

THE BIRDS OF THE REDCLIFF POINT DEVELOPMENT AREA

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Accepted June, 1976.

INTRODUCTION

In September 1974, I.C.I. Australia Limited, a member of the Redcliff Petrochemical Consortium, asked the South Australian Ornithological Association to conduct a survey of the avifauna of the Redcliff Point development area, some 25 km S.S.E. of Port Augusta—Figure 1.

Redcliff Point is the site of a proposed petrochemical complex which is to use natural gas from the Cooper Basin in the Far North-east of South Australia. As part of the overall feasibility study the Consortium was required to prepare a draft environmental impact statement. This study formed part of that assessment. The Association was asked to identify any species requiring special consideration and to make recommendations accordingly.

The survey was carried out chiefly by two parties from the Association. A group of 15 spent the weekend of November 22-24, 1974, at the site, followed by a second group of 12 on the weekend of February 14-15, 1975. Information from these surveys was supplemented by observations made by David Paton on July 6-8, 1974, and by Dr. A. B. Black on December 1-2, 1975. Additional information was provided by Mr. C. Garrett of Adelaide, and by Mr. J. D. Reilly of Redcliff Point.

Some 100 species were recorded by the observers concerned. The species with the largest numbers of individuals were Red-necked Stints, Red-capped Dotterels, Silver Gulls, Sooty Oystercatchers, Tree Martins, Welcome Swallows, Australian Ravens, Galahs and Singing Honeyeaters. Details of the species recorded are appended—Appendix 1. The scientific nomenclature used is that of the S.A.O.A. *Field List* (1976). Where numbers are less than 10 these are usually quoted. Some larger numbers are also quoted.

LANDFORM, VEGETATION AND CLIMATE

The study area is flat and lies chiefly below the 20 m contour except for Mt. Grainger which rises to more than 60 m. Chittleborough, Maschmedt and Wood (1974) identified the following land units—alluvial plains, dune sands, salt marshes, shell ridges, upper and lower mud flats, and the Redcliff Point promontory.

Chinnock (1974) described the vegetation. Its chief components are the extensive mangrove flats adjacent to the north-west shoreline, a broad band of samphire occupying the upper mud flats, and large areas of saltbush, bluebush and speargrass on the alluvial plain. There are several small but important stands of mallee in the Mt. Grainger area. Other important units are fine stands of false sandalwood and bullock bush, and a narrow strip of umbrella bush near the settlement.

Much of the area has been grazed, some only lightly. At the time of the survey the vegetation was in good condition following above average rainfall in 1974 when 600 mm was recorded.

The climate is semi-arid with hot dry summers and cool winters. The average annual rainfall at Port Augusta is 236 mm and the mean January and July temperatures are 25°C and 12°C, respectively. The mean rainfall season is 3 months (Trumble 1948) and the drought

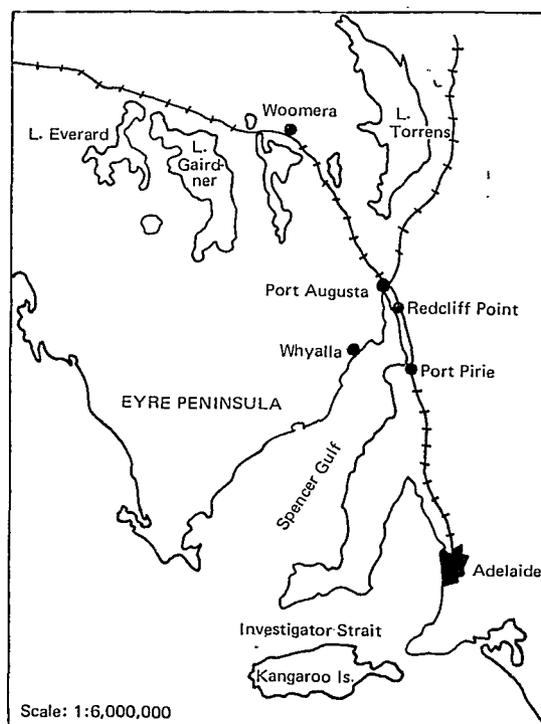
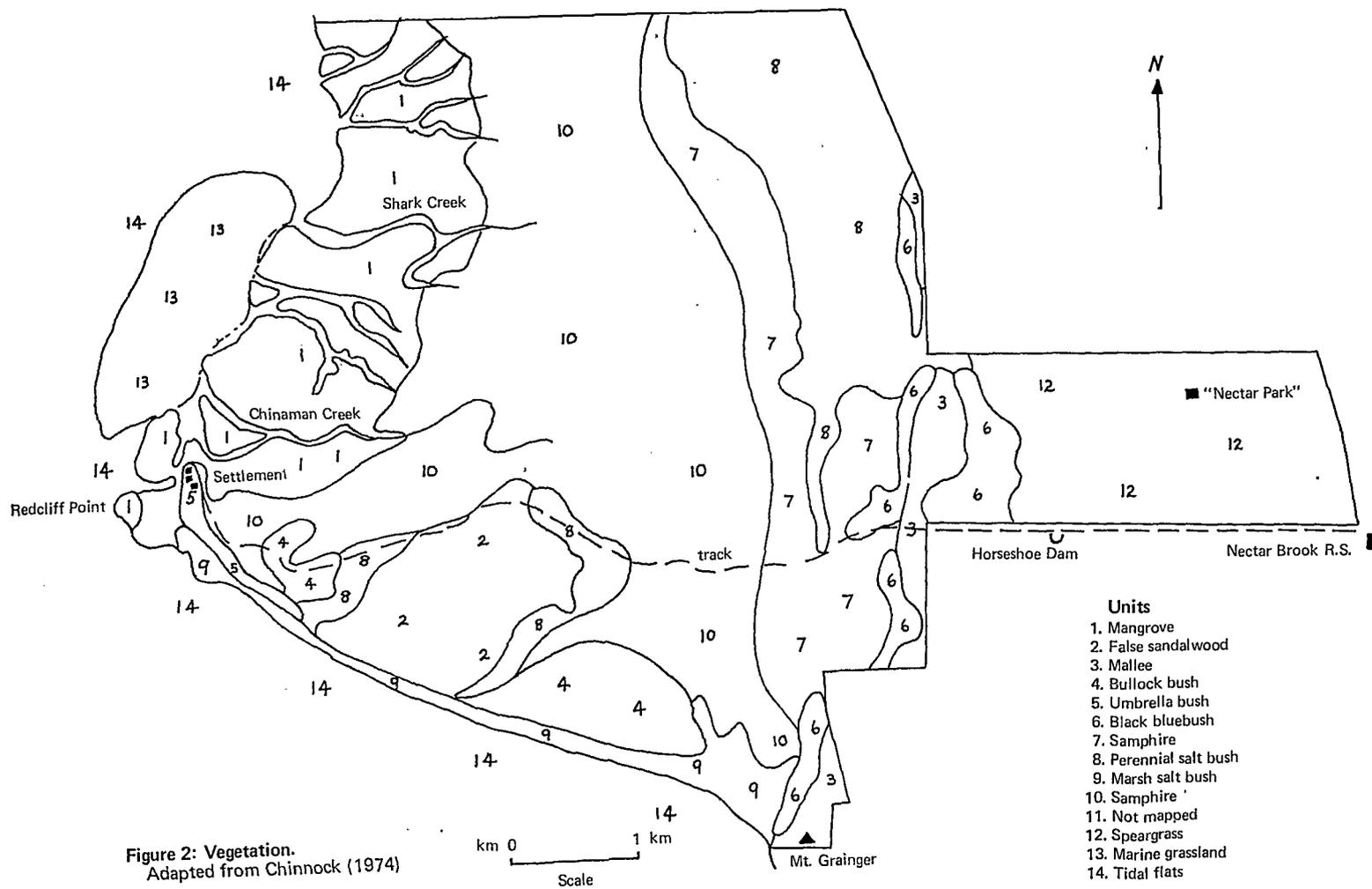


Figure 1: Locality Plan



frequency is 93%. In only 7 years out of 100 is there sufficient rain for cereal crops.

METHODS

The main survey parties worked in teams of 2-6 observers who recorded the species seen in the 13 vegetation units described by Chinnock. These units were grouped into 8 larger units for the purpose of this survey. The following units were combined—the two samphire units; the perennial saltbush, black bluebush and marsh saltbush units; and the false sandalwood and bullockbush units. It was assumed that the units within each group provided essentially similar habitat.

There was considerable variation in the numbers of individuals of particular species seen in the two major surveys compared with each other and with Paton's survey. Paton concentrated his observations around Chinamans Creek near the settlement, whereas the surveys by the groups covered the southern half of the development area very thoroughly, but spent less time in the northern part.

The larger numbers seen in November 1974, and February 1975, can be attributed to migration (Red-necked Stints, Grey Teal), greater abundance of food (e.g. nectar for honeyeaters), and by comparison with Paton's survey, a larger number of observers in the November 1974 and February 1975 surveys.

RECOMMENDATIONS TO I.C.I. AUSTRALIA LIMITED

The recommendations were primarily directed at habitat conservation because of its importance for food, shelter and nest sites. The mallee scrub was recognised as a most important area providing food for a wide range of nectar feeders and insectivorous species. It is also important to species requiring nesting hollows.

The preservation of the long narrow stand of umbrella bush *Acacia ligulata* south of the settlement is essential to the continued security of the Wedgebill in the area. Its low dense cover provides good protection for this species; and protection of this vulnerable habitat from human activities is warranted. Bullock bush *Heterodendrum olaeifolium* and false sandalwood *Myoporum platycarpum* are also important as a source of food and nesting sites for many species; and the preservation of a significant proportion of both these is considered desirable.

The mangroves *Avicennia marina* and the associated creeks provide food and shelter for the larger water birds, as well as for many smaller species. It was considered that the

mangroves also require protection from development.

There are extensive areas of saltbush *Atriplex vesicaria* and *paludosa*, black bluebush *Kochia pyramidata* and samphire *Pachycornia tenuis* and *Arthrocnemum* spp., and no special measures were thought necessary to preserve the habitat.

LIST OF BIRDS

AUSTRALIAN PELICAN

Pelecanus conspicillatus.

More than 100 were seen in the mangroves.

LITTLE BLACK CORMORANT

Phalacrocorax sulcirostris.

Only one was seen flying over the mangroves.

PIED CORMORANT *P. varius*.

Numerous—roosting in the mangroves, flying overhead and resting on the tidal flats.

LITTLE PIED CORMORANT

P. melanoleucos.

A party of 20 was seen in the mangroves; others were seen flying overhead or swimming in the sea.

WHITE-FACED HERON

Ardea novaehollandiae.

Very common in the mangroves and on the tidal flats.

WHITE EGRET *Egretta alba*.

Four were seen flying over the mangroves.

WHITE IBIS *Threskiornis molucca*.

Two were seen on the tidal flats at Redcliff Point.

BLACK DUCK *Anas superciliosa*.

Two were seen on the tidal flats in the company of grey teal.

GREY TEAL *A. gibberifrons*.

A flock of 40 was seen on the tidal flats off Redcliff Point.

BLACK-SHOULDERED KITE

Elanus caeruleus.

One seen over mallee at Mt. Grainger, another over Redcliff Point and two over the speargrass plain near Nectar Park Station.

WHISTLING KITE *Haliastur sphenurus*.

Two seen over Mt. Grainger, and two over the speargrass plain.

BROWN GOSHAWK *Accipiter fasciatus*.

One flew over Mt. Grainger and was seen to catch prey in mid-air.

WEDGE-TAILED EAGLE *Aquila audax*.

Two were seen over the mallee and another two over the saltbush-bluebush.

SPOTTED HARRIER *Circus assimilis*.

One was seen flushing stubble quail from a crop at Nectar Park, and was itself attacked by a Black-shouldered Kite.

BROWN FALCON *Falco berigora*.

Individual birds seen at Nectar Park, Redcliff Point and Mt. Grainger. The latter was attacked by several Nankeen Kestrels and a Little Falcon.

LITTLE FALCON *F. longipennis*.

One only seen at Mt. Grainger.

NANKEEN KESTREL *F. cenchroides*.

Common in all areas.

STUBBLE QUAIL *Coturnix pectoralis*.

Approximately 15 were seen in the saltbush and speargrass plain.

LITTLE BUTTON-QUAIL *Turnix velox*.

Several were seen in the bullock bush, blue bush and speargrass areas.

PIED OYSTERCATCHER

Haematopus ostralegus.

A total of about 20 birds were seen on the mud flats at low tide.

SOOTY OYSTERCATCHER *B. fuliginosus*.

Very common in flocks of up to 50 on the mud flats.

SPUR-WINGED PLOVER *Vanellus miles*.

Five were seen in the mud flats among the mangroves.

RED-CAPPED DOTTEREL

Charadrius alexandrinus.

A party of more than 100 was seen on the beach in the company of a large group of Red-necked Stints. Many smaller groups were also seen.

EASTERN CURLEW

Numenius madagascariensis.

Two groups of 20 and 4 were seen on the tidal flats, the latter with White-faced Herons.

GREENSHANK *Tringa nebularia*.

One was seen on the mud flats and a flock of about 20 flew over the mangroves.

CURLEW SANDPIPER *Calidris ferruginea*.

One was seen with a large group of Red-necked Stints.

RED-NECKED STINT *C. ruficollis*.

A group estimated at approximately 1000 was seen on the beach near Redcliff Point in the company of other waders. A group of 10 was seen on another visit.

SHARP-TAILED SANDPIPER *C. acuminata*.

Only one was seen on the beach.

BLACK-WINGED STILT

Himantopus himantopus.

A group of four including one juvenile was seen in the channel of Chinaman Creek in February.

SILVER GULL *Larus novaehollandiae*.

In groups of 10 to 20 plus on the beach, over the mangroves and in the channel.

PACIFIC GULL *L. pacificus*.

Several groups of 4 to 20 were seen on the beach, in the channel and in the mangroves. In all groups mature birds outnumbered immature birds.

MARSH TERN *Chlidonias hybrida*.

One was seen on the beach.

CASPIAN TERN *Hydropogon caspia*.

Up to 20 were seen flying over the beach, and two were seen on the beach.

CRESTED TERN *Sterna bergii*.

A group of 20 was seen flying along the beach.

FAIRY TERN *S. nereis*.

A party of 8 was seen on the beach in February. At least 4 were juveniles with adults busy feeding them.

BRONZEWING *Phaps sp.*

Two were seen in mallee on Mt. Grainger.

CRESTED PIGEON *Ocyphaps lophotes*.

Common in low bushes everywhere.

DOMESTIC PIGEON *Columbia livia*.

Several were seen at Nectar Park and a flock of 15 flew over the settlement.

LITTLE CORELLA *Cacatua sanguinea*.

Only one bird was seen in mallee scrub.

GALAH *C. roseicapilla*.

Very common and seen everywhere in all habitats including mangroves and samphire.

PURPLE-CROWNED LORIKEET

Glossopsitta porphyrocephala.

Not seen, but heard in mallee scrub.

COCKATIEL *Nymphicus hollandicus*.

Seen in mallee scrub, Mt. Grainger, Nectar Park and Horseshoe dam in groups ranging from 7 to 20.

RINGNECK PARROT *Barnardius barnadi*.

Numerous in the mallee scrub. Several were nesting and some juveniles were seen in November. Some were also seen in the saltbush area.

RED-RUMPED PARROT

Psephotus haematonotus.

Common in the mallee and bullock bush areas, and some were seen feeding in saltbush.

MULGA PARROT *P. varius*.

Common in the mallee, but also seen in the false sandalwood scrub. Numerous juveniles were seen in November.

BLUE BONNET *Psephotus haematogaster*.

Parties of 2 to 8 were seen in mallee, saltbush and false sandalwood areas.

ELEGANT PARROT *Neophema elegans*.

Two were seen on the beach, 8 were seen flying over the mangroves and an adult and 7 juveniles were seen at Mt. Grainger in November. Two were seen in the umbrella bush.

BUDGERYGAH *Melopsittacus undulatus*.

Twenty were seen roosting in a dead tree at Horseshoe dam.

PALLID CUCKOO *Cuculus pallidus*.

One was seen in a dead tree on the boundary between samphire and saltbush areas.

FAN-TAILED CUCKOO

Cacomantis pyrrhophanus.

One was seen on a fence near the settlement.

HORSFIELD'S BRONZE-CUCKOO

Chrysococcyx basalis.

Several were seen in mallee, umbrella bush and saltbush areas. White-winged Wrens were seen feeding two juveniles in November.

TAWNY FROGMOUTH *Podargus strigoides*.

Two were seen on a fence near Nectar Park.

OWLET NIGHTJAR *Aegotheles cristatus*.

Three were seen in mallee scrub on Mt. Grainger.

RED-BACKED KINGFISHER

Halcyon pyrrhopygia.

Parties of three and five were seen in November, the latter probably nesting in the bank of a sand quarry in the coastal dunes.

SACRED KINGFISHER *H. sanctus*.

Several pairs were seen in the mangroves.

RAINBOW BIRD *Merops ornatus*.

Three were seen in the mallee scrub.

WELCOME SWALLOW *Hirundo neoxena*.

Very common in all areas.

WHITE-BACKED SWALLOW

Cheramoeca leucosternum.

Common in all areas. Several were seen nesting in the bank of a sandhill in February, 1975.

TREE MARTIN *Cecropis nigricans*.

Common in most areas.

FAIRY MARTIN *C. ariel*.

About 20 were seen hawking over the umbrella bush.

RICHARD'S PIPIT *Anthus novaeseelandiae*.

Common in most areas. Also seen on the beach.

BLACK-FACED CUCKOO-SHRIKE

Coracina novaehollandiae.

Parties of four to five were seen in mallee scrub on Mt. Grainger, and two were seen flying over samphire.

WHITE-BROWED BABBLER

Pomatostomus superciliosus.

Common in the mallee, false sandalwood and umbrella bush.

BROWN SONGLARK

Cinclorhamphus cruralis.

Common in samphire and speargrass areas. Several were seen in the false sandalwood and saltbush areas.

RUFIOUS SONGLARK *C. mathewsi*.

Several were seen in the false sandalwood, samphire and saltbush areas.

WHITE-FRONTED CHAT

Epthianura albifrons.

Common in saltbush and samphire areas. Four were seen in umbrella bush.

ORANGE CHAT *E. aurifrons*.

Two adults with three nestlings were seen in the samphire area in November.

WHITEFACE *Aphelocephala leucopsis*.

About 10 were seen in the mallee and adjacent grassland, and in the umbrella bush.

WEEBILL *Smicronis brevirostris*.

Common in the mallee scrub.

YELLOW-RUMPED THORNBILL

Acanthiza chrysorrhoa.

Common in the mallee scrub; also seen in speargrass near Horseshoe dam.

SAMPHIRE THORNBILL *A. iredalei*.

Several were seen in the samphire areas.

CHESTNUT-RUMPED THORNBILL

A. uropygialis.

Groups of two and 10 were seen in the umbrella bush and mallee scrub, respectively.

FIELD-WREN *Sericornis fuliginosus*.

Several were seen in samphire and saltbush areas.

WHITE-WINGED WREN

Malurus leucopterus.

Common in saltbush, bluebush and samphire areas. Many juveniles were seen in November.

VARIEGATED WREN *M. lamberti*.

Also common in the saltbush, bluebush and samphire areas. Many juveniles were seen in November.

GREY FANTAIL *Rhipidura fuliginosa*.

Several were seen in the mangroves, samphire and saltbush areas.

WILLY WAGTAIL *R. leucophrys*.

Several were seen in samphire, saltbush in mallee scrub, and in the umbrella bush.

JACKY WINTER *Microeca leucophaea*.

One only was recorded in the mallee scrub.

RED-CAPPED ROBIN *Petroica goodenovii*.

Only one was seen, in the mallee scrub.

HOODED ROBIN *Melanodryas cucullata*.

Two pairs were seen at the junction of samphire and saltbush areas.

RUFOUS WHISTLER

Pachycephala rufiventris.

A female was seen in the mangroves.

GREY SHRIKE-THRUSH

Colluricincla harmonica.

Two were seen in the umbrella bush, and one in the mangroves.

CHIRRUPING WEDGEBILL

Psophodes cristatus.

Four birds were seen. One was in box thorns at Nectar Park, and three were seen in umbrella bush near the settlement. The latter birds were seen within a few yards of the buildings.

MISTLETOE BIRD *Dicaeum hirundinaceum*.

One male bird was seen in the mallee scrub.

YELLOW-RUMPED PARDALOTE

Pardalotus xanthopygus.

Common in the mallee scrub. Several birds were seen tunnelling in the ground beneath the mallee in November. The call was somewhat different to that of the species in southern districts.

STRIATED PARDALOTE *P. striatus*.

Common in the mallee scrub.

SILVEREYE *Zosterops lateralis*.

Several birds were seen in the mangroves; others were seen in the saltbush area.

SINGING HONEYEATER

Lichenostomus virescens.

Very common in all areas.

WHITE-FRONTED HONEYEATER

Phylidonyris albifrons.

Only one bird was seen on the fringe of the mallee.

STRIPED HONEYEATER

Plectorhyncha lanceolata.

One bird was seen in the umbrella bush. (D. Reilly pers. comm.).

YELLOW-THROATED MINER

Manorina flavigula.

Common in the mallee scrub; several were

seen flying over the samphire and in the umbrella bush.

SPINY-CHEEKED HONEYEATER

Acanthagenys rufogularis.

Common in the umbrella bush and bullock bush. Others were seen in the mallee and saltbush areas.

ZEBRA FINCH *Poephila guttata*.

Small numbers were seen in samphire and bullock bush areas. Several were nesting in boxthorns.

HOUSE SPARROW *Passer domesticus*.

Only a few were seen near the settlement and at Nectar Park. Fourteen were seen in the umbrella bush.

STARLING *Sturnus vulgaris*.

Common at Nectar Park, and seen flying over the samphire.

MAGPIE LARK *Grallina cyanoleuca*.

Several were seen in mallee, mangroves and umbrella bush.

BLACK-FACED WOODSWALLOW

Artamus cinereus.

Common in open country, usually perching on trees. Several were seen nesting on the mallee fringe in November.

GREY BUTCHER BIRD *Cracticus torquatus*.

Thirteen birds, including several juveniles, were seen in the mallee and the mangroves, and one was seen in the umbrella bush. A meat larder of painted dragons was seen in the mallee.

WHITE-BACKED MAGPIE

Gymnorhina tibicen.

Common in mallee, mangroves, bullock bush and false sandalwood and adjacent open areas. Many appeared to be hybrids.

AUSTRALIAN RAVEN *Corvus coronoides*.

Common in all habitats, including the beaches, mangroves and umbrella bush.

ACKNOWLEDGMENTS

I.C.I. Australia Limited paid for the costs incurred in the surveys, and gave permission for the information gathered to be used in this report. David Paton, Andrew Black and Doug. Reilly willingly provided access to their own records. Doug. and Elizabeth Reilly cheerfully provided accommodation for the party during the February 1975 visit.

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