



Great Victoria Desert bioregion

Description

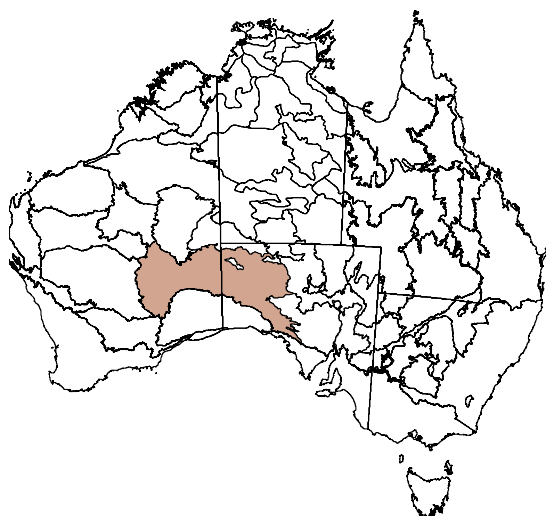
Area: 418 750 km²

The Great Victoria Desert bioregion is characterised by dunefields with playa lakes and lunettes. Vegetation is predominantly marble gum, mulga and yarldarba over spinifex grassland. Most of the bioregion is unallocated crown land, conservation reserves and Aboriginal land. As such, it has very low pastoral value and is little developed. There are no major population centres in the bioregion but there are a number of small Aboriginal communities. Cosmo Newberry is probably the best known.

Location

The Great Victoria Desert bioregion is located in the southern rangelands of Western Australia (WA; 52% of bioregion area), stretching into the western half of South Australia (SA). Figure 1 shows the location of the Great Victoria Desert bioregion.

Figure 1 Location of the Great Victoria Desert bioregion



Data sources available

Site-based monitoring data are not available.

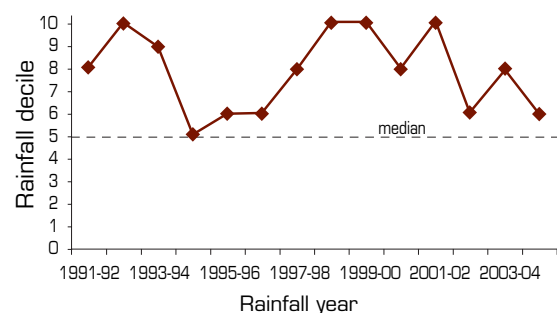
Other data include:

- fire extent, intensity and frequency, which provides high reliability for reporting change
- dust
- distribution and relative abundance of invasive animals and weeds
- land use
- conservation estate.

Climate

The climate of the Great Victoria Desert bioregion is arid with variable and unpredictable rainfall. Spatially averaged median (1890–2005) rainfall is 162 mm (April to March rainfall year; see Figure 2).

Figure 2 Decile rainfall for the period 1991–1992 to 2004–2005



Annual rainfall is for the 12-month period 1 April to 31 March.

All years in the reporting period had median or above-median rainfall, indicating generally above-average *seasonal quality* for the 1992–2005 reporting period.



The periods 1994–1995 to 1996–1997, 2002–2003 and 2004–2005 received rainfall close to, or just above, the median. A 14-year sequence in which all years were median or above suggests an exceptional sequence of seasons; the best since records began.

Note that regional averaging of rainfall conceals spatial variability. Some parts of the bioregion may have experienced better *seasonal quality* and others worse during the 1992–2005 period.

Landscape function

There are no suitable data for reporting change in landscape function.

Sustainable management

Critical stock forage

There are no suitable data for reporting change in critical stock forage.

Plant species richness

There are no suitable data for reporting change in plant species richness.

Change in woody cover

There are no suitable data for reporting change in woody cover.

Distance from stock water

The eastern parts of a very small number of WA pastoral leases intersect the far western part of the Great Victoria Desert bioregion. Approximately 8% of the bioregion is grazed. Thus most of the Great Victoria Desert bioregion is remote from permanent and semipermanent sources of stock water.

Weeds

There are no known records of weeds in the Great Victoria Desert bioregion.

Components of total grazing pressure

Domestic stocking density

Only a small proportion (8%) of the Great Victoria Desert bioregion is grazed, mainly where WA pastoral leases abut the western margin of the bioregion. The small number of leases means that data lack reliability to report change in stocking density.

Kangaroos

There are no suitable data for reporting change in kangaroo populations.

Invasive animals

Invasive animal species known to occur in the Great Victoria Desert bioregion include:

Common name	Scientific name
Feral goat	<i>Capri hircus</i>
Fox	<i>Vulpes vulpes</i>
Rabbit	<i>Dryctolagus cuniculus</i>
Wild dog	<i>Canis spp.</i>
Feral cat	<i>Felis cattus</i>
Camel	<i>Camelus dromedaries</i>
Donkey	<i>Equus asinus</i>
Horse	<i>Equus caballus</i>

See www.anra.gov.au for distribution maps

Products that support reporting of landscape function and sustainable management

Fire

Fire was generally insignificant during the 1997–2005 period, with a maximum of 8.3% of the bioregion area burnt in 2000. Lesser areas burnt in 2001 (3.5%) and 2002 (5.9%).

Fire intensity, based on month of burn, varied from year to year. The largest fires in 2000 and 2002 occurred in the cooler months (April to November) and were considered cooler or less intense burns.

The frequency of fire between 1997 and 2005 was very low, with a mean frequency (\log_{10} transformed) of 0.05.

Dust

The mean Dust Storm Index value (1992–2005) was 1.98, which was a low to moderate value compared with all rangeland bioregions. The eastern part of the bioregion (in SA) had higher recorded levels of dust than WA.

Biodiversity

More than 15% of the Great Victoria Desert bioregion is protected in reserves (Collaborative Australian Protected Areas Database, Biodiversity Working Group indicator: Protected areas; see **Section 7 of Chapter 3** of *Rangelands 2008 — Taking the Pulse*).

In SA, there are more than 300 fauna survey sites, with more than 17 000 bird records, greater than 4000 reptile records and 2000 mammal records (Biodiversity Working Group indicator: Fauna surveys). There are more than 500 flora survey sites, with greater than 30 000 records of about 1370 taxa (Biodiversity Working Group indicator: Flora surveys).

In this bioregion, there are (Biodiversity Working Group indicator: Threatened species):

- 9 threatened plant species
- 10 threatened mammal species
- 4 threatened bird species
- 1 threatened reptile species.

Socioeconomic characteristics

Land use and value

Only a small proportion (8%) of the Great Victoria Desert bioregion is grazed. This area has not changed appreciably over the 1992–2005 reporting period.

Key management issues and features

Key features and issues of the Great Victoria Desert bioregion include the following:

- Camels are increasingly reported as a major feral pest.
- The Alinytjara Wilurara Natural Resource Management Board, recently formed under the *South Australian Natural Resources Management Act 2004*, has statutory responsibility for the monitoring and evaluation for the Aboriginal lands in South Australia.
- Some mineral exploration activity has been evident in the latter part of the reporting period.
- Conflicts between mining and conservation/wilderness interests are evident.
- In WA, about 8.5% of the bioregion is within the conservation estate.
- The bioregion is largely unexplored and has high biodiversity values.
- There is very little information for reporting change in the rangelands of this bioregion.