



Little Sandy Desert bioregion

Description

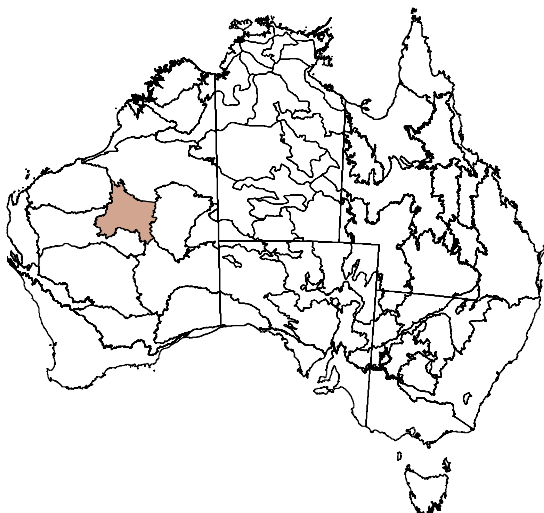
Area: 1 10 900 km²

The Little Sandy Desert bioregion is characterised by dunefields and low ranges. Vegetation is mainly a shrub steppe of acacia over spinifex. Tenure is predominantly Aboriginal land with some unallocated crown land, conservation reserves and the eastern margins of several pastoral leases. Mineral exploration is also an important industry. There are no major population centres in the bioregion. Parnngurr is one of the smaller Aboriginal communities in the bioregion.

Location

The Little Sandy Desert bioregion is located in the central rangelands of Western Australia (see Figure 1).

Figure 1 Location of the Little Sandy Desert bioregion



Data sources available

There are no site-based monitoring data.

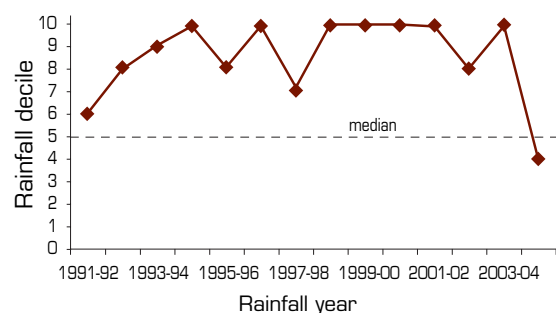
Other data sources include:

- 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 Little Sandy Desert bioregion is arid with summer-dominant rainfall. Spatially averaged median (1890–2005) rainfall is 178 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.



Seasonal quality based on decile rainfall was well above average for most of the reporting period. The rainfall for 2004–05 was considerably less than that received over the preceding 12 years. All but one year was above the median and there was a four-year sequence in which all years were in the highest decile. This would probably be the best sequence of rainfall on record.

Note that regional averaging of rainfall conceals spatial variability. Some parts of the bioregion may have experienced slightly 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

There are negligible areas of pastoral leasehold land (2% of the bioregion area is grazed), and most of the Little Sandy Desert bioregion is remote from stock water.

Weeds

There are no known records of weeds in the Little Sandy Desert bioregion.

Components of total grazing pressure

Domestic stocking density

There is no appreciable grazing of domestic stock in the bioregion (2% of the bioregion area is grazed), and data lack reliability to report change.

Kangaroos

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

Invasive animals

Invasive animal species known to occur in the Little Sandy Desert bioregion include:

Common name	Scientific name
Fox	<i>Vulpes vulpes</i>
Rabbit	<i>Oryctolagus cuniculus</i>
Feral cat	<i>Felis catus</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

A significant portion of the bioregion was burnt in 2000 (18.5%). Relatively smaller areas burnt in 1997, 1999 and 2002. Increased fire occurrence in the 1999–2002 period was probably related to above-average rainfall (see Figure 2, above).

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005
% area burnt	4.3	0.3	5.6	18.5	0.5	3.0	0.6	0.3	1.8

The greatest area burnt for most years was during the cooler months (April to November) when fires were likely to be less intense than those occurring through the summer months.

The frequency of fire during the reporting period was very low compared with all rangeland bioregions, with a mean frequency (\log_{10} transformed) of 0.06.

Dust

The mean Dust Storm Index value (1992–2005) was 2.50, which is a moderate value compared with all rangeland bioregions. The spatial distribution map shows fairly uniform Dust Storm Index values throughout the bioregion.

Biodiversity

There is 1 plant species listed as threatened for the Little Sandy Desert bioregion. Four mammal species and 2 bird species are also listed as threatened (Biodiversity Working Group indicator: Threatened species; see **Section 7 of Chapter 3** of *Rangelands 2008 — Taking the Pulse*).

Socioeconomic characteristics

Land use and value

Only a small proportion (2%) of the Little Sandy 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 Little Sandy Desert bioregion are:

- Feral camel numbers have increased in recent years.
- About 4.6% of the bioregion is within the conservation estate.
- There is very little information on change in the rangelands of this bioregion.