



## Themeda grasslands (*Themeda* sp. Hamersley Station (M.E. Trudgen 11431)) on cracking clays (Hamersley Station, Pilbara)

### Summary description

The community is known from Hamersley Station in the Pilbara. It comprises an open to closed tussock grassland on cracking clays and is dominated by the perennial *Themeda* sp. Hamersley Station (M.E. Trudgen 11431; priority 3) growing to approximately 1.8m high. A suite of other grasses and herbs occur. In some areas there is scattered open overstorey of low trees present including *Hakea loreus* subsp. *loreus* (witinti) and *Eucalyptus victrix* (smooth-barked coolibah).



### Distribution

The community occurs around Duck Creek and on Hamersley Station.

Department of Biodiversity, Conservation and Attractions (DBCA) Region: Pilbara

Local Government Authority: Shire of Ashburton

### Habitat requirements

The Themeda grasslands community mostly occurs on alluvial plains (soils deposited by flowing water) on cracking clay soils, often referred to as crab holes or self-mulching clay flats. These 'run on' clay flats rely on inundation with fresh water from sporadic rainfall and run-on rainfall from surface flows. Maintenance of hydrological processes in terms of both quality and quantity of water is therefore essential to sustain the community.

### Indigenous interests

Traditional Owner group: Eastern Guruma

A register of Aboriginal cultural heritage sites kept by the Department of Planning, Lands and Heritage lists numerous sites of Aboriginal significance in the vicinity of this community's occurrences.



The land is subject to the Eastern Guruma native title determination held by the Wintawari Guruma Aboriginal Corporation for the Eastern Guruma people. The Yamatji Marlpa Aboriginal Corporation represents the Traditional Owners and is the native title representative body for the 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

The major threats to the community are cattle and feral animals (grazing, trampling and nutrient enrichment), mining, hydrological changes caused by alteration of overland water flows and extraction of groundwater, vegetation clearing, weed invasion (particularly the tall thorny shrub, *Vachellia farnesiana*, mimosa bush), altered fire regimes, and drying climate.

## Recovery plan

Development of a recovery plan is recommended for this community. Priority actions include acquiring areas of pastoral leases for conservation as opportunities arise, excluding grazing and infrastructure development, monitoring of hydrology and vegetation, managing hydrological processes, and controlling weeds.

## Key references

Biota Environmental Sciences. (2012). *Themeda grasslands threatened ecological mapping Phase 1 Botanical Survey 2012*. Prepared for Rio Tinto.

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Van Vreeswyk, A. M. E., Payne, A. L., Leighton, K. A., & Hennig, P. (2004). *An inventory and condition survey of the Pilbara region, Western Australia* (Technical Bulletin No. 92). Department of Agriculture.

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