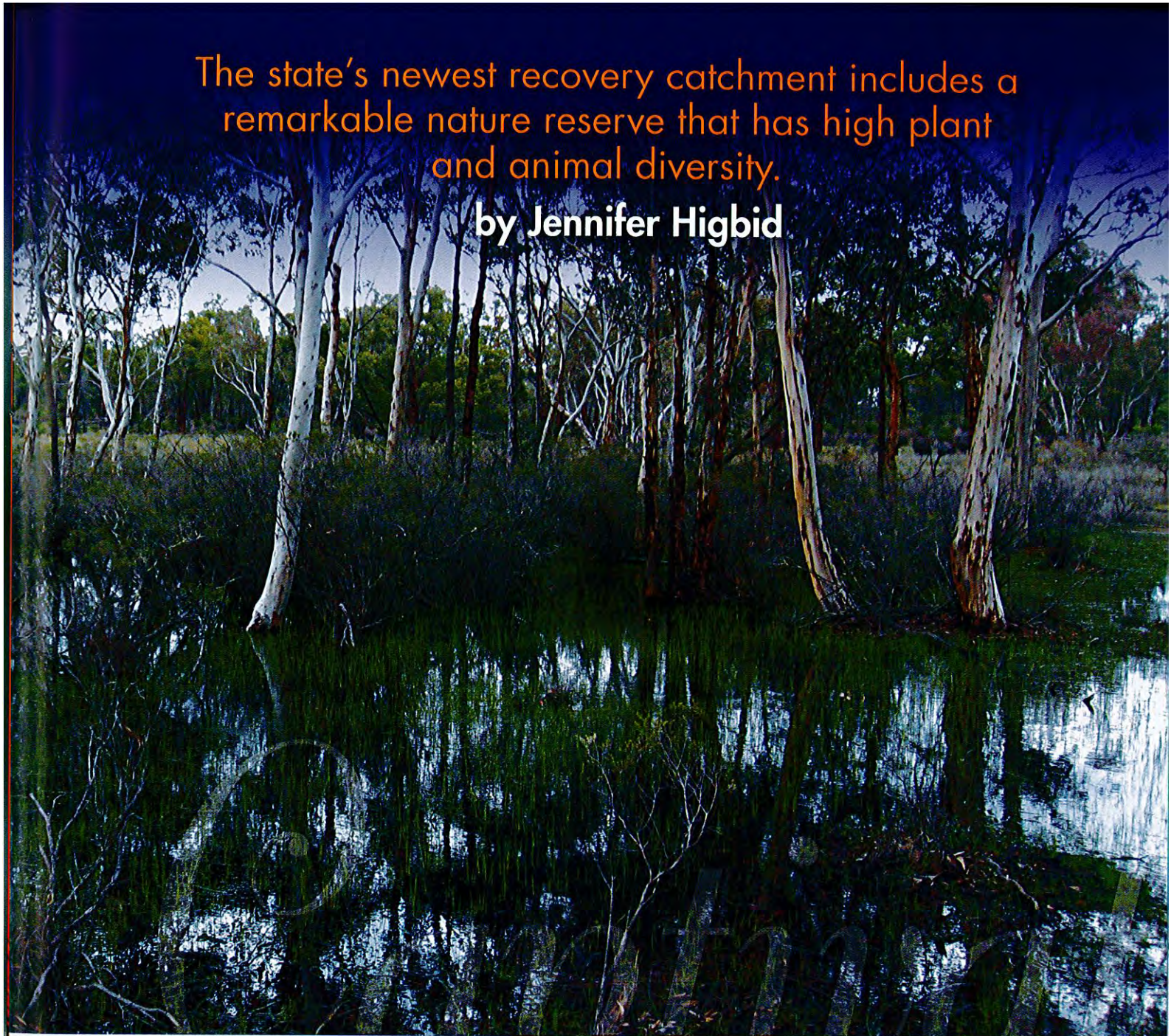


Captivating
claypans

Drummond Natural Diversity
Recovery Catchment

The state's newest recovery catchment includes a remarkable nature reserve that has high plant and animal diversity.

by Jennifer Higbid



The Drummond Natural Diversity Recovery Catchment (NDRC), 100 kilometres north-east of Perth, is the state's sixth and smallest recovery catchment. The NDRC program is a state government initiative under the *State Salinity Strategy* that aims to protect regionally significant, high priority biodiversity assets, especially wetlands, at risk from secondary salinisation. While the primary goal of recovery catchments is biodiversity conservation, the NDRC program also investigates and implements solutions to combat salinisation throughout the agricultural region. The Department of Environment and Conservation (DEC) is responsible for implementing the NDRC program and will shortly release

a recovery plan for the Drummond NDRC.

Recovery catchments are selected for their representative biological communities and related physical diversity, together known as 'natural diversity'. The other recovery catchments in Western Australia are the Toolibin Lake, Buntine-Marchagee, Lake Bryde, Muir-Unicup and Lake Warden wetland complexes. The Drummond NDRC is recognised for various important attributes, including the high biodiversity values of Drummond Nature Reserve, its potential to be a demonstration recovery catchment close to Perth and its location in a biogeographic zone not represented by other recovery catchments.

Opposite page

Robin redbreast bush (*Melaleuca lateritia*) is one species found in the Drummond Natural Diversity Recovery Catchment.

Photo - Andrew Davoll/Lochman Transparencies

Above Drummond Nature Reserve.

Photo - Matt Forbes

A rich reserve

Drummond Nature Reserve sits in the southern half of the recovery catchment and was named after the first government botanist, James Drummond, who lived nearby at the property 'Hawthornden' in the Toodyay valley. The reserve covers 439 hectares and consists of different soil landscape units, such as lateritic ridges, gravelly slopes, clay soils and deep sands.



Above Claypan in the Drummond NDRC.
Photo – Ken Wallace/DEC

Above right *Liparophyllum capitatum*.
Photo – Jennifer Higbid/DEC

Below right Drummond claypan.
Photo – Ken Wallace/DEC



The varied soil types, topography and drainage have contributed to the high diversity of vegetation communities within the reserve. Ten vegetation units have been identified in Drummond Nature Reserve, including wandoo woodland, banksia woodland, marri woodland, granite heath and the claypan community '*Melaleuca lateritia* shrubland over herbs'.

The recovery catchment is a long-established farming area and land clearing has caused the salt stored in the soil to mobilise. The valley floors of Drummond Nature Reserve are at risk from this salt which enters the reserve as rising saline groundwater and saline surface water flows from the surrounding catchment. In light of this threat, the two freshwater claypan wetlands within the reserve are the focus of management within the recovery catchment. One of the claypans is also at risk from weed seeds entering the reserve during high rainfall.

Claypan wetlands

The freshwater claypans of the reserve are important examples of wetland types that are now rare

in the Wheatbelt. The claypans are seasonal—they generally fill in winter from rainfall and local surface water inflows, and are dry by summer. The magic of the claypans is revealed when the surface water recedes and a multitude of herbaceous plant species start to germinate and then flower. The claypans also support the priority ecological community '*Melaleuca lateritia* shrubland over herbs', a number of declared rare and priority flora, and some rare and interesting aquatic invertebrates.

Another priority ecological community located within the reserve—'wandoo woodland over dense low sedges'—is also at risk from secondary salinisation and further hydrological investigations will be undertaken to determine the level of threat to this community.

Recovery plan

The recovery planning process has involved consultation and input from the community and key stakeholders, particularly through the Drummond NDRC advisory committee. Planning and on-ground works within the recovery catchment to date have focused on research and monitoring, revegetation, protection of remnant vegetation, alternative farming practices and capacity building.

The task of determining the best way to protect the priority biodiversity assets within the Drummond NDRC

calls for a robust and adaptive planning process. Much has been learnt over the many years of management within recovery catchments (see 'Protecting our precious wetland systems', *LANDSCOPE*, Autumn 2012) and the current planning process links community values, goals and biodiversity assets with management actions and monitoring.

Reversing the impacts of land clearing in an agricultural setting is a complex and long-term task that requires the implementation of a suite of solutions. Management within the Drummond NDRC is now underway and implementation of the recovery plan will assist land managers to protect these most captivating claypans.



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The Drummond Natural Diversity Recovery Catchment: Recovery Plan 2011–2031 and supporting information can be downloaded from www.dec.wa.gov.au.

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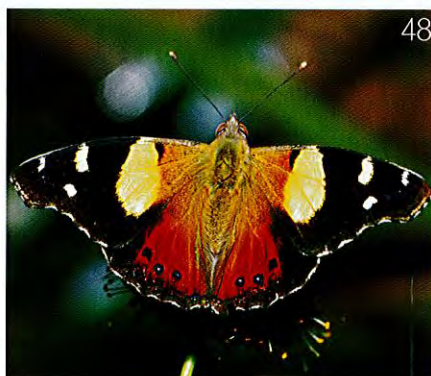
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