



Depot Springs stygofauna community

Summary description

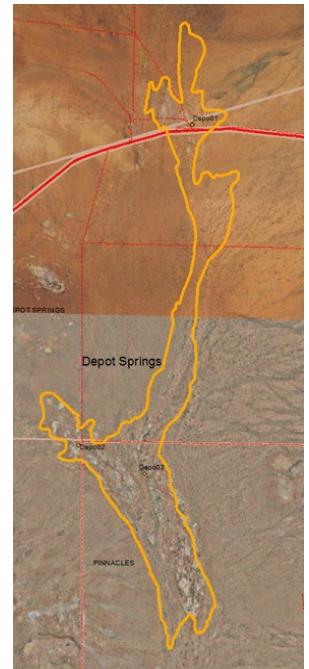
The community is known from the Depot Springs groundwater calcrete in Sandstone. It comprises an assemblage of stygofaunal (groundwater) species not known from anywhere else. The calcretes that support the community include those around Friday Well and Puncture Well (southern) and in the area of the shearing shed on Depot Springs Station (northern). Species restricted to this community include Dytiscidae (water beetles), *Limbodessus fridaywellensis* and *Paroster hinzeae*. The dytiscid (water beetle) species are known only from the Depot Springs calcrete, and the latter species only from Friday Well and belong to a different tribe of invertebrates (Hydroporini). Other fauna from Friday Well itself include Ostracoda (aquatic crustaceans: *Ryocypris* n. sp., *Plesiocypridopsis* n. sp., *Candonopsis* n. sp. 1), Cyclopoida (small crustaceans: *Halicyclops* n. sp. 2, *Apocyclops* n. sp. 1, *Metacyclops* n. sp. 1) and Harpacticoida (New genus sp. 1 (Canthocamptidae)).

Distribution

The Depot Springs stygofauna assemblage occurs within groundwater calcrete which follows the Raeside palaeodrainage channel, spanning Depot Springs, Pinnacles and Dandaraga Pastoral Leases, between Sandstone and Leinster, north of Kalgoorlie.

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

Local Government Authority: Shire of Sandstone



Habitat requirements

The community is restricted to groundwater calcretes lying along a northern tributary of the Raeside palaeodrainage channel and is dependent on maintenance of current hydrology and water quality.

Indigenous interests

Traditional Owner group: Western Desert people

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

Part of the community occurs on land subject to the Tjiwarl native title determination, held by the Tjiwarl Aboriginal Corporation for people who have a connection to the area in accordance with Western Desert traditional laws and customs. This area is covered by the Tjiwarl Palyakuwa Indigenous Land Use Agreement. 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 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 community is threatened by hydrological changes associated with groundwater decline.

Recovery plan

Development of a recovery plan is recommended for this community. Priority actions include survey and monitoring of threatened stygofauna, studies to determine the hydrological requirements of the community, and regular groundwater monitoring.

Key references

Watts, C. H. S. & Humphreys, W. F. (2001). A new genus and six new species of Dytiscidae (Coleoptera) from underground waters in the Yilgarn palaeodrainage system of Western Australia. *Records of the South Australian Museum*, 34(2), 99–114.

Watts, C. H. S. & Humphreys, W. F. (2009). Fourteen new Dytiscidae (Coleoptera) of the genera *Limbodessus* Guignot, *Paroster* Sharp, and *Exocelina* Broun from underground waters in Australia. *Transactions of the Royal Society of South Australia*, 133(1), 62–107.

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