



Herbaceous plant assemblages on Bentonite Lakes as originally described by Griffin and Associates (1991)

Summary description

The community occurs on the lake margins of bentonite lakes in the Watheroo-Marchagee region as originally described by Griffin and Associates (1991). The community comprises herbaceous plant assemblages dominated by a combination of *Triglochin mucronata*, *Trichanthodium exilis*, *Asteridea athrixoides* and *Puccinellia stricta* (marsh grass) on the lake beds, and a combination of *Siemssenia capillaris* (wiry podolepis), *Angianthus tomentosus* (camel-grass) and *Pogonolepis stricta* (stiff angianthus). These herbaceous plant assemblages are characterised by a dependence on a bentonite (saponite) substrate — naturally restricted to the lake beds and margins of perched, ephemeral freshwater playa lakes and claypans of the Watheroo-Marchagee region. While most lakes comprise only herbaceous species, there are a number with varying densities of *Casuarina obesa* (swamp sheoak) trees, and shrubs of *Melaleuca lateriflora* (gorada) and *Acacia ligustrina*.



Distribution

All occurrences are located within a 20km radius of Watheroo and Marchagee.

Department of Biodiversity, Conservation and Attractions (DBCA) Region: Midwest
DBCA District: Turquoise Coast

Local Government Authorities: Shire of Coorow, Shire of Moora

Habitat requirements

The herb-dominated community and associated invertebrate assemblage is dependent upon intermittent freshwater inundation and regular drying out of the lakebed for survival.

Indigenous interests

Traditional Owner group: Yued Noongar

A register of Aboriginal cultural heritage sites kept by the Department of Planning, Lands and Heritage lists a site of Aboriginal significance in the vicinity of this community.

The area is covered by the Yued Indigenous Land Use Agreement as part of the South West Native Title Settlement, which formally recognises Noongar people as the Traditional Owners of the south-west region. The Yued region is supported by the Yued Aboriginal Corporation and umbrella group, the South West Aboriginal Land and Sea Council.

Conservation status

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

Threatening processes

The main threats to the community include salinisation, water-logging and increased inundation, weed invasion, vegetation clearing, removal of substrate for mining, nutrient enrichment, climatic drying, and physical damage to the lake beds by vehicles and feral animals.

Recovery plan

An interim recovery plan has been produced for this community, outlining the recovery actions that are required to reduce threats and maintain or improve its overall condition. Recommended actions include continued monitoring of plant assemblages, monitoring hydrological change, liaising with owners regarding suitable management of their properties and fencing important occurrences, obtaining biological and ecological data, establishing a weed control strategy, and acquiring land for conservation as opportunities arise.

Key references

Griffin, E.A. & Associates. (1991). *Flora and Vegetation of Watheroo Bentonitic Lakes* [Unpublished report]. Prepared for Bentonite Australia Pty Ltd.

Hamilton-Brown, S. (2002). *Herbaceous plant assemblages on bentonite lake beds (Vegetation Types 1, 2, 3 & 7) and margins (Vegetation Types 4, 5 & 6) of the Watheroo-Marchagee region: Interim Recovery Plan 2002–2007* (Interim Recovery Plan No. 108). Department of Conservation and Land Management.

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