

PROPOSED THREATENED ECOLOGICAL COMMUNITY

**Woodlands and shrublands of the alluvial soils of the upper Blackwood River
(Condinup and Darkan 5f soil-landscape sub-systems)**

Vegetation associations and draft species list

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Wet shrubland and Jarrah-Marri woodland in Asplin Bridge reserve near Boyup Brook

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December 2005

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Introduction

Most of the comparatively fertile soils of the alluvial flats adjoining the upper Blackwood River (here taken to be upriver from Winnejuip) were cleared by the early part of the 20th century. These soils, belonging to the Newlgalup footslopes, Condinup and Darkan 5f soil-landscape sub-systems (Tille, 1996, Percy, 2000), include loamy gravels and sands, grey-brown sands and loams, yellow sandy earths, yellow or brown deep sands, brown loamy earths, grey deep sandy duplex, saline and non saline wet soils (poorly drained clays and sands). Their original vegetation of the alluvial flats has apparently not been described in detailed vegetation surveys. On better drained soils it consisted of Jarrah-Marri (*Eucalyptus marginata-Corymbia calophylla*) forest and Flooded Gum (*E. rudis*) woodland along the western sections of the upper Blackwood to Wandoo (*E. wandoo*) and Flooded Gum woodland in the east. Poorly drained soils carried Paperbark (*Melaleuca priessiana* and *M. raphiophylla*) low open woodland and *Melaleuca* closed scrub and Myrtaceous open heath (Smith, 1974).

The recently published report on the Biodiversity Survey of the Agricultural Zone (Keighery *et al.*, 2005) provided much needed information on the remnant vegetation of the most heavily cleared area of the State. However the survey did not include any areas along the alluvial flats of the Blackwood. Initial comparison of the species composition of 10 m x 10 m quadrats placed in the alluvial flats vegetation at Wild Horse Swamp and Asplin Bridge reserve shows it to be quite different to any recorded in non-wetland quadrats of the Biodiversity Survey of the Agricultural Zone. It is closer to, but generally still quite distinct from, several quadrats sited in Wandoo woodland on valley floors in the eastern part of the Jarrah Forest Bioregion between Bowelling and Boyup Brook (R.S. Smith, unpublished).

Further survey of the eastern Jarrah Forest Bioregion during 2006, and more comprehensive species lists for Asplin Bridge reserve and Wild Horse Swamp will be used to further characterize the vegetation.



Vernal pool in Wild Horse Swamp Nature Reserve



Wandoo woodland in Asplin Bridge reserve

Species lists

Asplin Bridge Reserve (CR26598)

Adjacent to the Blackwood River 10 km NE of Boyup Brook. Approximately 20 ha of remnant vegetation in good to very good condition. Blackwood Valley (253Bv) soil-landscape, Condinup (253BvCP sub-system) and the Condinup 2 (CP2) vegetation complex (Mattiske and Havel). Partial species list based on quadrats surveyed in November 2005.

Wet shrublands on alluvial clay flats

Acacia extensa
Acacia saligna
Allocasuarina humilis
Caesia (RSS 1108)
Chorizandra enodis
Drosera gigantea
Haemodorum simplex
Hakea varia
Hypocalymma angustifolium
Lepidosperma squamatum
Melaleuca viminea (RSS 1097)
Neurachne alopecuroidea
Stylidium crassifolium
Stylidium uniflorum
Synaphea (RSS 1099)
Tricoryne (RSS 1105)

Jarrah-Marri woodlands on alluvial grey-brown loams

Native species

Acacia saligna
Agrostocrinum (RSS 1107)
Austrostipa mollis
Austrostipa campylachne
Caesia (RSS 1108)
Corymbia calophylla
Eucalyptus marginata
Lepidosperma tenue
Mesomelaena tetragona
Patersonia umbrosa var. *umbrosa*
Scaevola (RSS 1104)
Sollya heterophylla (RSS 1098)
Sowerbaea laxiflora
Stypandra glauca
Synaphea (RSS 1107)
Tricoryne (RSS 1105)
Xanthorrhoea gracilis

Exotic species

**Anagallis arvensis*

- **Briza maxima*
- **Monodenia bracteata*

Wandoo woodlands on alluvial grey-brown clay-loams

Native species

- Acacia saligna*
- Austrodanthonia caespitosa*
- Austrostipa mollis*
- Austrostipa campylachne*
- Caesia* (RSS 1108)
- Chorizandra enodis*
- Desmocladius fascicularis*
- Drosera gigantea*
- Eucalyptus wandoo*
- Haemodorum simplex*
- Hakea prostrata*
- Hakea varia*
- Hibbertia commutata*
- Mesomelaena tetragona*
- Neurachne alopecuroidea*
- Patersonia umbrosa* var. *umbrosa*
- Podolepis gracilis* (RSS 1106)
- Microlaena stipoides*
- Scaevola* (RSS 1109)
- Sowerbaea laxiflora*
- Stylidium* (RSS ????)
- Stylidium crassifolium*
- Synaphea* (RSS 1099)
- Synaphea* (RSS 1107)
- Tricoryne* (RSS 1105)
- Xanthorrhoea preissii*

Exotic species

- **Aira cupaniana*
- **Briza maxima*
- **Briza minor*
- **Isolepis marginata*
- **Parentuclia latifolia*
- **Vulpia bromoides*

Wild Horse Swamp Nature Reserve

Adjacent to the Blackwood and Arthur rivers 35 km NE of Boyup Brook. Approximately 265 ha of remnant vegetation in good to very good condition (with a further 50 ha in private property adjacent). Darkan (253Dk) soil-landscape and Darkan 5f (Dk5f) vegetation complex (Mattiske and Havel). Partial species list based on quadrats surveyed in October 2005.

Flooded Gum-Wandoo woodlands on alluvial grey clays (includes vernal pools)

Native species

Acacia acuminata
Aphelia drummondii
Caesia occidentalis
Centrolepis aristata
Chorizandra enodis
Cotula coronopifolia
Diuris laxiflora
Drosera macrantha
Eucalyptus rudis
Eucalyptus wandoo
Isolepis inundata
Lachnagrostis filiformis
Lepidosperma sp.
Melaleuca viminea
Myriocephalus occidentalis
Neurachne alopecuroidea
Podolepis gracilis
Polypogon tenellus
Rhodanthe pyrethrum
Siloxerus humifusus
Sowerbaea laxiflora
Stylidium crassifolium
Stylidium uniflorum
Tribonanthes longipetala
Tricoryne humilis
Utricularia benthamii
Utricularia multifida
Velleia trinervis

Exotic species

**Anagallis arvensis*
**Arctotheca calendula*
**Briza maxima*
**Briza minor*
**Lotus angustissimus*
**Oxalis pes-caprae*
**Parentucelia latifolia*
**Romulea rosea*
**Vulpia bromoides*

Wandoo woodlands on grey sandy loams

Native species

Austrostipa semibarbata
Chamaescilla corymbosa
Drosera glanduligera
Eucalyptus wandoo
Gastrolbium calycinum
Haemodorum simplex
Hakea lissocarpha
Hakea prostrata
Harperia lateriflora
Hyalosperma cotula
Hypocalymma angustifolium
Isolepis nodosa
Lagenophora huegelii
Lepidobolus preissianus
Lepidosperma squamatum
Neurachne alopecuroidea
Podolepis gracilis
Podolepis lessonii
Ptilotus ?manglesii
Siloxerus ?humifusus
Sowerbaea laxiflora
Trachymene pilosa
Xanthorrhoea preissii

Exotic species

**Aira cupaniana*
**Anagallis arvensis*
**Arctotheca calendula*
**Briza maxima*
**Chenopodium album*
**Ehrharta longifolia*
**Erodium cicutarium*
**Hypochaeris glabra*
**Monodenia bracteata*
**Parentuclia latifolia*
**Petrorhagia velutina*
**Polypogon monspeliensis*
**Silene gallica*
**Ursinia anthemoides*
**Vulpia bromoides*

Jarrah woodland on sandy rises (only partly surveyed)

Eucalyptus marginata
Banksia grandis
Banksia attenuata
Jacksonia sternbergiana
Nuytsia floribunda

References

- Percy, H., 2000. Katanning Area Land Resources Survey, Western Australian Department of Agriculture, Land Resources Series No. 16.
- Tille, P.J., 1996, Wellington-Blackwood Land Resources Survey, Western Australian Department of Agriculture, Land Resource Series, No. 14.
- Smith, F.G., 1974. Vegetation map of Collie, Vegetation Survey of Western Australia, Western Australian Department of Agriculture.