



FLORA AND FAUNA GUARANTEE - SCIENTIFIC ADVISORY COMMITTEE

FINAL RECOMMENDATION ON A NOMINATION FOR LISTING

Sedge-rich *Eucalyptus camphora* Swamp Community

Date of receipt of nomination: 8 June 1994
Date of preliminary recommendation: 10 June 1994
Date of final recommendation: 20 October 1994

File No. 94/2178

Validity:

The nomination is for a valid item and the prescribed information was provided.

The nominated community is accepted by the SAC as a valid community because it is adequately defined and described according to accepted practice, and it is described in such a way as to be distinguished from all other communities.

The community typically features a canopy of Mountain Swamp Gum (*Eucalyptus camphora*) of moderate cover (20-50%). The shrub stratum is sparse and dominated by Woolly Tea-tree (*Leptospermum lanigerum*) and an understorey of diverse sedges and rushes including Fen Sedge (*Carex gaudichaudiana*), Tassel Sedge (*C. fascicularis*), Tall Sedge (*C. appressa*), Leafy Flat-sedge (*Cyperus lucidis*) and Soft Twig-sedge (*Bauema rubiginosa*), and grasses and herbs including Australian Gipsywort (*Lycopus australis*), Ridged Knotweed (*Persicaria strigosa*) and Showy Willow-herb (*Epilobium pallidiflorum*).

On sites subject to seasonal rather than permanent inundation, Soft Twig-sedge is usually absent whereas the drier-site Variable Sword-sedge (*Lepidosperma laterale* var. *majus*) is frequently co-dominant with the *Carex* spp. Blackwood (*Acacia melanoxylon*) and Slender Tussock-grass (*Poa tenera*) are also found in these sites. Where the community is associated with well defined stream beds or near permanent flowing water, Woolly Tea-tree forms a closed shrubland with scattered emergent Mountain Swamp Gum. Understorey species include, in addition to the sedges already listed above, species characteristic of seasonally inundated sites such as Wing Pennywort (*Hydrocotyle pterocarpa*), Small River Buttercup (*Ranunculus rivularis*) and Swamp Club-sedge (*Isolepis inundata*). Scented Paperbark (*Melaleuca squarrosa*) can be found co-dominant with Woolly Tea-tree in the lower reaches of ephemeral tributaries. In these areas, Mountain Swamp Gum has a cover of 5-20%.

The community varies in structure from an open woodland, an open grassy woodland to a closed shrubland, and where it has been highly disturbed, Common Reed (*Phragmites australis*) dominated grassland. Canopy height varies from about 6 to 25 meters (McMahon *et al.* 1991). The community definition is based on analysis of a two-way table sort on selected quadrats in the CNR flora database, and broadly represents a compilation of Sub-communities 1.1, 1.2, Communities 2.0 and 3.0 described by McMahon *et al.* (1991).

Eligibility for listing as a community under the Flora and Fauna Guarantee

The nominated item satisfies at least one criterion of the set of criteria prepared and maintained under Section 11 of the *Flora and Fauna Guarantee Act* 1988, and stated in Schedule 1 of the *Flora and Fauna Guarantee Regulations* 1991.

Evidence that criteria are satisfied:

Criterion 2.1 *The community is in a demonstrable state of decline which is likely to result in extinction.*

Evidence:

Approximately one third of the community has been cleared in the past for agriculture. Where clearing has been intensive, the canopy is now absent or sparse, and the areas are now *Phragmites australis* grassland, or dominated by *Phalaris*, clover and some native sedges. Artificial channelling within the community has altered the area's hydrology and resulted in a change in species dominance in the understorey.

McMahon *et al.* (1991) estimated that approximately 25-30% of the Yellingbo Reserve has suffered eucalypt dieback caused by psyllid infestation and Bell Miner (*Manorina melanophrys*) colonisation.

Criterion 2.2 *The community is significantly prone to future threats which are likely to result in extinction.*

Evidence:

The community is threatened by eucalypt dieback associated with psyllid infestation and colonisation by Bell Miners. McMahon *et al.* (1991) consider that the dieback is on-going and could potentially destroy the eucalypt canopy. Other threats include weed invasion, altered water regimes and a decline in water quality, recreational pressures, rubbish dumping and the encroachment of adjacent land uses.

A proposal to establish a sewage treatment plant discharging treated effluent into the Cockatoo Creek upstream of the community represents a potential threat.

Sub-criterion 2.2.1 *The community is very rare in terms of the total area it covers or it has a very restricted distribution or it has been recorded from only a few localities.*

Evidence:

The community is currently known from only one site, in and adjacent to, the Yellingbo State Nature Reserve. It is estimated that the total area occupied by the community is approximately 200 hectares. The existing community is linear in nature.

The data presented on distribution and abundance are the result of comprehensive surveys and provide clear evidence that the community is very rare in terms of abundance and distribution.

Background Information

- The main weed species of concern to the community are Grey Sallow (*Salix cinerea*), Creeping Buttercup (*Ranunculus repens*), Lesser Spearwort (*R. flammula*), and Cut-grass (*Leersia oryzoides*).
- The Helmeted Honeyeater (*Lichenostomus melanops cassidix*) and the Leadbeater's Possum (*Gymnobelideus leadbeateri*) are taxa listed under the *Flora and Fauna Guarantee Act 1988* which occur within the community. The only known breeding territories of the Helmeted Honeyeater occur within the community.
- The Swamp Skink (*Egernia coventryi*) (rare) and Lewin's Rail (*Rallus pectoralis*) (rare) (CNR 1993) have been recorded within the community. Other significant records from within the community include a large breeding population of Southern Emu-wren (*Stipiturus malachurus*), the only documented breeding population of Chestnut-breasted Mannikin (*Lonchura castaneothorax*), and the Spotless Crake (*Porzana tabuensis*), and Showy Willow-herb (depleted)(Gullan *et al.* 1990, unpubl. data).

Advertisement for public comment

In accordance with the requirements of Section 14 of the *Flora and Fauna Guarantee Act 1988*, the preliminary recommendation was advertised for a period of at least 30 days.

The preliminary recommendation was advertised in:

"The Age" - on 10 August 1994

"The Weekly Times" - on 10 August 1994

"The Lilydale and Yarra Valley Post" - on 9 August 1994

Government Gazette - on 25 August 1994

Submissions closed on 30 September 1994.

Further evidence provided:

No public comments were received by the Scientific Advisory Committee.

No evidence was provided to warrant a review of the Scientific Advisory Committee's preliminary recommendation that the community is eligible for listing.

Documentation

The published information provided to the SAC has been assessed. To the best of their knowledge, the SAC believes that the data presented are not the subject of scientific dispute and the inferences drawn are reasonable and well supported.

Final Recommendation of the Scientific Advisory Committee

The Scientific Advisory Committee concludes that on the evidence available the nominated item is eligible for listing in accordance with Section 11(1) of the Act because primary criteria 2.1 and 2.2 are satisfied.

The Scientific Advisory Committee also concludes that sub-criterion 2.2.1 has been satisfied and that no evidence exists to suggest that primary criterion 2.2 cannot be satisfied as a consequence of sub-criterion 2.2.1 being satisfied.

The Scientific Advisory Committee recommends that the nominated item be supported for listing on Schedule 2 of the *Flora and Fauna Guarantee Act 1988*.

Selected references:

Carr, G. W., McMahon, A. R. G. & Bedgood, S. E. (1987) *Environmental Effects Statement - Vegetation for the Proposed Copper Mine Development Benambra, North East Victoria*. Prepared for Kinhill Engineers Pty. Ltd., Melbourne.

Department of Conservation and Natural Resources (in prep.) *Draft Management Plan for Yellingbo State Nature Reserve*.

Gullan, P. K., Cheal, D. C. & Walsh, N. G. (1990) *Rare or Threatened Plants in Victoria*. Department of Conservation and Environment, Victoria.

McMahon, A. R. G. & Carr, G. W. (1991) *Vegetation Management of the Coranderrk Bushland, Healesville, Victoria*. A report prepared for the Healesville Sanctuary.

McMahon, A. R. G., Carr, G. W., Race, G. J., Bedgood, S. E., & Todd, J. A. (1991) *The Vegetation and Management of the Yellingbo State Nature Reserve with particular reference to the Helmeted Honeyeater Lichenostomus melanops cassidix*. A report prepared for the Department of Conservation and Environment.

McMahon, A. R. G. & Franklin, D. C. (1993) The significance of Mountain Swamp Gum for the Helmeted Honeyeater in the Yarra Valley. *Victorian Naturalist* 110(6): 230-237.

Endorsement by the Convenor of the Scientific Advisory Committee

Date



5 December 1994

Dr. Malcolm Calder
Convenor