



Assemblages of the organic mound springs of the Three Springs area

TEC Description

The mound spring habitat is characterised by continuous discharge of groundwater in raised areas of peat. The peat and surrounds provide a stable, permanently moist series of micro-habitats. The distinctive assemblages are composed of invertebrate groups that commonly include beetles, oligochaetes, non-biting midges and bugs. The vegetation component of the community contains many moisture loving species including an overstorey of *Melaleuca preissiana* (moonah) trees. *Eucalyptus camaldulensis* (river gum) and *Eucalyptus rudis* (flooded gum) are also found in a number of the mound springs. The shrub layer often includes *Hypocalymma angustifolium* (white myrtle) and *Acacia saligna* (orange wattle) over *Baumea vaginalis* (sheath twigrush) and other sedges. The herbaceous *Patersonia occidentalis* (purple flag) (swamp variant) has been recorded at several occurrences.



Distribution

The springs occurs over a range of 41km from around Enabba to Arrino. Known from 34 occurrences with a total area of 55ha.

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

DBCA District: Moora

Local Government Authority: Shire of Three Springs

Habitat Requirements

The flora and fauna species present in this community are dependent on specific characteristics of the mound springs particularly the layers of peat that have built up over an extended period and the supply of permanent fresh water. The maintenance of hydrological processes in terms of both quality and quantity of water to the mounds is essential to sustain the mound spring community. This community is reliant on the hydrological catchment of the Dandaragan Trough that contributes to the artesian aquifer systems (water under pressure) that support the mound springs.

Indigenous Interests

The community is not subject to any native title claims. An Aboriginal Sites Register is kept by the Department of Indigenous Affairs and lists the Arrowsmith River as a significant site within the vicinity of the community.

Conservation Status

Listed as endangered under WA Minister Environmentally Sensitive Areas list in policy.

Threatening Processes

The major threats to the community are groundwater decline from water extraction, damming, salinization, grazing, inappropriate fire regimes and weed invasion.

Recovery Plan

An interim recovery plan has been produced for the community and outlines the recovery actions required to reduce the threats and to maintain or improve the overall condition in the known locations and reduce the level of threat to ensure the community's long-term survival. Recommended actions include monitoring the local hydrological changes, biological monitoring, weed control, managing *Phytophthora* spp. disease and implementing a fire management strategy.

Citation

Department of Biodiversity, Conservation and Attractions (2020). Recovery plans and interim recovery plans <https://www.dpaw.wa.gov.au/plants-and-animals/threatened-species-and-communities/wa-s-threatened-ecological-communities>

Key References

Department of Conservation and Land Management (2005). Assemblages of Organic Mound Springs of the Three Springs Area Interim Recovery Plan 2005 - 2010. Interim Recovery Plan No. 196. Department of Conservation and Land Management, Western Australia.

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