

Threatened Species of the Northern Territory

Toechima sp. East Alligator

Conservation status

Australia: Endangered

Northern Territory: Endangered



Photo: M. Armstrong

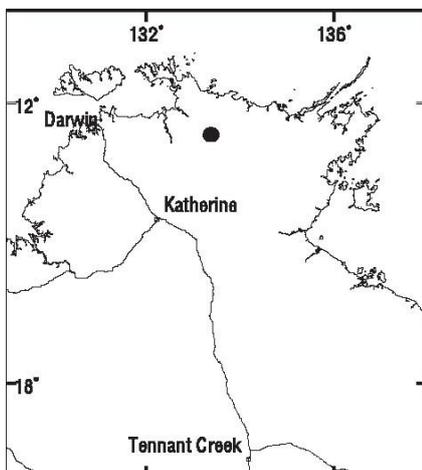
Description

Toechima sp. East Alligator is a small, multi-stemmed, slender branched tree to 5 m high. It is able to regenerate from coppice/rhizomes. The bark is light grey-brown, almost smooth.

Distribution

Endemic to the NT, this species is known from only one very small population in Arnhem Land near the Upper East Alligator River east of Kakadu National Park (Liddle *et al.* 1994).

Conservation reserves where reported:
None.



Known locations of *Toechima* sp. East Alligator

Ecology

Very little is known of this unnamed taxon. It occurs in a sandstone gorge in a rainforest patch dominated by the tree *Allosyncarpia ternata*.

Conservation assessment

Although the number of individuals has not been quantified, there is strong evidence to suggest that population numbers for adult tree species in Northern Territory monsoon rainforests are typically low (Russell-Smith 1991, 1992).

Given that *Allosyncarpia* patches in the Western Arnhem Land plateau are characteristically small, it is assumed that this species is found in a small patch <10 ha in area and has a population size restricted by the extent of the habitat. An estimate of approximately 250 mature individuals in this population is therefore considered very conservative and it is likely that there are fewer than 50 individuals present.

Although the Arnhem Land escarpment is remote and difficult to access, a relatively high proportion of herbarium collections come from the Arnhem Land/Kakadu area.

The quarter degree grid cell where this taxon was found has 1391 plant collection records. Consequently, despite the fact that there has been no specific survey for this species, it is felt that the comprehensive rainforest survey carried out in the 1980s (Russell-Smith 1991, 1992), and the relatively high level of collecting in the area of potential habitat generally, offers confidence that our current knowledge accurately reflects its restricted distribution and abundance.

This species qualifies as **Endangered** (under criteria D) based on a population size estimated to be <250 individuals.

Threatening processes

Known from an *Allosyncarpia* rainforest in a deep sandstone gorge in Arnhem Land, it is difficult to identify imminent threats.

While there is evidence to indicate that monsoon rainforests are vulnerable to disturbance from cattle, buffalo, pigs and dry-season wildfires (Russell-Smith and Bowman 1992), collection notes document that the population occurs in a very well protected gorge.

This species is known only from sterile or budding material and is noted as being able to regenerate as coppice from a rhizome. Although fruiting material has not been seen, species within this genus have arillate seeds (Hyland *et al.* 2002) suggesting animal dispersal vectors. Given this taxon may not be sexually reproducing or may not be able to cross with other populations, the long-term genetic viability of this taxon may be compromised.

Conservation objectives and management

Research priorities are to:

- i. provide a more detailed assessment of its distribution, habitat requirements and population size;
- ii. provide an assessment of the factors limiting distribution, and/or threats to its survival, and
- iii. establish a monitoring program

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References

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