

Surf Coast Shire Bio-mapping

Flora and Fauna of Nine Priority Reserves

A Report for Surf Coast Shire

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DANS NATURE RESERVE

Location	Corner of Dans Road and McCanns Road, Connewarre
Centre Point MGA	270500 easting, 5761150 northing
Area	1.0ha

Reserve Description

A small triangular-shaped reserve, Dans Nature Reserve is bordered by McCanns Road to the north, Thompson Creek to the south and a rural property to the east. It is surrounded mainly by cleared farming land with vineyards across the creek. The reserve is predominately grassland with a wide gravel path running through the middle. Shrub and tree vegetation exists as riparian woodland along the creek side and a planted area of sheoaks, acacias and Giant Honey-myrtle in the north-eastern corner.

Vegetation

Previous EVC mapping for this small reserve, provided by the SCS, showed a linear patch of Plains Sedgy Wetland along the northern boundary. However, field work for the current study did not find this vegetation community. Whether it has become locally extinct or whether this earlier record results from a mis-determination cannot be definitively concluded. A small patch containing *Phragmites australis* was too small to be included in the assessment. The strip of plantation around the north-eastern corner contained *Allocasuarina verticillata* (Drooping Sheoak), *Acacia mearnsii* (Black Wattle) and the non-local *Melaleuca armillaris*. This could not be assigned to an EVC, and was not further assessed.

The main vegetation assessed was modified Floodplain Riparian Woodland (Figure 10). The eucalypts that would normally be expected in this EVC (either *Eucalyptus camaldulensis* or *E. ovata*) were absent, and the tree layer was dominated by *Acacia pycnantha* (Golden Wattle) and *A. mearnsii* to around 8m in height. The shrub layer included *Melaleuca lanceolata*, *Acacia paradoxa*, *Bursaria spinosa* and *Goodenia ovata*. The ground layer included the native *Tetragonia implexicoma*, but most cover was provided by weeds, notably *Pennisetum clandestinum*, *Phalaris aquatica* and *Briza maxima*. Other weeds of concern included *Agapanthus praecox* and *Ulex europaeus* — these should be treated as a priority while the infestations remain small. The rare *Pomaderris halmaturina* subsp. *continentis* had been observed in the reserve previously, but was not noted during this inspection.

This EVC received a low site score due to high cover of weeds and the absence of a eucalypt canopy; the values would be enhanced by weed control and canopy planting. However, the reserve also received a low landscape score due to the small size of the reserve and lack of native vegetation in the surrounding area. The effective habitat size could be enhanced to some degree by improving the connectivity of the reserve using strategic roadside planting, and by involving adjoining landowners.



Plains Grassland occurred in two areas within the reserve, a disturbed (mown) section west of the track and a smaller, relatively intact, section east of the track.

The cover in the disturbed grassland was contributed mostly by weed species, including *Hypochoeris radicata*, *Vulpia muralis*, *Plantago lanceolata*, *P. coronopus*, *Arctotheca calendula* (Cape Weed), *Aira elegantissima*, *Romulea rosea* and *Briza minor*. Mowing had made identification of grass species difficult, although the native species *Themeda triandra* and *Austrodanthonia* spp. were noted, albeit with low cover. Low native species diversity and high weed cover resulted in a low condition score for this area (Table 20).

The section of Plains Grassland east of the track was dominated by *Themeda triandra* (around 30% cover) with *Poa labillardierei* less common, and contained similar weed species to the disturbed area. However, the overall cover of weeds was substantially lower, which, combined with greater native species diversity, resulted in a higher condition score.

The presence of *Themeda triandra* suggests that management of grasslands in this reserve should include an appropriate ecological burn regime (the management plan (Surf Coast Shire Environment Unit 2004a) recommends a 2-4 year rotation – a suitable fire frequency). In any event, rotation should not exceed around 5-6 years (Morgan & Lunt 1999), to prevent the formation of a dense sward of *T. triandra* and eventual senescence of the tussocks and the vegetation community. Old, dense *Themeda* tussocks can exclude many native species otherwise typical of grasslands. The proposed burning regime should promote grassland diversity without either depressing native species vigour, as appears to have occurred in the mown areas, or enhancing invasion of mowing-tolerant weeds, such as *Pennisetum clandestinum* and *Romulea rosea*.

Table 20. Habitat Hectare scores for individual Ecological Vegetation Classes in Dans Nature Reserve, November 2006.

EVC	Area (ha)	Site score (max 75)	Landscape score (max 25)	Total score	Bioregional Conservation Status and Conservation Significance
Floodplain Riparian Woodland	0.6	26	2	28	Status – Endangered Significance - High
Plains Grassland (Disturbed)	0.2	30	2	32	Status – Endangered Significance - High
Plains Grassland	0.1	53	2	55	Status – Endangered Significance – Very High

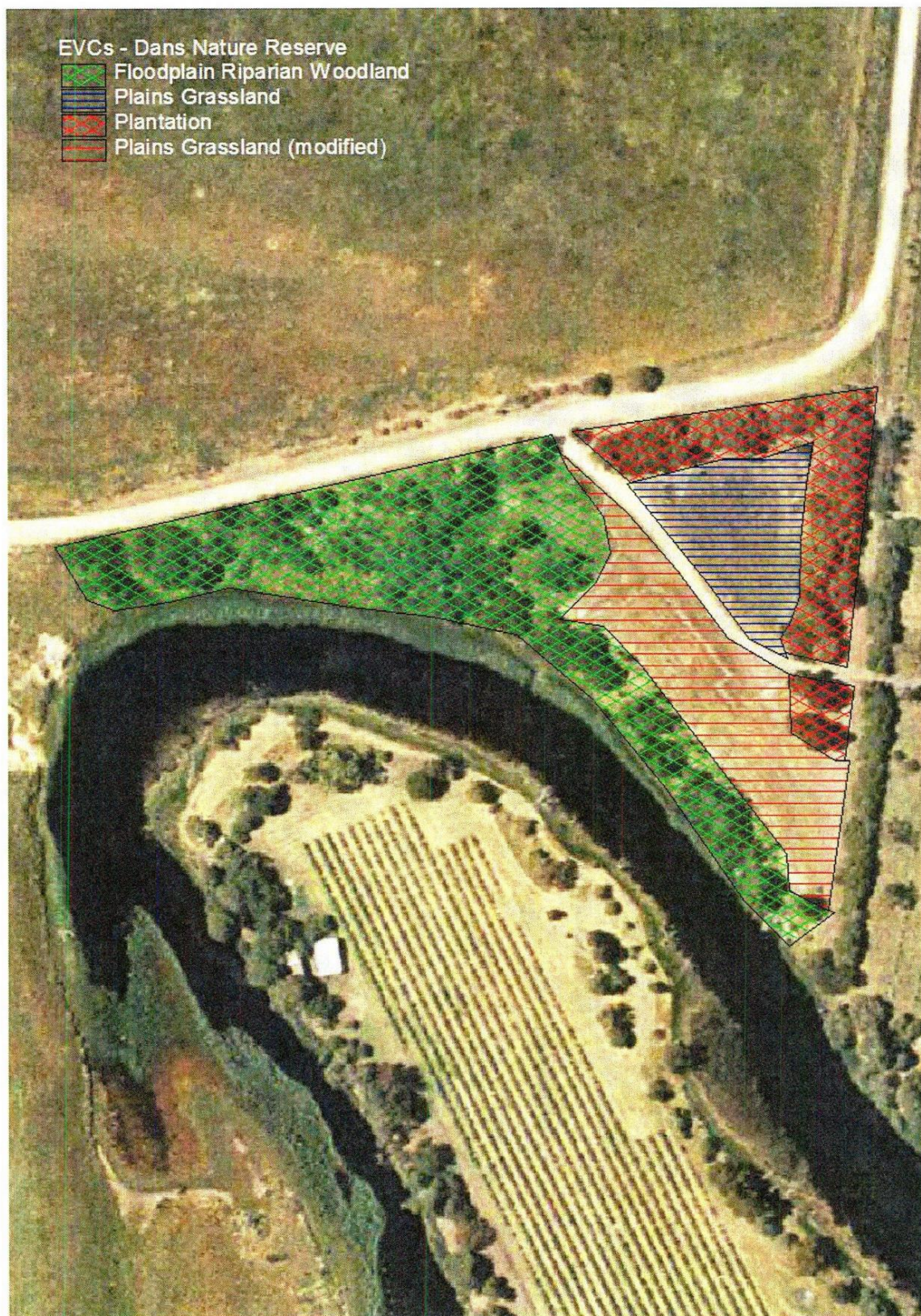


Figure 10. EVC mapping of Dans Nature Reserve, November 2006.

Fauna

A total of 26 vertebrate species was recorded from Dans Nature Reserve, comprising six mammals and 20 birds (Table 21).

Mammals

One arboreal mammal (Common Brushtail Possum) and three bat species were the only native mammals recorded from this reserve during the survey. The small isolated nature of this reserve and its relative lack of habitat are likely to limit the number of other mammal species able to reside in it. A lack of tree hollows would most certainly be a limiting factor at this reserve for most arboreal mammal species, and it is possible that the Common Brushtail Possum, a highly adaptable species, utilises the man-made structures nearby for day-time shelter. The three bat species recorded (White-striped Freetail Bat, Gould's Wattled Bat and Little Forest Bat) are all considered common and widespread throughout Victoria and are found in a wide range of environments including agricultural areas where remnant vegetation is present. Although these species use tree hollows for roosting they can also utilise buildings for this purpose (Menkhorst (Ed) 1995). The introduced Black Rat and European Rabbit were also present at this reserve, both typical inhabitants of rural and other modified environments.

Birds

The reserve appeared to have limited conservation value for native birds and as such was not as intensively surveyed as other reserves. Predictably, the reserve yielded a relatively low number (20) of common bird species, with the complement boosted by several species associated with the bordering Thompson Creek rather than the reserve itself. The small insectivorous Superb Fairy-wren was the most abundant species at this reserve and the only record of Fan-tailed Cuckoo for the overall survey was from here. The lack of suitable habitat structure limited the number of bird species that are likely to be permanent residents.

Two introduced species were recorded during the survey: Common Myna and European Greenfinch.

Herpetofauna

No reptile or frog species were recorded during the survey. The reserve is relatively small, highly disturbed and lacks the structural heterogeneity observed in other reserves — a large portion of the reserve is mowed. It is doubtful that the reserve supports many reptile or frog species, and these are likely to be common generalist species (e.g. Garden Skink, Common Blue-tongued Lizard).

Key management recommendations

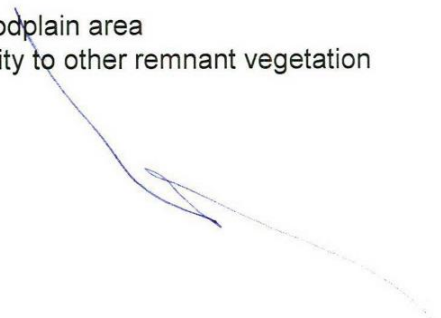
- Development of an appropriate ecological burning regime
 - Weed control
 - Pest control
 - Planting of appropriate eucalypts in floodplain area
 - Strategic planting to improve connectivity to other remnant vegetation
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Table 21. Fauna species recorded at Dans Nature Reserve by ARI, October 2006-March 2007.

Common name	Species
Common Brushtail Possum	<i>Trichosurus vulpecula</i>
White-striped Freetail Bat	<i>Tadarida australis</i>
Gould's Wattled Bat	<i>Chalinolobus gouldii</i>
Little Forest Bat	<i>Vespadelus vulturnus</i>
Black Rat	<i>Rattus rattus</i>
European Rabbit	<i>Oryctolagus cuniculus</i>
Grey Teal	<i>Anas gracilis</i>
White-faced Heron	<i>Egretta novaehollandiae</i>
Nankeen Kestrel	<i>Falco cenchroides</i>
Purple Swamphen	<i>Porphyrio porphyrio</i>
Galah	<i>Cacatua roseicapilla</i>
Eastern Rosella	<i>Platycercus eximius</i>
Red-rumped Parrot	<i>Psephotus haematonotus</i>
Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>
Superb Fairy-wren	<i>Malurus cyaneus</i>
Brown Thornbill	<i>Acanthiza pusilla</i>
Red Wattlebird	<i>Anthochaera carunculata</i>
White-plumed Honeyeater	<i>Lichenostomus penicillatus</i>
Rufous Whistler	<i>Pachycephala rufiventris</i>
Grey Fantail	<i>Rhipidura fuliginosa</i>
Willie Wagtail	<i>Rhipidura leucophrys</i>
Little Raven	<i>Corvus mellori</i>
European Greenfinch	<i>Carduelis chloris</i>
Welcome Swallow	<i>Hirundo neoxena</i>
Silvereye	<i>Zosterops lateralis</i>
Common Myna	<i>Acridotheres tristis</i>

