

Introduction to National Ecological Communities endemic to Western Australia

Most of the eucalypt woodlands within the arid and semi-arid region of WA are found within the eastern Goldfields region, mainly the Coolgardie IBRA region. Towards the north of the eastern Goldfields, the so-called mulga-eucalypt line marks the transition between *Eucalyptus* woodlands to the south and *Acacia* shrublands to the north (figure 1; Burbidge et al. 1995). The climate is arid to semi-arid with 200-300 mm of rainfall, sometimes in summer but usually in winter (Cowan, 2003a).



Photo: Grant Pronk – Forest Products Commission

Figure 1: Eucalypt woodlands of the Eastern Goldfields merging into mulga shrublands.

Within the Coolgardie IBRA region, there is an exceptionally high diversity of *Eucalyptus* species with as many as 170 species occurring in the bioregion (Cowan, 2003a). Many of these species are endemic to Western Australia and endemic to the Goldfields region. Most form mallee communities and thus are excluded here.

Five main associations or national ecological communities for eucalypt woodlands were identified from the NVIS mapping at a scale of 1:250,000. This is based on the vegetation mapping by J. S. Beard. These NECs were classified according to similar floristic associations, soil types, landforms and threatening processes. The communities within these NECs are endemic to Western Australia.

- NEC 1.8: Woodlands of *E. salmonophloia* and *E. salubris* of the arid and semi-arid regions of Western Australia
- NEC 1.9: Woodlands of *E. lesouefii*, *E. dundasii* and *E. torquata* of the arid and semi-arid regions of Western Australia
- NEC 1.10: Woodlands of *E. longicornis* of the arid and semi-arid regions of Western Australia
- NEC 1.11: Woodlands of *E. loxophleba* of the arid and semi-arid regions of Western Australia
- NEC 1.12: Woodlands of *E. flocktoniae* and *E. transcontinentalis* in the arid and semi-arid regions of Western Australia

In addition, the following NECs were identified from the biological surveys of the eastern Goldfields region. These do not appear as eucalypt woodlands in the current NVIS data due to the broad scale of mapping:

- NEC 1.13a: Low woodlands of *E. formanii* of the arid and semi-arid regions of Western Australia
- NEC 1.13b: Low woodlands of *E. melanoxydon* of the arid and semi-arid regions of Western Australia

There are a number of rare eucalypt species that occur within this region that may not be covered here. These are generally restricted in distribution and may not form woodland communities. The aim of this report was to describe woodland communities of the arid zone, not to produce an exhaustive list of eucalypt species for the arid zone. The priority species listed below may form woodlands within this region, but little data is available to assess them. These warrant further investigation. For example, *Eucalyptus fraseri* is reported to form woodlands in the Norseman – Balladonia region (Hall and McKenzie, 1993).

Table 1: Rare or priority eucalypt species in the Coolgardie IBRA region (excluding mallees). Data extracted from the Florabase database (WA Herbarium).

Species	Conservation status
<i>Eucalyptus brockwayi</i>	Priority 4
<i>Eucalyptus fraseri</i>	Priority 2
<i>Eucalyptus georgei</i> ssp. <i>fulgid</i>	Priority 4
<i>Eucalyptus georgei</i> ssp. <i>georgei</i>	Priority 4
<i>Eucalyptus pterocarpa</i> ssp. <i>obtus</i>	Priority 1
<i>Eucalyptus pterocarpa</i> ssp. <i>pterocarpa</i>	Priority 4

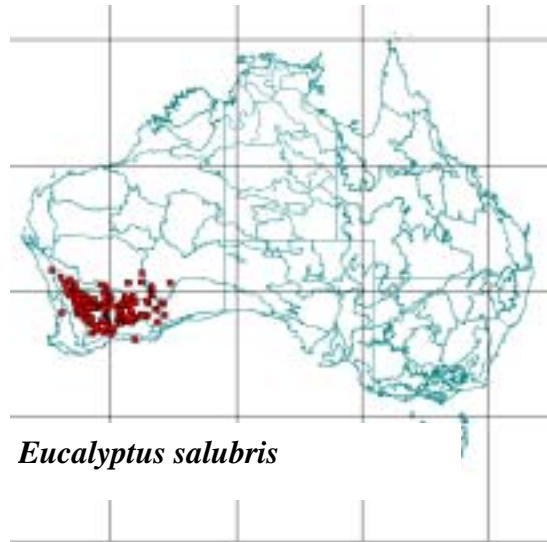
A summary of the history of timber harvesting in this region and current threatening processes is provided within each NEC description.

The two following appendices contain maps of species distributions (Appendix A) and lists of rare and priority flora (Appendix B). These will be referred to throughout the WA NECs 1.8 – 1.13.

Appendix A

Maps illustrating distribution of selected Eucalyptus species in Western Australia

Distribution maps are from the Australia's Virtual Herbarium (website: <http://avh.calm.wa.gov.au/cgi-bin/avh.cgi>). IBRA regions are outlined in blue.

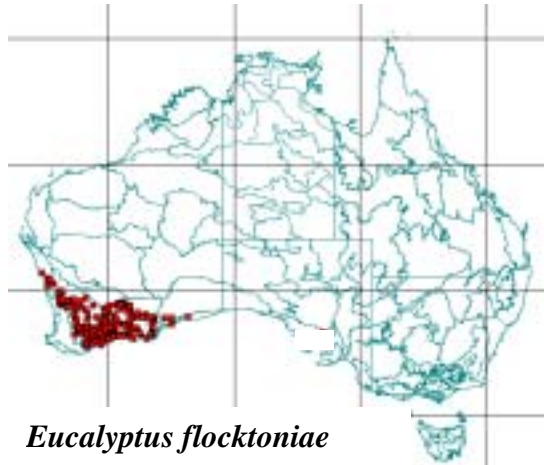


Eucalyptus salmonophloia

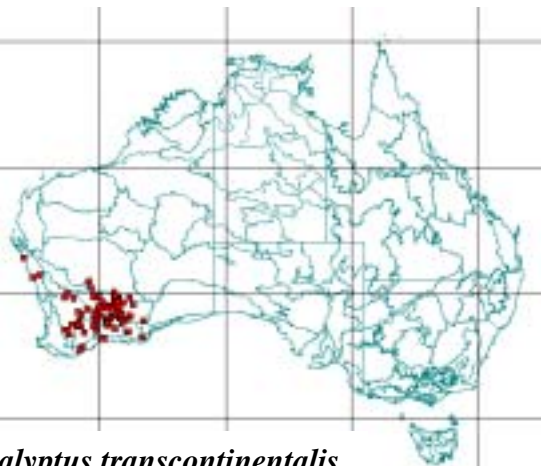




Eucalyptus torquata



Eucalyptus flocktoniae



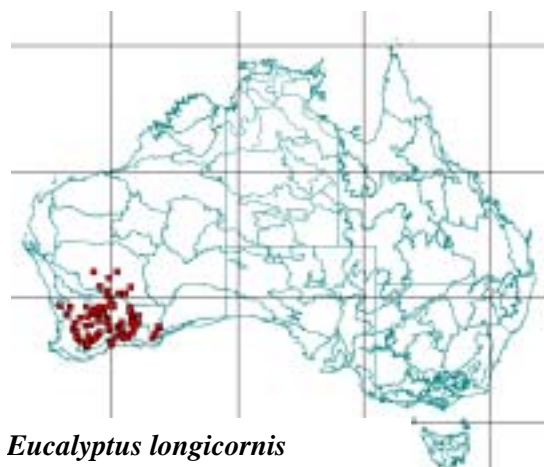
Eucalyptus transcontinentalis



Eucalyptus loxophleba



Eucalyptus wandoo



Eucalyptus longicornis