Threatened Species of the Northern Territory

Hibiscus cravenii

Note that this species was formerly listed as *Alyogyne cravenii*.

Conservation status
Australia: Vulnerable
Northern Territory: Vulnerable

Description

This species is a shrub to 1.5 m. Its stems are densely hairy, hairs stellate, yellowish or yellow-brown. The flower is Hibiscus-like with unbranched style, petals mauve, turning blue when dry, with intense maroon spot on basal third.

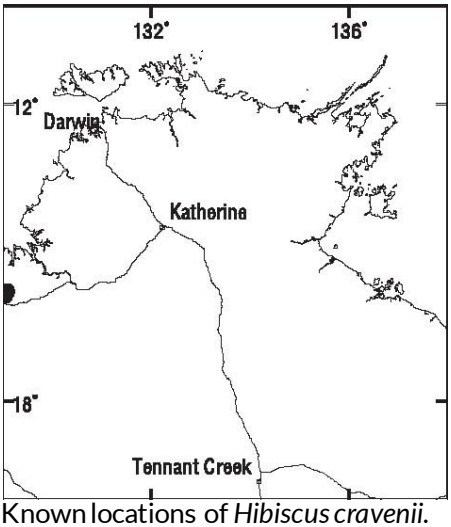
Flowering: Jun, Jul, Oct, and Dec.
Fruiting: Jun, Oct, and Dec.

Distribution

This species is endemic to the NT, where it is known only from Keep River National Park, at six localities around the base of the escarpment in the Jarnarm area and north west of Gurrandalng.

The known extent of occurrence of this species is 17 km^2. Survey of known localities and survey for new populations by J. Egan in 1995 reported approximately 120 individuals from three localities associated with the Kelly's Knob sandstone within Keep River NP. Further surveys have located three more populations and the total population size is estimated at around 500 individuals. Egan (1996) noted that the species was not found on any other geological formations in the area nor on the Kelly's Knob sandstone within Hidden Valley WA.

Conservation reserves where reported:
Keep River National Park.



Known locations of *Hibiscus cravenii*.

Ecology

Very little is known about the ecology of this species. It is recorded growing in sandy soils at the base of sandstone escarpments and to be scarce on sandstone scree slopes.

Egan (1996) reported that no juveniles were observed in the populations she surveyed in 1995 and that the stands were even-aged and even-sized (1.5-2 m).

The Gurrandalng locality first collected by I. Cowie in 1998 and re-visited in 2000 had only recently been severely burnt and no individuals were observed, although burnt

stems could have been overlooked. The same locality revisited in 2001 resulted in 200-300 individuals recorded for the area. Some adults had quite a woody base suggesting some individuals had re-sprouted after fire. Populations at Jarnarm appeared to grow in habitat that is frequently burnt (R. Kerrigan *pers. obs.*).

Conservation assessment

While it is possible that extensive targeted searches may uncover additional populations, particularly in areas inaccessible by foot, there is a high degree of confidence in the current distribution data. A summary of survey effort across the Northern Territory shows that this species is located in areas of relatively high collection effort. All three populations fall within a ¼ degree grid cell for which 918 records are known. On a finer scale, 127 plant records are documented from within the known extent of occurrence of this species.

This taxon is classified as **Vulnerable** (under criteria D1+2) based on:

- number of mature individuals <1000 (the population is estimated to be between 200 – 500 individuals); and
- a restricted distribution of <10 km^2.

Plants in all stands were 1-2 m tall and evenly sized. All populations are exposed to frequent fires.

Threatening processes

Frequent fires may threaten this taxon. Russell-Smith *et al.* (1998, 2002) suggested that populations of re- sprouter species may decline under too frequent burning, and inappropriate fire regimes are a potential threat to this species (Egan 1996). Although some evidence exists to suggest this species may rebound from fire, the generation time for this species has not been assessed and the potential for frequent fire events to kill individuals before reproductive maturity has not been evaluated. Similarly, seed bank stores, seed longevity and germination and establishment requirements are unknown. With such a small population size and limited distribution the species is vulnerable to stochastic events such as inappropriate fire regimes.

Conservation objectives and management

Further research is required on the population dynamics of this taxon, the extent of its range, the impact of fire and other potential threatening processes. This research should be associated with an ongoing monitoring program.

Complied by

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[April 2006]

References

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