

# SPECIAL VALUES REPORT FOR COUPE GL208C

By Nicholas Fitzgerald

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Oldgrowth *Eucalyptus amygdalina* forest with open understorey, GL208C.

**Nicholas Fitzgerald**

BSc (Hons).Grad Dip JMS.

**Consultant botanist**

20 Mulgrave St

M: 0431 66 35 45

South Launceston TAS 7250

e-mail: TasBotanic@gmail.com

## Summary

A vegetation survey of proposed coupe GL208C was conducted in order to document special values in the area. The area contains dry eucalypt forest on granite soils. The dominant tree species is *Eucalyptus amygdalina* and the vegetation conforms to TASVEG community *E. amygdalina* coastal forest (DAC). The forest is in very good condition and is oldgrowth, which makes it a priority vegetation type for conservation in the Flinders bioregion.

Forest in this area contains good habitat for several threatened species, notably the Tasmanian devil and spotted-tail quoll. The major threats to these habitat values are loss of oldgrowth characters due to increased disturbance by logging or fire and loss of biodiversity resulting from *Phytophthora* root rot infection. Since the oldgrowth condition of this forest would be severely compromised by forestry operations it is suggested that such operations are avoided.

Furthermore, it is recommended that the area is reserved to help ensure protection of the oldgrowth and threatened species habitat values.

## Background

In response to community concern about special values which may be threatened by logging of State Forest, Nicholas Fitzgerald, a consultant botanist, conducted a field survey of State Forest near Swain Hill, approximately 10 km northeast of Pioneer. A vegetation and special values survey was conducted in the forested area corresponding to coupe GL208C.

## Site Description

Coupe GL208C covers an area of approximately 90 hectares (Forestry Tasmania Bass District 3 Year Plan). The coupe comprises a flat bench in the southern part which slopes downward to the east, north and northwest. Several shallow creek gullies with intermittent watercourses are present. The coupe is in the Amber Creek catchment. Elevation ranges from around 130 metres a.s.l. at the northern and eastern boundaries to a relatively flat area at 170 metres in the southwest of the coupe.

The geology of the area is Devonian granite with shallow gravelly soils and occasional rocky outcrops. There is evidence of fires in the past although there appears to have been no fires in the past 10 years. The coupe and surrounds are State Forest. Mt Cameron Regional Reserve is approximately 500 metres to the north.

## Survey Methodology

The vegetation and special values survey was conducted on 15<sup>th</sup> March 2007. The coupe was accessed at the southern edge from neighbouring coupe GL208A a circuit of the southern 2/3 of the coupe was undertaken on foot. Vascular plant species and vegetation structure were recorded at two survey plots. Besides the plots, continuous assessment of vegetation communities, plant species, forest condition and habitat features was conducted during the survey. Information from the field survey was combined with a desktop study of vegetation mapping, threatened species and other values using GIS data and the DPIW Natural Values Atlas.

## Vegetation Description

Vegetation throughout this area corresponds to TASVEG (Harris & Kitchener 2005) community “*Eucalyptus amygdalina* coastal forest” (DAC). The forest is in good condition and is mostly in an oldgrowth form.

### *Eucalyptus amygdalina* coastal forest

The canopy is around 15-20 metres in height and composed largely of *Eucalyptus amygdalina*, with some *E. obliqua* and *E. viminalis* present. The understorey is generally open with sparse shrubs and a groundcover of herbs and monocots. Dense discrete patches of three metre tall *Kunzea ambigua* occur in some situations. Watercourses support a narrow band of very dense shrubby understorey dominated by *Melaleuca squarrosa*. A patch of mature grasstrees (*Xanthorrhoea australis*), some with trunks, occurs near the eastern boundary.

This vegetation is in very good condition. There is no evidence of anthropogenic disturbance apart from an old track and associated cut stumps indicating selective logging near the eastern edge of the coupe. The forest is mature and can be classified as oldgrowth due to the prevalence of oldgrowth trees, stags, fallen logs and the lack of disturbance.

Oldgrowth *E. amygdalina* coastal forest is a priority for conservation.

## Threatened Species

No threatened species were observed during the survey.

Three threatened plant species are known to occur in the surrounding area. A number of threatened fauna species are either known to occur in the area or are estimated to occur based on expert knowledge of range and habitat (Estimated Geographic Range) as summarised in tables 2 and 3, respectively.

**Table 1. Threatened flora species recorded from within 5 km of coupe GL208C.**

NAME	COMMON NAME	TSPA	EPBCA	NOTES ON HABITAT IN REFERENCE TO COUPE GL208C
<i>Deyeuxia minor</i>	small bentgrass	r		Suitable habitat present (i.e. open eucalypt forest)
<i>Hierochloe rariflora</i>	cane holygrass	r		Suitable habitat present (i.e. damp areas associated with drainage lines)
<i>Pterostylis grandiflora</i>	superb greenhood	r		Not recorded recently or with spatial accuracy from this area however the habitat appears to be suitable (i.e. heathy or shrubby open eucalypt forest)

TSPA = *Threatened Species Protection Act 1995* (Tasmania); EPBCA = *Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth);

r = rare, v = vulnerable, e = endangered, VU = vulnerable, EN = endangered, CR = critically endangered

Sources: DPIW Natural Values Atlas; Lazarus *et al.* (2003) *Threatened Flora of Tasmania CD-Rom*.

**Table 2. Threatened fauna species recorded from within 5 km of coupe GL208C.**

NAME	COMMON NAME	CLASS	TSPA	EPBCA	NOTES ON HABITAT
<i>Astacopsis gouldi</i>	giant freshwater crayfish	Crustacean	v	VU	Riparian species. No suitable habitat in coupe. Likely to occur in watercourses downstream of coupe.
<i>Dasyurus maculatus ssp. maculatus</i>	spotted-tail quoll	Mammal	r	VU	Suitable habitat throughout coupe
<i>Sarcophilus harrisii</i>	tasmanian devil	Mammal	v	VU	Suitable habitat throughout coupe
<i>Thylacinus cynocephalus</i>	thylacine	Mammal	x	EX	Extinct.

TSPA = *Threatened Species Protection Act 1995* (Tasmania); EPBCA = *Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth);

P = provisional, r = rare, v = vulnerable, e = endangered, VU = vulnerable, EN = endangered, x = extinct, EX = extinct

Sources: DPIW Natural Values Atlas; Bryant & Jackson (1999) *Tasmania's Threatened Fauna Handbook*.

**Table 3. Threatened Fauna species with potential habitat in or near GL208C based on Estimated Geographic Range.**

NAME	COMMON NAME	CLASS	TSPA	EPBCA	NOTES ON HABITAT IN RELATION TO GL208C
<i>Aquila audax fleayi</i>	wedge-tailed eagle	Bird	e	EN	Foraging habitat.
<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle	Bird	v		Unsuitable habitat – not close to large water body or river.
<i>Limnodynastes peroni</i>	striped marsh frog	Amphibian	r		No suitable habitat.
<i>Litoria raniformis</i>	green and golden frog	Amphibian	v	VU	No suitable habitat.
<i>Perameles gunnii</i>	eastern barred bandicoot	Mammal		PVU	Suitable habitat.

Sources: DPIW Natural Values Atlas; Bryant & Jackson (1999) *Tasmania's Threatened Fauna Handbook*.

Additionally, forest in this area probably provides good habitat for the Tasmanian bettong (*Bettongia gaimardi*) which is a species of conservation significance and may be listed as a threatened species following ongoing studies.

### **Habitat values**

This coupe contains significant habitat values including numerous old growth trees with a variety of hollows, decaying logs of varying sizes, dense leaf and twig litter, watercourses, and dense thickets. As a surrogate measure for biodiversity, the range of habitats present indicates a healthy diversity of invertebrates, birds and oldgrowth dependent fauna.

## **Possible impacts and threats**

### ***Inappropriate fire regimes***

This forest type is well adapted to fire and is typically subject to frequent low intensity fires. Too frequent burning may have a negative impact on biodiversity by mortality of flora and fauna and reduction in habitat features.

### ***Weeds***

GL208C and the surrounding area are apparently free of exotic plant species. Rooding and vegetation and soil disturbance associated with logging will increase the likelihood of weed invasion. Spanish heath (*Erica lusitanica*) is potentially a major threat to the integrity of this natural area.

### ***Pathogens***

The root-rot pathogen *Phytophthora cinnamomi* (Pc) is widespread in northeast Tasmania and can cause severe dieback of many native plant species. *Eucalyptus amygdalina* coastal forest is highly susceptible to this pathogen (Schahinger et al. 2003).

### ***Illegal firewood harvesting***

Firewood collecting is presently not a problem, however creation of new roads and track associated with logging operations will allow access for illegal wood cutting.

### ***Off-road vehicles***

Presently there is only a single, apparently unused, vehicular track in the southeast of the coupe. Like firewood harvesting, the use of off-road vehicles appears to be minimal due to lack of access tracks. Off-road vehicles can cause damage to soil and vegetation and introduce or spread *Phytophthora*. Creation of new roads and tracks will allow unregulated access by off-road vehicles.

## Conclusion

GL208C contains significant nature conservation values and is a high priority for conservation due to the oldgrowth status of the vegetation.

Since *E. amygdalina* coastal forest is rare and under-reserved in the Flinders bioregion it would be appropriate to reserve this area, including other areas of old growth forest in the vicinity such as neighbouring coupe GL208C. Any forestry operations, including selective logging, will compromise the integrity of this virtually undisturbed mature forest.

In light of the documented values and evident threats it is recommended that GL208C be protected as a reserve. Total exclusion of logging and roading is the only way to adequately manage the threats to nature conservation values, particularly *Phytophthora* risk.

## References and resources consulted

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