

Threatened Species of the Northern Territory

Acacia praetermissa

Conservation status

Australia: Vulnerable

Northern Territory: Vulnerable



Photo: I. Cowie

Description

Acacia praetermissa is a shrub, often multi-stemmed, with stems 50 cm to c. 2 m high arising from rootstock. The foliage is bluish and narrow. The flowers are in bright yellow spikes on simple axillary stalks, mostly two per axil. Easily confused with *Acacia oligoneura* but differs in having narrower phyllodes with the nerves sparsely anastomosing, ciliate calyx lobes, non-tapering pods and discoidal seeds c. 4 mm wide. (Dunlop *et al.* 1995; Tindale & Kodela 2001)

Flowering: January–September.

Fruiting: January, March, July, October.

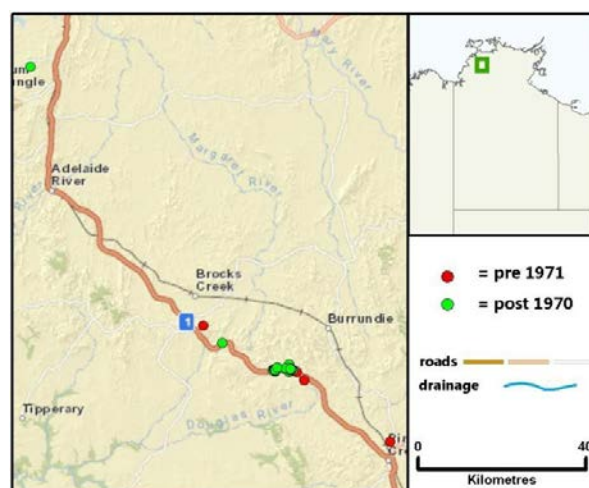
Distribution

A Northern Territory (NT) endemic, this species has been collected from two general roadside localities: near Emerald Springs and Hayes Creek (Dunlop *et al.* 1995). (Note that the map presents three localities, but it is likely that one of these is a result of inaccurate geo-referencing).

The known subpopulations are distributed patchily along the Stuart Highway for

approximately 25 km, with the two largest known ones within 5 km of Emerald Springs on the northern side. The subpopulation 2.5 km north-east of Hayes Creek is fairly small and relocation of another subpopulation north-west of Hayes Creek has not yet been attempted. A location south-east of Emerald Springs is probably inaccurate and likely to be from one of the other known locations, as is the Pine Creek record from 1958.

Conservation reserves where reported:
None.



Known locations of *Acacia praetermissa*.

Ecology

This species grows on upper to lower slopes with various aspects in stoney skeletal or sandy soils on sandstone or laterite substrates. Associated dominant vegetation includes *Eucalyptus tetradonta* / *Corymbia dichromophloia* woodland, *C. foelscheana* / *C. grandifolia* woodland and *E. tetradonta* / *E. tintinans* woodland with *Sorghum* or perennial grasses such as *Eriachne avenacea* (Holtze 2011). Several sites are on the slopes of a tertiary plateau remnant while others are on ridge slopes.

Conservation assessment

The extent of occurrence of this species is approximately 50 km². The area of occupancy of the species is now inferred from the verified localities at more than 100 ha. Between 100–250 individuals were estimated in a population 2.5 km north-east of Hayes Creek. With an estimated density of approx one plant per 100 m² in the areas most intensively surveyed near Emerald Springs, the population size can be estimated at more than 10 000 plants. It is evident that the plant has undergone past reduction in the total population both through construction of the Stuart Highway and excavation of nearby borrow pits.

While some targeted searches have been conducted for this species, considerable survey has been conducted in the wider region, suggesting that existing records largely reflect this species' restricted distribution and abundance. Targeted survey to date shows that the population is patchy and does not extend far to the east in the places surveyed. Further survey is required to relocate and record the area of occupancy and size of some subpopulations.

This species qualifies as **Vulnerable** (under criteria D2) based on:

- a restricted area of occupancy estimated to be <20 km²; and
- plausible future threats that could drive the taxon to Critically Endangered or Extinct in a very short time.

Threatening processes

Acacia praetermissa is vulnerable to population decline through earthworks to alter or widen the Stuart Highway and the excavation of borrow pits to provide materials for road works. In addition, the population occurs in an area of high mineral prospectivity, with many abandoned mines and some active mines nearby. While there is no information on any associated mineral deposits, the current wave of mining related activity represents an increased risk to the population, both from exploration and development of new mines.

Areas adjacent to the Stuart Highway are frequently burnt. Collections indicate that the species can resprout from a perennial rootbase, but the longer-term impact of frequent fire on the longevity of adults and on their ability to re-sprout is unknown. No seedling recruitment has been observed in the field during recent collections despite evidence of recent seed production. This suggests limited seedling recruitment from which, over time, a potential population decline could be inferred. Whilst the populations of existing adults appear stable, the long term viability of these populations is unknown and their location, restricted distribution and relatively low numbers make them susceptible to stochastic events such as mining activity and road works.

Conservation objectives and management

Further research is required to establish the full extent of the population, the impact of fire and the likelihood of other threatening processes such as potential clearing for road works and mining. Such research should be associated with a specific monitoring program. Reservation or conservation covenants would be beneficial.

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References

- Dunlop, C.R., Leach, G.J., and Cowie, I.D. (1995).
Flora of the Darwin Region. Vol 2. (Conservation Commission of the Northern Territory, Darwin.)
- HOLTZE (2011) Northern Territory Herbarium (DNA) specimen database.
- Tindale, M.D., and Kodala, P.G. (2001). *Acacia praetermissa*. *Flora of Australia* **11B**. 252-253.