the families *Casuarinaceae*, *Myrtaceae*, *Proteaceae* or *Fabaceae* e.g. *Casuarina Agonis*, *Leptospermum*, *Banksia*, *Kunzea*, or *Melaleuca* with a mix of other species
- are typically associated with exposed coastal environments, periodically with strong on-shore winds. Also occur in alpine environments in Tasmania.

(Banner Photo) *Melaleuca lanceolata* thicket, Rottnest Island, WA (Photo: R. Purdie)

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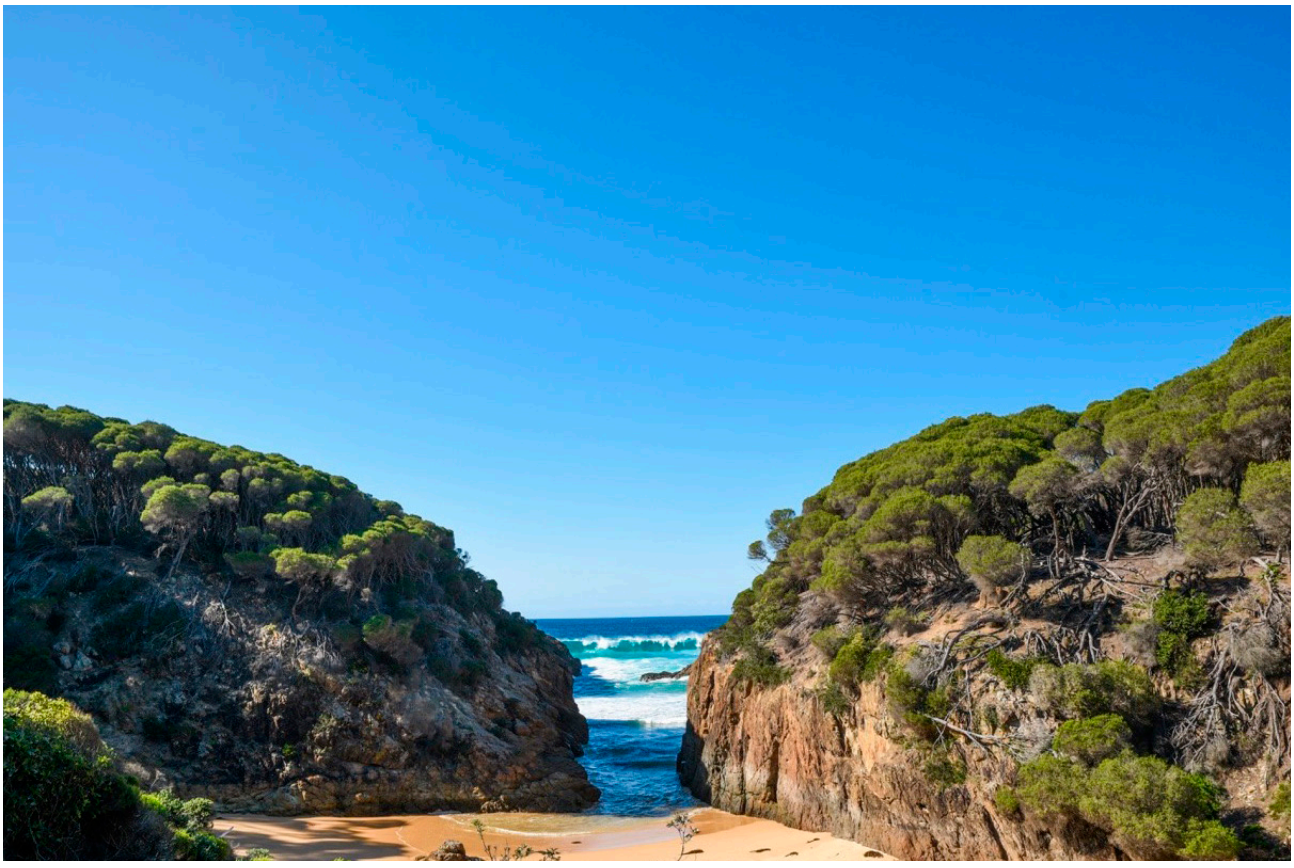
Facts and figures

Major Vegetation Group	MVG 15 - Low closed forests and tall closed shrublands
Major Vegetation Subgroups	28. Low closed forest or tall closed shrublands (including Acacia, Melaleuca and Banksia)
Typical NVIS structural formations	Low closed forest Low closed mallee forest Closed shrubland (mid, tall) Tall closed heathland
Number of IBRA regions	41
Most extensive in IBRA region **(Est. pre-1750 and Present)**	Coolgardie (WA)
Estimated pre-1750 extent (km2)	28 867
Present extent (km2)	17 580
Area protected (km2)	6 023

Structure and physiognomy

- The canopy is generally dense and less than 10 m in height.
- Foliage of dominant shrubs or trees is sclerophyllous and varies in size from nanophyll (0.25 – 2.5 cm2) to notophyll (20 – 45 cm2).
- Sometimes forms a dense canopy with a projected foliage cover of 70 – 100 per cent which can limit light penetration, reducing the understorey to shade tolerant grasses and sedges.



Coastal thickets, Wallagoot Gap, Bournda National Park, NSW (Photo: N. Lyons)

Indicative species

- Various mixtures of casuarina, melaleuca and acacia species occur in this group. The canopy may be dominated by one or a few species including *Agonis flexuosa* in south Western Australia (Beard et al. 2013), *Casuarina equisetifolia* around tropical and subtropical coast lines (Neldner et al. 2014), and *Acacia sophorae*, *Banksia integrifolia*, *Leptospermum laevigatum*, *Leucopogon parviflorus* and *Melaleuca armillaris* around the subtropical and temperate coasts of eastern and south-east Australia.
- Coastal dune assemblages of *Allocasuarina verticillata* can be found in the Flinders Ranges and on Kangaroo Island in South Australia and in inland drier areas and coastal areas of Tasmania.
- The ground layer includes species of *Austrostipa*, *Lepidosperma*, *Lomandra*, *Oplismenus*, *Poa*, and *Ficinia nodosa* in southern Australia; and is dominated by grasses and forbs such as *Thuarea involuta*, *Eragrostis interrupta*, *Sporobolus virginicus*, *Euphorbia tannensis* subsp. tannensis, *Achyranthes aspera*, *Tribulus cistoides* and *Ipomoea pes-caprae* subsp. *brasiliensis* in northern Australia.

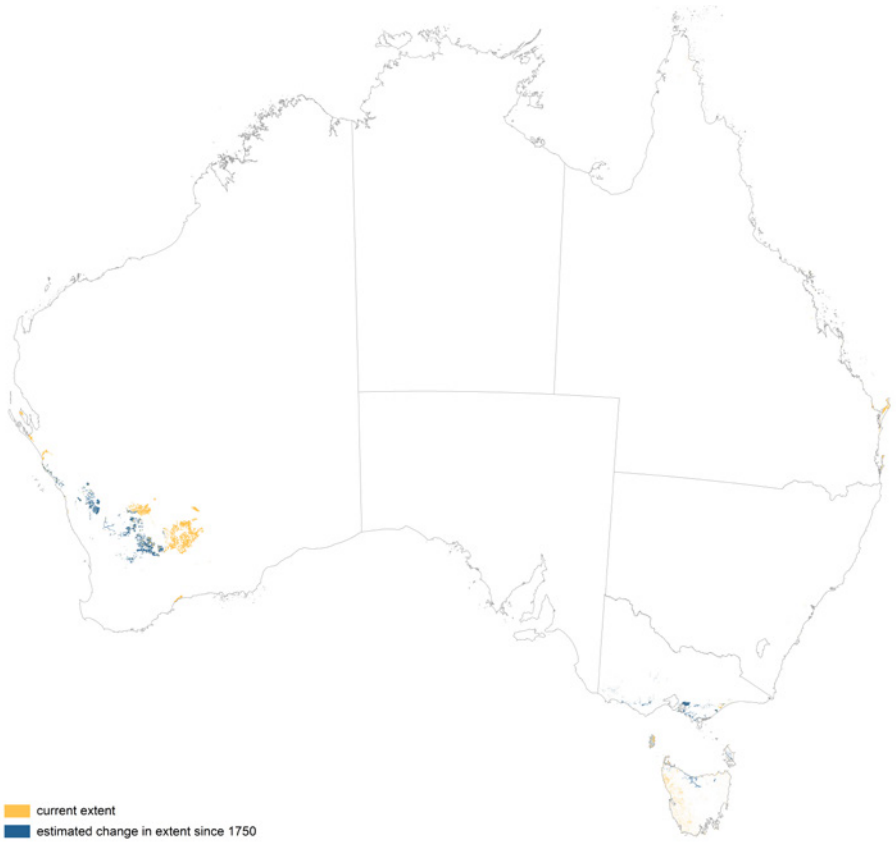
Environment

- Occurs in exposed locations on coastal headlands, foredunes and beach.
- Substrates vary from unconsolidated sands to various rocky substrates including limestone in South Western Australia.

Geography

- Occur in a range of climatic zones, mostly within coastal or sub-coastal environments but also inland in alpine environments in Tasmania, and in large patches in central-south Western Australia.
- Distributed around the coastal fringe of Australia in most states (except the ACT and NT).
- Typically small patches within narrow coastal zones from a few hectares to larger pockets.

The below image outlines the location of this MVG group in Australia.



Change

- Approximately 39 per cent (>11 000 km2) of the estimated pre-1750 extent cleared accounting for 1.1 per cent of total clearing in Australia, mainly due to coastal development.
- Near major population centres and along the eastern seaboard this community has been cleared for urban development, recreation infrastructure.
- Exposed to frequent fire regimes in some peri-urban areas due to unplanned ignitions.
- Threats include the increasing residential/urban expansion in and along coastal areas, root rot disease, nutrient enrichment and weed invasion and regular or intense fires used as part of hazard reduction management near urban areas.

Key values

- Biodiversity including a variety of species and communities.
- Ecotourism, including bushwalking and landscape features.
- Cultural and heritage values.
- Often support diverse faunal communities and provide food and shelter for fauna that are often both reliant on this vegetation group and on the surrounding landscapes.

List of key management issues

- Tourist/visitor management (e.g. access to beaches).
- Clearing and control of clearing for urban development.
- Fire regimes that address both biodiversity and hazard reduction issues.
- Control of root rot disease.
- Restoring connectivity between remnants and removing barriers to the movement of fauna between remnants.
- Weed control (e.g. aggressive weeds such as boneseed, veldt grass, South African love grass).
- Feral animal eradication and/or control to reduce their impact on native flora and fauna.
- Long-term monitoring to inform future management.

References

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Victoria Department of Sustainability and Environment (2004) EVC Bioregion Benchmark for Vegetation Quality Assessment http://www.depi.vic.gov.au/environment-and-wildlife/biodiversity/evc-benchmarks [Accessed June 2015].

Data sources

Interim Biogeographic Regionalisation for Australia (IBRA), Version 7.

National Vegetation Information System, Version 4.2.

Collaborative Australian Protected Areas Database – CAPAD 2014 – Terrestrial.