

Threatened species of the Northern Territory

Acacia praetermissa

Conservation status

Australia: Vulnerable

Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Vulnerable

Territory Parks and Wildlife Conservation Act 1976

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. The species is 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^{1,2}.

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 Creek¹.

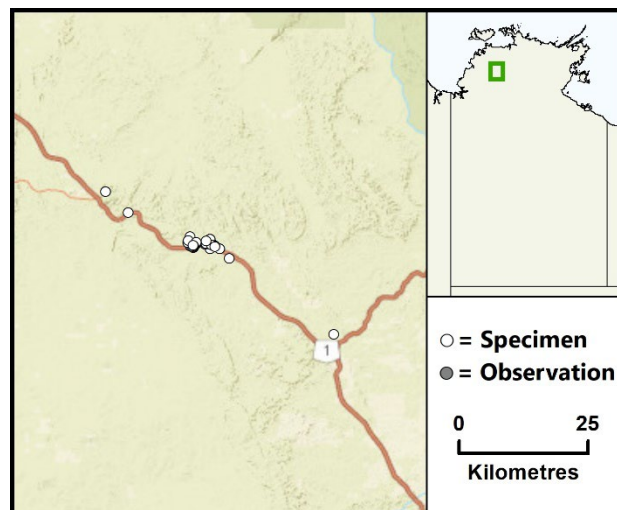
The known occurrences are distributed patchily along the Stuart Highway for approximately 25 km, with the two largest known patches within 5 km of Emerald Springs on the northern side. The patch 2.5 km north-east of Hayes Creek is fairly small and relocation of another patch north-west of Hayes Creek has not yet been attempted.



Credit: I.D. Cowie

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.

NT conservation reserves where reported: none.



Caption: Known locations of *Acacia praetermissa* in the NT (nrmaps.nt.gov.au)

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*³. Several sites are on the slopes of a tertiary plateau remnant while others are on ridge slopes.

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 plants occur 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 species, 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 resprout 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. While the occurrences of existing adults appear stable, the long-term viability of these patches 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 assessment

The extent of occurrence of this species is approximately 50 km². Between 100–250 individuals were estimated at a site 2.5 km north-

east of Hayes Creek. With an estimated density of approximately one plant per 100 m² in the areas most intensively surveyed near Emerald Springs, the number of plants can be estimated at more than 10 000 individuals. It appears 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 occurrences are patchy and do 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 occurrences.

Conservation objectives and management

Reservation of high quality habitat, a substantial subpopulation and control of exotic grasses are priority management requirements. 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 highly beneficial.

References

- ¹ 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.)
- ² Tindale, M.D., and Kodala, P.G. 2001. *Acacia praetermissa. Flora of Australia* 11B. 252-253.
- ³ HOLTZE 2011. Northern Territory Herbarium (DNA) specimen database.