

Threatened Species of the Northern Territory

Jacksonia divisa

Conservation status

Australia: Not listed

Northern Territory: Vulnerable



Photo: I. Cowie

Description

Jacksonia divisa is an erect, densely branching shrub to 3 m tall. Stems are flattened, leaf-like, and grey-green with a distinctive bifid or trifid apex. The true leaves are reduced and inconspicuous. Flowers are yellow, clustered at the ends of the branchlets. The pods are woody, c. 9 mm long, 4 mm wide, two-seeded and densely hairy.

Flowering and Fruiting: April to June.

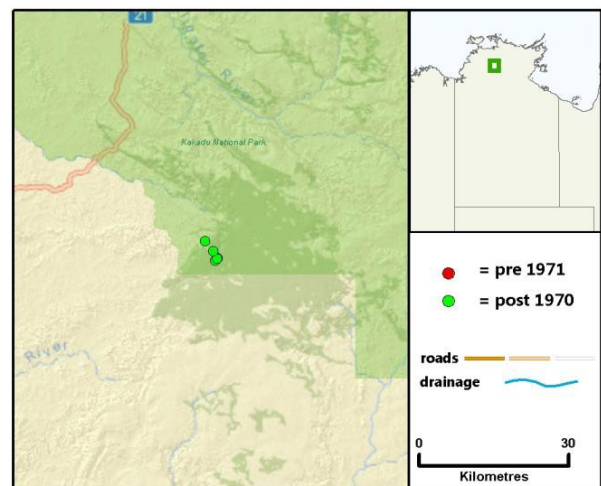
Distribution

This species is endemic to the Northern Territory (NT) where it is restricted to the edges of a gorge on the eroding western margin of the Marrawal Plateau at Bloomfield Springs in Southern Kakadu National Park.

Conservation reserves where reported:
Kakadu National Park.

Ecology

Associated with shrubland on sandy kaolinite clay on ledges around the escarpment of a tertiary plateau.



Known location of *Jacksonia divisa*

Conservation assessment

Both the available habitat and extent of occurrence are very small. It is known from one location with an extent of occurrence of 2 km². K. Brennan (pers. comm.) notes that it is apparently restricted to only two sites with in this area. The species has not been found in similar habitat at Douglas Spring (Nitmiluk National Park), some 5 km to the south, nor at Kekwick Spring on the eastern side of the Plateau. Additional small areas of similar habitat appear to occur scattered around the

edge of the Marrawal Plateau and it is possible that additional subpopulations may occur. However, none were located in an intensive vegetation and flora survey of adjoining Nitmiluk National Park in 1999-2001. Because of the very restricted area of preferred habitat, the area of occupancy is considered likely to be much smaller than the extent of occurrence.

Limited data is available on the size or local extent of the population, but suggests it is very small. Anecdotal accounts suggests one patch at 'probably only hundreds of individuals' but with no information on the number of other patches (K. Brennan pers. comm.).

This species qualifies as **Vulnerable** in the NT (under criterion D1+2), based on:

- number of mature individuals <1 000;
- restricted to a very small area (<2 km²), with fewer than five locations; and
- a plausible threat from inappropriate fire regimes that could drive the taxon to Critically Endangered or Extinct in a very short time period.

Threatening processes

The species is a spreading, obligate seeding shrub and considered to be vulnerable to high frequency fire regimes. At one site after an extensive, hot, late season fire the previous year the only pocket that had escaped being burnt was a small patch of heath containing the species (K. Brennan pers. comm.).

Conservation objectives and management

Research priorities include better quantification of the extent of occurrence, area of occupancy and population size, in particular a more thorough survey of potentially suitable habitat around the edge of

the Marrawal Plateau. Establishment of monitoring plots would assist in study of the fire response of the species and allow population reassessment following perturbations. Fire management in this area of Kakadu should take account of the presence of this species. A key management objective is to ensure a fire regime that is suitable to this species. This regime is likely to be characterised by a relatively low frequency of fire with a fire-free interval of three to five years. The life history and fire response characteristics of *J. divisa* need to be investigated and fire management prescriptions refined accordingly.

Compiled by

Ian Cowie
John Westaway
[updated December 2012]

References

Chappill, JA, Wilkins, CF & Crisp, MD (2007)
Taxonomic revision of *Jacksonia*
(Leguminosae: Mirbelieae). *Australian Systematic Botany* **20(6)**, 473–623