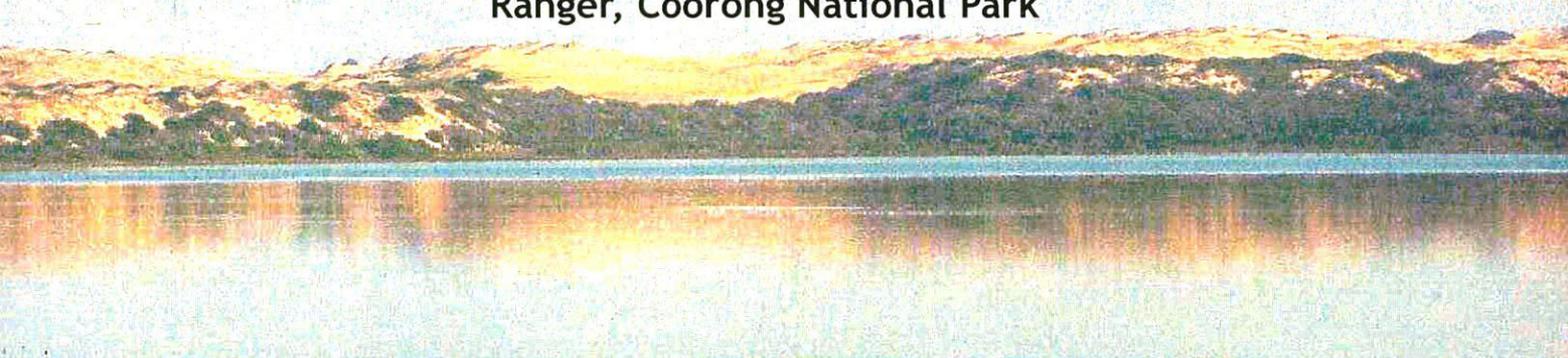


Coorong Health Check

final report for 2000/01

Prepared for the
South East Region
National Parks and Wildlife SA
& Coorong Consultative Committee

By
Eric de Smit
Ranger, Coorong National Park



 **Coorong National Park**



Government
of South Australia



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GPO Box 1047
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Telephone 08 8575 7014
Facsimile 08 8575 7038

Prepared by
Eric de Smit
Ranger, Coorong National Park
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April 2002

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Acknowledgments:

The Coorong Health Check report is a collation of various monitoring programs conducted in the Coorong National Park in the 2000-2001 period. It has benefited greatly from the assistance of the following organisations and people; District ranger Phil Hollow, Senior Ranger Simon Oster, Ranger Steve Gilbert; SA Orange-bellied parrot working group; Environment Australia; Animal and Plant Control Commission (Peter Bird and Bob Gemmell); David Dadd; Holly Bickerton and Sybill Winter; Friends of the Coorong and all those volunteers that provided assistance in the various projects.

Thank you for all your contributions!!!!

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Abbreviations:

| |
|---|
| CNP: Coorong National Park |
| OBP: Orange Bellied Parrot |
| EA: Environment Australia |
| APCC: Animal and Plant Control Commission |
| NPWSA: National Parks and Wildlife, South Australia |
| ATV: All Terrain Vehicle |
| CBG: Cape Barren Goose/Geese |
| PAMS: Protected Area Management System |
| AWSG: Australian Wader Studies Group |

1.0 INTRODUCTION

The Coorong Health Check was established to coincide with the Pest Plant and Vermin Strategy 1996/97-2000/01 and the Tourism and Recreation Plan. It provides a comprehensive overview into a number of long term monitoring programs that are established in the Coorong National Park (CNP).

The main aim of the report is to provide projected outcomes every two years which will monitor the impact of the Pest Plant and Vermin strategies and existing infrastructure. This will provide essential information on the current status of each individual project.

2.0 PRESCRIBED ACTIVITIES AND EVENTS

2.1 Orange-bellied parrot (*Neophema chrysogaster*) monitoring program

The Orange Bellied Parrot (OBP) is an endangered species with no more than 200 remaining in the wild. The destruction of habitat such as winter feeding grounds (coastal heath and saltmarsh) has influenced population decline.

Aim: To increase awareness of the monitoring program and implement management activities.

Objectives: To maintain the bird population in the CNP the following activities are required:

- Coorong staff involved with the OBP SA working group where meetings are held on a tri-monthly basis.
- Two coordinated counts conducted in the Coorong National Park each year.
- Coorong staff continue to record identifications of the bird informing both the Biodiversity Department of NPWSA and Birds Australia.

According to the Captive Management Group, the release of 60 birds from the captive breeding program was set for 2000-2001. The birds were involved in partial hard release from Birch's Inlet, Tasmania. All the birds released were banded with the appropriate colours. (Holdsworth, M, 2001)

Projected Outcomes

1/ A ranger to attend the SA working group meetings and to convey findings of each meeting to CNP staff through staff meetings.

2/ To participate in the annual coordinated counts of the OBP.

2.2 Bird Banding in the Coorong National Park

Bird banding is conducted on an annual basis according to the breeding season. In most cases banding begins in September and finishes in April. North Pelican Island and Mellor Island are checked and banding proceeds depending on the size and age of the birds respectively. This continues on a monthly basis until the young are too old to band. NPWSA and Environment Australia work together in achieving this process.

Aim: To participate in the banding program, supplying resources and equipment, monitoring effective banding periods and provide protection for the breeding islands.

Objectives:

- Alert the Coordinator of the banding process the best time for banding.
- Participate and provide volunteers for the banding process each month.
- Record the band number of deceased pelicans in the Coorong National Park sending information to Environment Australia for collation.

2.2.1 Australian Pelican (*Pelecanus conspicillatus*)

Pelican banding began in 1969 within the Coorong. To date almost 11,500 birds have been banded to the year 2000. Of these birds some 150 birds have been recovered in some cases as far as Papua New Guinea (Table 2)

2.2.2 Caspian Tern (*Sterna caspia*)

Caspian Tern banding began in 1964 and ceased in 1976, it resumed once again in 1999 and continues today. Total number of birds banded so far is 339 birds. Of the 339 banded only one bird has been recovered banded in 1976, (Port Arlington, Victoria, 530km ESE of the Coorong) recovered in 1983. No other banded Terns have been recovered to date.

Table 1: Caspian Tern Numbers Banded

| Year | S.W. | M.Is |
|------|------|------|
| 1964 | 24 | |
| 1965 | 70 | |
| 1966 | 55 | |
| 1967 | 59 | |
| 1968 | 10 | |
| 1969 | 2 | |
| 1970 | 3 | |
| 1975 | 70 | |
| 1976 | 9 | |
| 1999 | | 37 |

S.W: Stonywell Island

M: Mellor Island

Projected Outcomes

- 1/ Continue to assist with banding Pelicans and Caspian Terns with Environment Australia.

**Table 2: Pelican recoveries banded in the Coorong National Park
1964-2000**

SOUTH AUSTRALIA

| <u>Location</u> | <u>Number recovered</u> | <u>Lat</u> | <u>Long</u> | <u>Comments</u> |
|------------------------|-------------------------|------------|-------------|------------------|
| Waikerie | 3 | | | |
| Meningie | 3 | | | |
| Renmark | 5 | | | |
| Morgan | 1 | | | |
| Adrian | 2 | | | |
| Kimba | 1 | | | |
| Goolwa | 2 | | | |
| Port Vincent | 1 | | | |
| Loxton | 3 | | | |
| Happy valley reservoir | 1 | | | |
| Coonalpyn | 1 | | | |
| Kingston S.E | 1 | | | |
| Bordertown | 1 | | | |
| Woods well | 2 | | | |
| Woomera | 1 | | | |
| Cadell | 3 | | | |
| Banrock creek | 1 | | | |
| Murray Bridge | 2 | | | |
| Gerrard misson res. | 1 | 34°22 | 140°30 | |
| Lake Bonney | 1 | | | |
| Policemans Point | 4 | | | |
| Teal Island | 1 | | | |
| Adelaide | 4 | | | |
| Paruna | 1 | 34°43 | 140°44 | |
| Parnka point | 2 | | | |
| Mannum | 2 | | | |
| Walkers flat | 2 | | | |
| Noonameena | 1 | | | |
| Murbko | 1 | 34°10 | 139°40 | |
| Swan reach | 1 | | | |
| Jacks point | 1 | | | |
| Woolpunda | 1 | | | Near Cadell |
| Karoonda | 2 | | | |
| Wynarka | 1 | | | |
| Shylock | 1 | | | |
| Berri | 1 | | | |
| Beachport | 1 | | | |
| Ewe Island | 1 | | | |
| Tintinara | 1 | | | |
| Penong | 1 | | | |
| Lyrup | 1 | | | |
| Lameroo | 1 | | | |
| Pinnaroo | 1 | | | |
| Tenneyson beach | 1 | | | |
| Murray mouth | 1 | | | |
| Blanchetown | 1 | | | |
| Rocky point | 1 | | | 17km N of Mannum |
| Lake George | 1 | | | |
| North Haven | 1 | | | |

Coorong National Park Health Check 2000-2001

NEW SOUTH WALES

| | | | | |
|-----------------------|---|-------|--------|---|
| Lake Medindie | 1 | | | |
| Tooleybuc | 1 | | | |
| Ourimbah | 1 | | | |
| Crong Crong | 1 | 34°44 | 146°47 | |
| Burrinjuck Dam | 1 | | | |
| Lake Corowa | 1 | | | Not 100% positive, loc |
| Lock 11, Murray River | 1 | | | |
| Narromine | 1 | | | |
| Regents Park | 1 | 33°53 | 151°15 | Found at Carnarvon Golf Course, 1390km, ESE |
| Wakool River | 1 | 35°32 | 144°22 | |
| Deniliquin | 2 | | | |
| Carrathool | 1 | | | |
| Gogeldrie | 1 | 34°33 | 146°17 | |
| Balranald | 1 | | | |
| Wilcannia | 1 | | | |
| Glenbawn Dam | 1 | | | |
| Moira State Forest | 1 | | | |
| Finlay | 1 | | | |
| Dart Island, Yamba | 1 | | | |
| Hillston | 1 | | | |
| Lake Victoria | 1 | | | |
| Grafton | 1 | | | |
| Savernake | 1 | 35°44 | 146°03 | |
| Wee Waa | 1 | | | |
| Young | 1 | | | |
| Ballina | 2 | | | |
| Lake Urana | 1 | | | |

VICTORIA

| | | | | |
|----------------------------|---|-------|--------|-----------------------------|
| Nyah West | 1 | | | |
| Lake Boga | 1 | | | |
| Wingen Inlet | 1 | | | Croajingalong National Park |
| Katandra West | 1 | | | |
| Pyramid Hill | 1 | 36°08 | 144°08 | |
| Iraak | 1 | 34°26 | 142°21 | |
| Shepparton | 2 | | | |
| Point Henry | 1 | | | Near Geelong |
| Sale | 1 | | | |
| Murrayville | 1 | | | |
| Little Rotamah Island | 1 | 37°58 | 147°44 | |
| Bacchus Marsh | 1 | | | |
| Mildura | 1 | | | |
| Warracknabeal | 1 | | | |
| Mallee Cliffs State Forest | 1 | | | |
| Lake Cullulleraine | 1 | 34°16 | 141°35 | |
| Minimay | 1 | 36°43 | 141°10 | |
| Springvale | 1 | | | |
| Bairnsdale | 1 | | | |
| Nathalia | 1 | 36°03 | 145°12 | |
| Pound Bend | 1 | 34°45 | 142°37 | |

Coorong National Park Health Check 2000-2001

QUEENSLAND

| | | | | |
|---------------------|---|-------|--------|--|
| Werai Park Station | 1 | | | |
| Claremont | 2 | | | |
| Jambin | 1 | | | |
| Fullam | 1 | | | |
| Mitchell | 1 | | | |
| Bedourie | 1 | | | |
| Bonna | 1 | 24°47 | 152°14 | |
| Windorah | 1 | | | |
| Forest Hill | 1 | | | |
| Emerald | 1 | | | |
| Home Hill | 1 | | | |
| Emu creek, McKinlay | 1 | 21°47 | 140°46 | |
| Rosewood | 1 | | | |
| Myall | 1 | | | |

WESTERN AUSTRALIA

| | | | | |
|------------|---|--|--|--|
| Pilbara | 1 | | | |
| Old Onslow | 1 | | | |

NORTHERN TERRITORY

| | | | | |
|-------------------------------------|---|-------|--------|--|
| Millingimbi Island | 1 | 12°18 | 135°07 | |
| Clyde River | 1 | | | |
| Katherine | 1 | | | |
| Junct: Mann and Liverpool Rivers | 1 | 12°20 | 134°07 | |

AUSTRALIAN CAPITAL TERRITORY

| | | | | |
|---------------------|---|--|--|--|
| Lake Burley Griffin | 1 | | | |
|---------------------|---|--|--|--|

PAPUA NEW GUINEA

| | | | | |
|-----------------------------|---|------|--------|--------------------------------|
| Gulf of Papua New Guinea | 1 | | | 10 months old, 3206km |
| West of Daru | 1 | 9°05 | 143°12 | 3 years and 1month old, 3009km |

2.3 Ceased banding projects

2.3.1 Fairy Tern (*Sterna nereis*)

Records indicate that Fairy Terns were one of the first bird species banded under the Australian Bird Banding scheme in Coorong waters. Banding began on Bluff Island in 1964 and ceased in 1986 at Halfway Island. There has been some opportunistic surveys conducted by Gilbert and Poldridge pers comm, since 1986 which is stored in the PAMS database.

Table 3: Fairy Tern numbers banded

| Year | B. Is | S.W | P. Is | H. Is |
|------|-------|-----|-------|-------|
| 1964 | 157 | | | |
| 1965 | 17 | | | |
| 1966 | | 157 | | |
| 1969 | | 221 | | |
| 1984 | | | 75 | |
| 1985 | | | 35 | |
| 1986 | | | 42 | |

Total Number of Birds Banded: 704

B.Is: Bluff Island

S.W: Stonywell Island

P.Is: Pelican Island

H.Is: Halfway Island

Of the 704 birds banded in total, one recovery was recorded; a live breeding adult located 48km away on West Island on 07/01/70.

Note: An important observation was recorded on Stonywell Island where Fairy Terns nested; "now joined to the mainland due to the drop in the water levels in the Coorong. This allowed foxes and other predators into the colony. Adults seen to have deserted their young. Also happened on Bluff Island

when the water level dropped becoming part of the mainland in December 1967, we recorded over 60 dead young. Did not band on Bluff Island in 1967. (Watermann. M, pers comm 2001)

2.3.2 Crested Terns (*Sterna bergii*)

The banding of the Crested Tern began in 1964 on Stonywell and Halfway Islands. Banding was ceased in 1995. Of the 102,000 terns banded in South Australia, approximately 35,000 were banded in the Coorong.

Stonywell Island

Between 1964 and 1995, 28, 200 chicks and 866 Crested Terns were banded. 634 chicks and 112 adults were recovered. (Watermann. M, 2001)

Halfway island

Banding took place between 1985-1988 only. Of the 4,294 chicks banded 73 were recovered. Of the chicks banded, 6 were recorded in the following year after banding took place as breeding adults.

Records indicate birds that were banded in the Coorong were recovered between 2200km-2390km distant within the first four months of being banded.

Records also indicate that the majority of birds banded in the Coorong generally moved in a South-Easterly direction, from banding sites, with high number found around Port Philip bay in Melbourne.

Banding and research of the Crested Tern was conducted on 19 islands off the mainland of South Australia. Stonywell and Halfway Islands provided major contributions to the banding program and consequently the highest number of recoveries from all the islands where banding took place.

In 1973, 1978, 1981 and 1987 Crested Terns did not breed possibly due to unusually dry weather or a decline in Coorong fish stocks.

Recommendations for Breeding Terns

Land bridges occur frequently between the mainland and the Coorong islands where breeding occurs. Throughout the summer season as water subsides, passageways are formed for feral animals, such as the fox and cat, to predate on chicks and eggs. A program should be established to bait these islands and areas on the mainland to minimise the destruction caused by such animals.

Projected Outcomes

1/ To effectively bait these islands and mainland areas prior to the summer season and the appearance of passageways.

2/ To undertake or provide research opportunities to study breeding population of terns on these islands and continue to monitor the current population.

2.4 Hooded Plover (*Charadrius rubicollis*) monitoring program in the Coorong National Park

The Hooded plover is uncommon along the ocean beach in the Coorong National Park. Disturbance from recreational pursuits (four wheel driving) and predation by foxes has placed negative pressure on the population. A long term monitoring program initiated by Ian Stewart is currently recording fluctuations in the population in the Coorong. Continual assessment in bird numbers will prove necessary for future management.

Aim: To continue monitoring the Hooded Plover populations in the Coorong National Park

Objectives:

- To assess the impact of recreational pursuits on the Hooded Plover population.
- To continue to restrict access to off road vehicles between Tea Tree Crossing and the Murray Mouth during the breeding season (24 October to 24 December).

Method:

Hooded plovers are monitored in a coordinated count conducted twice a year (April and November). Surveying is carried out with ATV motorbikes along the ocean beach, one bike on the low tide mark and one on the high tide mark, counting birds and recording nesting sites. The survey area begins at Murray Mouth, continues to the southern boundary of the park and finishes in Kingston. Data sheets are filled out and collated by Ian Stewart.

Results:

Table 4: Spring Hooded Plover counts (November)

| Year | Kingston/42 mile | 42 mile/ Murray mouth |
|------|------------------|-----------------------|
| 1988 | 21 | 47 |
| 1989 | 24 | 24 |
| 1990 | 29 | 21 |
| 1991 | 20 | 14 (incomplete) |
| 1992 | 36 | 40 |
| 1993 | 18 | 31 |
| 1994 | 3 (bad weather) | 44 |
| 1995 | 15 | 26 |
| 1996 | 17 | 36 (26) 15km mouth |
| 1997 | 10 | 39 (26) Godfreys |
| 1998 | 21 | 31 (32) |
| 1999 | 26 | 35 (50) |
| 2000 | 18 | 35 (51) |
| 2001 | 17 | 37 (45) |

Note: Figures in brackets indicate counts from the Murray Mouth back to 42 Mile Crossing the following day. All figures are for adult birds, juveniles are shown on the data sheets compiled by Ian Stewart.

Projected outcomes:

- To discover indications of breeding activity south of Tea Tree crossing to the southern boundary for possible exclusion zones and resource management.

2.5 Cape Barren Goose Aerial Surveys

Introduction

Aerial counts of Cape Barren Geese (CBG), have been undertaken in recent years around the West Coast and Port Lincoln areas as well as the Lakes and upper Coorong. These summering areas (ie. areas that the geese migrate to during the warmer months) were also counted in the early 1980's from the air.

Aim: To provide baseline information about the success of the CBG population in South Australia.

Objectives:

- Define areas where the birds spend the summer months.
- Develop effective management decisions regarding land purchase or managing any negative impacts on farming land by CBG.

Methods:

The Conservation Program Section of Operations Support (Kensington) have developed the survey method using 2-3 observers in an aircraft (Oscar Bravo Delta) with pilot/Ranger Robin Young. The aircraft is a high winged Cessna which provides good visibility at an altitude of approximately 300 feet.

The observers use an electronic logging device in which they 'punch' the number of birds seen. This device includes a counter, the time and a Global Positioning System (GPS) function.

For Lakes Alexandrina and Albert and the Coorong counts, Goolwa airstrip is used. The flight path begins with seven East-West transects flown over Hindmarsh

Island and the property 'Wyndgate'; a circuit of Mundoo Island and a transect across the barrages, the edge of Lake Albert around to Meningie follows a complete circuit of the Lakes before returning to Goolwa. The survey is repeated for 3 consecutive days (weather permitting) to allow for standard error.

CBG are usually seen in areas close to the waters edge and /or a known food source, such as irrigated or improved pasture or cereal crop.

Results:

Results for the 2002 aerial survey have not yet been tabulated. To be completed by Dr Adrian Stokes and Christine Arnold, (Kensington). However early indications are that the total for the Lakes and upper Coorong are similar to 2001, possibly down slightly? In 2001 the mean number of CBG seen in the lakes and Coorong area was 5,400 (Storr.Robin, Project Officer, "Wyndgate").

2.6 Malleefowl mound monitoring program: Loop road

A monitoring program set up by the Animal and Plant Control Commission into malleefowl breeding mounds was established in December 1996.

Aim: To evaluate the effects of predation and competition from feral animals (foxes and rabbits) on the malleefowl population.

Results:

The first search in 1996/7 located 26 mounds during the breeding season of which 2 were active, a third active mound located outside the grid. Mounds have been monitored in the last five breeding seasons, with only five being active. Two active mounds outside the grid including the well known mound on the loop road.

In each of the five years only two mounds are known to have been active on the grid representing a breeding density of 0.41 breeding pairs per km. This is significantly lower than all other sites where malleefowl breeding is currently monitored in South Australia (Bird. P, 2001, Animal and Plant Control Commission)

Projected outcomes

1/ To continue to work with the Animal and Plant Control Commission in monitoring the current population of malleefowl.

2/ To establish breeding times of the birds through observation for baiting with 1080 baits in the vicinity of the nest when active and most vulnerable to predation.

2.7 Monitoring the impacts of calici virus on rabbits and biodiversity

Another program set up by the APCC to monitor the effects of the Calici virus.

Several plots and transects have been established on the Loop Rd for such monitoring. These include;

- Vegetation changes in trees and shrubs less than a metre high (including orchids),
- Dung plots for grazing herbivores (Western Grey Kangaroo, Common Wombat, rabbits, goats and deer,
- Mammal trapping and surveying for small animals and reptiles,
- Bird surveys for pigeons, emus and parrots, and
- Spotlight transects for foxes and cats.

The majority of these programs have ceased for the present time, however the rabbit population has continued to be monitored on a regular basis in collaboration with the APCC to record changes in incidence of the virus in the current rabbit population along the Loop Rd.

2.8 Monitoring shacks and structures in the Coorong and Lakes district

Aim: To monitor the condition of structures and shacks in the Coorong National Park every two years.

Objectives:

- Maintain the current address of the lessee of the shack.
- Report on the condition of the shack and the general maintenance (paint, roofing, surrounding area, etc.)
- Report on the surrounding area of the shack including; rubbish, vegetation clearance, fencing, retaining walls and non indigenous plants.
- Inform the lessee of potential problems with the maintenance of the shack.

Shack Report 2000-2001:

Upon inspection of 100 shacks throughout the Coorong National Park, the majority of shacks were maintained in a reasonable and acceptable condition. Some shacks, however, need some immediate attention to reach acceptable standard.

2.9 Water bird and wader numbers in the Coorong National Park

Introduction

There has been a dramatic decline in wader numbers in the Coorong from 1982 of 234,543 to 2001 of 48,425 (Wilson.J, 2001, pers comm). The water and wader bird surveys conducted on a monthly basis were established to provide constant monitoring.

It is also anticipated that there will be changes to the ecosystems of the Southern lagoons and Carbonate lakes with the implementation of the drainage component of the Upper South East Dryland Salinity and Flood Management Plan, which in turn, could affect potential bird numbers.

Aim: To monitor the fluctuations of water and wader birds in the Coorong National Park.

Objectives:

- To provide data to management of the CNP of changes in numbers in the CNP.
- To conduct a summer and winter waterbird and wader bird count in the Coorong National Park.

Methods:

Ten sites were selected in the southern part of the CNP to provide a comprehensive overview of environmental niches that occur in the survey area (Site 1 at Parnka lookout and site 10 at the carbonate lakes south of 28 mile crossing).

Observations are taken within a 500 metre radius by skilled counters using a spotting scope with a 32x

eyepiece and two pairs of binoculars. One observer uses the optical aids, counts the birds and identifies species whilst the other observer records the count and observes bird movement. All counts are double checked by both observers.

Errors in counting are possible due to the size of the Coorong, movement of birds, heat haze and strong winds but every effort to overcome this is made by reviewing data and moving for better observation.

(Dadd.D, 2001)

Each time a survey is conducted by David Dadd, survey data is relayed to NPWSA for collation. Data includes the day the survey, temperature, wind speed and direction, water height, cloud cover, duration of survey and total number of birds for the day.

Projected Outcomes

With the influx of freshwater in to the southern Coorong, continuous data needs to be gathered to indicate possible changes in the population and dynamics of water and wader birds. With this transferable data from monitoring, indications on numbers and movements can be established for future management planning.

2.10 Wader surveys in the Coorong and Lakes district

As for the wader and water bird surveys conducted throughout the year on a tri-monthly basis, a wader survey in the Coorong and Lakes district is conducted annually. The AWSG perform a coordinated count during February each year to compare results from previous counts.

Aim: To monitor the fluctuations of wader birds in the Coorong and Lakes district.

Objectives:

- To provide data to management of the CNP of changes in numbers in the CNP.
- To conduct an annual wader bird count in the Coorong and Lakes district and report on the findings to CNP.

Methods:

The AWSG conducts an extensive count of wader birds over a two day period covering the 150km stretch of the Coorong. These results are tabulated into a report written each year by the AWSG and given to the Department of Environment and Heritage.

Results:

The total count for wader species in the Coorong for 2000 and 2001 were;

2000: 68,599 birds

2001: 48,425 birds

2.11 Fauna Survey: CNP- 29/04/01-03/05/01

Introduction

This survey was one of two surveys conducted in the Coorong National Park during 2001. Four sites were established as trial sites throughout the park; 28 mile crossing, 42 mile crossing, Loop road and Godfreys landing. Each site is consistent with being within 1km of a designated camping site.

Aim: To establish a long term monitoring program on native fauna indicating fluctuations in populations and species as well as, the possible impacts produced from camping areas 50, 100, 150 metres away.

Site Descriptions:

Site A: 28 Mile crossing

The site is located in a basin of vegetated sand dunes. The vegetation structure consists of; *Acacia sophorae*, *Myoporum insulare* and *Olearia axillaris* are the dominant overstory species with *Imperata cylindrica*, *Leucopogon parvifolium* and *spinifex hirsutus* and a variety of exotic grasses in the understory. Soil structure consists of sand and shells.

Site B: 42 mile crossing

This site is similar in species distribution as 28 Mile crossing. However, more understory diversity exists, such as; *Gahnia filum*, *juncus sp*, and saltmarsh species are the most commonly observed. Soil structure is sandy, rich in high organic matter and a calcrete/limestone shelf evident 200mm below the surface.

Site C: Loop Road

This site differs from sites A and B with *Eucalyptus fasciculosa* and *E. diversifolia* being the dominant overstorey species. The site also consists of *Melalueca halmaturorum*, *Olearia axillaris*, *Xanthorrhoea semiplana* and various sedgeland species. The soil structure consists of sand.

Site D: Godfrey's Landing

Due to unforeseen circumstances this site was not surveyed during this period.

Methods:

Each survey site contains pitfall lines, Elliott traps and cages. The pitfall lines consist of 10 trial buckets with a 50m driftline fence bisecting each bucket across the site, 20 Elliott traps, spaced in four rows of five traps per row, with a larger Elliott trap at the end of three rows were set and baited using standard bait. The cage traps were placed on the perimeter of the sites.

A bird survey was conducted at each site during the morning for 30 minutes. All birds seen and heard were recorded.

Each site was surveyed for evidence of activity (eg. Tracks, scats, burrows, diggings, bones and hair) and recorded.

Spotlighting was conducted at various locations throughout the Coorong National Park. Incidental observations were also recorded en-route to each site.

Weather Observations

The weather remained fine during the survey period, varying from 8 degrees to 24 degrees. Some light dew was evident in the mornings, with a light cover of cloud evident on two of the four days of surveying.

Results:

See Table 5

All mammals caught within the Elliott and pitfall traps were *Mus musculus* (House mice).

Discussion:

The total vertebrate species recorded for the survey consisted of ; Six mammal species (two of feral species), Seven reptile species and 36 bird species. There was a High number of House mice were captured (73) in Elliott's and pitfalls which could have influenced native species capture.

Cages were found to be shut twice during the survey period, however no captures were recorded.

Spotlighting, concentrated mainly on arboreal mammals and had limited success during the survey period.

Bird surveying produced some good results for the habitats surveyed. The majority of birds were woodland and scrub species, with the occasional raptor species hovering over the site. Two nocturnal species were also recorded.

Reptile captures produced the greatest success during the survey period. The weather more than likely contributed to this with warm days increasing the activity of reptile species.

At each site diggings and faeces by wombats and rabbits were evident and tracks by a wide range of animals some unidentifiable. Site A recorded the highest number of captures and productivity with the majority of reptile captures recorded at this site.

Recommendations and Conclusions:

The survey period is a trial trapping event that has been conducted at these particular sites, hence comparisons are hard to draw at the present time. These sites will change to permanent trap sites for future trapping events so comparisons can be established.

Some recommendations were indicated during the trapping event and will be incorporated into the next surveying period in October. These are mentioned below;

1/ Some pitfalls could be running down the slope instead of along the contour for increases in captures (Gemmell Bob, pers comm).

2/ Running the survey when temperatures are higher

3/ Change and variations in baiting procedures in cages and Elliott's, some having meat placed in the traps as well as standard bait.

Table 5: Results of Fauna Survey April-May 2001**Table 5.1 Mammals (captured)**

| Site | Date | Species | Captured |
|------|------------|---------------------|----------|
| A | 30/04/2001 | <i>Mus musculus</i> | 7 |
| | 1/05/2001 | | 15 |
| | 2/05/2001 | | 5 |
| | 3/05/2001 | | 8 |
| B | 30/04/2001 | <i>Mus musculus</i> | 4 |
| | 1/05/2001 | | 5 |
| | 2/05/2001 | | 8 |
| | 3/05/2001 | | 2 |
| C | 30/04/2001 | <i>Mus musculus</i> | 3 |
| | 1/05/2001 | | 7 |
| | 2/05/2001 | | 7 |
| | 3/05/2001 | | 2 |
| | | Total | 73 |

Table 5.2 Mammals (spotlighting)

| Date | Location | Species | common name | Number Observed |
|------------|------------------------------------|---------------------------------|-----------------------|-----------------|
| 29/04/2001 | Loop Road | | | 0 |
| 30/04/2001 | Access trail from | | | 0 |
| | highway to the Old Coorong Road | | | |
| 1/05/2001 | Messent | <i>Cacatua roseicapilla</i> | Galah | 1 |
| | Conservation | <i>Oryctolagus cuniculus</i> | Rabbit | 1 |
| | Park (western | | | |
| | boundary fence line) | | | |
| | | <i>Gymnorhina tibicen</i> | Australian Magpie | 1 |
| | | <i>Dromaius novaehollandiae</i> | Emu | 1 |
| | | <i>Macropus fulginosus</i> | Western Grey Kangaroo | 1 |
| 2/05/2001 | Old Coorong Road | <i>Oryctolagus cuniculus</i> | | 2 |
| | (28 mile crossing) | <i>Macropus fulginosus</i> | | 3 |
| | | <i>Ninox novaeseelandiae</i> | Southern Boobook Owl | 1 |

Table 5.3 Reptiles

| Site | Date | Species | length (mm) | Pitfall trap |
|--------------------------|------------|-----------------------------------|-------------|-----------------|
| | | | snout/vent | number |
| A | 30/04/2001 | <i>Hemiergis peronii</i> | 59mm | 1 |
| | | <i>Pseudemoia entrecasteauxii</i> | 48mm | 1 |
| | | <i>Pseudemoia entrecasteauxii</i> | 55mm | 4 |
| | | <i>Menetia greyii</i> | 30mm | 5 |
| | | <i>Menetia greyii</i> | 30mm | 7 |
| | 1/05/2001 | <i>Menetia greyii</i> | 28mm | Along fenceline |
| | | <i>Pseudemoia entrecasteauxii</i> | 48mm | 5 |
| | 2/05/2001 | <i>Morethia boulengeri</i> | 28mm | 2 |
| | | <i>Hemiergis peronii</i> | 50mm | 2 |
| | | <i>Pseudemoia entrecasteauxii</i> | 45mm | 3 |
| | | <i>Pseudemoia entrecasteauxii</i> | 50mm | 5 |
| | | <i>Lerista bouganvillii</i> | 55mm | 4 |
| | 3/05/2001 | <i>Aprasia striolata</i> | 120mm | 4 |
| <i>Menetia greyii</i> | | 30mm | 4 | |
| <i>Hemiergis peronii</i> | | 52mm | 4 | |
| | | | | |
| B | 1/05/2001 | <i>Pseudemoia entrecasteauxii</i> | 50mm | 5 |
| | | <i>Menetia greyii</i> | 30mm | 6 |
| | | <i>Hemiergis peronii</i> | 55mm | 6 |
| | 2/05/2001 | <i>Hemiergis peronii</i> | 60mm | 4 |
| | 3/05/2001 | <i>Hemiergis peronii</i> | 55mm | 2 |
| C | 3/05/2001 | <i>Menetia greyii</i> | 28mm | 1 |
| | | <i>Lampropholis guichenoti</i> | 45mm | 3 |

Table 5.4 Birds

| Site | Date | Species | Common name |
|-----------|-----------|-----------------------------------|--------------------------------|
| A | 30/04/01- | <i>Dromaius novaehollandiae</i> | Emu |
| | 3/05/2001 | * <i>Turdus merula</i> | Blackbird |
| | | <i>Colluricincla harmonica</i> | Grey Shrike-thrush |
| | | <i>Gymnorhina tibicen</i> | Australian Magpie |
| | | <i>Grallina cyanoleuca</i> | Australian Magpie-lark |
| | | <i>Anthochaera carunculata</i> | Red Wattlebird |
| | | <i>Strepera versicolor</i> | Grey Currawong |
| | | <i>Rhipidura leucophrys</i> | Willie Wagtail |
| | | <i>Phaps elegans</i> | Brush Bronzewing |
| | | <i>Zosterops lateralis</i> | Silvereye |
| | | <i>Coracina novaehollandiae</i> | Black-faced Cuckoo |
| | | | Shrike |
| | | <i>Acanthiza reguloides</i> | Buff-rumped Thornbill |
| | | <i>Sericornis frontalis</i> | White-browed Scrub |
| | | | Wren |
| | | <i>Lichenostomus virescens</i> | Singing Honeyeater |
| | | <i>Corvus coronoides</i> | Australian Raven |
| | | <i>Acanthagenys rufogularis</i> | Spiny-cheeked |
| | | | Honeyeater |
| | B | 30/04/01- | <i>Colluricincla harmonica</i> |
| 3/05/2001 | | <i>Pomatostomus superciliosus</i> | White-browed Babbler |
| | | <i>Acanthagenys rufogularis</i> | Spiny-cheeked |
| | | | Honeyeater |
| | | <i>Lichenostomus virescens</i> | Singing Honeyeater |
| | | * <i>Turdus merula</i> | Blackbird |
| | | <i>Anthochaera carunculata</i> | Red Wattlebird |
| | | <i>Phaps elegans</i> | Brush Bronzewing |
| | | <i>Aquila audax</i> | Wedge-tailed Eagle |
| | | <i>Falco cenchroides</i> | Nankeen Kestrel |
| | | <i>Cracticus torquatus</i> | Grey Butcherbird |
| | | <i>Strepera versicolor</i> | Grey Currawong |
| | | <i>Cacatua roseicapilla</i> | Galah |
| | | <i>Gymnorhina tibicen</i> | Australian Magpie |
| C | 30/04/01- | <i>Lichenostomus virescens</i> | Singing Honeyeater |
| | 3/05/2001 | <i>Acanthagenys rufogularis</i> | Spiny-cheeked |
| | | | Honeyeater |
| | | <i>Anthochaera carunculata</i> | Red Wattlebird |

| | | |
|--|-------------------------------------|------------------------|
| | <i>Phylidonyris novaehollandiae</i> | New Holland Honeyeater |
| | <i>Strepera versicolor</i> | Grey Currawong |
| | <i>Acanthiza pusilla</i> | Brown Thornbill |
| | <i>Hirundo neoxena</i> | Welcome Swallow |
| | <i>Acanthiza lineata</i> | Striated Thornbill |
| | <i>Rhipidura fuliginosa</i> | Grey Fantail |
| | <i>Pomatostomus superciliosus</i> | White-browed Babbler |
| | <i>Acanthiza reguloides</i> | Buff-rumped Thornbill |
| | <i>Zosterops lateralis</i> | Silvereye |
| | <i>Coracina novaehollandiae</i> | Black-faced Cuckoo |
| | | Shrike |

Table 5.5 Opportune records

| Species | Common name |
|---------------------------------|-----------------------|
| <i>Malurus cyaneus</i> | Superb Fairy-wren |
| <i>Falco berigora</i> | Brown Falcon |
| <i>Elanus notatus</i> | Black-shouldered Kite |
| <i>Vanellus miles</i> | Masked Lapwing |
| <i>Strepera versicolor</i> | Grey Currawong |
| <i>Falco cenchroides</i> | Nankeen Kestrel |
| <i>Corvus coronoides</i> | Australian Raven |
| <i>Dromaius novaehollandiae</i> | Emu |
| <i>Gymnorhina tibicen</i> | Australian Magpie |
| <i>Phaps elegans</i> | Brush Bronzewing |
| <i>Colluricincla harmonica</i> | Grey Shrike-thrush |
| <i>Ocyphaps lophotes</i> | Crested Pigeon |
| * <i>Felis catus</i> | Feral Cat |
| <i>Tachyglossus aculeatus</i> | Echidna |
| <i>Tyto alba</i> | Barn owl |
| <i>Macropus fuliginosus</i> | Western Grey Kangaroo |
| * <i>Oryctolagus cuniculus</i> | Rabbit |
| <i>Haliastur sphenurus</i> | Whistling Kite |
| <i>Coracina novaehollandiae</i> | Black-faced Cuckoo |
| | Shrike |
| <i>Stagonopleura bella</i> | Beautiful Firetail |
| <i>Vombatus ursinus</i> | Wombat |

*introduced

2.12 Fauna Survey: CNP- 29/10/01-02/11/01

Introduction:

This survey was the second of two surveys that were conducted in the Coorong National Park during 2001. Again four sites were used; 28 mile crossing, 42 mile crossing, Loop Rd and Godfreys landing. Each site varies in distance (50 to 500 metres) from a designated camping site.

Site Descriptions:

Site A: 28 Mile Crossing

This site is the consistent with surveying conducted in March 2001

Site B: 42 Mile Crossing

This site was moved closer to the camping area from the previous trapping period. The site supports similar species distribution as 28 Mile crossing, however contains more understory diversity. *Gahnia filum*, *juncus sp*, and saltmarsh species most commonly observed. Soil structure consists of sand and shells.

Site C: Loop Road

This site differs from the other two sites with *Eucalyptus fasciculosa* and *E. diversifolia* being the dominant overstory species. The site also consists of *Melalueca halmaturorum*, *Olearia axillaris*, *Xanthorrhoea semiplana* and various sedgeland species. The soil structure consists of sand.

Site D: Godfreys landing

This site is similar to site A and B. Dominant species include *Acacia longifolia*, *Olearia axillaris*,

Myoporum insulare and *Leucopogon parvifolium* approximately 1.5 metres in height on average. Understory species include pigface, clubrush and juncus reed. The soil structure consists of sand with a large component of crushed shells.

Method:

Each survey site (except site D) consists of pitfall lines, Elliott traps and cages. The pitfall lines are spread out across the site with a total of 10 permanent buckets and a 50m driftline fence bisecting the buckets. There are 20 Elliott traps, evenly spaced along and adjacent to the pitfall line fence and a larger Elliott trap at either end. The cage trap was placed on the perimeter of the sites. Site D possesses a longer pitfall line (100m) that contains 20 buckets. 20 Elliott traps were placed along the line with a larger Elliott trap at either end. Animals that were captured were marked to indicate recapture.

A bird survey, incidental observations and evidence of activity were conducted at each site as carried out in the previous survey in March 2001.

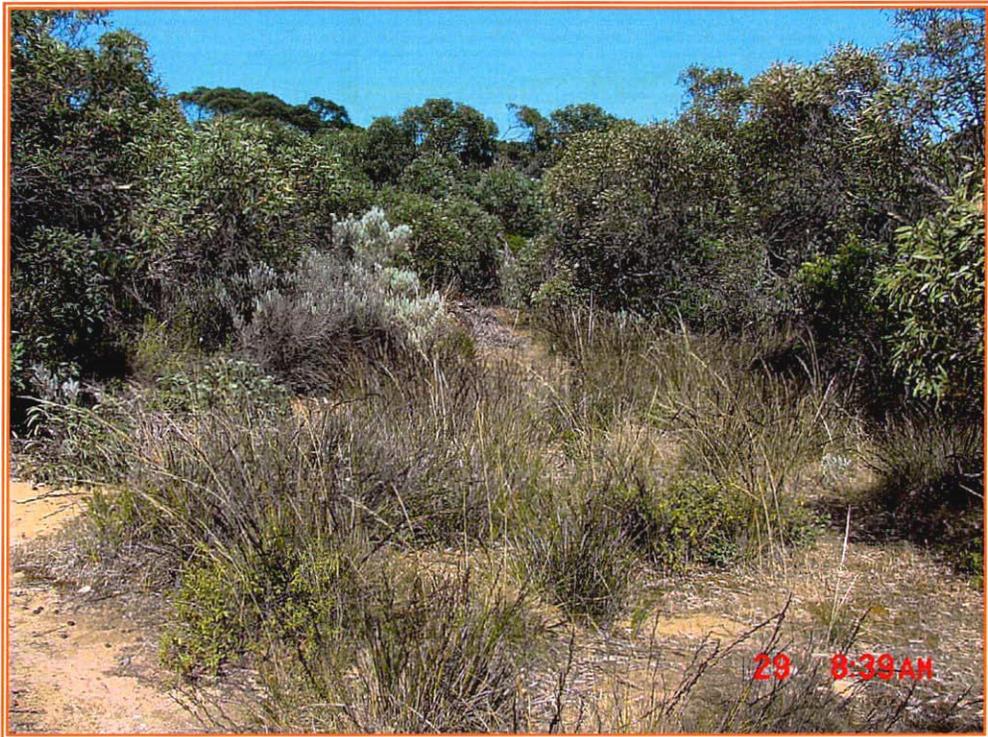
Weather Observations

The weather was unsettled during the survey period with brief showers on most days and mild days in between. Temperatures varied from 15 to 25 degrees.

Results:

See table 6

Two species were captured in the Elliott and pitfall lines, the Western Pygmy Possum (*Cercartetus concinnus*) and the House mouse (*Mus musculus*).



3.



4.

Photograph: 3. Site C: Loop Road.
4. Western Pygmy Possum (*Cercartetus concinnus*)
trapped at Site C



1.



2.

Photograph: 1. Site A: 28 Mile Crossing
2. Site B: 42 Mile Crossing

Table 6: Results of Fauna Survey October - November 2001**Table 6.1 Mammals (captured)**

| Site | Date | Species | Captured |
|------|------------|------------------------------|----------|
| A | 30/10/2001 | <i>Mus musculus</i> | 4 |
| | 31/10/2001 | | 2 |
| | 1/11/2001 | | 1 |
| | 2/11/2001 | | 2 |
| B | 30/10/2001 | <i>Mus musculus</i> | 2 |
| | 31/10/2001 | | 0 |
| | 1/11/2001 | | 1 |
| | 2/11/2001 | | 0 |
| C | 30/10/2001 | <i>Cercartetus concinnus</i> | 1 |
| | | <i>Mus musculus</i> | 4 |
| | 31/10/2001 | <i>Mus musculus</i> | 3 |
| | 1/11/2001 | | 1 |
| | 2/11/2001 | | 4 |
| D | 29/10/2001 | <i>Mus musculus</i> | 3 |
| | 30/10/2001 | | 4 |
| | 31/10/2001 | | 3 |
| | 1/11/2001 | | 6 |
| | | Total | 41 |

Table 6.2: Reptiles and Amphibians

| Site | Date | Species | length (mm) | Pitfall trap | Number |
|------------|-------------------------------|-----------------------------------|--------------------------|--------------|---------------|
| | | | snout/vent | number | |
| A | 30/10/2001 | <i>Lymnodynastes tasmaniensis</i> | 110mm | 10 | 1 |
| | 31/10/2001 | <i>Menetia greyii</i> | 28mm | 8 | 1 |
| | | <i>Pseudemoia entrecasteauxii</i> | 48mm | 1 | 1 |
| | | <i>Hemiergis peroni</i> | | 5 | 1 |
| | | <i>Lerista bouganvillii</i> | | 7 and 5 | 2 |
| | | <i>Aprasia striolata</i> | | 6 | 1 |
| | 1/11/2001 | <i>Hemiergis peronii</i> | 50mm | 5 | 1 |
| | | <i>Lerista bouganvillii</i> | 55mm | 4 | 1 |
| | | <i>Menetia greyii</i> | | 3,4,5 | 6 |
| | 2/11/2001 | <i>Menetia greyii</i> | 30mm | 3 | 1 |
| | | <i>Hemiergis peronii</i> | 52mm | 1 | 1 |
| | | <i>Lerista bouganvillii</i> | | 3 | 1 |
| | | <i>Pseudemoia entrecasteauxii</i> | | 5 | 1 |
| | B | 30/10/2001 | <i>Hemiergis peronii</i> | 55mm | 9 |
| 31/10/2001 | | <i>Hemiergis peronii</i> | | 2 | 1 |
| 2/11/2001 | | <i>Trachydosaurus rugosus</i> | | 4 | 1 |
| C | 30/10/2001 | <i>Pseudemoia entrecasteauxii</i> | | 6 and 9 | 2 |
| | | <i>Lerista bouganvillii</i> | | 6 | 1 |
| | 31/10/2001 | <i>Pseudemoia entrecasteauxii</i> | | 2 | 1 |
| | 1/11/2001 | <i>Pseudemoia entrecasteauxii</i> | | 10 and 1 | (recapture) 1 |
| | | <i>Pseudemoia duperreyi</i> | | 4 | 1 |
| | <i>Trachydosaurus rugosus</i> | | Cage | 1 | |
| D | 29/10/2001 | <i>Aprasia striolata</i> | 40mm | 2 | 1 |
| | | <i>Aprasia striolata</i> | 50mm | 4 | 1 |
| | | <i>Ctenophorus pictus</i> | 50mm | 7 | 1 |
| | | <i>Ctenophorus pictus</i> | 40mm | 10 | 1 |
| | | <i>Ctenophorus pictus</i> | 60mm | 13 | 1 |
| | Afternoon | <i>Ctenophorus pictus</i> | 40mm | 1 | 1 |
| | | <i>Ctenotus robustus</i> | 80mm | 2 | 1 |
| | | <i>Ctenotus robustus</i> | 75mm | 5 | 1 |
| | | <i>Tiliqua scincoides</i> | | 4 | 1 |
| | | <i>Ctenophorus pictus</i> | 60mm | 5 | 1 |
| | | <i>Ctenotus robustus</i> | 50mm | 6 | 1 |
| | | <i>Ctenotus robustus</i> | 50mm | 8 | 1 |
| | | <i>Ctenophorus pictus</i> | 60mm | 9 | 1 |
| | | <i>Ctenophorus pictus</i> | 50mm | 11 | 1 |
| 30/10/2001 | <i>Ctenophorus pictus</i> | 60mm | 3 | 1 | |

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| | | | | | |
|--|------------|---------------------------|------|-------|---------------|
| | | <i>Ctenophorus pictus</i> | 40mm | 6 | 1 |
| | | <i>Ctenotus robustus</i> | 70mm | 6 | 1 |
| | | <i>Aprasia striolata</i> | 50mm | 13 | 1 |
| | Afternoon | <i>Ctenophorus pictus</i> | 60mm | 7 | 1 |
| | | <i>Ctenotus robustus</i> | 60mm | 10 | 1 |
| | | <i>Tiliqua scincoides</i> | | 15 | (recapture) 1 |
| | 31/10/2001 | <i>Ctenophorus pictus</i> | 60mm | 4 | (recapture) 1 |
| | | <i>Ctenophorus pictus</i> | 50mm | 11 | 1 |
| | | <i>Ctenotus robustus</i> | 40mm | 7 | 1 |
| | | <i>Hemiergis peroni</i> | 50mm | 12 | 1 |
| | Afternoon | <i>Ctenotus robustus</i> | 90mm | 4 | 1 |
| | | <i>Ctenophorus pictus</i> | 55mm | 7 | 1 |
| | | <i>Ctenophorus pictus</i> | 60mm | 9 | 1 |
| | | <i>Ctenophorus pictus</i> | 50mm | 8 | 1 |
| | 1/11/2001 | <i>Ctenophorus pictus</i> | 60mm | 4 | 1 |
| | | <i>Hemiergis peronii</i> | 50mm | 6 | 1 |
| | | <i>Hemiergis peronii</i> | 35mm | 6 | 1 |
| | | <i>Hemiergis peronii</i> | 45mm | 6 | 1 |
| | | <i>Ctenotus robustus</i> | 65mm | 12 | 1 |
| | | <i>Ctenophorus pictus</i> | 50mm | 15 | 1 |
| | | | | total | 64 |

Table 6.3 Birds

| Site | Date | Species | Common name |
|-----------|------------------------|-------------------------------------|--------------------------------|
| A | 30/10/01- | <i>Corvus coronoides</i> | Australian Raven |
| | 2/11/2001 | * <i>Turdus merula</i> | Blackbird |
| | | <i>Gymnorhina tibicen</i> | Australian Magpie |
| | | <i>Anthochaera carunculata</i> | Red Wattlebird |
| | | <i>Strepera versicolor</i> | Grey Currawong |
| | | <i>Phaps elegans</i> | Brush Bronzewing |
| | | <i>Zosterops lateralis</i> | Silvereye |
| | | <i>Acanthiza reguloides</i> | Buff-rumped Thornbill |
| | | <i>Acanthagenys rufogularis</i> | Spiny-cheeked |
| | | | Honeyeater |
| | | <i>Elanus notatus</i> | Black shouldered Kite |
| | | <i>Coturnix pectorallis</i> | Stubble Quail |
| | | <i>Malurus cyaneus</i> | Superb fairy-wren |
| | | <i>Falco cenchroides</i> | Nankeen Kestrel |
| | | <i>Dromaius novaehollandiae</i> | Emu |
| | | <i>Phylidonyris novaehollandiae</i> | New Holland Honeyeater |
| | | <i>Rhipidura fuliginosa</i> | Grey Fantail |
| | | | |
| | B | 30/10/01- | <i>Colluricincla harmonica</i> |
| 2/11/2001 | | <i>Pomatostomus superciliosus</i> | White-browed Babbler |
| | | <i>Acanthagenys rufogularis</i> | Spiny-cheeked |
| | | | Honeyeater |
| | | <i>Lichenostomus virescens</i> | Singing Honeyeater |
| | | <i>Anthochaera carunculata</i> | Red Wattlebird |
| | | <i>Phaps elegans</i> | Brush Bronzewing |
| | | <i>Strepera versicolor</i> | Grey Currawong |
| | | <i>Gymnorhina tibicen</i> | Australian Magpie |
| | | <i>Zosterops lateralis</i> | Silvereye |
| | | <i>Dromaius novaehollandiae</i> | Emu |
| | | <i>Corvus coronoides</i> | Australian Raven |
| | | | |
| C | 30/10/2001 | | |
| | 2/11/2001 | <i>Acanthagenys rufogularis</i> | Spiny-cheeked |
| | | | Honeyeater |
| | | <i>Anthochaera carunculata</i> | Red Wattlebird |
| | | <i>Acanthiza pusilla</i> | Brown Thornbill |
| | | <i>Pomatostomus superciliosus</i> | White-browed Babbler |
| | | <i>Zosterops lateralis</i> | Silvereye |
| | * <i>Turdus merula</i> | Blackbird | |

| | | | |
|--|--|-------------------------------|-------------------|
| | | <i>Corvus coronoides</i> | Aust Raven |
| | | <i>Malurus cyaneus</i> | Superb fairy-wren |
| | | <i>Pachcephala pectoralis</i> | Golden Whistler |

Table 6.4 Opportune records

| | |
|--------------------------------------|-------------------------|
| <i>Malurus cyaneus</i> | Superb Fairy-wren |
| <i>Falco berigora</i> | Brown Falcon |
| <i>Elanus notatus</i> | Black-shouldered Kite |
| <i>Vanellus miles</i> | Masked Lapwing |
| <i>Falco cenchroides</i> | Nankeen Kestrel |
| <i>Corvus coronoides</i> | Australian Raven |
| <i>Dromaius novaehollandiae</i> | Emu |
| <i>Gymnorhina tibicen</i> | Australian Magpie |
| <i>Phaps elegans</i> | Brush Bronzewing |
| <i>Colluricincla harmonica</i> | Grey Shrike-thrush |
| * <i>Felis catus</i> | Feral Cat |
| <i>Tachyglossus aculeatus</i> | Echidna |
| <i>Macropus fuliginosus</i> | Western Grey Kangaroo |
| * <i>Oryctolagus cuniculus</i> | Rabbit |
| <i>Haliastur sphennurus</i> | Whistling Kite |
| <i>Stagonopleura bella</i> | Beautiful Firetail |
| <i>Vombatus ursinus</i> | Wombat |
| <i>Haematopus longirostris</i> | Pied Oystercatcher |
| <i>Anas superciliosa</i> | Pacific Black Duck |
| <i>Gallinula ventralis</i> | Black-tailed Native-hen |
| <i>Himantopus himantopus</i> | Black-winged Stilt |
| <i>Recurvirostra novaehollandiae</i> | Red-necked Avocet |
| <i>Leipoa ocellata</i> | Malleefowl |
| <i>Chlidonias hybrida</i> | Whiskered (Marsh) Tern |

*introduced

Discussion:

The total number of vertebrate species recorded during the survey; Seven mammal species (two being of feral species), Nine reptile species, One Amphibian and 31 bird species. There were a high number of House mice (40) captured, however less than the first survey (73). One native mammal (Western Pygmy Possum) was captured in a pitfall line at Site C. Site D (Godfrey's Landing) which was included in this survey, differed in species captured from the other sites.

Bird surveying provided some good results for the habitat types that were surveyed. Most birds were woodland and scrub species, with the occasional raptor species hovering over the site.

Reptile captures increased during this survey period compared to early May. Possibly due to the average temperature being higher than in the first survey and may have contributed to the increasing activity of reptile species.

Each site demonstrated diggings and faeces by wombats and rabbits and also tracks by a wide range of animals that could not be identified.

Recommendations and Conclusions:

There were slight variations at two of the four sites that were surveyed. Results from this trapping event produced some interesting finds, a slightly higher percentage of native mammals, reptiles (some species not caught in the last survey) and an Amphibian. The first year of surveying has given base findings and with the current Pest Vertebrate Control Programs in place, results hopefully will increase in the variety and

numbers of indigenous fauna. Trends will continue to monitor the situation in the Coorong in future surveys to come.

2.13 The mapping and monitoring of freshwater soaks in the southern lagoon of the Coorong National Park.

Freshwater soaks naturally occur along the margins of the southern lagoon of the Coorong. Within the southern lagoon, they provide one of the few sources of freshwater in the hypersaline dune system (Bickerton. H & Winter .S, 2001).

Eight soaks were identified on the margins of the southern lagoon. The location of each soak and the final results are indicated in the report published by Bickerton.H & Winter.S, Mapping and monitoring methods for freshwater soaks in the southern lagoon of Coorong National Park, South Australia.

Objectives:

- Map the location of freshwater soaks in the southern lagoon of Coorong National Park
- Establish a repeatable, cost effective, long term monitoring program for the condition of freshwater soaks; and
- Provide data suitable for informing management actions for release of drainage waters into the Coorong and wetland pondage in Tilley Swamp Watercourse and Morella Basin.

Bickerton. H & Winter. S, 2001.

Method:

A description was taken of each soak including; Salinity levels, size of standing water, photopoint and photographed, vegetation associations, dominant species, and birds found at the soak.

2.14 Photopoint monitoring in the Coorong

point. These points need to be assessed whether they are changed or not.

Introduction:

There is a need to indicate certain variables that are apparent in the parks in the Coorong and Lakes district. For example- fire breaks, visitor impact (vehicle and hiking impacts), shifting of mobile sand dunes, effects on infrastructure and rehabilitation efforts and success.

The most effective way of achieving this is through photography. Photo points have been established throughout the district, including the smaller conservation parks.

Photo points were established in a recognised format on 30/06/00. There are some indications that photo points were existent before, however spasmodic details exist with these records.

A majority of the photo points that were recorded last year have been utilised again, however some areas have had photo points changed due to the irrelevancy of the point or to changes in the photo point location.

Objectives:

Once a point has been located the pro forma sheet indicates the series of activities that need to be completed at the site.

Recommendations:

Throughout the report there are several points that have recommendations for future reporting that are subject to review. This is due to the lack of detail portrayed in the photo or the insignificance of the

3.0 REFERENCES

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