

Nomination of the Central Gippsland Plains Grassland in the South East Coastal Plain Bioregion to be listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

The generally accepted name (if any) of the ecological community:

The generally accepted name of the ecological community is the Central Gippsland Plains grassland of the South East Coastal Plain (the community). The community has been described in the Department of Environment & Heritage's assessment - Natural Temperate Grassland (Oberon *et al.* 2003). According to Oberon *et al.* (2003) this name follows the Threatened Species Scientific Committee's guidelines for naming national ecological communities. It incorporates the major vegetation type and the geographic location.

A description of the ecological community that is sufficient to distinguish it from any other ecological community, including:

(i) Its biological and non-biological components:

Biological components

Dominant grasses

Austrodanthonia laevis

Austrodanthonia semiannularis

Poa labillardierei

Themeda triandra

Common Herbs

Chrysocephalum apiculatum

Caesia calliantha

Carex breviculmis

Diuris punctata sens. lat.

Hemarthria uncinata

Hypoxis hygrometrica

Juncus subsecundus

Oxalis exilis

Pentapogon quadrifidus

Poa clelandii

Schoenus apogon

Non-biological components

The community occurs on grey soils that are often seasonally waterlogged and derive from Upper Pleistocene alluvium of poorly drained, heavy clays. Mean annual rainfall is less than 650 mm (Oberon *et al.* 2003).

(iii) Its known natural distribution, including the bioregions where it occurs:

Current distribution

The community occurs in the South East Coastal Plain Bioregion as described by Oberon *et al.* (2003). The remaining extent of the community covers between 13.5 ha and 25 ha. This occurs between Seaspray and Welshpool and the head of Western port Bay (Oberon *et al.* 2003).

Almost all of the remaining community occurs on public land. Small patches occur on rail lines and in local cemeteries and roadsides. Small patches also occur east of Lakes Entrance and in the south-eastern suburbs of Melbourne. A single patch of the community occurs on French Island in Westernport Bay (Oberon *et al.* 2003).

Past distribution

It is estimated that the pre-European extent of grasslands in the South East Coastal Plain was 60 000 ha and stretched from Melbourne in the west to Lakes Entrance in the East. It is believed that the pre-European grassland is actually extinct and the remaining grassland is derived from woodlands.

Category for which the ecological community is nominated under the EPBC Act:

This community is being nominated as critically endangered.

Justification for this nomination

The Department of Environment & Heritage's Natural Temperate Grassland assessment by Oberon *et al.* (2003) proposes the conservation status under the EPBC Act as critically endangered.

(1) Very severe decline in geographic distribution

Only between 13.5ha and 25 ha of the community remains. This amounts to only 0.0002 and 0.0004% of the 60 000 ha original extent of grasslands on the Gippsland Plains. Prior to European settlement, the South East Coastal Plain region contained about 60 000 ha of native grassland and about 120 000 ha of savannah woodland, mostly dominated by Forest Red Gum (*Eucalyptus tereticornis*). The original areas of native grassland have now been completely destroyed for irrigation, but about 99.5 percent of the original savannah woodland was converted to farmland. For over 100 years the latter was therefore subjected to varying land management regimes.* As a result, intact remnants of the original savannahs now comprise two distinctive communities:

- (1) *Themeda* grasslands (the subject of this nomination), and
- (2) Forest Red Gum Woodlands (the subject of a separate nomination).

(2) Very restricted geographic distribution coupled with demonstrable threat:

The major threats to the community, as described by Oberon *et al.* (2003), are isolation; weed invasion; inappropriate fuel reduction techniques; lack of burning; overgrazing; and roadside tree planting.

The Central Gippsland Plains Grassland is listed as a threatened community on Schedule 2 of the Victorian *Flora and Fauna Guarantee Act 1988*. In their Final Determination, the Victorian Scientific Advisory Committee (SAC) (1992) recognised that future threats likely to lead to the extinction of the community were changes in V/Line rail maintenance and changes in cemetery maintenance and use; stock grazing and reduction in fire frequency; and inappropriate tree planting programs.

The SAC (1992) also concluded that the “majority of remnants are not fenced and are grazed by stock; the community requires burning programs to maintain its integrity; most sites are not managed primarily for conservation purposes”, and that the “rarity of the community made it susceptible to environmental catastrophes”.

Summary

* (1) tree removal, burning about every three years, and an absence of grazing by native or exotic mammals, or (2) timber harvesting, sometimes followed by dense regeneration, infrequent or no burning, and regular grazing, by sheep and/or native mammals (particularly Eastern Grey Kangaroos).

Due to the decline in geographic distribution and current threats, this community fulfils the criteria to be listed as critically endangered under the EPBC Act. [REDACTED] originally nominated the community in 1999. This nomination was rejected in 2001, pending a broadscale assessment from the Department of Environment & Heritage. The assessment has been carried out by Oberon *et al.* (2003) and the community was identified as critically endangered.

References to any scientific literature that supports the other information given in the nomination:

Aldrick, J.M., Hook, R.A., van de Graaf, R.H.M., Nicholson, B.M., O'Beirne, D.A. and Schoknecht, N.R. (1988). *A Study of the Land in the Catchment of the Gippsland Lakes*. Department of Conservation, Forests and Lands: Melbourne.

Cheal, D.C., Lau, J.A., Robinson, R.W., Ellis, J.E. and Cameron, D.G. (in prep.), *Vegetation Survey and Sites of Botanical Significance in the Melbourne Area*. Department of Conservation and Environment: Melbourne.

Flora and Fauna Guarantee Act Scientific Advisory Committee (1992) *Final Recommendation on a Nomination for Listing Central Gippsland Plains Grassland Community*

Gullan, P.K., Walsh, N.G. and Forbes, S.J. (1981), Vegetation of the Gippsland Lakes Catchment. *Muelleria* **4**: 333-383.

Land Conservation Council Victoria (1982), *Report on the Gippsland Lakes Hinterland Area*. Government Printer: Melbourne.

Stuwe, J. (1986), *An Assessment of the Conservation Status of Native Grasslands on the Western Plains, Victoria and Sites of Botanical Significance*. Arthur Rylah Institute for Environmental Research Technical Report Series No. 48, Department of Conservation, Forests and Lands: Melbourne.

Stuwe, J. and Parsons, R.F. (1977), *Themeda australis* grasslands on the basalt plains, Victoria: floristic and management effects. *Australian Journal of Ecology* **2**: 467-476.

Oberon C., Murphy A. M. and Cheal D. (2003), *Natural Temperate Grassland*. Arthur Rylah Institute for Environmental Research, Department of Natural Resources & Environment – funded by the Department of Environment & Heritage.

[REDACTED] (1991). *Grasslands and grassy woodlands of the Yarram district*. Unpublished FFG Nomination.