IV BIRDS OF MARCHAGEE NATURE RESERVE JOHN DELL INTRODUCTION

Birds were recorded on Marchagee Nature Reserve (C23601) as part of the biological survey outlined by Dell (Introduction, this report). Birds were recorded by me during 21-26 May 1976, 26-30 September 1976 and 15 July 1977; by G. Harold during 16-22 July 1975; and P.J. Fuller during 26-30 September 1976. I am grateful to Harold and Fuller for making their field notes available to me. Also included are notes made by G.M. Storr on brief visits in July 1954, April 1959, August 1960, August 1961,October 1961, November 1961, February 1962, and August 1965.

Each vegetation association type discernable on aerial photographs taken in December 1969 was visited by me and estimates made of the number of birds present. In the annotated list plant associations where birds were recorded are listed (details of vegetation and location numbers are in Muir, this report).

In the annotated list I summarise the status of each species at the time of my survey. Status for each species is listed as scarce, uncommon, moderately common, or common, in the manner of Dell & Johnstone (1977). I have taken into consideration my experience with each species elsewhere in the South-west in evaluating its status. Nomenclature follows Storr (1979).

ANNOTATED LIST

Emu (Dromaius novaehollandiae)

Uncommon; paddocks and edges of saltlakes. Group of 10 and group of 9 with 6 small striped chicks on 28 September 1976. Fresh footprints seen in May 1976.

Hoary-headed Grebe (Podiceps poliocephalus)

Scarce; temporary freshwater swamps. Nine recorded by Storr in February 1962, 1 in October 1961, and 1 in November 1961.

Black-throated Grebe (Podiceps novaehollandiae)

Scarce; temporary freshwater swamps. Two among *Typha orientalis* in swamp just outside south end of Reserve in July 1975. Three recorded by Storr in April 1959 and 1 in August 1961.

White-faced Heron (Ardea novaehollandiae)

Uncommon; saltpans, samphires and temporary pools. Singly or groups of 3 totalling 13 in July 1975. Most birds were in waterway in *Arthrocnemum* salt flats loc. 7.2. Single birds recorded by Storr in freshwater swamp at south end of Reserve

in February 1962, April 1959, October 1961 and November 1961, and in paddock 1 km north of Reserve in August 1965.

Pacific Heron (Ardea pacifica)

Uncommon; saltpans, samphires and temporary pools. Single birds; 4 in July 1975 and 1 in May 1976. Recorded by Storr in August 1960.

Straw-necked Ibis (Threskiornis spinicollis)

Scarce; 1 recorded on water 3 km north of Reserve in August 1961 and 18 in August 1965.

Mountain Duck (Tadorna tadornoides)

Uncommon; saltlakes and paddocks. Calling at night and 3 flew over saltlake in May 1976; singles and a pair totalling 4 birds on saltlakes and paddocks in July 1975; 4 in wheat paddock in July 1977. Recorded by Storr in paddock 1 km north of Reserve in August 1965.

Grey Teal (Anas gibberifrons)

Uncommon; saltlakes and freshwater swamps. Nine on saltlake in May 1976, 5 on temporary freshwater swamp just outside south end of Reserve in July 1975.

Black Duck (Anas superciliosa)

Uncommon; freshwater pools and swamps. Pairs or groups of up to 5 in roadside pools, swamp just outside south end of Reserve, and brackish waterway through *Arthrocnemum* flats loc. 7.2 in July 1975. Eight on freshwater lake 3 km south of Reserve in July 1977.

Black-shouldered Kite (Elanus caeruleus)

Scarce; paddocks. Two over paddock 1 km north of Reserve in July 1975.

Whistling Kite (Haliastur sphenurus)

Scarce; 3 single birds flying over Reserve in July 1975.

Wedge-tailed Eagle (Aquila audax)

Moderately common; mainly soaring over Reserve and adjacent areas. Singly or in pairs totalling 3 in May 1976, 4 in July 1975 and 7 in September 1976. Old nest in dead *Casuarina obesa* on edge of saltlakes. Birds were also seen around rocky hills 2 km north of Reserve.

Little Eagle (Aquila morphnoides)

Scarce; soaring over Reserve. Two single birds in September 1976. One recorded by Storr in February 1962.

Spotted Harrier (*Circus assimilis*)

Scarce; single bird in Arthrocnemum flats in September 1976.

Brown Falcon (Falco berigora)

Scarce; single birds in heath and Arthrocnemum flats. One in May 1976; 1 in July 1975 and 2 in September 1976.

Australian Kestrel (Falco cenchroides)

Uncommon; single birds in heath, shrubland, Arthrocnemum flats and paddocks. Two in May 1976, 4 in July 1975, and 2 in September 1976.

Little Falcon (Falco longipennis)

Scarce; 1 carrying small bird over saltlake in May 1976.

Black-tailed Native Hen (Gallinula ventralis)

Scarce; about 14 along waterway in Arthrocnemum flats loc. 7.2 in July 1975.

Banded Plover (Vanellus tricolor)

Uncommon; paddocks and calling while flying over Reserve at night. Single birds or pairs were recorded in July 1975 and 1977 and September 1976.

Black-fronted Plover (Charadrius melanops)

Uncommon; freshwater swamps and temporary pools. In groups of two or three; one record in May 1976, July 1975, July 1977 and September 1976. Recorded by Storr in April 1959 and February 1962.

Wood Sandpiper (Tringa glareola)

Scarce; freshwater swamps. One recorded by Storr on swamp just off south end of Reserve in April 1959.

Common Sandpiper (*Tringa hypoleucos*)

Scarce; freshwater swamps. A male was collected at south end of Reserve on 29 September 1976.

Red-necked Avocet (*Recurvirostra novaehollandiae*)

Uncommon; freshwater swamps. Two recorded by Storr in April 1959 and 5 in February 1962.

Black-winged Stilt (Himantopus himantopus)

Uncommon; saltlakes and freshwater swamps. Eight sightings of 1 to 14 birds on saltlakes in July 1975, 8 on swamp just off south end of Reserve in September 1976. Small groups recorded by Storr in August 1961, and February 1962. Large numbers nesting on saltlakes on 5 September 1968 (R.P. McMillan, pers. comm.).

Common Bronzewing (Phaps chalcoptera)

Scarce; shrubland and heath. Five sightings of single birds or pairs in September 1976. Nest with 1 small young 2 m from ground in *Actinostrobus arenarius* in loc. 3.16 on 27 September.

Crested Pigeon (Ocyphaps lophotes)

Uncommon; in disturbed areas on edges of Reserve and roads through Reserve. Group of 11 birds in loc. 4.7 in May 1976; 2 in loc. 3.18 and 1 on road in July 1975; 2 in loc. 3.5 and 2 in loc. 3.14 in July 1977; single birds and pairs in loc. 3.14, 4.7, 7.1 and 7.5 in September 1976. Nest with 2 eggs 2 m up *Xylomelum angustifolium* in loc. 3.14 on 15 July 1977.

Ring-necked Parrot (*Platycercus zonarius*)

Uncommon; in *Casuarina obesa* ecotones round saltlakes, mallee, shrubland and in paddocks. Pair in loc. 7.3 and 7.5 in May 1976; 4 in loc. 2.1 in July 1975; pairs in loc. 2.1, 3.14 and 3 feeding on flowers of *Grevillea excelsior* in loc. 3.16 in September 1976. There are no nesting trees for parrots on this Reserve.

Red-tailed Black Cockatoo (Calyptorhynchus magnificus)

Uncommon. About 45 flying east over Reserve in May 1976, 1 in paddock 1 km north of Reserve in July 1977.

Galah (Cacatua roseicapilla)

Uncommon; flying over Reserve. Flocks of 19 and 25 birds in May 1976, pair in Salmon Gums 2 km north of Reserve in July 1975, flocks of 6 and 20 birds over Reserve in September 1976.

Corella (*Cacatua tenuirostris*)

Uncommon; farmland. Seven in paddock 1 km north of Reserve in July 1975, 20 at same place in July 1977. Pair at nest spout in Salmon Gum 3 km north of Reserve on 15 July 1977.

Pallid Cuckoo (Cuculus pallidus)

Scarce. Four single birds calling in ecotones round saltlakes in July 1975.

Horsfield's Bronze Cuckoo (Chrysococcyx basalis)

Uncommon; shrubland, heaths and *Arthrocnemum* flats. Single birds; 4 calling in July 1975 and 5 in September 1976.

Black-eared Cuckoo (Chrysococcyx osculans)

Scarce; 1 calling in *Casuarina obesa* on edge of saltlake in July 1977. There was an influx of this species into the wheatbelt during July 1977.

Tawny Frogmouth (Podargus strigoides)

Scarce; saltlake ecotones and mallee. Single bird and pair in May, and 1 in July 1975.

Rainbow Bee-eater (Merops ornatus)

Scarce; 1 over loc. 4.2 on 20 September 1976.

Richard's Pipit (Anthus novaeseelandiae)

Scarce; Arthrocnemum flats, heath and paddocks. Single birds seen in loc. 4.5, 7.1, 7.2 and paddocks in September 1976.

White-backed Swallow (Cheramoeca leucosterna)

Moderately common; overhead in vicinity of vertical cuttings in sand. Burrows present in road cuttings in loc. 3.17 and 3.18. About 14 birds were present at each locality and dispersed to feed over the Reserve in July 1975, May 1976, September 1976, and July 1977. Recorded by Storr in April 1959, August and October 1961.

Welcome Swallow (Hirundo neoxena)

Scarce; hawking over saltlakes and shrubland. One recorded in July 1975, 2 in September 1976 and 2 in July 1977.

Tree Martin (Hirundo nigricans)

Scarce; hawking over Reserve. Five in July 1975, 6 in May 1976 and 7 in July 1977. Recorded by Storr in February 1962.

Black-faced Cuckoo-shrike (Coracina novaehollandiae)

Moderately common; most birds appeared to be in transit. Five in July 1975, single birds or pairs totalled 4 in May 1976, 14 in September 1976 and 1 in July 1977. One recorded by Storr in October 1961 and November 1961.

White-winged Triller (Lalage sueurii)

Scarce; shrubland. A female in loc. 3.8 and a female in loc. 3.16 in September 1976.

Red-capped Robin (Petroica goodenovii)

Moderately common; shrubland, heath and *Arthrocnemum* salt flats. Single birds or pairs. Two seen in July 1975, 15 in May 1976, 13 in September 1976 and 1 in July 1977. The population is probably static, the low number recorded in July 1975 was almost certainly due to heavy rain.

Rufous Whistler (*Pachycephala rufiventris*)

Uncommon; mallee, shrubland and saltlake ecotones. Single birds or pairs recorded in loc. 2.2 and 3.13 in May 1976, and loc. 2.1, 2.2, 3.13, 7.1 and 7.5 in September 1976.

Grey Shrike-thrush (Colluricincla harmonica)

Moderately common; saltlake ecotones, mallee, shrubland and heath. Singly or pairs: 4 recorded in July 1975, 17 in September 1976 and 1 in July 1977. Old nest in loc. 3.16. Recorded in loc. 2.1, 3.3, 3.5, 3.13, 3.14, 3.16, 4.3, 7.1, 7.2 and 7.3.

Grey Fantail (Rhipidura fuliginosa)

Scarce. Single birds: 2 in July 1975 and 2 in May 1976 were probably in transit.

Willie Wagtail (Rhipidura leucophrys)

Moderately common; shrubland, saltlake ecotones and freshwater swamps. Single birds or pairs totalled 5 in July 1975, 10 in May 1976, 21 in September 1976, and 1 in July 1977. Recorded in loc. 3.3, 3.5, 3.6, 3.8, 3.13, 3.14, 3.17, 7.1, 7.5, 7.6 and 8.2 and freshwater swamps at south end of Reserve. Nest with 3 eggs 2 m from ground in *Banksia prionotes* in loc. 3.8 on 28 September, fresh eggshell on track in loc. 3.5 on 27 September, 3 young in nest 4 m from ground in *Eucalyptus camaldulensis* at swamp at south end of Reserve on 30 September. Latter tree had an occupied nest of Magpie-lark. Recorded by Storr in August 1960 and February 1962.

Crested Bellbird (Oreoica gutturalis)

Moderately common; shrubland and heath. Few birds were located in July 1975 and May 1976 because calling was at a minimum, but 22 individual birds were heard in September. Calls were noted in loc. 3.3, 3.12, 3.13, 3.16, 3.18, 4.2, 4.4, 4.6, 4.7, 7.5 and 7.6.

Southern Scrub-robin (Drymodes brunneopygius)

Possible record of bird calling in loc. 3.16 in May.

White-browed Babbler (Pomatostomus superciliosus)

Scarce; shrubland. Groups of up to 4 birds were recorded in shrubland with *Adenanthos stictus* in loc. 3.8, 3.16 and near loc. 2.3. Four old nests in *A. stictus* and *Actinostrobus arenarius* shrubs.

Western Flyeater (Gerygone fusca)

Scarce; mallee and saltlake ecotones. Singly or up to 3: 2 sightings in May 1976 in loc. 2.2; recorded in loc. 2.2 and 7.5 in September 1976.

Weebill (Smicornis brevirostris)

Scarce; mallee. Group of 3 to 7 birds in mallee loc. 2.1 and 2.2 in July 1975, May 1976 and September 1976. Two in *Eucalyptus camaldulensis* at freshwater swamp just off the south end of the Reserve in July 1977. Dell (1979c) discusses movements of this bird.

Yellow-rumped Thornbill (Acanthiza chrysorrhoa)

Moderately common; saltlake ecotones, margins of freshwater swamps and *Arthrocnemum* flats. In groups of up to 10 birds in July 1975 and May 1976, pairs in September 1976. Nest with young in *Amyema* on *Casuarina obesa* on 27 September.

Chestnut-rumped Thornbill (Acanthiza uropygialis)

Scarce; margins of saltlakes. Pair in loc. 7.3 in May 1976 and 5 in same place in July 1975.

Brown Thornbill (Acanthiza pusilla)

Scarce; pair in strip of mallee on edge of saltlake near loc. 7.3 in May 1976.

Redthroat (*Pyrrholaemus brunneus*)

Uncommon; margins of saltlakes. Pair in loc. 7.1 in May 1976, and pairs in loc. 7.1, 7.3 and 7.5 in September 1976.

Calamanthus (Calamanthus fuliginosus)

Moderately common; heath and shrubland. Several recorded in loc. 3.11, 4.2 and 7.6 in May 1976. This difficult to observe species may be more common than records indicate.

White-winged Fairy-wren (Malurus leucopterus)

Common; heath, *Arthrocnemum* flats, margins of saltlakes and shrubland. Recorded on all visits. In loc. 3.11, 3.12, 4.2, 4.3, 4.6, 4.7, 7.1, 7.2, 7.5, 7.6 and 8.2. Most sightings were of groups of 3 to 7 birds. Recorded by Storr in April 1959.

Malurus sp.

Uncommon; shrubland, heath and margins of saltlakes. Groups of 4 or 5 birds recorded in loc. 3.12, 4.2, 7.3 and 7.6 in May 1976; and loc. 3.5 and 7.5 in September 1976. This species is probably M. *lamberti* but a male collected in September had a few blue feathers among the otherwise black breast; therefore the possibility of it being M. *pulcherrimus* cannot be discounted.

Brown Songlark (Cincloramphus cruralis)

Scarce; paddocks. Two pairs displaying over lupin paddock opposite loc. 3.14 on 23 May 1976.

Striated Pardalote (Pardalotus striatus)

Scarce; 3 flying north over Reserve on 21 May 1976, 2 in mallee loc. 2.1 and 3 in loc. 2.2 on 23 May 1976.

Grey-breasted White-eye (Zosterops lateralis)

Uncommon; shrubland and margins of saltlakes. A total of 7 records of single birds or groups of up to 3 recorded in July 1975, May 1976 and September 1976. Recorded in loc. 3.9, 3.14, 7.1, 7.2, 7.3 and 7.4.

Brown Honeyeater (Lichmera indistincta)

Scarce to seasonally common; shrublands, heaths and margins of saltlakes. Common in May and September 1976 when *Banksia prionotes* was flowering. Scarce in July 1975 and 1977 when *B. prionotes* was not flowering. Recorded in loc. 2.2, 3.4, 3.5, 3.8, 3.11, 3.12, 3.13, 3.14, 3.16, 7.5 and 7.6 in May 1976; in loc. 3.14 in July 1975; in loc. 3.3 and 3.14 in July 1977; and loc. 3.3, 3.5, 3.6, 3.11, 3.13, 3.14, 4.2, 4.3, 4.4, 4.5, 7.1, 7.3, 7.5 and 7.6 in September 1976. Nest with 2 eggs in *Melaleuca* 1

m from ground in loc. 7.6 on 29 September. Recorded in July 1954 and in *B. prionotes* by Storr in April 1959.

Singing Honeyeater (Meliphaga virescens)

Common; shrubland, heath and margins of saltlakes. More abundant in May and September 1976 when *Banksia prionotes* was flowering. Recorded in loc. 2.1, 3.3, 3.5, 3.6, 3.8, 3.9, 3.11, 3.12, 3.13, 3.14, 3.15, 3.16, 3.18, 4.2, 4.3, 4.5, 4.7, 7.1, 7.2, 7.5, 7.6 and 8.2.

Brown-headed Honeyeater (Melithreptus brevirostris)

Scarce; pair in Xylomelum angustifolium in loc. 3.3 in September 1976.

White-fronted Honeyeater (Phylidonyris albifrons)

Uncommon; from 21-23 May 1976 flocks of up to 16 feeding in flowering *Banksia* prionotes and then flying east.

Tawny-crowned Honeyeater (Phylidonyris melanops)

Moderately common; shrubland, heath and margins of saltlakes. Most sightings were of pairs. Recorded in loc. 3.18, 4.3 and 4.6 in July 1975; in loc. 3.6, 3.11, 3.12 and 7.6 in May 1976; and in loc. 3.3, 3.8, 3.9, 3.11, 3.12, 3.15, 4.3, 4.4, 7.1, 7.3, 7.5 and 7.6 in September 1976. Feeding on flowers of *Grevillea excelsior* in September.

Yellow-throated Miner (Manorina flavigula)

Uncommon. Three flocks of 9 to 31 birds flying north through Reserve in May 1976; 10 in *Banksia prionotes* in loc. 3.14 in July 1975.

Spiny-cheeked Honeyeater (Acanthagenys rufogularis)

Moderately common; shrubland and margins of saltlakes. Singly or up to 4 birds; feeding in flowering *Banksia prionotes* in May and September. Recorded in loc. 3.18, 7.1 and 7.2 in July 1975; in loc. 3.8, 3.14, 7.1 and 7.5 in May 1976; and in loc. 3.12, 3.13, 3.14, 3.15, 3.16, 4.7, 7.4 and 7.5 in September 1976. Recorded by Storr in February 1962.

Red Wattlebird (Anthochaera carunculata)

Uncommon; shrubland, mallee and saltlake ecotones. Single birds and pairs in loc. 2.1, 3.14, 3.18 and a flock of 35 flying northwest in May 1976. Single birds and pairs in loc. 2.2, 3.5 and 3.15 in September 1976.

Little Wattlebird (Anthochaera chrysoptera)

Scarce or seasonally common; shrubland. Flocks of up to 11 birds feeding in flowering *Banksia prionotes* in loc. 3.8 and 3.14 in May 1976; 3 in *Banksia prionotes* shrubland just off south end of Reserve in July 1975; single birds and pairs in loc. 3.5, 3.14 and 7.5 in September 1976. Feeding on flowers of *Grevillea excelsior* in September.

White-fronted Chat (Epthianura albifrons)

Moderately common; *Arthrocnemum* flats, margins of saltlakes, heath and shrubland. Mainly pairs, sometimes threes. Recorded in loc. 7.1 and 7.4 in July 1975; in loc. 7.2, 7.5 and 7.6 in May 1976; in loc. 3.3, 3.5, 3.13, 4.3, 7.2 and 7.6 in September 1976; and in loc. 4.8 and 8.2 in July 1977. Recorded in July 1954 by Storr.

Magpie-lark (Grallina cyanoleuca)

Uncommon; edges of paddocks, *Arthrocnemum* flats and freshwater swamps. Single birds on pairs: 5 recorded in July 1975, and 7 in September 1976. Nest with young in *Eucalyptus camaldulensis* at freshwater swamp just off south end of Reserve on 30 September. Recorded by Storr in August 1961 and February 1962 at freshwater swamp at south end of Reserve, and in paddock north of Reserve in August 1965.

Black-faced Wood-swallow (Artamus cinereus)

Uncommon; shrubland and fringes of saltlakes. Pairs or groups of up to 9 birds. Recorded in loc. 3.5, 3.15, and 7.5 in May 1976; in loc. 3.18 and along roads and railways in July 1975; and in loc. 3.5, 3.12, 3.16, 4.3, 7.5 and 7.6 in September 1976. Largest flock was in July.

Grey Butcherbird (*Cracticus torquatus*)

Uncommon; margins of saltlakes and shrubland. Most sightings were of single birds, occasionally pairs. Recorded at saltlake adjacent to loc. 4.7 and in loc. 7.6 in May; in loc. 2.1, 3.17 and 7.2 in July 1975; in loc. 7.1, 7.3, 7.5, and 7.6 in September 1976; and in loc. 7.5 in July 1977.

Pied Butcherbird (Cracticus nigrogularis)

Scarce; recorded by Storr in April 1959.

Magpie (Cracticus tibicen)

Scarce; in paddocks and on tracks near edge of Reserve. Single birds or pairs recorded in July 1975 and September 1976.

Australian Raven (Corvus coronoides)

Uncommon; in *Casuarina obesa* on margins of saltlakes and flying over Reserve to farmland. Most sightings were of 1 to 4 birds with occasional groups of up to 10 feeding on carcasses in paddocks and on roads. Nest with 3 young, almost ready to fly, in *Casuarina obesa* in expanse of *Arthrocnemum* west of loc. 7.2 on 28 September.

Little Crow (Corvus bennetti)

Recorded in May and September 1976. Flocks of 20, 40 and *ca* 110 flying north on 24 May; flocks of 16, 16 and 30 flying south on 28 September and 71, 65, 19, 13, 37 and 60 flying south on 29 September.

DISCUSSION

This paper includes data on 78 species of birds at Marchagee Nature Reserve. Of these, 9 were recorded only in farm paddocks and freshwater swamps adjacent to the Reserve and another 5 species were only recorded flying high over the Reserve; this leaves 64 species recorded in the Reserve. This can be compared to the number recorded in other reserves in the northern and central wheatbelt (e.g. Wilroy - 59 species [Dell 1979b], Kodj Kodjin - 49 species and Durokoppin - 61 species [Dell 1978a]).

Despite the total lack of woodland and limited area of mallee (8 ha or 2% of Reserve) the Reserve has approximately the same number of bird species as other reserves. The small areas of mallee are important staging points for migratory or nomadic birds which utilize eucalypts. For example, Western Flyeater, Striated Pardalote, and Weebill were recorded in mallee, albeit in low numbers.

The most noticeable difference between Marchagee and other reserves is the low number of parrots; only the Ring-necked Parrot was recorded. These birds probably breed in eucalypts within 2 km of the north boundary of the Reserve and utilize the Reserve for feeding. Other parrots recorded near the Reserve were Red-tailed Black Cockatoo, Galah and Corella.

It is unlikely that Marchagee Nature Reserve provides any nesting hollows for birds. Parrots, kingfishers and Striated Pardalote are unlikely to breed there; and nest positions for hawks, magpies and crows are extremely limited - they are probably available in the *Casuarina obesa* fringing the saltlakes.

Birds which utilize shrubland and heath were well represented. Red-capped Robin, Grey Shrike-thrush, Willie Wagtail, Crested Bellbird, Calamanthus, Whitewinged Fairy-wren, Brown Honeyeater, Singing Honeyeater, Tawny-crowned Honeyeater, Spiny-cheeked Honeyeater and White-fronted Chat were all moderately common or common. No attempt is made here to relate bird species to area of plant formations.

Breeding was recorded for 11 species: Wedge-tailed Eagle, Common Bronzewing, Crested Pigeon, White-backed Swallow, Grey Shrike-thrush, Willie Wagtail, Magpie-lark, White-browed Babbler, Yellow-rumped Thornbill, Brown Honeyeater, and Australian Raven. These data are too few to allow comment on breeding season.