



Assemblages of Dragon Tree Soak organic mound spring

Summary description

The community occurs in the Great Sandy Desert bioregion and is a wetland landform supporting plants and animals that are absent or scarce elsewhere in the bioregion. At its centre, the community comprises a closed sedgeland of jointed twig-rush *Machaerina articulata* to 2.5m high and 95% cover. *Sesbania formosa* (white dragon tree) occurs as a sparse emergent and some clumps of *Typha domingensis* (bulrush) are also present in the centre of the soak. At the southern and northern ends of the wetland is a low closed forest or scrub of *Sesbania formosa*, averaging 10m in height, with some *Typha domingensis* understorey. In wet areas on the periphery of the wetland, a grassland of *Paspalum vaginatum* (saltwater couch) occurs, with sparse emergent *Fimbristylis ferruginea*. The slightly higher and drier surrounding flats support *Sporobolus virginicus* (marine couch), *Acacia ampliceps* and *Melaleuca glomerata*. The priority 3 sedge species *Fimbristylis sieberiana* also occurs.



Distribution

The community occurs within Kuriji Pa Yajula Nature Reserve, located approximately 30km south-west of McLarty Hills in the Kimberley region.

Department of Biodiversity, Conservation and Attractions (DBCA) Region: Kimberley
DBCA District: West Kimberley

Local Government Authority: Shire of Broome

Habitat requirements

The soak is an elliptical organic mound spring that comprises a permanent swamp and soak of black peaty mud, surrounded by an irregular dampland of grey loam flats and claypan. The permanent water source and vegetation provide a refuge to a variety of fauna from the surrounding Great Sandy Desert.

Indigenous interests

Traditional Owner group: Karajarri

Joint management of Kurriji Pa Yajula Nature Reserve is undertaken by the Karajarri Traditional Lands Association and the State Government. The soak holds strong cultural significance to the Karajarri people who utilised the area as an important food and water source, with the area also playing a strong role in storytelling.

The Kimberley Land Council represents the Traditional Owners and is the native title representative body for the Kimberley region.

Conservation status

State: Listed as a critically endangered ecological community under the *Biodiversity Conservation Act 2016*. Threatened ecological communities are declared environmentally sensitive areas under the *Environmental Protection Act 1986*.

Threatening processes

A major threat to the community is degradation caused by camels through pugging and nutrient enrichment of the soil and water. Evidence of considerable damage by camels has been reported, and continued modification of vegetation and soils is likely to affect the hydrology of the peat mound, causing it to dry out. If this habitat becomes drier, regeneration of the original vegetation would be inhibited, and the peat substrate would be at risk from burning in bush fires.

Recovery plan

Development of a recovery plan is recommended for this community. Priority actions include developing and implementing a monitoring plan and using results to guide management, and surveying for other occurrences. Consistent monitoring and management of fencing, camel impact and fires is recommended.

Key references

Australian Nature Conservation Agency. (1996). *A Directory of Important Wetlands in Australia* (2nd ed.).

Burbidge, A. A., McKenzie, N. L. & Kenneally, K. F. (1991). *Nature Conservation Reserves in the Kimberley, Western Australia*. Department of Conservation and Land Management.

McKenzie, N. L., Burbidge, A. A., George, A. S., & Mitchell, A. S. (1983). Part I: Environment. In A. A. Burbidge & N. L. McKenzie (Eds.), *Wildlife of the Great Sandy Desert, Western Australia* (pp. 7–37). *Wildlife Research Bulletin of Western Australia*, No. 12, Department of Fisheries and Wildlife.

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