

Yellabinna Reserves

Supplementary Document to the Yellabinna Reserves
Management Plan 2013



Managed to maintain healthy country and wilderness quality and conserve broad scale Mallee Woodland ecosystems.



**Government
of South Australia**

Department of Environment,
Water and Natural Resources

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1 INTRODUCTION AND PURPOSE OF SUPPLEMENTARY DOCUMENT

This supplementary document to the Draft Management Plan for the Yellabinna Reserves provides additional information about the reserves to which that plan applies. This supplementary document contains information about the following reserves:

- Yellabinna Regional Reserve
- Yellabinna Wilderness Protection Area
- Yumbarra Conservation Park
- Pureba Conservation Park
- Boondina Conservation Park.

This document is not intended to be a comprehensive source of all available information relating to the reserves, rather a source of additional information that links to the proposed future management directions. This is a non-statutory working document which can be updated as new information becomes available.

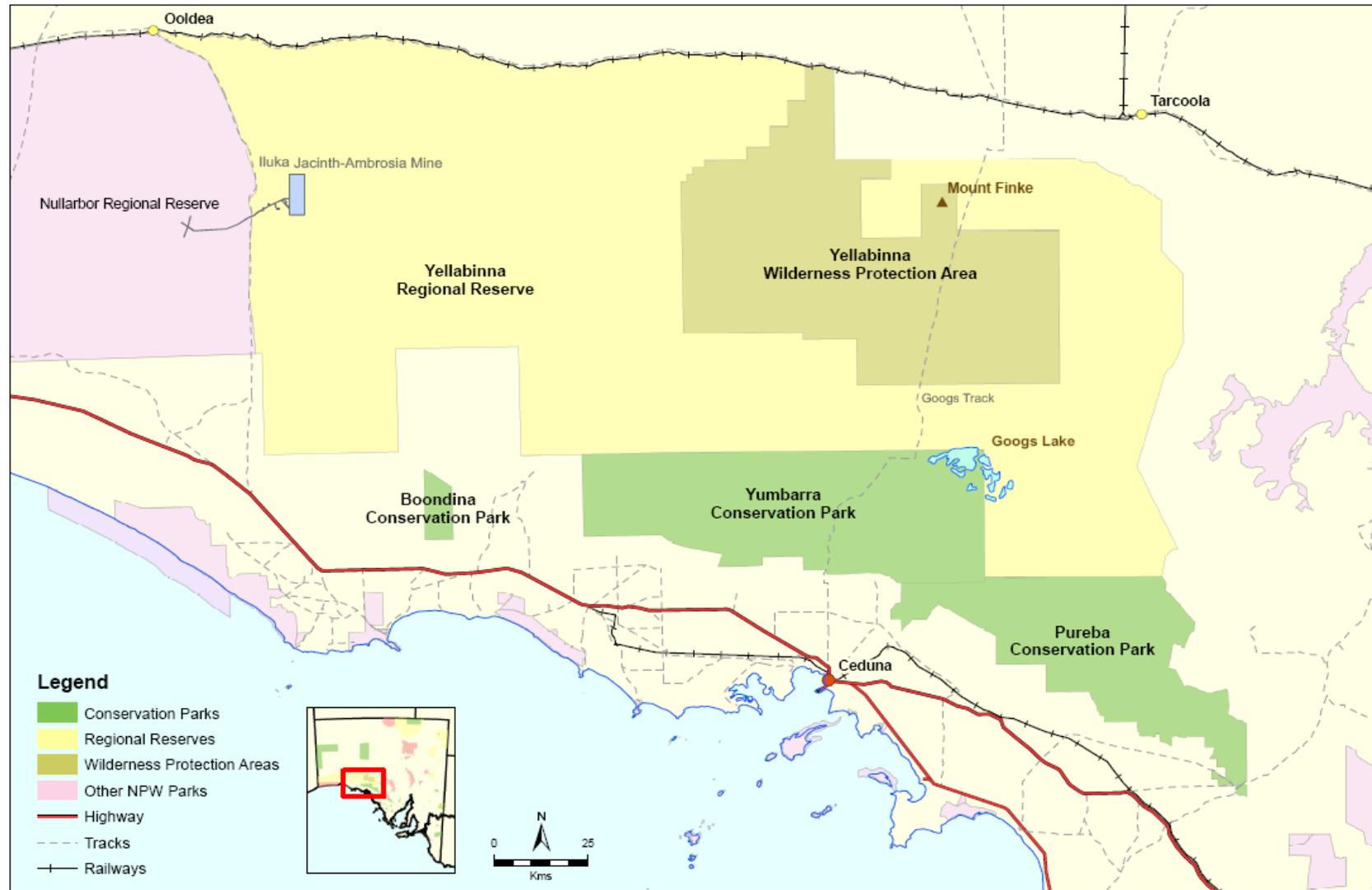
2 LOCATION AND DESCRIPTION OF RESERVES

The Yellabinna reserves are located on the edge of Australia's iconic Nullarbor Plain, north of the Eyre Highway, Ceduna and the Great Australian Bight (Figure 1). The cleared lands of the west coast cereal belt are to the south and in the east are salt lakes and the Gawler Ranges. The Nullarbor Plain begins at the western boundary. The area is outside the Dog Fence, which runs along the southern and eastern boundaries

Yellabinna Regional Reserve is the largest of the Yellabinna Reserves, comprising over half of the area included within this plan. Its southern boundary is near Boondina Conservation Park and adjoins Pureba Conservation Park and Yumbarra Conservation Park. Yellabinna Regional Reserve largely surrounds Yellabinna Wilderness Protection Area. The western boundary of Yellabinna Regional Reserve adjoins Nullarbor Regional Reserve.

The combined reserved area, predominantly mallee type vegetation, covers over 3 million hectares and is relatively undisturbed, allowing many natural processes to occur without the influence of human activities and their secondary effects.

Figure 1 Location of the reserves



3 PARK PURPOSE

Yellabinna Regional Reserve was proclaimed to “conserve an important area of high biological diversity and significance”. Pureba Conservation Park was proclaimed, “to conserve dense undisturbed mallee communities”. Yumbarra National Park was increased in size and re-proclaimed a Conservation Park in 1990 because, an unallotted Crown Land review of Eyre Peninsula recommended additions to the park because of their high conservation value. The Yellabinna Wilderness Protection Area is intended “to enhance the protection of an important area of high biological diversity and significance.”

These adjoining parks form a valuable wilderness area of sparsely vegetated red sand dunes in the north. The dunes stretch as far as the eye can see and provide a stark contrast of red sand and bright blue sky. The extensive mallee to the south provides a corridor linking the Great Victoria Desert to the northern Eyre Peninsula mallee. Here, rare wildlife can be found including Scarlet-chested Parrots, Major Mitchell Cockatoos, Thorny Devils, Sandhill Dunnarts and Malleefowl.

Within this parallel dune system are small islands where granite outcrops (inselbergs) trap water after rain. These are extremely important to local wildlife and have significant Aboriginal cultural associations. There are several salt lakes in the area, which also provide significant wildlife habitat. Both habitats are fragile environments.

South Australia has approximately 25% of the developed world’s warm desert and semi-desert wilderness, and the combined areas of Yellabinna Regional Reserve, Yumbarra and Pureba Conservation Parks represent over 1.7% of Australian arid wilderness (WAC 1995). The Yellabinna Environmental Association (Laut et al 1977) is the largest continuous piece of mallee vegetation in South Australia and is part of a corridor linking Eyre Peninsula mallee and mulga woodlands with those in Western Australia. The area has been assessed in the Commonwealth Government’s National Wilderness Inventory as of high wilderness quality due to its relative remoteness and naturalness (WAC 2004).

The large size of the reserved area allows for the long-term conservation of self-sustaining ecosystems and for ecological processes to go on with minimal human disturbance. This size also helps maintain genetic diversity at species, population and community levels and promotes species evolution (DEHAA 1999, WAC 1995). Many flora and fauna species in the region are at or near the limits of their known distributions. The reserved area supports endangered, vulnerable and rare species, and some that are endemic to the Eyre Peninsula botanical region.

4 BIOREGIONAL SETTING

The reserved area protects more than 12% of the Great Victoria Desert biogeographic region, as well as 4.9% of the Nullarbor and 2% of the Gawler biogeographic regions of the Interim Biogeographic Regionalisation for Australia (IBRA, Thackway et al, 1995). IBRA regions represent a landscape based approach to classifying the land surface from a range of continental data on environmental attributes. In 1999, IBRA version 5 was developed with 85 biogeographic regions delineated, each reflecting a unifying set of major environmental influences which shape the occurrence of flora and fauna and their interaction with the physical environment.

Within the Great Victoria Desert IBRA region, Laut et al (1977) recognises a series of Environmental Associations.

The reserved area is dominated (81.5%) by the Yellabinna Environmental Association, which includes dunefields characteristic of the Great Victoria Desert (Laut et al. 1977) Dunes are parallel, 5 to 30m high, about 500m apart, run roughly east-west and consist mainly of red quartzite sand. Vegetation cover is open mallee with a variable understorey of chenopod shrubs or porcupine grass. In the south-western corner of Yellabinna RR are the flat calcrete plains and occasional granite inselbergs of the Kroonilla Environmental Association (Laut et al. 1977).

The south-eastern section of Yellabinna RR includes parts of the Acraman and Fyne Environmental Associations of the Gawler biogeographic region, including irregular dunes, lakes or claypans and some isolated low hills of volcanic origin. Vegetation consists of open woodland or open mallee with a mixed chenopod understorey and samphire shrubland (Laut et al. 1977). In the north-eastern corner of Yellabinna RR is the Yerda Environmental Association with its undulating plains and low hills on outcropping shales and sandstones (Laut et al. 1977).

5 GEOLOGY AND LANDFORMS

5.1 Geological character

The Yellabinna region is located on the western Gawler Craton, an ancient shield comprising Archaean to Mesoproterozoic metasediments, volcanics and granites. Basement outcrop is sparse and the area is blanketed with recent sand deposits.

The oldest rocks in the area are highly deformed gneisses, schists and banded iron formation of the Archaean Mulgathing Complex. The majority of the area comprises Palaeoproterozoic intrusive rocks of the Ifould Complex (~1675 Ma) and St. Peter Suite (1630-1620 Ma). The Yumbarra magnetic anomaly is a circular magnetic feature that is interpreted to represent an ultramafic intrusive complex. The most prominent landform is Mount Finke, comprised of quartzite and conglomerate of the Palaeoproterozoic Tarcoola Formation.

Recent aeromagnetic data show regional deformation zones (shear zones) within the area and a dominant southwest-northeast structural trend. The area has undergone several periods of deformation during the Karraran Orogeny (1680 – 1450 Ma), during which large volumes of plutonic rocks were intruded. After the Karraran Orogeny, the western Gawler Craton has been tectonically stable, with only minor localised faulting, producing sedimentary basins including the Officer, Arckaringa, Bight and Eucla Basins. These sedimentary basins are infilled with marine, fluvial, glacial and lignitic sediments.

During the Tertiary period, fluctuations in sea level resulted in the deposition of marine quartz sands producing the Ooldea, Barton and Paling Ranges. The Hampton Sandstone comprises very fine to coarse-grained quartz sand up to 40 metres thick. Overlying the Hampton Sandstone is the aeolian Ooldea Sand that comprises very fine to fine-grained, well-sorted quartz sand, up to 112 metres thick.

The western part of the Yellabinna Environmental Association comprises the Nullarbor Plain, which is composed of fossiliferous marine limestone deposited during the Middle Miocene (~ 15 Ma). During the Quaternary, vast quantities of sand were blown inland blanketing the land surface forming a series of longitudinal dunes which define the Great Victoria Desert. These dunes were subsequently fixed by vegetation and now dominate the landscape.

5.2 Landforms

5.2.1 Dunes

A south-east extension of the dunefields of the Great Victoria Desert dominates the landscape of the Yellabinna Region. Dune orientation varies from southwest-northeast in the far west to predominantly WNW-ESE in the east. Dunes consist mainly of quartz sand. Dominant dunes are parallel and longitudinal, with an average spacing of less than 500 metres and heights varying from five to 30 metres and can be over ten kilometres long. The dunes are fixed by vegetation, though dune crests may experience some movement. Swales often include claypans.

In the south-eastern part of Yellabinna Regional Reserve, and between the Ooldea Range and Nullarbor Plain, are irregular network dunes. In these areas dune type and pattern varies from the generally east-west orientation that characterises the Great Victoria Desert dunes. Playa lakes are often associated with these irregular dune formations.

5.2.2 Playa lakes and lunettes

Playa Lakes and Lunettes are a minor landform in the reserves and usually form in regionally depressed areas. The lakes are mostly less than four to six kilometres long and their surface is generally clay or sand that may be crusted with salt. Asymmetrical lunettes ten to thirty metres high occur on the eastern margins of, or completely surround, the

lakes. The lakes probably formed during the continental arid episode 25,000 to 15,000 years ago.

5.2.3 Inselbergs and rocky prominences

Isolated granite inselbergs are scattered along the east to south-eastern margin, and south-western corner of the reserved area. They are low and rounded, and many have rockholes that collect fresh water.

5.2.4 Mt Finke

Mt Finke, in the north-east of the Yellabinna Wilderness Protection Area, is a small, isolated landform consisting of steeply dipping quartzite. It is oriented east-west, is five kilometres long and stands 220-270 metres above the surrounding landscape.

5.2.5 Ooldea, Barton and Paling Ranges

These landforms are narrow linear rises in the Great Victoria Desert. They are consolidated coastal quartz sand dunes from the late Eocene or Early Oligocene Age up to 175 metres thick.

5.2.6 Nullarbor Plain

The Nullarbor Plain was formed from Middle Miocene Nullarbor Limestone. It underlies the most westerly part of the reserved area.

5.2.7 Drainage

Drainage lines are a very minor feature of the area, along the southern and western margin of the Ooldea Range flanking the Nullarbor Plain, and around Mt Finke. Short, shallow creeks sometimes form in the swales and drain towards lakes. Surface water is rare in the region, reflecting both the arid climate and the permeability of most of the land surface.

6 NATIVE VEGETATION

The native vegetation of the Yellabinna region is dominated by mallee, with some scattered areas of low chenopod shrubland, tall open *Acacia* spp. woodland, and in the far-east and west, low samphire shrublands around salt lakes.

The dunes and swales of the Great Victoria Desert produce patterns in the dominant mallee vegetation, with greater understorey diversity on the dunes than the swales.

Soil characteristics and the increasing aridity gradient from south to north affect the structure and composition of vegetation communities. There are six major characteristic plant associations in the region; identified in Table 1.

At least 1704 flora species have been identified across the reserves of the Yellabinna region. Nearly one-third of these species have been found in the Yellabinna Regional Reserve. Biological surveys were conducted in the Yellabinna region in 1987 and in Yumbarra Conservation Park in 1995.

Within the reserves thirty-seven state listed threatened flora species have been recorded. Five of these species are also listed as nationally vulnerable. The nationally vulnerable Ooldea Guinea-flower (*Hibbertia crispula*), Granite Mudwort (*Limosella granitica*), Desert Greenhood (*Pterostylus xerophila*) and Yellow Swainson-pea (*Swainsona pyrophila*) are all endemic to the region. The nationally vulnerable Mount Finke Grevillea (*Grevillea treueriana*) is specifically endemic to Mt. Finke. A national recovery plan for the Yellow Swainson-pea was published in 2010.

Table 2 lists the flora species that have been recorded within the reserves that are threatened species under the *National Parks and Wildlife Act 1972* or the *Environment Protection and Biodiversity Conservation Act 1999*.

Table 1 Plant associations in the reserves

Plant association	Description	Vegetation communities
Plant associations of saline soils (south-eastern and western margins of Yellabinna Regional Reserve)	Narrow bands of fringing vegetation along the shores of lakes.	<ul style="list-style-type: none"> • <i>Halosarcia halocnemoides/Disphyma crassifolium</i> low shrubland • <i>Halosarcia lylei/Darwinia salina</i> low open shrubland • <i>Atriplex vesicaria</i> low shrubland
Plant associations of granite rockholes (south-western and south-eastern corners of Yellabinna Regional Reserve and Pureba Conservation Park)	Shallow soil bands around depressions in the granite support a variety of ephemeral plants.	<ul style="list-style-type: none"> • <i>Sclerolaena obliquicuspis</i> open herbland • <i>Sclerolaena obliquicuspis/Tetragonia eremaea</i> open herbland
Plant associations of loam over limestone (southern section of Yellabinna Regional Reserve, Yumbarra Conservation Park and Pureba Conservation Park)	Open, well-drained areas supporting some shrubs, tussock grasses and herbs.	<ul style="list-style-type: none"> • <i>Austrostipa drummondii/Danthonia caespitosa</i> open tussock grassland • <i>Geijera linearifolia/Dodonaea viscosa ssp. angustissima</i> tall open shrubland
Plant associations of the Mt Finke Quartzite outcrop (north-eastern section of Yellabinna Wilderness Protection Area)	Isolated quartzite hill with distinct aspect-related vegetation zones.	<ul style="list-style-type: none"> • <i>Eucalyptus youngiana/Triodia irritans</i> low mallee • <i>Eucalyptus trivalvis/Acacia aneura</i> mallee
Plant associations of siliceous sands (north-western section of Yellabinna Regional Reserve)	Dunefields with subtle distinction between dune crests and swales and deep undifferentiated sand.	<ul style="list-style-type: none"> • <i>Eucalyptus socialis/Triodia scariosa</i> mallee • <i>Dodonaea viscosa ssp. angustissima/Acacia ramulosa</i> tall open shrubland • <i>Casuarina pauper/Myoporum platycarpum</i> low open woodland • <i>Acacia papyrocarpa/Maireana sedifolia</i> low open woodland • <i>Eucalyptus leptophylla/Triodia lanata</i> mallee • <i>Eucalyptus socialis/Acacia gilesiana</i> mallee • <i>Acacia ramulosa/Dicrasyllis beveridgei var. lanata</i> tall open shrubland • <i>Leptospermum coriaceum/Bossiaea walkeri</i> open shrubland
Plant associations of sand plains (southern section of Yellabinna Regional Reserve, Yumbarra Conservation Park and Pureba Conservation Park)	Calcareous sand plains along the southern margin of the Yellabinna dune system.	<ul style="list-style-type: none"> • <i>Eucalyptus yumbarrana</i> open low mallee • <i>Eucalyptus oleosa</i> open mallee • <i>Eucalyptus incrassata/Eucalyptus yumbarrana</i> mallee • <i>Eucalyptus brachycalyx/Geijera linearifolia</i> open mallee • <i>Eucalyptus brachycalyx</i> open mallee

Table 2 Threatened flora recorded in the Reserves of the Yellabinna Region

Scientific name	Common name	Conservation status		Last record
		AUS	SA	
Pureba Conservation Park				
<i>Austrostipa plumigera</i>		-	R	1987
<i>Ceratogyne obionoides</i>	Wingwort	-	R	2008
<i>Eremophila praecox</i>		-	R	1999
<i>Geijera parviflora</i>	Wilga	-	R	1965
<i>Gratwickia monochaeta</i>		-	R	2005
<i>Maireana rohrlachii</i>	Rohrlach's Bluebush	-	R	1975
<i>Santalum spicatum</i>	Sandalwood	-	R	2005
<i>Swainsona microcalyx</i>	Wild Violet	-	R	1970
Yellabinna Regional Reserve				
<i>Acacia jennerae</i>	Coonavittra Wattle	-	R	2005
<i>Alyogyne pinoniana</i> <i>var. microandra</i>		-	V	1987
<i>Austrostipa nullanulla</i>	Club Spear-grass	-	V	2006
<i>Austrostipa plumigera</i>		-	R	2005
<i>Austrostipa vickeryana</i>	Vickery's Spear-grass	-	R	1998
<i>Ceratogyne obionoides</i>	Wingwort	-	R	2005
<i>Corynotheca licrota</i>	Sand Lily	-	R	2009
<i>Crassula peduncularis</i>	Purple Crassula	-	R	2005
<i>Daviesia benthamii</i> ssp. <i>humilis</i>	Mallee Bitter-pea	-	R	1987
<i>Eremophila hillii</i>	Hill's Emubush	-	R	1975
<i>Eremophila parvifolia</i> ssp. <i>parvifolia</i>	Small-leaf Emubush	-	R	1984
<i>Frankenia cinerea</i>		-	R	2005
<i>Goodenia glandulosa</i>		-	R	2005
<i>Gratwickia monochaeta</i>		-	R	2006
<i>Hibbertia crispula</i>	Ooldea Guinea-flower	VU	V	1987
<i>Lechenaultia aphylla</i>	Leafless Lechenaultia	-	V	2009
<i>Maireana rohrlachii</i>	Rohrlach's Bluebush	-	R	1989
<i>Maireana suaedifolia</i>	Lax Bluebush	-	R	2010
<i>Melaleuca leiocarpa</i>	Pungent Honey-myrtle	-	R	2005
<i>Ophioglossum polyphyllum</i>	Large Adder's-tongue	-	R	2005
<i>Santalum spicatum</i>	Sandalwood	-	V	2006
<i>Sarcocolla bicarinata</i>	Ridged Noon-flower	-	V	2006
<i>Teucrium grandiusculum</i> ssp. <i>pilosum</i>		-	E	2008

Scientific name	Common name	Conservation status		Last record
		AUS	SA	
<i>Yellabinna Wilderness Protection Area</i>				
<i>Acacia jennerae</i>	Coonavittra Wattle	-	R	2005
<i>Austrostipa plumigera</i>		-	R	1989
<i>Ceratogyne obionoides</i>	Wingwort	-	R	2005
<i>Gratwickia monochaeta</i>		-	R	2005
<i>Grevillea treueriana</i>	Mt Finke Grevillea	VU	V	2009
<i>Maireana suaedifolia</i>	Lax Bluebush	-	R	1995
<i>Melaleuca leiocarpa</i>	Pungent Honey-myrtle	-	R	2005
<i>Pterostylis xerophila</i>	Desert Greenhood	VU	V	2004
<i>Santalum spicatum</i>	Sandalwood	-	V	2004
<i>Swainsona pyrophila</i>	Yellow Swainson-pea	VU	R	1987
<i>Velleia cycnopotamica</i>		-	R	1987
<i>Wurmbea stellata</i>	Star Nancy	-	R	1987
<i>Yumbarra Conservation Park</i>				
<i>Austrostipa nullanulla</i>	Club Spear-grass	-	V	2008
<i>Ceratogyne obionoides</i>	Wingwort	-	R	2009
<i>Choretrum glomeratum</i> <i>var. chrysanthum</i>	Yellow-flower Sour-bush	-	R	1995
<i>Daviesia benthamii</i> ssp. <i>humilis</i>	Mallee Bitter-pea	-	R	1987
<i>Eremophila praecox</i>		-	R	1990
<i>Goodenia glandulosa</i>		-	R	1987
<i>Leiocarpa pluriseta</i>		-	R	1972
<i>Limosella granitica</i>	Granite Mudwort	VU	V	2001
<i>Melaleuca leiocarpa</i>	Pungent Honey-myrtle	-	R	2005
<i>Scaevola myrtifolia</i>	Myrtle Fanflower	-	R	1995
<i>Spyridium tricolor</i>	Rusty Spyridium	-	V	1984
<i>Swainsona pyrophila</i>	Yellow Swainson-pea	VU	R	1987
<i>Templetonia battii</i>	Spiny Templetonia	-	R	1990

Australian Conservation Status Codes

The following codes are based on the current listing of species under Section 179 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

- EX** **Extinct:** there is no reasonable doubt that the last member of the species has died.
- EW** **Extinct in the Wild:** known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CE** **Critically Endangered:** facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- E** **Endangered:** facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- V** **Vulnerable:** facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

CD Conservation Dependent: the species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

Note: Prescribed criteria as defined under the IUCN Red List of Threatened Species.

South Australian Conservation Status Codes

The following codes are based on the current listing of species under Schedules of the *National Parks and Wildlife Act 1972*, as amended in 2008.

- E Endangered:** (Schedule 7) in danger of becoming extinct in the wild.
- V Vulnerable:** (Schedule 8) at risk from potential or long term threats which could cause the species to become endangered in the future.
- R Rare:** (Schedule 9) low overall frequency of occurrence (may be locally common with a very restricted distribution or may be scattered sparsely over a wider area). Not currently exposed to significant threats, but warrants monitoring and protective measures to prevent reduction of population sizes.

For IUCN criteria see:

IUCN (1994) *IUCN Red List Categories*. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland (www.redlist.org).

IUCN (2001) *IUCN Red List Categories and Criteria: Version 3.1*. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, United Kingdom (www.redlist.org).

7 NATIVE FAUNA

7.1 Mammals

Eighty-six indigenous mammal species have been recorded within these reserves, including two nationally endangered species.

The Sandhill Dunnart (*Sminthopsis psammophila*) is listed as vulnerable at state level and is listed nationally as endangered. The Sandhill Dunnart has been recorded within Yellabinna Regional Reserve in areas containing a diverse shrub layer and 20% Spinifex cover. A national recovery plan is currently being prepared for this species.

The Marsupial Mole or Itjaritjari (*Notoryctes typhlops*) is also listed as vulnerable at a state level and is listed nationally as endangered. A national recovery plan for this species was written for 2005 to 2010.

The Greater Long-eared Bat (*Nyctophilus timoriensis*), was also recorded within Yumbarra Conservation Park. The form of Greater Long-eared Bat that is found on the Eyre Peninsula, which is referred to as the 'Central' form, is restricted to Mallee regions in the northern Eyre Peninsula.

7.2 Birds

Across the reserves a total of 346 bird species have been recorded including two nationally threatened species.

The Australian Bustard (*Ardeotis australis*) is rated vulnerable in South Australia and the Major Mitchell's Cockatoo (*Cacatua leadbeateri*) is considered rare at a state level.

The Slender-billed Thornbill (*Acanthiza iredalei iradalei*) is listed as rare at a state level and nationally vulnerable. There is no national recovery plan for this species.

The Malleefowl (*Leipoa ocellata*) is listed as vulnerable at both a state and national level. It has disappeared from a great deal of its former habitat, with a variety of factors contributing to the species decline. Competition for food and predation by introduced animals has contributed significantly to the decline of the Malleefowl. Frequent or intense wildfire can also result in the decline of the Malleefowl, as frequent fires will not allow an adequate supply of leaf litter for their nests, and intense fires are likely to kill the Malleefowl within the reserve. A national recovery plan for this species was published in 2007.

7.3 Reptiles and Amphibians

Seventy-four reptile species have been recorded within Yellabinna Regional Reserve. All of these are indigenous, and three are listed as rare at a state level. These are the McKenzie's Dragon (*Ctenophorus mckenziei*), Western Black-naped Snake (*Neelaps bimaculatus*) and the Short-tailed Pygmy Goanna (*Varanus brevicauda*).

Fifty-four reptile species have been recorded within Yumbarra Conservation Park, all of which are indigenous. One species, the Carpet Python (*Morelia spilota*), is listed as rare at a state level.

Thirty-six reptile species have been recorded within Yellabinna Wilderness Protection Area and thirty-seven species of reptile have been recorded within Pureba Conservation Park. All of these species are indigenous.

7.4 Threatened Species

Within the reserves twenty-seven state listed threatened fauna species have been recorded. Four of these species are also listed as nationally threatened.

Table 3 lists the fauna species that have been recorded within the reserves and are threatened species under the *National Parks and Wildlife Act 1972* and the *Environment Protection and Biodiversity Conservation Act 1999*.

Table 3 Threatened fauna recorded in the reserves

Scientific name	Common name	Conservation status		Last record
		AUS	SA	
Boondina Conservation Park				
<i>Northiella haematogaster</i>	Blue Bonnet	-	ssp	1994
Pureba Conservation Park				
<i>Cacatua leadbeateri</i>	Major Mitchell's Cockatoo	-	R	2008
<i>Cinclosoma castanotum</i>	Chestnut Quail-thrush	-	ssp	1999
<i>Climacteris affinis</i>	White-browed Treecreeper	-	R	2005
<i>Leipoa ocellata</i>	Malleefowl	VU	V	2008
<i>Microeca fascinans</i>	Jacky Winter	-	ssp	2008
<i>Pachycephala inornata</i>	Gilbert's Whistler	-	R	2008
<i>Strepera versicolor</i>	Grey Currawong	-	ssp	2008
Yellabinna Regional Reserve				
<i>Acanthiza iredalei iredalei</i>	Slender-billed Thornbill (western ssp)	VU	R	1984
<i>Amytornis striatus</i>	Striated Grasswren	-	R	1909
<i>Cacatua leadbeateri</i>	Major Mitchell's Cockatoo	-	R	2009
<i>Calamanthus cautus</i>	Shy Heathwren	-	R	2008
<i>Cinclosoma castanotum</i>	Chestnut Quail-thrush	-	ssp	2008
<i>Cinclosoma castanotus castanotus</i>	Chestnut Quail-thrush (eastern ssp)	-	R	2009
<i>Climacteris affinis</i>	White-browed Treecreeper	-	R	2003
<i>Corcorax melanorhamphos</i>	White-winged Chough	-	R	2006
<i>Ctenophorus mckenziei</i>	McKenzie's Dragon	-	R	1987
<i>Falco peregrinus</i>	Peregrine Falcon	-	R	1983
<i>Leipoa ocellata</i>	Malleefowl	VU	V	2009
<i>Melanodryas cucullata</i>	Hooded Robin	-	ssp	2009
<i>Microeca fascinans</i>	Jacky Winter	-	ssp	2009
<i>Myiagra inquieta</i>	Restless Flycatcher	-	R	1999
<i>Neelaps bimauculatus</i>	Western Black-naped Snake	-	R	2005
<i>Neophema splendida</i>	Scarlet-chested Parrot	-	R	2007
<i>Northiella haematogaster</i>	Blue Bonnet	-	ssp	2006

Scientific name	Common name	Conservation status		Last record
		AUS	SA	
<i>Notoryctes typhlops</i>	Marsupial Mole (Itjaritjari)	EN	V	2001
<i>Nyctophilus timoriensis</i>	Greater Long-eared Bat	-	ssp	1987
<i>Pachycephala inornata</i>	Gilbert's Whistler	-	R	2009
<i>Sminthopsis psammophila</i>	Sandhill Dunnart	EN	V	2010
<i>Sminthopsis youngsoni</i>	Lesser Hairy-footed Dunnart	-	R	2008
<i>Strepera versicolor</i>	Grey Currawong	-	ssp	2005
<i>Varanus brevicauda</i>	Short-tailed Pygmy Goanna	-	R	2010
Yellabinna Wilderness Protection Area				
<i>Amytornis striatus</i>	Striated Grasswren	-	R	1999
<i>Ardeotis australis</i>	Australian Bustard	-	V	1995
<i>Cacatua leadbeateri</i>	Major Mitchell's Cockatoo	-	R	2007
<i>Calamanthus cautus</i>	Shy Heathwren	-	R	2007
<i>Cinclosoma castanotum</i>	Chestnut Quail-thrush	-	ssp	2000
<i>Falco peregrinus</i>	Peregrine Falcon	-	R	1999
<i>Leipoa ocellata</i>	Malleefowl	VU	V	2008
<i>Melanodryas cucullata</i>	Hooded Robin	-	ssp	1999
<i>Microeca fascinans</i>	Jacky Winter	-	ssp	2008
<i>Neophema splendida</i>	Scarlet-chested Parrot	-	R	2007
<i>Nyctophilus timoriensis</i>	Greater Long-eared Bat	-	ssp	1987
<i>Pachycephala inornata</i>	Gilbert's Whistler	-	R	2008
<i>Strepera versicolor</i>	Grey Currawong	-	ssp	2007
Yumbarra Conservation Park				
<i>Acanthiza iredalei iredalei</i>	Slender-billed Thornbill (western ssp)	VU	R	2001
<i>Amytornis striatus</i>	Striated Grasswren	-	R	1995
<i>Ardeotis australis</i>	Australian Bustard	-	V	1999
<i>Cacatua leadbeateri</i>	Major Mitchell's Cockatoo	-	R	2001
<i>Calamanthus cautus</i>	Shy Heathwren	-	R	2008
<i>Cinclosoma castanotum</i>	Chestnut Quail-thrush	-	ssp	2008
<i>Corcorax melanorhamphos</i>	White-winged Chough	-	R	2008
<i>Leipoa ocellata</i>	Malleefowl	VU	V	2008
<i>Melanodryas cucullata</i>	Hooded Robin	-	ssp	2004
<i>Microeca fascinans</i>	Jacky Winter	-	ssp	2008
<i>Morelia spilota</i>	Carpet Python	-	R	2002

Scientific name	Common name	Conservation status		Last record
		AUS	SA	
<i>Myiagra inquieta</i>	Restless Flycatcher	-	R	2002
<i>Neophema splendida</i>	Scarlet-chested Parrot	-	R	2004
<i>Nyctophilus timoriensis</i>	Greater Long-eared Bat	-	ssp	1995
<i>Pachycephala inornata</i>	Gilbert's Whistler	-	R	2008
<i>Strepera versicolor</i>	Grey Currawong	-	ssp	2008
<i>Turnix varius</i>	Painted Button-quail	-	R	2007

Australian Conservation Status Codes

The following codes are based on the current listing of species under Section 179 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

- EX Extinct:** there is no reasonable doubt that the last member of the species has died.
- EW Extinct in the Wild:** known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CE Critically Endangered:** facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- E Endangered:** facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- V Vulnerable:** facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD Conservation Dependent:** the species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

Note: Prescribed criteria as defined under the IUCN Red List of Threatened Species.

South Australian Conservation Status Codes

The following codes are based on the current listing of species under Schedules of the *National Parks and Wildlife Act 1972*, as amended in 2008.

- E Endangered:** (Schedule 7) in danger of becoming extinct in the wild.
- V Vulnerable:** (Schedule 8) at risk from potential or long term threats which could cause the species to become endangered in the future.
- R Rare:** (Schedule 9) low overall frequency of occurrence (may be locally common with a very restricted distribution or may be scattered sparsely over a wider area). Not currently exposed to significant threats, but warrants monitoring and protective measures to prevent reduction of population sizes.

For IUCN criteria see:

IUCN (1994) *IUCN Red List Categories*. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland (www.redlist.org).

IUCN (2001) *IUCN Red List Categories and Criteria: Version 3.1*. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, United Kingdom (www.redlist.org)

INTRODUCED FLORA AND FAUNA

A number of introduced pest flora and fauna species have established in the reserves of the Yellabinna Region. Feral animal species are known to dramatically change ecosystem functions by changing the make up of those areas by introducing weed species, denuding landscapes and preventing regrowth causing erosion and by predation on native animals. Predation by cats and foxes has been identified as a threat to the nationally endangered Sandhill Dunnart. However, information is limited as to the degree of predation and impact on this and other species.

African Boxthorn (*Lycium ferocissimum*) has been recorded in Yumbarra Conservation Park. In addition to forming large impenetrable thickets, African Boxthorn also provides excellent shelter for pest animals such as the common starling, foxes and rabbits.

Buffel Grass (*Cenchrus ciliaris*) has been identified as a key threat to biodiversity in the Alinytjara Wilurara Natural Resources Management (AW NRM) region, including in the reserves. It is a hardy deep rooted perennial grass that aggressively colonises habitats and turns them into monocultures. Its presence is also thought to increase the frequency and intensity of fires.

The House Mouse (*Mus musculus*), European Rabbit (*Oryctolagus cuniculus*), European Red Fox (*Vulpes vulpes*), Cattle (*Bos taurus*), One-humped Camel (*Camelus dromedarius*) and Feral Cat (*Felis catus*) have all been recorded within the reserves.

The Common Starling (*Sturnus vulgaris*) is the only introduced species of bird that has been recorded throughout the Yellabinna region.

The Feral Cat, European Red Fox and European Rabbit (and their associated impacts) are listed under the *Environment Protection and Biodiversity Conservation Act 1999* as key threatening processes. Rabbits have the potential to graze native plant species to the degree that they are unable to regenerate, which can lead to a change in ecosystem composition. All three species have also been recognised as posing a risk to the nationally threatened Mallee fowl (Benshemesh, 2007).

Recent evidence shows camel distribution and numbers are increasing in the reserves and as a result are adding to grazing pressure and causing soil disturbance and erosion. Camels are also responsible for increased water use, degradation and contamination of rockholes.

8 MANAGEMENT OF BIODIVERSITY

The AW NRM region covers a vast area in the north west of South Australia that includes the five Yellabinna reserves. The Alinytjara Wilurara Natural Resources Management Plan considers the management of natural resources and biodiversity across the landscapes of the region. Key strategies applicable to the reserves include:

- manage populations of feral animals, particularly around water, significant species and key habitat areas
- monitor and manage key visitor and access sites for new incursions of weeds and control existing weeds
- conduct field investigations and management of native flora and fauna (particularly coast, marine, cave fauna and significant species)
- understand trends in landscape health, climate and environmental changes by implementing monitoring
- determine visitor impacts on fauna and flora
- prioritise and undertake protection and care of surface water features of high biodiversity importance
- undertake fire management and monitoring activities to manage the highest fire risks to landscapes and significant species.

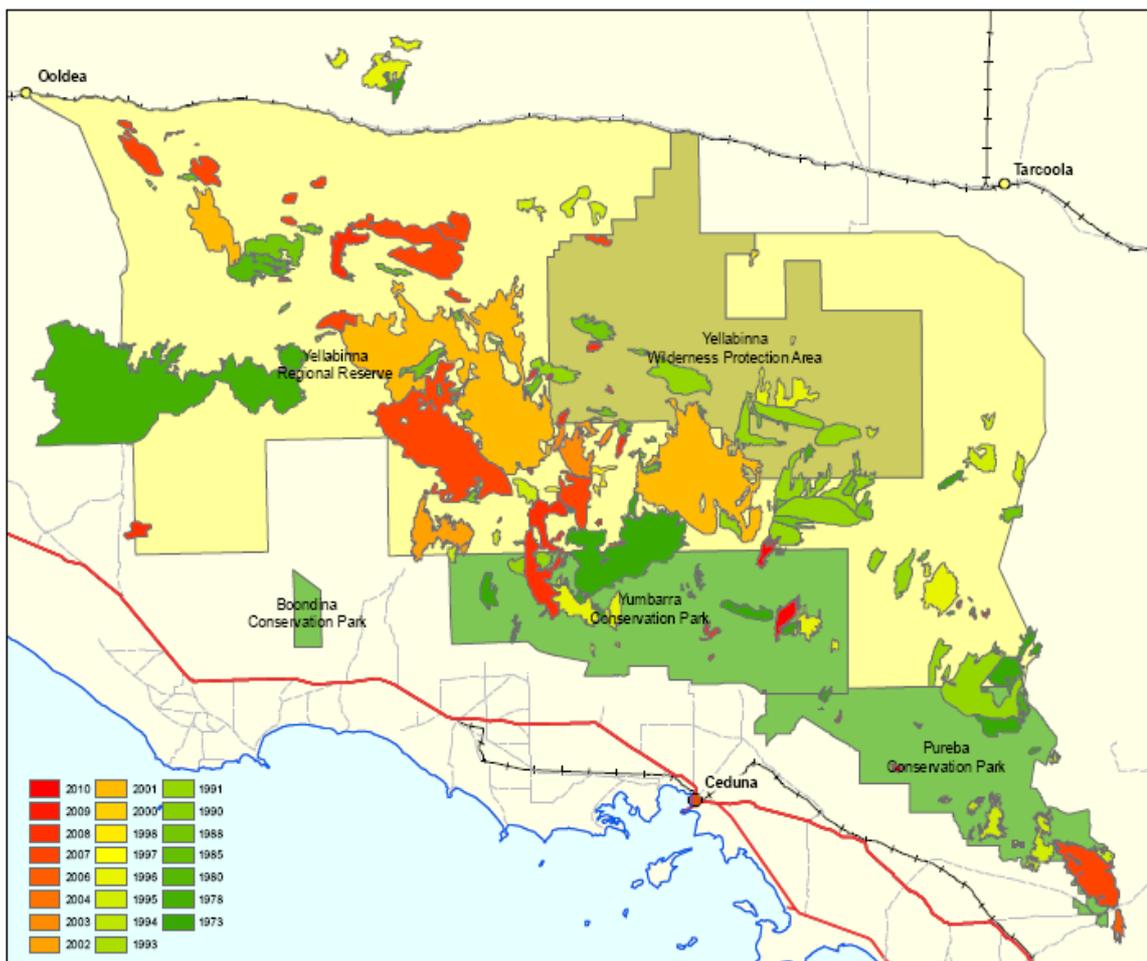
The Yellabinna reserves form a significant proportion of the land in the AW NRM region. Partnership with the AW NRM Board and the traditional owners is critical to achieving the shared goals of protecting and enhancing the biodiversity within the Yellabinna reserves and the wider landscape. To ensure co-ordination and avoid duplication the Yellabinna Reserves draft management plan confirms that biodiversity management strategies within the reserves will closely align with the strategies identified within the AW NRM Plan.

9 FIRE MANAGEMENT

9.1 Fire history

Fires in the Yellabinna Region usually start naturally through lightning strikes. In January 2001, two large fires and a number of small fires burnt approximately 20% of the reserves. Mallee vegetation on sandy soils in semi-arid areas does not generate high fuel loadings except where there is Hummock Grass (*Triodia* spp) in the understorey. Therefore the risk of a serious high intensity fire is low. Hummock Grass understorey is often discontinuous and fire rarely travels far before self-extinguishing, depending on wind conditions. There have been 42 fire incidents recorded for the Yellabinna Region since 1992, most of which (38) burnt less than 10,000 hectares (Figure 2).

Figure 2 Fire history of the Yellabinna reserves



9.2 Alinytjara Wilurara Fire Management Plan

The Alinytjara Wilurara Fire Management Plan (AW FMP) currently under preparation includes the five reserves of the Yellabinna region.

The AW FMP is being developed as a partnership between the landholders and managers in the plan area, together with the state bushfire hazard leader, namely: Anangu Pitjantjatjara Yankunyatjara, Maralinga Tjarutja, Yalata, Mamungari Co-Management Board, Antakirinja Matu-Yankunyatjara Aboriginal Corporation, the Department of Environment, Water and Natural Resources, the Alinytjara Wilurara Natural Resources

Management Board and the SA Country Fire Service. The Far West Native Title Claim Management Committee will also be engaged in preparation of the plan.

The aim of the plan is to develop a risk-based, landscape-scale fire management framework for the northern and western areas of South Australia. This framework will be established through the inclusion of strategies for active fire management and bushfire risk modification within the plan area, addressing cultural, ecological, life and property protection needs.

The intention is that the plan combines traditional ecological knowledge and scientific information to develop fire management strategies supporting contemporary Anangu aspirations and the maintenance and enhancement of biodiversity. This plan also needs to consider the Wilderness Code of Management identified in the *Wilderness Protection Act 1992* (WPA Act).

The draft objectives of the Alinytjara Wilurara fire management plan are to:

- support the integration and continuity of traditional knowledge within fire management in the region
 - support Anangu communities to undertake fire management on country by identifying sustainable training and job pathways
 - protect areas of cultural importance from the adverse impacts of bushfire
 - minimise the risk of bushfire to life and property, including significant infrastructure, within the plan area
 - protect important habitats and provide for the protection of fauna and flora species of cultural and conservation significance at a landscape scale
 - integrate active management with natural fire events to maintain or improve the viability of native species, populations, communities and habitats in the plan area (some of which are unique to the plan area)
 - identify issues for visitor management
 - manage adaptively by continuously improving knowledge of fire regimes required by species, populations, communities and habitats
- A: Protecting Aboriginal cultural values.

10 ABORIGINAL CULTURAL VALUES

The Yellabinna reserves are the traditional lands of the Kokatha, Pitjantjatjara and Yankunytjatjara people. A Native Title determination application has been made on behalf of the Aboriginal peoples of the Far West Coast region of South Australia. The members of the native title claim group are primarily identified (by themselves and others) as Mirning, Wirangu, or as Anangu (Western Desert people, and more specifically as Kokatha, Pitjantjatjara and Yankunytjatjara). There is a long history of Aboriginal occupation and activities within the Yellabinna reserves.

Appendix A contains a history of Aboriginal occupation and use of the reserves, provided by the Native Title Claimants.

Aboriginal law, culture and belief are associated with land and landscape. The land within the Reserves of Yellabinna Region is extremely important to the people with traditional association to the area. The region is 'Country', and there are significant cultural sites and living-connection to Country, for the traditional owners of the land.

Areas within the reserves are still used by Aboriginal people today to conduct ceremonies and travel on law business. Further, the reserves are used extensively for traditional hunting, gathering, camping and resource use by the traditional owners.

There are a number of registered archaeological and cultural sites within the reserves that are protected under the Aboriginal Heritage Act 1988. The full extent of Aboriginal heritage in the reserves has not been comprehensively researched; it is therefore possible that further sites or objects may be present. The Aboriginal Heritage Act protects these objects and regardless of whether they have been registered or recorded.

11 HISTORY OF NON-ABORIGINAL ACTIVITIES IN THE YELLABINNA RESERVES

11.1 Exploration and railway

Ernest Giles was one of the first European explorers to the region, visiting the area in 1875 when his party climbed Mt Finke and visited several waterholes in the area, including Wynbring waterhole. Due to the lack of surface water in the region, they almost died of thirst, and their camels were poisoned north-east of Mt Finke (Giles, 1875).

During the construction of the Trans Australia Railway, a number of condensers were created within the Yellabinna/Nullarbor Region, including one along the northern boundary of Yellabinna Regional Reserve. It was located at the north-eastern tip of Yellabinna Regional Reserve where the boundary of the park meets the Nullarbor Regional Reserve (416-Mile condenser). The condenser was used to provide stockmen with water during the construction of the railway line. A small portion of a ruin still remains within the park, at the site of the 416-Mile condenser. It is speculated that this might have been used as a bread-oven while the condenser was in operation. During this time, an unofficial easement line was created to collect wood to transport it to the 416-Mile condenser. A few remnants of this line remain within the reserve, however during the 1980s a fibre optic cable was installed along the railway line (Pers. Comm., B. Ashby; National Archives of Australia, date unknown).

During World War II, a number of Prisoners of War were employed to work on the Trans Australia Railway for a short-time, undertaking re-sleepering and maintenance. There were six railway gangs employed to work along the railway, including one located at Barton, which lies on the northern boundary of the Yellabinna Regional Reserve (National Archives of Australia, date unknown).

11.2 Pastoral activities

The western boundary of Yellabinna Regional Reserve (adjoining Nullarbor Regional Reserve) was previously used as a travelling stock route, originally crossing Lake Ifould and then passing Poondinga Rockhole. It was later redirected to cross over a narrower section of the lake, and a number of tanks and wells can still be found along where this track ran. There is also evidence of a camp nearby Lake Tallacootra, which is the rumoured site of a goldmine owned by Price Maurice during the 1880s (Pers. Comm., B. Ashby). Another travelling stock route also ran from near the southern boundary of Yumbarra Conservation Park, which is marked by an air traffic control telecommunication station, east towards Narla Rocks (Pers. Comm., B. Ashby).

The reserves have always been unsuitable for pastoral activities due to the lack of permanent water supplies and the presence of dingoes. Undoubtedly, some very limited and temporary grazing has occurred around the edges of the reserves from time to time following rainy seasons, but this impact has been so infrequent as to be negligible.

During the 1970s Goog's Track was constructed by Goog and Jenny Denton and their family.

11.3 The Dog Fence

The Dog Fence and its maintenance tracks follow sections of the southern and eastern boundaries of these reserves. Except for Boondina, the Yellabinna reserves are north of the Dog Fence meaning there are wild dingoes present in the reserves. Authorised contractors maintain the tracks adjacent to the Dog Fence. These tracks are not for public access.

The Dog Fence stretches through the remote, isolated country of the Australian outback. It generally divides the cattle grazing districts on the northern side from sheep grazing districts on the southern side. The Dog Fence is maintained today, to keep the dingo, Australia's wild native dog, from killing grazing animals, mainly sheep.

The first merino sheep flocks were brought to Australia in the 1800's. By the late 1800's, dingo attacks made it difficult to successfully establish a sheep industry. Vermin Boards began building fences around sheep properties to protect flocks from the predatory dingo. Rapidly expanding fenced properties joined up to become what were termed Vermin Districts. At the peak of these Vermin Districts, there was over 30,000 miles of these fences. They became very costly to maintain, particularly during post-war time restrictions and shortages.

In 1946, a single-line dog fence was established in South Australia to align with the most northern boundaries of the properties contained within the Vermin Districts. The fence established a unified standard for maintenance and construction. It now extends from the Great Australian Bight, west of Fowlers Bay, eastward across South Australia, and through New South Wales, to finish at the Bunya Mountains of Queensland, near the pacific coast. It is the longest continuous fence in the world, at 5400km long, 2.5 times the length of the Great Wall of China.

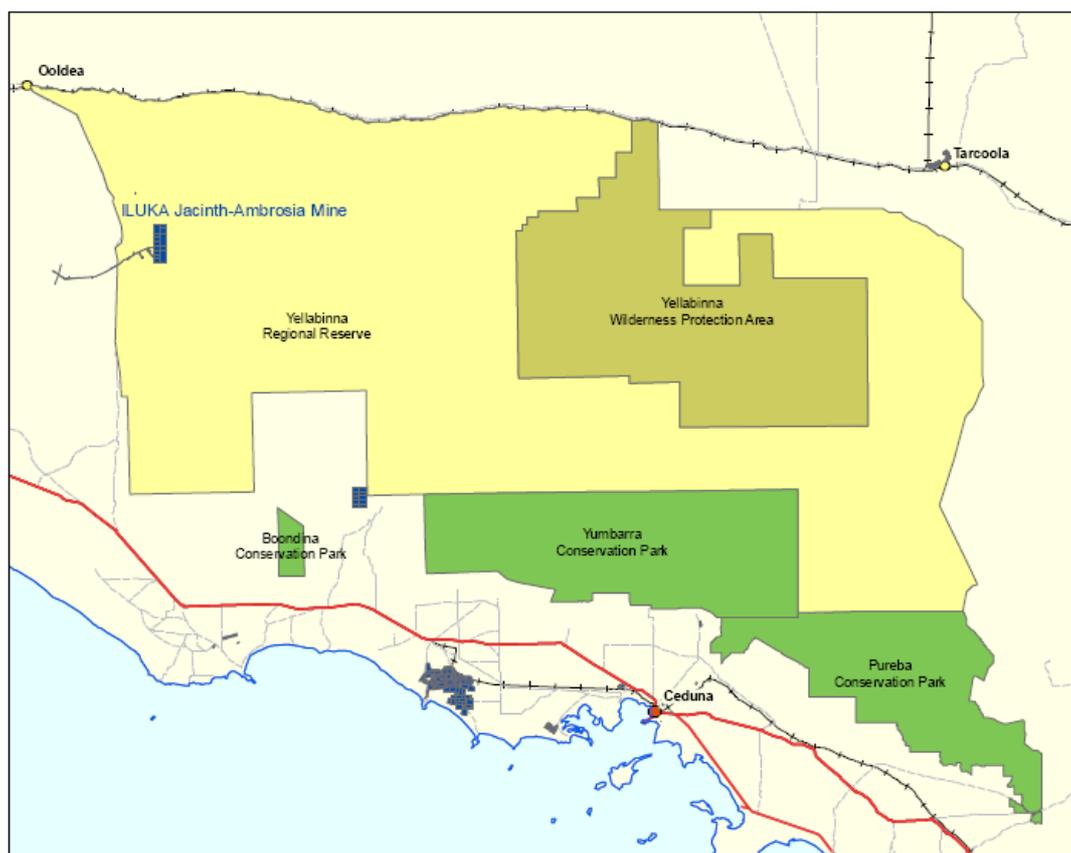
mining and mineral exploration

Reserves under the *National Parks and Wildlife Act 1972* (NPW Act) may provide access for exploration and mining activities which are regulated by the Minerals and Energy Resources Division of Primary Industries and Resources SA (PIRSA). The approval process for these activities varies according to the type of reserve and the conditions specified in the proclamation notice.

This region is prospective for a range of mineral commodities. Heavy mineral sands within the Yellabinnia Regional Reserve are an emerging state resource and are currently mined at Iluka's Jacinth-Ambrosia mine (Figure 3). There are a number of heavy mineral sand deposits in the Yellabinnia Region that are under evaluation for future mining. The region is also prospective for base metals (such as nickel), as well as gold and iron ore.

The draft Management Plan details the environmental and cultural impacts often associated with exploration and mining activities. In South Australia, mineral activities are regulated under the *Mining Act 1971*. This legislation provides legal and procedural requirements to ensure resource exploration and utilisation activities are undertaken in line with the principles of sustainable development and minimise impacts on natural and cultural values.

A Mining and Rehabilitation Program (MARP) exists for the Jacinth-Ambrosia Heavy Mineral Sands project, which provides a detailed assessment of potential environmental risks associated with the early works, construction and operational phases of the project. Management plans in the MARP address specific issues such as vegetation, fauna, pests and heritage.



12 RESEARCH PROJECTS IN THE RESERVES

A number of research projects have been undertaken in the reserves. Table 6 summarises the research projects that have been carried out to date.

Table 6 Research projects undertaken in the reserves

Research title	Year of permit issue
<i>Pureba Conservation Park</i>	
Do dingoes regulate the structure and function of arid ecosystems?	2008
Do dingoes regulate the structure and function of arid ecosystems?	2007
Central Gawler Craton Regional Geochemical Survey	2004
Systematics, distribution and host plants of Australian <i>Buprestidae</i> (Insecta: <i>Coleoptera</i>) – A zoogeographic/taxonomic study	2004
Social behaviour and dispersal in Mitchell's Hopping Mouse (<i>Notomys mitchelli</i>) and the Spinifex Hopping Mouse (<i>N. alexis</i>)	1999
<i>Yellabinna Regional Reserve</i>	
Biogeochemical sampling of live leaf matter to test for the presence of sub-surface minerals	2011
Monitoring Sandhill Dunnarts in the Great Victoria Desert	2011
Relationships between regolith carbonate (calcrete) geochemistry and plant biogeochemistry in exploration for deeply buried gold mineralisation in semi-arid southern Australia	2011
Jacinth Ambrosia (Iluka) Biannual Monitoring Fauna Survey (Ongoing)	2010
Monitoring Sandhill Dunnarts in the Great Victoria Desert	2009
Restoration Ecology in Yellabinna Regional Reserve	2009
Vegetation and soil seed bank dynamics of Western Myall (<i>Acacia papyrocarpa</i>) open woodland with chenopod understorey vegetation in Yellabinna Regional Reserve, South Australia	2009
Behaviour and taxonomy of robber flies (Insecta: <i>Diptera</i> : <i>Asilidae</i>) of South Australia	2008
Do dingoes regulate the structure and function of arid ecosystems?	2008
Jacinth Ambrosia (Iluka) Biannual Monitoring Fauna Survey (Ongoing)	2008
Opportunistic collection of herbarium specimens in various places throughout the state	2008
Systematics and speciation of the <i>Monomorium rothsteini</i> Forel species complex	2008
Vegetation Mapping and Data Recording - Jacinth - Ambrosia Mineral Sands Mine	2008
Avifaunal surveys of the Great Victoria Desert	2007
Behaviour and taxonomy of robber flies (Insecta: <i>Diptera</i> : <i>Asilidae</i>) of South Australia	2007
Do dingoes regulate the structure and function of arid ecosystems?	2007
Nganamara surveys in Alinytjara Wilurara	2007
Restoration Ecology in Yellabinna Regional Reserve	2007

Research title	Year of permit issue
An investigation of the little known Australian <i>agathidine</i> (<i>Hymenoptera: Braconidae</i>) fauna; parasitoid-wasps of lepidopteran larvae.	2005
Eucla Mineral Sand Project	2005
Central Gawler Craton Regional Geochemical Survey	2004
Conservation ecology of Itjaritjari	2004
Were the tertiary radiations of the Australian flora synchronous? A molecular phylogenetic approach	2004
Terrestrial invertebrate fauna of Australian salt lakes	2003
Harris greenstone project	2002
Pluton Geometry and emplacement mechanisms in the Gawler Craton. Insights from Potential field datasets and structural Geophysics.	2002
Terrestrial invertebrate fauna of Australian salt lakes	2002
Revision of the <i>Chloantheae</i> (<i>Lamiaceae</i>)	2001
Social behaviour and dispersal in Mitchell's Hopping Mouse (<i>Notomys mitchellii</i>) and the Spinifex Hopping Mouse (<i>N. alexis</i>).	1999
<i>Yumbarra Conservation Park</i>	
Do dingoes regulate the structure and function of arid ecosystems?	2008
Systematics and speciation of the <i>Monomorium rothsteini</i> Forel species complex	2008
Evolutionary Relationships of New Zealand and Australian Stick Insects	2007
Nganamara surveys in Alinytjara Wilurara	2007
An investigation of the little known Australian <i>agathidine</i> (<i>Hymenoptera: Braconidae</i>) fauna; parasitoid-wasps of lepidopteran larvae.	2006
An investigation of the little known Australian <i>agathidine</i> (<i>Hymenoptera: Braconidae</i>) fauna; parasitoid-wasps of lepidopteran larvae.	2005
Central Gawler Craton Regional Geochemical Survey	2004
Conservation ecology of Itjaritjari	2004
Yumbarra Exploration Licence Assessment 142/93 biological survey	2004
Terrestrial invertebrate fauna of Australian salt lakes	2003
Terrestrial invertebrate fauna of Australian salt lakes	2002
Terrestrial invertebrate fauna of Australian salt lakes	2000
Social behaviour and dispersal in Mitchell's Hopping Mouse (<i>Notomys mitchellii</i>) and the Spinifex Hopping Mouse (<i>N. alexis</i>)	1999

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APPENDIX A: HISTORY OF ABORIGINAL OCCUPATION AND USE OF THE YELLABINNA RESERVES

The following text has been provided by, and represents the views of, the Far West Coast native title claimants¹. That claim is still being assessed.

Archaeological evidence indicates that the Far West Coast region has been used and occupied by Aboriginal people for more than 40,000 years. Writing from a Western Desert perspective in his book *Pila Nguru* (Fremantle Art Centre Press, 2002), Cane states that there is evidence of occupation of Allen's Cave (within the claim area) dating back to the Pleistocene era²:

This site reveals intermittent human occupation from forty thousand years ago, across the peak of the last ice age sixteen thousand years ago, through to the present. At Koonalda Cave, one hundred and sixty kilometres south-east of the homelands, people mined underground flint and carved striking linear engravings in the darkest recesses of a cathedral like cavern from twenty-thousand to fifteen thousand years ago...

Gara and Cane also describe the associations of the Mirning people with Wilson's Bluff (proximate to Allen's Cave), known to the Mirning as *Kardilyerra*. They also describe Bates' accounts of the extensive trading of the white flints obtained from the quarry throughout the Far West Coast region and Western Desert and beyond.³

Wilson's Bluff is also associated with *Wati Nyinyii Tjukurpa*⁴, described in 2002 as "perhaps amongst the oldest extant spiritual traditions on earth."⁵

Extensive anthropological investigation was undertaken by some of the leading figures of twentieth century Australian anthropology (Tindale, the Berndts, Elkin) in the Far West Coast region in the first half of that century. Detailed and lengthy ethnographic observation was also undertaken by Daisy Bates.

According to linguists, the languages spoken by the members of the native title claim group and their ancestors are very closely related, and are all categorised by linguists as belonging to the same group (the South-West group) of the Pana-Nyungan language family.⁶

In the most general terms, three systems of traditional law and custom have been identified within the Far West Coast region. Those systems can be labelled as: Mirning, Wirangu, and Western Desert.

The frequent interaction between the Aboriginal peoples of the Far West Coast, and their seasonal movement, is recorded from the beginnings of European settlement in the region. Examples include:-

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- 1 The Far West Coast native title determination application (SAD6008/98) is made on behalf of the Aboriginal peoples of the Far West Coast region¹ of South Australia. The members of the native title claim group are primarily identified (by themselves and others) as Mirning, Wirangu, or as *Anangu* (Western Desert people, and more specifically as Kokatha, Pitjantjatjara, Yankunytjatjara).
 - 2 The Pleistocene Epoch is part of the geologic timescale, usually dated as 1.8-1.6 million to 10,000 years before present, with the end date expressed in radiocarbon years. It covers most of the latest period of repeated glaciation, up to and including the Younger Dryas cold. The end of the Younger Dryas has been dated to about 9600 BC (11550 calendar years BP).
 - 3 Gara and Cane (1989) Undiri, at 81
 - 4 *Pila Nguru* op cit at 88. It is translated as "Zebra Finch tjukurpa".
 - 5 Ibid, at 91
 - 6 Quoted in Gara and Cane (1989) at 49

- the “native report”⁷ written in December 1859 by Gerharty, a Police Trooper stationed at Venus Bay, in which Aboriginal resource use, seasonal movement and ceremonial organisation in the Eyre Peninsula and eastern part of the application area is discussed. In particular, the report describes:
 - the common presence of Kokatha and Wirangu people along the West Coast as far as Denial Bay and Davenport Creek, together with regular movements as far south as Venus Bay on the Eyre Peninsula in the 1850s.
 - seasonal movements of these groups of people which were dictated by resource supplies (especially water), resulting in large congregations during the summer months, followed by dispersal into wide-ranging family groups during winter.
 - inter-group congregation and cooperation for ceremonial, social and economic purposes.
- the newspaper report⁸ from Donegan, the policeman at Fowler’s Bay, in 1904 stating that members of the Ngalea (Western Desert) tribe from the Ooldabinna area had been making periodic visits to the coast since about 1890. Donegan stated that group consisted of about 70 Ngalea men, plus a similar number of women and children.

Groups of Aboriginal people have travelled through the Far West Coast region to permanent waterholes like Ilgamba (at Head of Bight) and Euria, and to Ooldea and Wardargana (Boundary Dam) in its immediate region. For example, Bates noted that the “coastal people” whom she observed travelled great distances for initiations and other ceremonies:

Ilgamba ... has been a gathering place from time immemorial owing to the plentiful water supply and the number of sea birds, seals etc that abounded there. Yooria water [Euria], some 40 miles north of Penong, was another favourite meeting place, the Penong tribes including Yooria among their tribal waters, the Fowlers Bay tribes having also free access to Yooria owing to intermarriages (BSL 12/XII/13).

Ceremonial links and exchanges are often described in the ethnographic and anthropological record, particularly between Mirning, Wirangu, Kokatha, Wardargana (Boundary Dam) people and beyond.⁹

Bolam, the stationmaster at Ooldea between 1918 and 1925, also offers a number of valuable observations about the nature of Aboriginal occupation and use of the Far West Coast region at that time. He noted that Aborigines from as far away as the Mann, Musgrave, Everard and Macdonnell Ranges “and other remote and unexplored regions of the interior” came to Ooldea for ceremonies and to trade. He added that participants

7 GRG35/1/1860/149

8 Observer 4/6/1904 at 38

9 Bates pointed out that “the chief native courtesy between tribes, and the greatest guarantee of friendship, is the interchange of boys for initiation”. In one published account Bates wrote that Ooldea and Colona groups exchanged their boys for initiation with the Fowlers Bay and Bight tribes (Australasian 27/8/1921). She also noted that youths from Ilgamba were sometimes taken to Eucla, Fowlers Bay and Ooldea or even further afield for initiation ceremonies (BSL 12/XII/6b). As another example of this wide interrelationship, Bates attended an initiation ceremony in 1913 near Eucla which was attended by people from Fraser Range, Boundary Dam, Israelite Bay, Penong and Ayers Rock: quoted Gara and Cane Undiri: Aboriginal Associations with the Nullabor Plain (National Heritage Studies, 1989) at 45-46

at one initiation had come to Ooldea from Fowlers Bay, Tarcoola, Kingoonya and Kalgoorlie.¹⁰

Bates also reported that in times of drought, "coastal people" sometimes sought refuge at Ooldea. According to Bates, they had a right to share in the resources of Ooldea. Likewise, others came into the coastal areas. Of "central desert" people Bates wrote:

Ooldea water is theirs, if they will settle down beside it, but they will not do that, and so in little mobs they wander from Kalgoorlie to Tarcoola, or some point still further east. Then south to Fowler's Bay, and among the west coast farms, and on the Bight head and Eucla, north again to Kalgoorlie, doing the whole circuit of the plains many times in their short lives.

"Native "highways", as Bates called them, marked by waters at intervals, led along the coast from east to west and around the northern and eastern margins of the plain...The coastal route led from Ilgamba to Eucla via a series of (named) rockholes...Other routes connected Ilgamba with Ooldea and Fowlers Bay." (87)

"The tribes or groups occupying the coast of the Bight and the southern edge of the plains hunted over a certain portion north-east and west of them, and named the rockholes and the special features met with. The northern groups similarly hunted over as much of the south-east and west as they could safely traverse, and each little rockhole, soakage and other natural leakage was given a native name...." (Australasian 20/7/1918)

According to Bates, the two major native highways were: "one leading from the Boundary Dam area and the Nor-west to the Head of the Bight, with a branch towards the Eucla area, the other skirting the eastern edge coming from Ooldea southwards, zigzagging along by the various waters, Birdinga, Wainbring, Yuria and Kolona, on towards Fowlers Bay, Penong and other districts." (Australian 20/7/1918)

The historical, ethnographic and anthropological record also describes the use of the resources of the Far West Coast region by Aboriginal people. Coastal resources included seals, shell fish, fish, birds, wombats, kangaroo, turkey, emu, snakes, lizards, bandicoot, and wallaby. Plants were eaten for food and used for medicinal purposes.

As discussed above, trade in the traditional resources of the Far West Coast region also occurred. The resources traded included string spun from wombat fur, and ornaments made from bird feathers, flints and techtites, in exchange for spears, shields, ochre, pituri and pearlshell.¹¹

10 Ibid at 47

11 Gara and Cane op cit at 81-82