



# Gibson Desert bioregion

## Description

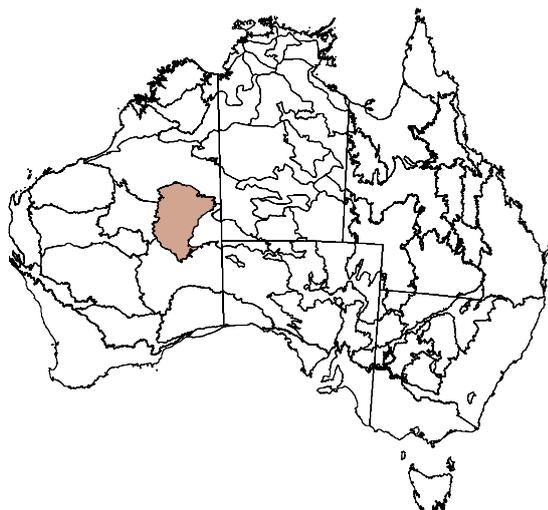
Area: 156 290 km<sup>2</sup>

The Gibson Desert bioregion has vast, undulating sand plains, dunefields and lateritic gibber plains. The vegetation is mainly mulga and other mixed shrubs over spinifex. The bioregion includes Aboriginal land, unallocated crown land and conservation reserves. Conservation and Aboriginal land are the main land uses. The bioregion has a very low population, with the major centres being the Kanpa, Patjarr and Tjirrkarli Aboriginal communities.

## Location

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

**Figure 1 Location of the Gibson Desert bioregion**



## Data sources available

There are no site-based monitoring data.

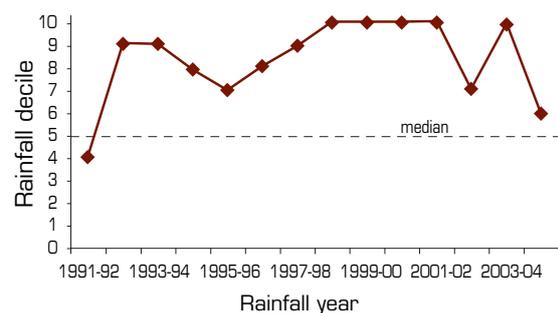
Other data sources include:

- 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 Gibson Desert bioregion has an arid climate with variable and unpredictable rainfall. Spatially averaged median (1890–2005) rainfall is 163 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.



Decile rainfall was generally well above average for the 1992–2005 period after improving from a drier year in 1991–1992. Only one year was below median and five years were in the highest decile. This would be the best sequence of years 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 no sources of stock water for commercial grazing in the Gibson Desert bioregion, and most of the area is remote from water.

### Weeds

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

## Components of total grazing pressure

### Domestic stocking density

There is no known commercial grazing of domestic stock in this bioregion.

### Kangaroos

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

### Invasive animals

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

Common name	Scientific name
Feral pig	<i>Sus scrofa</i>
Fox	<i>Vulpes vulpes</i>
Rabbit	<i>Oryctolagus cuniculus</i>
Wild dog	<i>Canis spp.</i>
Feral cat	<i>Felis catus</i>
Camel	<i>Camelus dromedaries</i>

See [www.anra.gov.au](http://www.anra.gov.au) for distribution maps

## Products that support reporting of landscape function and sustainable management

### Fire

For the period 1997–2005, fire was generally insignificant in the bioregion apart from 1999 and 2000.

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005
% area burnt	0.7	0.1	11.4	30.8	4.6	6.7	0.8	0.9	0.6

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

The frequency of fire during the reporting period was very low compared with all rangeland bioregions, with a mean frequency ( $\log_{10}$  transformed) of 0.05.

## Dust

The mean Dust Storm Index value (1992–2005) was 1.40 — a low value compared with all rangeland bioregions. Dust levels were negligible in the far east of the bioregion and low in the central and western parts.

## Biodiversity

Almost 12% of the bioregion is protected in reserves (Biodiversity Working Group indicator: Protected areas; see **Section 7 of Chapter 3** of *Rangelands 2008 — Taking the Pulse*).

Four mammal species and 1 species of reptile are listed as threatened (Biodiversity Working Group indicator: Threatened species).

## Socioeconomic characteristics

### Land use and value

None of the Gibson Desert bioregion is used for commercial livestock grazing.

### Key management issues and features

Key features and issues of the Gibson Desert bioregion include the following:

- Feral camel numbers have increased in recent years.
- About 11.8% of the bioregion is within the conservation estate.
- There is very little information on change in the rangelands of this bioregion.