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**Weed control followed by summer wild fire facilitates restoration of seasonal clay-based wetlands in south-west Australia**

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The plant communities of seasonal clay-based wetlands of south-west Australia are amongst the most threatened in Western Australia and have recently been listed under the commonwealth Environmental Protection and Biodiversity Conservation Act as critically endangered. Over 90% have been cleared for agriculture and urban development and weed invasion is a major threat to those that remain. The South African geophyte, *Watsonia meriana* var. *bulbillifera*, is particularly invasive within these communities forming dense monocultures displacing the diverse herbaceous understorey.

Meelon Nature Reserve, a remnant clay-based wetland on the Pinjarra Plain 200 km south of Perth, has been the focus of a six year adaptive management project investigating the response of the native plant community to *W. meriana* var. *bulbillifera* removal, the selectiveness of the herbicide 2-2DPA (Dalapon, Propon) and the role of summer wild fire in the restoration of the native plant community.

Between August 2005 and August 2008, 90 1 m x 1 m plots along fifteen permanently marked transects were established and species composition and cover recorded each year within each of three treatments until August 2011. The treatments included pre fire *W. meriana* var. *bulbillifera* control, post fire *W. meriana* var. *bulbillifera* control and an untreated control site. Six years after the initial treatment indications are that plant communities of the seasonal clay based wetlands of south-west Australia have the capacity to recover following major weed invasion and that summer wild fire can play a role in the restoration process. Implications for the management of clay-based wetlands across south-west Australia will be discussed.