

(DRAFT ONLY) Surf Coast Shire Bio-mapping

Flora and Fauna of Nine Priority Reserves, 2006-07

A Report for Surf Coast Shire

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MELLORS SWAMP NATURE RESERVE

Location	Great Ocean Road, Aireys Inlet
Centre Point MGA	246700 easting, 5738500 northing
Surf Coast Shire Priority	High
Area	4.7ha

Reserve Description

Mellors Swamp Nature Reserve is a small estuarine swamp at the base of Painkalac Creek on the outskirts of Aireys Inlet township. Predominately grassland and saltmarsh, the only substantial tall vegetation present comprises widely-spaced large Common Boobialla *Myoporum insulare* shrubs in the north-west corner and one other clump of shrubs near the edge of the creek. There are no tracks through the Reserve and any pedestrian traffic appears to be restricted to the roadside verge running along the north edge. The Reserve is isolated from adjoining vegetation by the Great Ocean Road, Painkalac Creek and an adjacent urban playground.

Vegetation

The Reserve was extensively mapped by Sinclair and White (2005) at a scale of 1:2000. Assessment of habitat hectare values at such a fine scale for the current assessment was impractical, and small areas of previously identified Estuarine Reedbed, Tall Marsh and Saline Aquatic Meadow were incorporated in other, larger EVCs (Figure 2). However, had these three EVCs been larger, hence assessable, they would have scored the same as the others.

The floristic composition of the four assessed EVCs was covered by Sinclair and White (2005), and requires no further elaboration. Weeds are of little concern, with only minor occurrences of widespread species such as *Anagallis arvensis* (Pimpernel), *Holcus lanatus*, *Hypochoeris radicata* and *Cirsium vulgare*. Habitat hectare scores for the four EVCs were identical (Table 4), as species richness, relative to their respective benchmarks, and weed cover were similar. All were in good condition, and obtained high habitat hectare scores for site condition components. However, landscape scores were reduced somewhat due to the size of the Reserve (< 5 ha).

Table 4. Habitat hectare scores for individual Ecological Vegetation Classes in Mellors Swamp, November 2006.

EVC	Area (ha)	Site score (max 75)	Landscape score (max 25)	Total score	Bioregional Conservation Status and Conservation Significance
Estuarine Wetland	1.2	69	10	79	Status – Endangered Significance – Very High
Brackish Sedgeland	0.3	69	10	79	Status – Vulnerable Significance – Very High
Estuarine Flats Grassland	0.7	69	10	79	Status - Not listed for this bioregion. Endangered in other bioregions Significance – Very High
Coastal Saltmarsh	2.6	69	10	79	Status – Endangered Significance – Very High



Figure 2. EVC mapping of Mellors Swamp, ARI 2006

Fauna

A total of 28 species was recorded from Mellors Swamp comprising five mammals and 23 birds (Table 5). No frogs were recorded and one snake was observed but was unable to be caught for identification.

Mammals

The Swamp Rat *Rattus lutreolus* was the most numerous native mammal recorded, with six individuals caught in Elliott traps during one night. Animals were caught from among the large Common Boobialla shrubs in the north-west of the site and from among tussock grasses within wetland and saltmarsh. A Dusky Antechinus *Antechinus swainsonii* with young attached was caught on one occasion among the large shrubs. The distribution for this species within the Shire is very patchy, though the most recent record is from the Aireys Inlet sewage treatment plant in 2003 (AVW). The threatened Swamp Antechinus has been recorded on several occasions nearby (AVW) and potential habitat exists within this Reserve in the form of dense tussock grassland (Menkhorst (Ed), 1995). This species is considered Near Threatened in Victoria (Department of Sustainability and Environment, 2003). The introduced House Mouse *Mus musculus* was very numerous. No bats were trapped; the lack of tall vegetation and therefore the lack of natural 'fly-ways' meant that positions for harp traps were less than ideal and the chances of catching bats in such a wide open space greatly reduced. Bat echolocation call analysis identified the presence of Gould's Wattled Bat. Some of the bat calls recorded were either Gould's Long-eared Bat or the Lesser Long-eared Bat (these two species cannot be distinguished using this method).

Birds

Many of the bird species recorded from this Reserve during the survey, such as the ducks and cormorants, were restricted to the creek-side habitats. The relatively small number of species recorded is a reflection of the limited structural diversity of the Reserve and perhaps its exposed nature.

Although several sizeable groups of water bird were recorded (e.g. 20 Grey Teal, 15 Pacific Black Duck), the most numerous land bird encountered using the estuarine habitat was the Superb Fairy-wren. Two introduced species Common Blackbird and Common Starling were relatively common on the site.

Herpetofauna

No reptile or frog species were recorded during the survey, except for one unidentified snake. The coastal saltmarsh and estuarine wetland vegetation communities that dominate this swamp are unlikely to support many reptile or frog species, particularly if they are regularly inundated. One notable exception is the threatened Swamp Skink, a cryptic species that requires specialised microhabitats (as described above).

However, the estuarine flats grassland that fringes the swamp is potentially suitable habitat for several small skinks and elapid snakes (e.g. Garden Skink, Southern Grass Skink, Tussock Skink, Weasel Skink, White-lipped Snake).

Key management recommendations

- Minor weed control
- Development of park management plan
- Predator control

Table 5 Fauna species recorded at Mellors Swamp Oct 2006-March 2007.

Common Name	Species
Dusky Antechinus	<i>Antechinus swainsonii</i>
Gould's Wattled Bat	<i>Chalinolobus gouldii</i>
Gould's/Lesser Long-eared Bat	<i>Nyctophilus gouldi/geoffroyi</i>
House Mouse	<i>Mus musculus</i>
Swamp Rat	<i>Rattus lutreolus</i>
Black Swan	<i>Cygnus atratus</i>
Pacific Black Duck	<i>Anas superciliosa</i>
Grey Teal	<i>Anas gracilis</i>
Great Cormorant	<i>Phalacrocorax carbo</i>
White-faced Heron	<i>Egretta novaehollandiae</i>
Australian White Ibis	<i>Threskiornis molucca</i>
Masked Lapwing	<i>Vanellus miles</i>
Pacific Gull	<i>Larus pacificus</i>
Shining Bronze-Cuckoo	<i>Chrysococcyx lucidus</i>
Superb Fairy-wren	<i>Malurus cyaneus</i>
Red Wattlebird	<i>Anthochaera carunculata</i>
Little Wattlebird	<i>Anthochaera chrysoptera</i>
Singing Honeyeater	<i>Lichenostomus virescens</i>
New Holland Honeyeater	<i>Phylidonyris novaehollandiae</i>
Australian Magpie	<i>Gymnorhina tibicen</i>
Pied Currawong	<i>Strepera graculina</i>
Little Raven	<i>Corvus mellori</i>
Skylark	<i>Alauda arvensis</i>
Welcome Swallow	<i>Hirundo neoxena</i>
Golden-headed Cisticola	<i>Cisticola exilis</i>
Silvereye	<i>Zosterops lateralis</i>
Common Blackbird	<i>Turdus merula</i>
Common Starling	<i>Sturnus vulgaris</i>
unidentified snake	

