

Threatened Species of the Northern Territory

Burmannia sp. Bathurst Island

Conservation status

Australia: Endangered

Northern Territory: Endangered



Photo: K. Brennan

Description

This species is a herbaceous leafless saprophyte to 12 cm tall, with a small tuber. All parts, including the stem, are translucent white. This species is undescribed, but closely related to the Asian species *B. bifaria* (Jonker 1954).

Flowering: June, Nov.

Fruiting: June.

Distribution

This species is known only from five rainforest patches in the north of Bathurst Island in the Northern Territory.

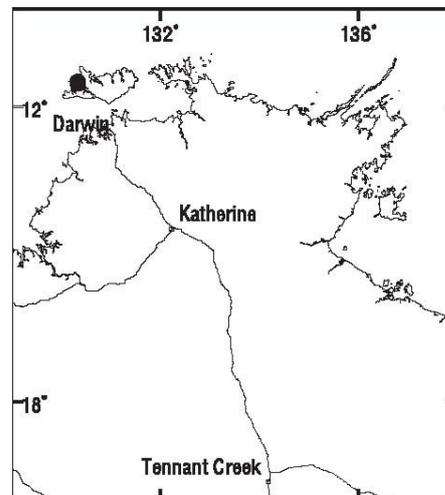
Conservation reserves where reported:
None.

Ecology

Very little is known of the ecology of this plant. It is recorded from wet spring-fed rainforests, growing out of damp peat in raised areas.

Burmannia seems to have a disturbance requirement (probably through seasonal flooding). While the species may be able to persist in areas lightly disturbed by pigs, individual plants were recorded in areas of pig rooting only where the plants were protected within a network of sizeable tree roots

(Fensham 1993). The saprophytic habit requires soil organic material and this species may be unable to establish on mineral soil (Fensham 1993).



Known locations of *Burmannia* sp. Bathurst Island.

Conservation assessment

This species was recorded from two subpopulations in 1991 with a total population estimated between 500-2000 individuals in a 40 ha area (Fensham 1993). None were detected in the area in the next searches, from 1998-2000. Only one population of six individuals was recorded in 2001. Searches and surveys in 2006 re-located these two populations and discovered three new nearby ones (D. Liddle *pers. obs.*).

This species qualifies as **Endangered** (under criteria B1ab(iii)+2ab(iii); C2b) based on:

- an extent of occurrence estimated to be <5000 km²;
- an area of occupancy estimated to be <500 km²;
- extreme fluctuations in number of locations and subpopulations; and
- an inferred continuing decline due to extensive and frequent pig disturbance.

Threatening processes

Feral pigs are likely to dig up *Burmannia* plants to eat their small tubers, and the general rooting and disturbance by pigs in these wet rainforests may also detrimentally affect this plant.

Conservation objectives and management

A Recovery Plan for this species, and other threatened plants on the Tiwi Islands, is due to be released in 2007, but many actions in its draft are currently being implemented.

Further research on the impact of pig disturbance, the environmental requirements of the species and the dynamics of the population are urgently required. A monitoring program was established in 2006, and should be maintained. Fencing of some areas of habitat is required to afford protection from pigs, and was recommended as urgent in 1993 by Fensham (1993).

Complied by

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References

- Fensham, R.J. (1993). The impact of pig rooting on populations of *Burmannia* sp., a rare rainforest herb on Bathurst Island. *Proceedings of the Royal Society of Queensland* **103**, 5-12.
- Jonker, F.P. (1954). Burmanniaceae. *Flora Malesiana* **4**, 13-26.