

Gastrolobium brevipes

LC

Taxonomic Authority: Crisp

Global Assessment Regional Assessment

Region: Global

Endemic to region

Upper Level Taxonomy

Kingdom: PLANTAE

Phylum: TRACHEOPHYTA

Class: MAGNOLIOPSIDA

Order: FABALES

Family: LEGUMINOSAE

Lower Level Taxonomy

Rank:

Infra- rank name:

Plant Hybrid

Subpopulation:

Authority:

General Information

Distribution

Gastrolobium brevipes is endemic to Australia, distributed in the state of Western Australia and also in the Northern Territory, chiefly in the George Gill and MacDonnell Ranges and around Uluru.

Range Size

Area of Occupancy:

Extent of Occurrence:

Map Status:

Elevation

Upper limit: 1100

Lower limit: 500

Depth

Upper limit:

Lower limit:

Depth Zones

Shallow photic Bathyl Hadal

Photic Abyssal

Biogeographic Realm

Afrotropical

Antarctic

Australasian

Neotropical

Oceanian

Palearctic

Indomalayan

Nearctic

Population

Total population size is not known but it was recently collected in 2008.

Total Population Size

Minimum Population Size:

Maximum Population Size:

Habitat and Ecology

An erect shrub that grows in dunefields, dry watercourses and mountain slopes in sandy, gravelly or rocky soils. It grows mostly in heath, mallee or open woodlands. It is pollinated by insects and it is highly toxic to stock.

System

Terrestrial Freshwater

Marine

Movement pattern

Nomadic Congregatory/Dispersive

Migratory Altitudinally migrant

Crop Wild Relative

Is the species a wild relative of a crop?

<u>Growth Form</u>	<u>Definition</u>
Shrub - large	Perennial shrub (>1m), also termed a Phanerophyte (>1m)

Threats

There are no major threats known to this species. This genus is highly toxic to stock which led to an eradication program in the wheat-belt region in Western Australia. Also in agricultural areas, fertilisers and herbicides greatly affected the species of this genus, by changing the nutrients in the soils and impeding seed germination respectively. However, in central Australia where this species occurs there is no pressure on the natural habitat from agriculture (National Land and Water Resources Audit theme assessments 2000).

	<u>Past</u>	<u>Present</u>	<u>Future</u>
13 None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Conservation Measures

Across its range, several populations of this species occur within protected areas. Most notably known from Ngaanyatjarra Lands Indigenous Protected Area, Uluru-Kata Tjuta, Watarrka and West MacDonnell National Parks. This species is not listed as Threatened in the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). It is recommended that the seeds of this species are banked as an ex situ conservation measure.

	<u>In Place</u>	<u>Needed</u>
4 Habitat and site-based actions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.4 Protected areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Species-based actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.7 Ex situ conservation actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.7.2 Genome resource bank	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Countries of Occurrence

	<u>PRESENCE</u>							<u>ORIGIN</u>				
	Year Round	Breeding Season only	Non-breeding season only	Passage migrant	Possibly extinct	Extinct	Presence uncertain	Native	Introduced	Re-Introduced	Vagrant	Origin uncertain
Australia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Northern Territory	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Western Australia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General Habitats

	<u>Score</u>	<u>Description</u>	<u>Major Importance</u>
2 Savanna	1	Suitable	Unset
2.1 Savanna - Dry	1	Suitable	Unset
3 Shrubland	1	Suitable	Unset
3.8 Shrubland - Mediterranean-type Shrubby Vegetation	1	Suitable	Unset
8 Desert	1	Suitable	Unset
8.2 Desert - Temperate	1	Suitable	Unset

Species Utilisation

Species is not utilised at all

Trend in the level of wild offtake/harvest in relation to total wild population numbers over the last five years:

Trend in the amount of offtake/harvest produced through domestication/cultivation over the last five years:

CITES status: Not listed

IUCN Red Listing

Red List Assessment: (using 2001 IUCN system) Least Concern (LC)

Red List Criteria:

Date Last Seen (only for EX, EW or Possibly EX species):

Is the species Possibly Extinct? Possibly Extinct Candidate?

Rationale for the Red List Assessment

G. brevipens is listed as Least Concern in view that it has a fairly wide distribution in central Australia. Also for the fact that it is known to occur within protected areas. Based on the extent of occurrence (~80,000 km²) it may warrant the rating of Near Threatened, however, there are no known major threats to this species. Furthermore, this species is highly toxic to stock. It is recommended that its seeds are banked as an ex situ conservation measure.

Reason(s) for Change in Red List Category from the Previous Assessment:

- | | | |
|---|---|---|
| <input type="checkbox"/> Genuine Change | <input type="checkbox"/> Nongenuine Change | <input type="checkbox"/> No Change |
| <input type="checkbox"/> Genuine (recent) | <input type="checkbox"/> New information | <input type="checkbox"/> Same category and criteria |
| <input type="checkbox"/> Genuine (since first assessment) | <input type="checkbox"/> Knowledge of Criteria | <input type="checkbox"/> Same category but change in criteria |
| | <input type="checkbox"/> Incorrect data used previously | |
| | <input type="checkbox"/> Taxonomy | |
| | <input type="checkbox"/> Criteria Revisio | |
| | <input type="checkbox"/> Other | |

Current Population Trend: Stable

Date of Assessment: 28/07/2010

Name(s) of the Assessor(s): Malcolm, P.

Evaluator(s):

Notes:

% population decline in the past:

Time period over which the past decline has been measured for applying Criterion A or C1 (in years or generations):

% population decline in the future:

Time period over which the future decline has been measured for applying Criterion A or C1 (in years or generations):

Number of Locations:

Severely Fragmented:

Number of Mature Individuals:

Bibliography

Chandler, G.R., Crisp, M.D., Cayzer, L.W. Bayer, R.J., 2002, Monograph of *Gastrolobium* (Fabaceae: Mirbelieae)., Australian Systematic Botany 5, 619-739, ,

Commonwealth of Australia, 1999, Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) 10 June 2010, , ,

National Land and Water Resources Audit theme assessments, 2000, Biodiversity Assessment, Commonwealth of Australia, , ,