

endangered

by Val English



Coastal sedgelands

An important suite of wetlands that contains the threatened ecological community known as 'sedgelands in Holocene dune swales' occurs in the Rockingham area, with a few small outliers near Bunbury and Wanneroo. These special wetlands occur within linear dips (swales) between sand dunes mainly in regional parks, local government reserves and private land.

The Rockingham-Becher Plain on which these wetlands mainly occur was formed through the deposition of beach sands by the ocean during the past 10,000 years—known as the Holocene period. These dunes and swales are of great interest in the study of landforms and the processes that shape them. They provide a record of how the wetlands have developed, from the older dunes further inland, to the younger soils closer to the coast that were deposited more recently along the shoreline. The wetlands

also provide an insight into the evolutionary record of sea level history, shoreline and climatic changes.

The typical wetland where this community occurs is a dampland—in winter it becomes waterlogged, and in summer it remains quite wet near the soil surface. Some of the wetlands contain surface water during the winter months and are known as sumplands.

Typical flora in the community include the shrubs climbing lignum (*Muehlenbeckia adpressa*), orange wattle (*Acacia saligna*) and balga (*Xanthorrhoea preissii*); the sedges bare twig-rush (*Baumea juncea*) and knotted club-rush (*Ficinia nodosa*), and the grass *Poa porphyroclados*. One sub-set of this community includes trees such as swamp banksia (*Banksia littoralis*), melaleucas and tuart (*Eucalyptus gomphocephala*).

This sedgeland is only known from a total of about 180 hectares, of which a small area is in protected reserves. The community is under threat from

clearing and a decline in water levels and quality resulting from the drying climate and adjacent land uses such as residential developments, golf courses, heavy industry and grassed sporting grounds. While this community is relatively resilient, too frequent hot fires have a big impact and encourage weed invasion. One of the worst weeds in the community is Geraldton carnation weed (*Euphorbia terracina*)—a very invasive, toxic species. Fortunately, recent research indicates that this weed can be controlled with special herbicides that have minimal impact on the sedgelands.

The Department of Environment and Conservation has developed a recovery plan and set up a recovery team for the community that includes local stakeholders. Actions include managing groundwater levels and quality, managing fire, controlling weeds and fencing. Together, such work will help ensure the future protection of these very special wetlands.

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Executive editor Madeleine Clews.
Editors Joanna Moore, Samille Mitchell.
Scientific/technical advice Kevin Thiele, Paul Jones, Keith Morris, Chris Simpson.
Design and production Natalie Jolakoski, Peter Nicholas, Tiffany Taylor, Lauren Wright, Gooitzen van der Meer.
Illustration Gooitzen van der Meer.
Cartography Promaco Geodraft.
Marketing Cathy Birch.
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