Threatened species of the Northern Territory

Mapania macrocephala

Conservation status

Australia: Not listed
Environment Protection and Biodiversity Conservation Act 1999

Northern Territory: Vulnerable
Territory Parks and Wildlife Conservation Act 1976

Credit: D.T. Liddle

Description

Mapania macrocephala is a robust sedge to 2 m tall. The culms are 3- angled. The leaves are up to 4 m long, the blade 3-nerved with distinct secondary nerves, and the margin spinose. The inflorescence is terminal and globose, 4-7.5 cm wide. It is distinguishable from young *Pandanus* by the m-shaped leaf cross-section.

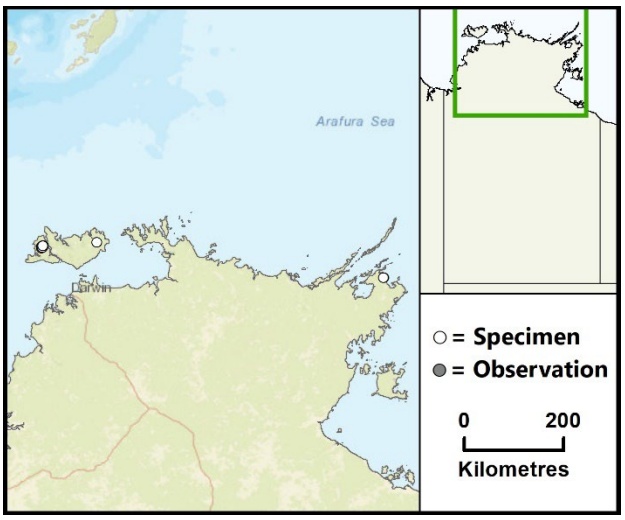
Flowering: February, November–December.

Fruiting: February, June, November.

Distribution

This species occurs in Sulawesi, Maluku, Nusa Tenggara, Philippines, New Guinea and north Australia (Queensland and the Northern Territory)[1,2]. In the Northern Territory (NT), it is known from four localities: two from Bathurst Island, one from Melville Island and one from north-eastern Arnhem Land.

NT conservation reserves where reported: None.



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

Ecology

Within the NT, this species has been collected from the margins of monsoon rainforests; in other parts of its range, it is reputedly more common in coastal and near coastal habitats, including mangroves. It appears to prefer situations of relatively bright light and often occurs on trees that have scaly bark. It may be associated with other epiphytes (e.g. *Dendrobium affine* and *Drynaria quercifolia*); hosts include *Sterculia quadrifida*, *Barringtonia acutangula*, *Canarium australianum* and *Vitex* spp.

Threatening processes

There is a potential threat from pig and buffalo activity through either grazing on juveniles or disturbance. As a species occurring in spring rainforests, changes to the hydrological regime could threaten habitat quality and individuals.

More localities may exist but recent and extensive survey efforts in both the Tiwi Islands[3,4] and Arafura Swamp area[5] have yielded only one additional locality.

Conservation objectives and management

A Recovery Plan for the threatened plant species of the Tiwi Islands was released in 2008 and many of its actions have been implemented. Further research is required to provide a more detailed assessment of population size, distribution, and impacts of threatening processes. A monitoring program should be established for at least representative sites to assess demographic change and response to threats.

References

[1] Simpson, D.A. 1992. *A revision of the genus Mapania.* (Royal Botanic Gardens, Kew.)

[2] Liddle, D.T., Russell-Smith, J., Brock, J., Leach, G.J., and Connors, G.T. 1994. *Atlas of the vascular rainforest plants of the Northern Territory*. Flora of Australia Supplementary Series No. 3. (ABRS, Canberra.)

[3] Woinarski, J., Brennan, K., Cowie, I., Kerrigan, R., and Hempel, C. 2003. *Biodiversity conservation on the Tiwi islands, Northern Territory. Part 1. Plants and environments*. 144 pp. (Department of Infrastructure, Planning and Environment, Darwin.).

[4] Liddle D.T. and Elliott L.P. 2008. *Tiwi Island threatened plants 2006 to 2008: field survey, population monitoring including establishment of a program to investigate the impact of pigs, and weed control.* Report to Natural Resource Management Board (NT), NHT Project 2005/142, Northern Territory Government Department of Natural Resources, Environment, The Arts and Sport, Palmerston.

[5] Brennan, K., Woinarski, J., Hempel, C., Cowie, I., and Dunlop, C. 2003. *Biological inventory of the Arafura Swamp and catchment*. Report to Natural Heritage Trust. 255pp. (Parks and Wildlife Commission of the Northern Territory, Darwin.)