

MVG 22—CHENOPOD SHRUBLANDS, SAMPHIRE SHRUBLANDS AND FORBLANDS

- Overstorey is dominated by a range of hardy low shrub species.
- Widespread in the near-estuarine, arid and semi-arid areas and occur generally as extensive flats.
- Site conditions tend to affect the type of shrub species that occur within these communities.
- In damp and water-logged areas (e.g. on drainage areas and fringing salt lake areas) samphires dominate the overstorey.
- Species in samphire communities include *Halosarcia*, *Salicornia*, *Sclerostegia*, *Sueda* and *Sarcocornia* genera.
- Species in chenopod communities are drought and salt tolerant and include the *Sclerolaena*, *Atriplex* (salt bush), *Maireana* (blue bushes, cotton bush), *Chenopodium* and *Rhagodia* genera.

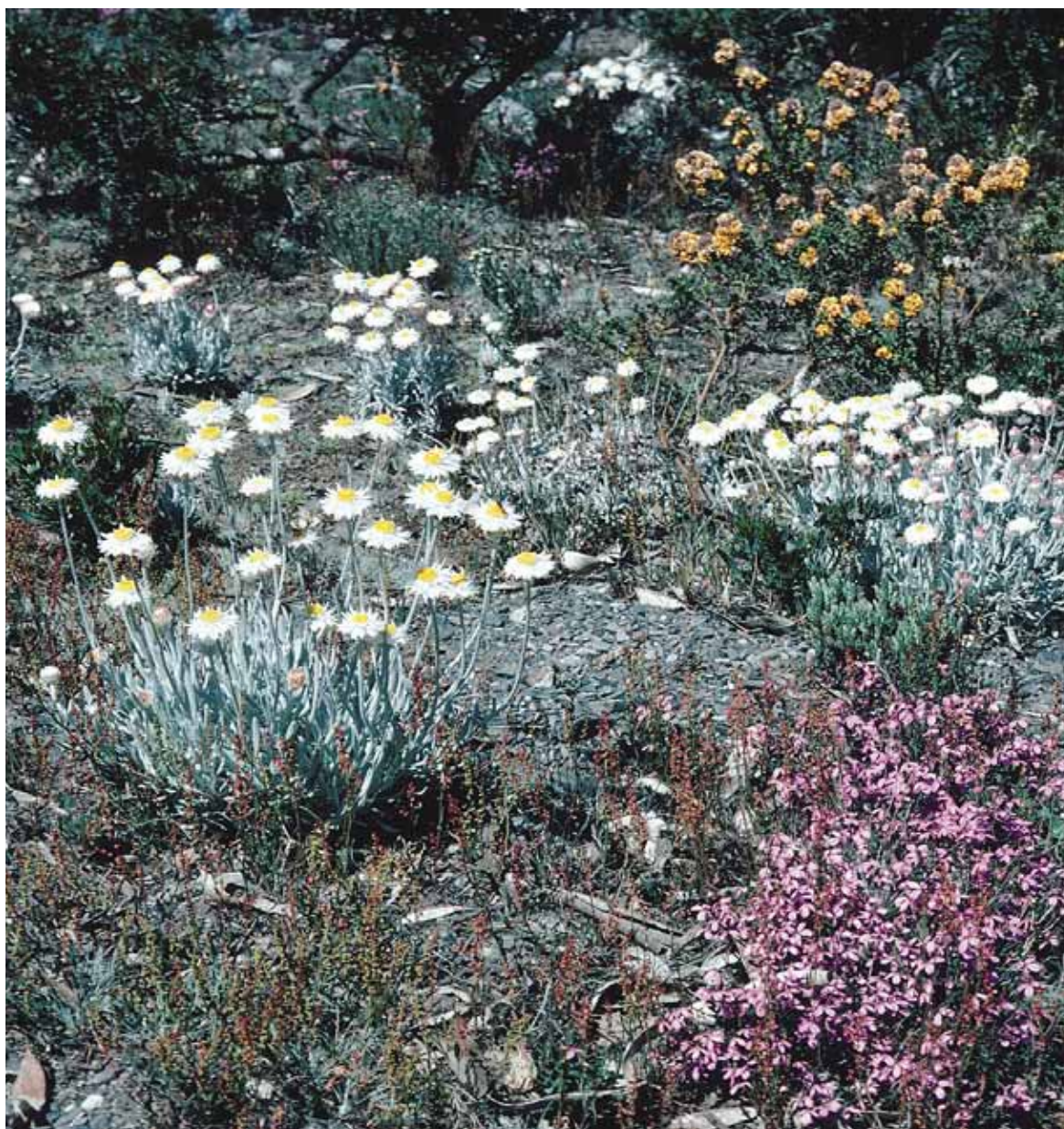


Photo: M. Fagg

Helipterum albicans, *Tetradlea* spp., Brindabella Ranges, ACT

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Facts and figures

Major Vegetation Group	MVG 22—Chenopod Shrublands, Samphire Shrublands and Forblands
Major Vegetation Subgroups (number of NVIS descriptions)	Saltbush and Bluebush shrublands (184) Mixed chenopod, samphire +/- forbs (187)
Typical NVIS structural formations	Closed chenopod shrubland (tall, low) Chenoped shrubland (mid, low) Open chenoped shrubland (mid, low) plus sparser structures. Samphire shrubland (mid, low) Low forbland Open forbland (tall, mid, low)
Number of IBRA regions	59
Most extensive in IBRA region	Est. pre-1750 and present: Stony Plains (SA and NT)
Estimated pre-1750 extent (km²)	447 239
Present extent (km²)	436 801
Area protected (km²)	55 143



Photo: M. Fagg

Tievron Station, SA

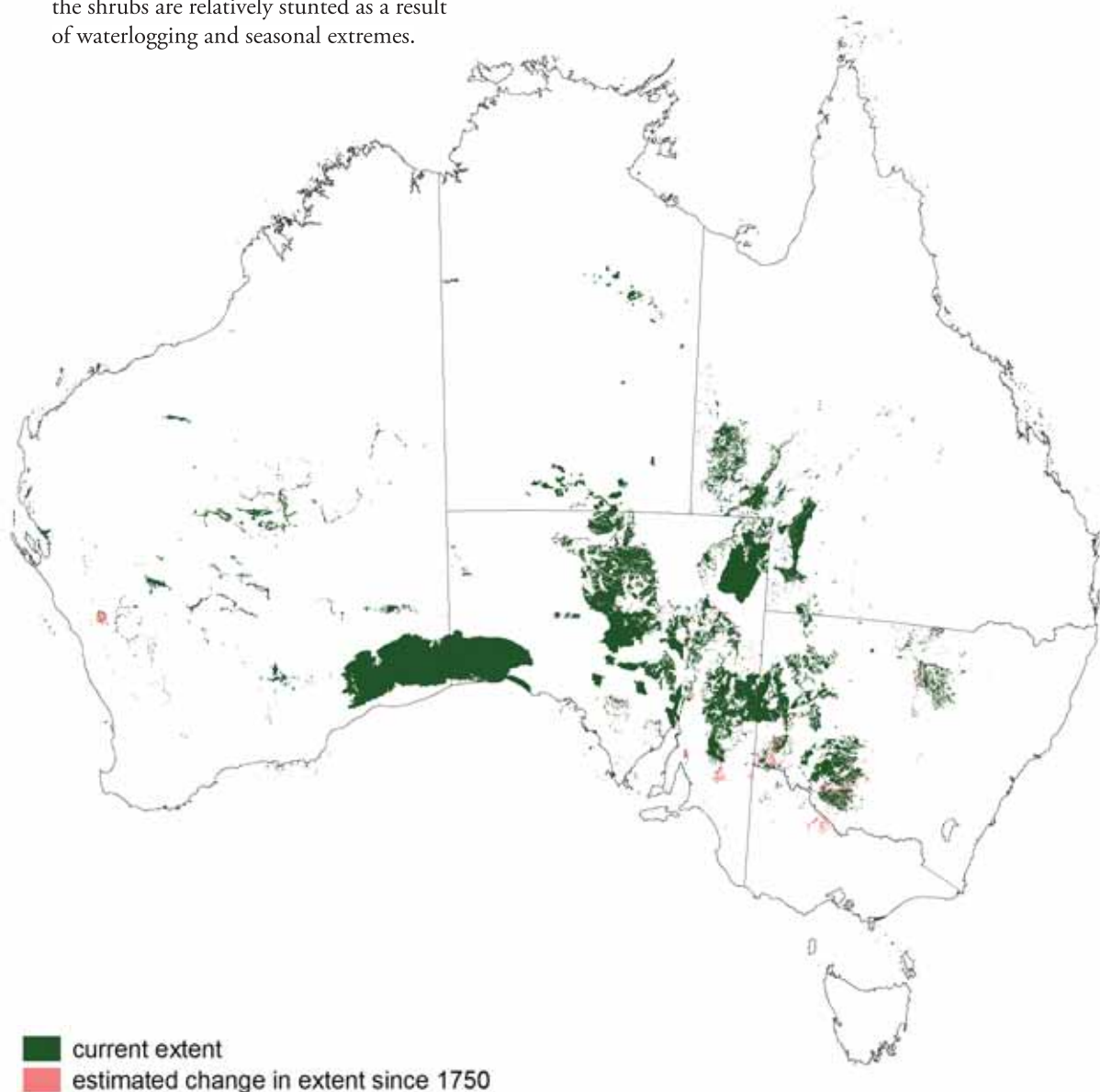
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Geography

- Widespread across Australia's rangelands and cover large areas of Queensland, New South Wales, South Australia and Western Australia.
- Largest areas occur in South Australia (222 106 km²), Western Australia (89 641 km²) and New South Wales (66 171 km²).
- Occur mainly on extreme sites such as saline areas around salt lakes and over a wide range of site conditions—from near coastal and estuarine to near salt lakes.
- In many estuarine, semi-arid and arid areas, the shrubs are relatively stunted as a result of waterlogging and seasonal extremes.

Change

- Approximately 2.3% of the estimated pre-1750 extent cleared accounting for 1.0% of total clearing in Australia.
- Approximately 10 500 km² cleared since European settlement.
- Most of these communities have remained intact since European settlement. In some cases the communities have increased in extent because of increased salinity and water-logging (e.g. valley



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- floors of the Wheatbelt of Western Australia, Victoria and New South Wales have extended in area at the expense of other communities).
- Rangeland chenopod shrublands may also have been affected by pastoral production through overgrazing of feral and domestic animals, leading to a reduction in the perennial component.
 - In other areas such as estuaries some of these communities have been protected in conservation areas. However in estuaries, particularly along the temperate east and southern coasts, wetlands have also been drained and filled for urban, recreation and port uses.
 - Threats for coastal occurrences include infilling for urban areas, changes to tidal regimes and isolation from the estuary by roads and infrastructure.
 - Many of the samphire communities support mosquitos. Until recently this meant fogging and drainage where the communities were close to urban environments. A more balanced approach to management is being advocated by coastal planning groups, recognising the importance of salt marshes to coastal and estuarine fisheries.

Tenure

Chenopod Shrublands, Samphire Shrublands and Forblands occur mainly on leasehold land.

New South Wales:	leasehold, freehold land, some protected areas, state forests, reserved crown land
Northern Territory:	leasehold land, freehold land, little other crown land
Queensland:	leasehold land, some protected areas, reserved crown land, freehold land
South Australia:	leasehold land, protected areas, defence lands
Victoria:	freehold land, protected areas, state forests
Western Australia:	leasehold land, some other crown land, protected areas

Key values

- Pastoral industry production.
- Coastal and estuary fisheries, providing the basis for prawn and fish industries.
- Biodiversity including species and community diversity.
- Habitat for migratory species such as waders.
- Ecotourism, including bird watching and landscape features.

The values of these communities for fisheries are well recognised (e.g. nutrient cycling and algal production within salt marshes of the Gulf of Carpentaria underpin prawn populations which provides the basis for the lucrative prawn fishery in the region).

One of the most widespread and economically important species for pastoral production is *Atriplex vesicaria* found across the rangelands. The chenopod

shrublands show a range of palatability and varying responses to grazing in the rangelands.

These shrublands are home to a wide range of birds and mammals, including some rare and endangered species and migratory waders.

Management considerations

- Maintenance of natural hydrological regime (e.g. protection from in-filling, loss of tidal flows, urbanisation, waterlogging and salinity resulting from clearing and/or poorly planned revegetation).
- Weed control.
- Feral animals eradication and/or control to reduce pressure on native flora and fauna.

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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.
- Environment Australia (2001) *A Directory of Important Wetlands in Australia. Third Edition*. Environment Australia, Canberra, <<http://www.environment.gov.au/water/wetlands/>>.
- Leigh J.H. (1994) Chenopod shrublands. In: *Australian Vegetation* (ed. R.H. Groves) pp. 345–367. Cambridge Univ. Press, Cambridge.
- National Land & Water Resources Audit (2001) *Australian Native Vegetation Assessment 2001*. National Land & Water Resources Audit, Canberra, 332pp.

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

- Chenopod shrubs are also present as the understorey of tree and/or shrub species, such as *Eucalyptus* spp. or *Acacia* spp. in the arid and semi-arid zones. These vegetation types have been assigned to other groups, based on the overstorey.
- In NVIS 1, samphire vegetation types were previously assigned to this group or the discontinued mangrove/bare/freshwater/etc. group.
- See the [Introduction to the MVG fact sheets](#) for further background on this series.



Photo: M. Fagg

Green cushion plant (*Abrotanella fosteriodes*), Mount Wellington, Tas