

Action Statement

Flora and Fauna Guarantee Act 1988

No. 229

Swamp Everlasting *Xerochrysum palustre*

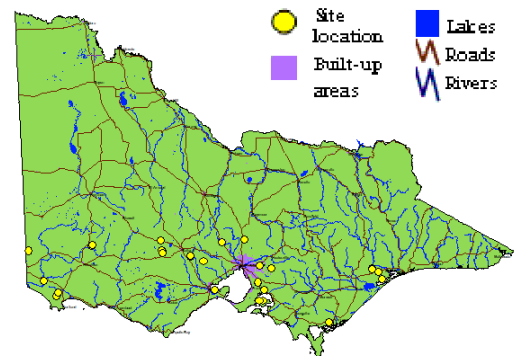
This Action Statement is based on a draft Recovery Plan prepared for this species by DSE under contract to the Australian Government Department of the Environment, Water, Heritage and the Arts.

Description

The Swamp Everlasting (*Xerochrysum palustre*, synonym: *Bracteantha palustris*) is a perennial, erect herb to 100 cm tall (Flann 1998). The leaves are narrow, alternate, sessile, lanceolate, and partially stem clasping, to 10 cm x 8 mm. The leaves are more or less hairless except for cobweb-like hairs along their margins (Flann 1998). The large yellow 'daisy flowers', up to 50 mm across, consist of numerous small, tubular florets in a central 'button', surrounded by a several series of numerous, overlapping, broad, papery bracts. They are borne at the ends of branches, and flowering occurs from November to March (Flann 1998). The fruit is a narrow, dry seed to 3 mm long, with a crown of yellow bristles about twice as long as the seed (DNRE 2001). *Xerochrysum palustre* differs from the closely related Orange Everlasting (*Xerochrysum subundulatum*) in having sparse to mid-dense arachnoid hairs for 5-15 cm below the capitulum, whereas the indumentum of *Xerochrysum subundulatum* is dense and extends all the way to the base (Flann 1998). *Xerochrysum palustre* tends to be taller (30-100 cm) than *Xerochrysum subundulatum*, and the leaves tend to be narrower. Although Flann (1998) reports that *Xerochrysum palustre* occurs only in wetlands below 500 m elevation, recent sightings have been made in boggy ground up to 1400 m, such as at the Cobberas in far eastern Victoria (N.G. Walsh, pers. comm.).

Distribution

Xerochrysum palustre occurs in Victoria, Tasmania and New South Wales within lowland swamps and wetlands, usually on black cracking clay soils (Walsh & Entwisle 1999). Scattered occurrences in Victoria range from the South Australian border in the west to the Cobberas, near Benambra, in the



Distribution in Victoria
(Flora Information System DSE 2007)

east. The scattered and sparse distribution of populations across Victoria is undoubtedly a legacy of extensive drainage of wetlands for agriculture.

Abundance

There are thousands of plants remaining in more than fourteen wild populations in Victoria.

Important populations

Important populations necessary to the long term survival and recovery of occur in the following locations:

<i>Land tenure</i>	<i>Reservation</i>	<i>Population</i>
Public	Conservation reserve	Barnbam Swamp (Cranbourne Swamp)
		Saplins Morass Flora & Fauna Reserve
		Blond Bay Wildlife Reserve
		Doling Doling Swamp L.R.
		French Island National Park
		Playgrounds area, Alpine National Park
Rail reserve		Lal Lal Rail Reserve
		Beveridge Rail Reserve
		South Gippsland Clyde Manks Road Rail Reserve
Recreation reserve		Gisborne Racecourse Reserve, Gisborne
Uncommitted		Gellions Run, south west of Yarram
Private		Chepstowe-Pittong Road, west of Snake Valley
		McCutchens Road Swamp, east of Cavendish

Habitat

Populations of *Xerochrysum palustre* occur in sedge-rich swamps and wetlands, usually on black cracking clay soils. Commonly associated taxa include Swamp Wallaby-grasses (*Amphibromus* spp.), Twig-sedges (*Baumea* spp.), Sedges (*Carex* spp.), Billy-buttons (*Craspedia* spp.), Spike-sedges (*Eleocharis* spp.), Club-sedges (*Isolepis* spp.), Blown-grasses (*Lachnagrostis* spp.), Sword-sedges (*Lepidosperma* spp.), Water-milfoils (*Myriophyllum* spp.), Common Reed (*Phragmites australis*) and Kangaroo Grass (*Themeda triandra*). Plants have been seen growing in ~1m depth of water at French Island (C. Gordes pers comm.). As in NSW, subalpine populations in Victoria are associated with *Sphagnum* bogs and swampy drainage lines.

Life history and ecology

There have been no ecological or biological studies of *Xerochrysum palustre*.

Conservation status

National conservation status

Xerochrysum palustre is listed as vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Victorian conservation status

Xerochrysum palustre is listed as threatened under the Victorian *Flora and Fauna Guarantee Act 1988*.

It is considered vulnerable in Victoria according to DSE's *Advisory List of Rare or Threatened Vascular Plants in Victoria - 2005* (DSE 2005).

Decline and threats

Disruption to hydrology

Draining or modification to wetlands containing *Xerochrysum palustre* will threaten available habitat and long-term persistence of populations. For example, Blue Gum plantations near wetlands may lower the water table.

Weed invasion and chemical control of weeds

Weed species include Ragwort (*Senecio jacobaea*), Spear Thistle (*Cirsium vulgare*), Blackberry (*Rubus fruticosus*) and Canary Grasses (*Phalaris* spp.). Chemical control of weed species may also damage *Xerochrysum palustre*.

Road or rail works

Maintenance works may damage sites along road and rail sides. A site at Dorset Road, Bayswater North, occurs in the path of the proposed Healesville Freeway.

Grazing

Grazing by kangaroos, rabbits or feral horses is likely at particular sites, with illegal cattle grazing occurring at Saplings Morass and severe grazing by Hog Deer (*Axis porcinus*) at Blond Bay. Grazing is likely to be more severe during dry years. Grazing by brumbies is likely at the Cobberas site.

Ploughing

Ploughing threatens many populations.

Mining

Mining for brown coal potentially threatens the Gellions Run site in Victoria. Mining at this location is indicated as 'permitted' in the Land Conservation Council's final recommendations in 1981.

Reservation status

Few sites are formally reserved in areas managed solely for conservation purposes.

Previous management action

- Sites and populations have been surveyed, mapped and threats documented.

- Annual monitoring has been undertaken.
- A brochure has been produced and community groups have participated in surveys.
- Weed control has been undertaken at all key sites.

Conservation objectives

Long term objective

To ensure that the Swamp Everlasting can survive, flourish and retain its potential for evolutionary development in the wild.

Specific objectives, actions and targets

The intended management actions listed below are further elaborated in DSE's Actions for Biodiversity Conservation (ABC) system. Detailed information about the actions and locations, including priorities, is held in this system and will be provided annually to land managers and other authorities.

Objective I To increase knowledge of biology, ecology and management requirements

Action	Targets	Responsible
1. Acquire baseline population data. Conduct detailed field and desk top surveys including identification of the area and extent of the population; estimates of the number, size and structure of the population; and inference or estimation of population change.	<ul style="list-style-type: none"> ▪ Updated records on all state databases (Flora Information System, VROTPop and Herbarium). ▪ Target populations accurately mapped. 	DSE
2. Assess habitat characteristics and/or condition. Accurately survey known habitat, and collect and analyse floristic and environmental information relevant to community ecology and condition.	<ul style="list-style-type: none"> ▪ Core habitat mapped. 	DSE
3. Assess threats. Determine immediate threats to important populations at French Island, Long Swamp, Gisborne Racecourse Reserve, and Gellions Run.	<ul style="list-style-type: none"> ▪ Threats determined at French Island, Long Swamp, Gisborne Racecourse Reserve, and Gellions Run. 	DSE
4. Conduct survey to locate suitable habitat. Identify and survey potential habitat using ecological and bioclimatic information that may indicate habitat preference.	<ul style="list-style-type: none"> ▪ Predictive model for potential habitat developed and tested. 	DSE
5. Identify disturbance regimes to maintain habitat or promote regeneration and recruitment.	<ul style="list-style-type: none"> ▪ Management prescriptions for ecological burning or flooding prepared for French Island National Park, Long Swamp and Gellions Run, south west of Yarram in Victoria. ▪ Habitat managed at Blond Bay Wildlife Reserve to prevent over-accumulation of biomass. 	DSE
6. Undertake research to identify key biological functions. Evaluate current reproductive/regenerative status, by determining seed bank status and recruitment levels. Determine seed germination requirements by conducting laboratory and field trials aimed to identify key stimuli.	<ul style="list-style-type: none"> ▪ Seed bank/regenerative potential quantified for each populations. ▪ Stimuli for recruitment/regeneration identified. ▪ Management strategies identified to maintain, enhance or restore regenerative processes fundamental to reproduction and survival. 	DSE
7. Analyse population trends. Measure population trends and responses against recovery actions by collecting demographic	<ul style="list-style-type: none"> ▪ Techniques for monitoring developed and implemented. 	DSE

information including recruitment and mortality, timing of life history stages and morphological data. Collate, analyse and report on census data and compare with management histories.

- Population growth rates determined for important populations.

Objective II To secure populations or habitat from potentially incompatible land use or catastrophic loss.

<i>Action</i>	<i>Targets</i>	<i>Responsible</i>
8. Negotiate a Public Authority Management Agreement or other appropriate management agreement for public land.	<ul style="list-style-type: none"> Public land sites at Gellions Run and Lal Lal Rail Reserve protected under formal management agreements. 	DSE
9. Negotiate voluntary conservation agreements with private landholders. Approach private landholders with Swamp Everlasting populations to gauge interest in entering into a voluntary conservation agreements.	<ul style="list-style-type: none"> Landowner of private land sites approached regarding voluntary conservation agreements. 	DSE
10. Erect/maintain signs to restrict or discourage access. Control accidental destruction by installing appropriate signage.	<ul style="list-style-type: none"> Appropriate signage installed at Gellions Run and Lal Lal Rail Reserve. 	DSE, Parks Victoria
11. Erect/maintain structures to restrict or discourage access. Control threats from pest animals, by preventing access via fencing sites.	<ul style="list-style-type: none"> Habitat fenced to exclude grazing (i.e. swamps or wetlands) at Blond Bay Wildlife Reserve. 	DSE, Parks Victoria
12. Liaise with private landholders. Ensure that information and advice about the recovery of Swamp Everlasting has been provided to private land managers and landholders.	<ul style="list-style-type: none"> All relevant private land managers are aware of the species and its management needs. 	DSE
13. Liaise with government agencies. Ensure that information and advice about the recovery of Swamp Everlasting has been provided to public land managers, local government authorities and Catchment Management Authorities.	<ul style="list-style-type: none"> All relevant authorities and public land managers are aware of the species and its management needs. 	DSE

Objective III To improve the condition of habitat

<i>Action</i>	<i>Targets</i>	<i>Responsible</i>
14. Manage environmental weeds. Control threats from pest plants by extremely careful use of herbicides and hand removal.	<ul style="list-style-type: none"> Weed eradication programs devised and implemented at Blond Bay Wildlife Reserve, Saplings Morass Flora & Fauna Reserve and Lal Lal Rail Reserve. Measurable seedling recruitment / vegetative regeneration and a measurable reduction in plant mortality at Gellions Run, Blond Bay Wildlife Reserve, Saplings Morass Flora & Fauna Reserve, and Lal Lal Rail Reserve. 	DSE, Parks Victoria

Objective IV To increase community awareness and support

Action	Targets	Responsible
15. Involve community groups and volunteers in recovery activities.	<ul style="list-style-type: none">Opportunities for involvement identified, promoted and supported.	DSE

References

- DNRE (2001) *DNRE Flora Information System 2001*, Department of Natural Resources and Environment.
- DSE (2005) *Advisory List of Rare or Threatened Vascular Plants in Victoria - 2005*. Department of Sustainability and Environment, East Melbourne, Victoria.
- Flamm, C. (1998) *Bracteantha palustris* (Asteraceae: Gnaphalieae), a new species in Victoria and Tasmania, *Muellaria*, **11**: 97-100.
- Miles, J. (2003) *Survey of Xerochrysum palustre populations of escarpment bogs*, Unpublished report to NSW DEC.
- Walsh, N.G. & Entwisle, T.J. (1999) *Flora of Victoria, Vol. 4: Dicotyledons: Cornaceae to Asteraceae*, Inkata Press, Melbourne.

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