

WOODLANDS OF THE SWAN COASTAL PLAIN (Eastern side)

Threatened Ecological Communities of Western Australia

Three unique woodlands occur on heavy soils between Waterloo (near Bunbury) and Bullsbrook. These woodlands contain particular associations of plant species that have been extensively cleared. They are believed to have been some of the most extensive communities on the eastern side of the Swan Coastal Plain, but through widespread clearing they are now rare and have been listed as 'Threatened Ecological Communities'. As only about 100 hectares remains of each of the woodland communities, and because of the level of threats to them, they have been ranked as Critically Endangered.

Marri (*Eucalyptus calophylla*) dominates two woodland communities of the eastern side of the Swan Coastal Plain. The wettest of these sites is dominated by marri and kingia (*Kingia australis*). The community is named '*Eucalyptus calophylla*—*Kingia australis* woodlands on heavy soil', but is sometimes called Swan Coastal Plain Community type 3a. Other key species in this community are couch honeypot (*Dryandra lindleyana*), pepper and salt (*Philotheca spicata*), balga (*Xanthorrhoea preissii*) and several species of herbs.

The driest of the marri communities is dominated by marri and balgas. The community is named '*Eucalyptus calophylla*—*Xanthorrhoea preissii* woodlands and shrublands', but is sometimes called Swan Coastal Plain Community type 3c. This community can also include the occasional wandoo (*Eucalyptus wandoo*), and usually contains prickly moses (*Acacia pulchella*), couch honeypot, margin-leaf pea (*Gompholobium marginatum*), white myrtle (*Hypocalymma angustifolia*) and herbs.

The third of these woodlands, occurs on the transitional landform and soil zone between the Darling Scarp and the Swan Coastal Plain. It is described as the 'eastern shrublands and woodlands' but is sometimes called Swan Coastal Plain Community type 20c. The community occurs sometimes as a shrubland, or can be a woodland of slender banksia (*Banksia attenuata*) and firewood banksia (*Banksia menziesii*), sometimes with sheoak (*Allocasuarina fraseriana*). The shrub layer usually includes common woollybush (*Adenanthos cygnorum*), *Hibbertia huegelii*, dwarf sheoak (*Allocasuarina humilis*), common brown pea (*Bossiaea eriocarpa*), yellow buttercups (*Hibbertia hypericoides*) and blueboy (*Stirlingia latifolia*). Foxtail mulga grass (*Neurachne alopecuroidea*) and a suite of herbs and sedges also usually occur in the community.

The major threat to all three woodland communities is clearing, as there are very few (or none in the case of community types 3a and 20c) occurrences found in secure conservation reserves. Other threats include weed invasion, dieback caused by the plant pathogens *Phytophthora* species, too frequent fire, illegal



Community type 3a (marri -*Kingia australis* woodlands on heavy soils) in Kenwick.



Occurrence of community type 3c (marri-*Xanthorrhoea preissii* woodlands on heavy soils) in Swanview.



Community type 20c (eastern shrublands and woodlands) in Swanview.
Photos – Val English

rubbish dumping and changes to local hydrology caused by clearing in the catchment.

For further information please contact the Department's Swan or South West Region offices on (08) 9368 4399 and (08) 9725 4300.

Recovery of threatened ecological communities



The Department of Conservation and Land Management (the Department) is committed to ensuring that Critically Endangered Ecological Communities are not totally destroyed. This is done through the preparation of an Interim Recovery Plan (IRP), which outlines the recovery actions that are required to urgently address those threatening processes most affecting the ongoing survival of threatened ecological communities in the wild and begin the recovery process.

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The Department has set up Threatened Flora and Communities Recovery Teams for the Swan and Central Forest Regions to coordinate the implementation of recovery actions that address the greatest threats to the survival of the woodland communities in the wild. Recovery Teams consist of representatives from the Department, community groups, private landowners, local shires and various government agencies. Recovery actions that have been, and will be, progressively implemented to protect the threatened ecological communities include:

Protection from current threats:

Weed control; rubbish removal; fencing; conducting further surveys; and regular monitoring of the health of each community.

Protection from future threats:

The development of strategies to manage fire; acquiring areas as conservation reserves; rehabilitation; ensuring that all relevant people are aware of the community's presence and the need to protect it, and that all are familiar with the threats identified in the Interim Recovery Plan.



Weed infestations in community type 3a (marri-*Kingia australis* woodlands on heavy soils) in Wungong. Photo – Robyn Phillimore



Mounds of dumped soil in community type 3a (marri-*Kingia australis* woodlands on heavy soils) in Wungong. Photo – Robyn Phillimore

IRPs will be deemed a success if there is an increase in the area and/or number of occurrences of the communities under conservation management, the diversity and composition of native species and processes are maintained, and there is reduction in the numbers of exotic species and threatening processes.



Occurrence of community type 3a in Forrestfield showing *Kingia australis* in foreground. Photo – Val English

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