

## BIRDS OF LAKE MAGENTA WILDLIFE SANCTUARY, WESTERN AUSTRALIA

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### INTRODUCTION

Lake Magenta Wildlife Sanctuary (no. A25113) was proclaimed an 'A' Class Reserve on 5 September 1958 for the purpose of maintaining in perpetuity a representative sample of southern mallee country and is vested in the Western Australian Wildlife Authority. It has an area of 94170 ha and is located east of Pingrup and north of Jerramungup near the southeastern edge of the Western Australian wheatbelt. A notable physiographic feature of this region is the absence of rivers and the presence of salt lakes. Included in the reserve are many of the salt pans of Lake Magenta with its chain of small, mostly ephemeral freshwater lakes to the south. There are some laterite-capped kaolinized north-south ridges and gentle undulating country sloping east to Lake Magenta and south towards the sources of the Fitzgerald and Gairdner Rivers (Fig. 1).

There are several soaks along Hall Track which crosses the reserve in an east-west direction about 8 km south of the northern boundary. It is unlikely that there was any permanent potable water outside of the chain of small lakes to the south of the main Magenta salt pans. A small dam (Government Dam or Reidy's Dam) is now present midway along Hall Track in an area where there was formerly a small farm.

Beard (1967) indicates that the dominant vegetation is mallee and heath. A feature of the vegetation is an almost insular block of mallee (of which *Eucalyptus platypus* forms almost pure stands) and Salmon Gum (*E. salmonophloia*) woodland. This block is surrounded to the north, west and south by scrub and heath of varying height and to the east by Lake Magenta with its fringes of *Melaleuca*.

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In February 1972, a fierce fire burnt through *ca* 10,000 ha from the northwest boundary, through Sullivan Soak, across the wide firebreak along Hall Track before stopping at a previously burnt area of *Eucalyptus tetragona* about 5 km south of Hall Track.

Mean annual rainfall at the Lake Magenta Wildlife Sanctuary is about 350 mm (the mean at Lake Grace, 64 km to the northwest is 357 mm with recorded extremes of 212 and 596 mm). Most rain falls in the four months May to August.

With the exception of a brief survey of its birds in 1953 and 1963 by G.M. Storr (unpublished), little is known of the biota of this reserve. For this reason it was chosen as part of the vertebrate faunal survey by the Western Australian Museum (Kitchener, 1976). Because of the size of the reserve, the diversity of vegetation types, and the limited access, only the information gained on birds and reptiles was adequate for publication.

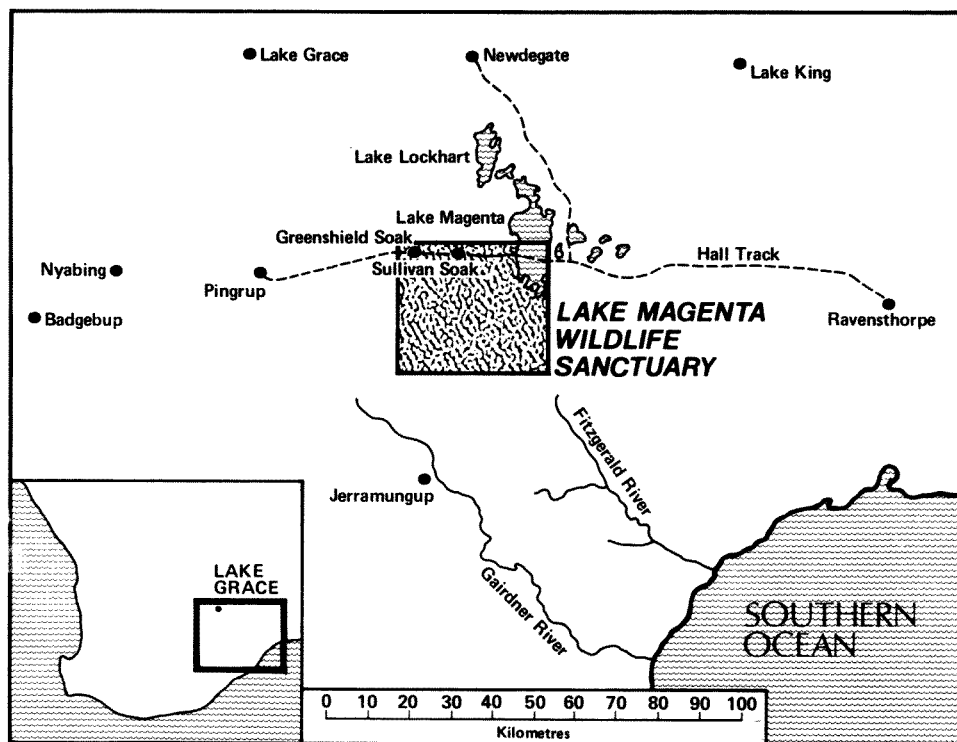


Fig. 1: Map of Lake Magenta Wildlife Sanctuary showing location of places mentioned in text.

Although various ornithologists have remarked on range extensions resulting from clearing for agriculture, little emphasis has been placed on documenting the resultant fragmentation of bird distributions. This reserve is in an area where clearing for agriculture has expanded rapidly in the last two decades, and it is important to document present distributions. This contribution examines the distribution and habitat of birds of the Lake Magenta area and makes comparisons with a list for nearby Lake Grace (Carnaby, 1933) published 40 years previously. It combines the observations of Storr who travelled between Pingrup and Lake Magenta along Hall Track during 3-5 February 1953 and from Pingrup to Lake Grace, to Newdegate, south to Hall Track (east of Lake Magenta) and west to Pingrup during 25-27 November 1963; of L.A. Smith compiled during 3-13 April 1971; and of the author during 4-13 October 1972. Unless otherwise indicated data refer to information gained within Lake Magenta Sanctuary.

#### ANNOTATED LIST

Emu (*Dromaius novaehollandiae*). Sparse throughout Reserve and adjacent country. Breeding: adult with three half-grown young on farmland west of Greenshield Soak on 5 February 1953; adult with seven small chicks on firebreak in low regrowth mallee on 12 October 1972; old nest with eggshells in *Eucalyptus platypus* mallee in October 1972.

Hoary-headed Grebe (*Podiceps poliocephalus*). Twenty on freshwater lake ca 500 m x 400 m, and two on freshwater lake ca 1600 m x 1400 m at southwest fringes of Lake Magenta in October 1972.

Pelican (*Pelecanus conspicillatus*). Four over Newdegate on 26 November 1963 at 0750 hours.

White-faced Heron (*Ardea novaehollandiae*). One at freshwater swamp, 35 km south of Newdegate on 27 November 1963, and one on swamp 19 km north of Hall Track on east side of Lake Magenta on 27 November, 1963.

Black Swan (*Cygnus atratus*). Approximately 50 on freshwater lake ca 1600 m x 1400 m and five on smaller lake at southwest fringes of Lake Magenta in October 1972. Two on salt lake 6.5 km west of Pingrup on 25 November 1963.

Mountain Duck (*Tadorna tadornoides*). Approximately 1,000 on salt lake 6.5 km west of Pingrup on 25 November 1963; ca 27 on salt lake

8.4 km south of Newdegate on 27 November 1963; ca 30 on small freshwater lake on southwest fringes of Lake Magenta in October 1972.

Grey Teal (*Anas gibberifrons*). Approximately 200 on salt lake 6.5 km west of Pingrup on 25 November 1963; ca 300 on small freshwater lake 14 km north of Pingrup on 25 November 1963; ca 100 on small lake 13 km south of Lake Grace on 25 November 1963; 15 on freshwater swamp 19 km north of Hall Track on east side of Lake Magenta on 27 November 1963; ca 300 on freshwater lake, 500 m x 400 m, and ca 50 on freshwater lake, 1600 m x 1400 m, on southwest fringes of Lake Magenta in October 1972.

Black Duck (*Anas superciliosa*). Remains of dead bird in sedges lining freshwater lake on southwest fringe of Lake Magenta in October 1972. Ten adults, one pair with 15 young, on small lake 13 km east of Lake Grace on 25 November 1963.

Blue-winged Shoveler (*Anas rhynchotis*). Nine among large flock of Grey Teal on freshwater lake on southwest fringes of Lake Magenta in October 1972.

Wood Duck (*Chenonetta jubata*). A male on freshwater lake 19 km north of Pingrup on 25 November 1963; a male on swamp 18 km south of Lake Grace on 25 November 1963; ten on swamp 19 km north of Hall Track on east side of Lake Magenta on 27 November 1963: seven on one freshwater lake and four on another at southwest fringe of Lake Magenta in October 1972.

Musk Duck (*Biziura lobata*). A pair on freshwater lake at southwest fringe of Lake Magenta in October 1972.

Square-tailed Kite (*Lophoictinia isura*). Frequent throughout Reserve in October 1972, hunting over Salmon Gum (*Eucalyptus salmonophloia*) woodland, mallee, and heath.

Whistling Kite (*Haliastur sphenurus*). Two over Lake Magenta on 27 November 1963; one over sandplain and mallee on northwest side of Lake Magenta on 7 October 1972.

Brown Goshawk (*Accipiter fasciatus*). A pair in Salmon Gums 25 km east of Pingrup on 3 February 1953; pair with nest 10 m from ground in Salmon Gum 7 km west of Lake Magenta during October 1972.

Little Eagle (*Aquila morphnoides*). A white-phase bird recorded in 'woodland' on 4 February 1953.

Wedge-tailed Eagle (*Aquila audax*). One at Sullivan Soak on 5 February 1953; recorded in April 1971; one high over Salmon Gum woodland on 9 October 1972.

Little Falcon (*Falco longipennis*). One chasing Yellow-throated Miners at dusk in burnt Salmon Gums at Sullivan Soak on 10 October 1972.

Brown Falcon (*Falco berigora*). Several outside Reserve in February 1953 and November 1963. Recorded in Reserve in April 1971. Occasionally along tracks in mallee and Salmon Gums; more plentiful in burnt country in October 1972.

Nankeen Kestrel (*Falco cenchroides*). One over farmland 14 km south of Newdegate on 26 November 1963; one carrying lizard, probably *Amphibolurus*, 10 km west of Greenshield Soak on edge of burnt area on 27 November 1963.

Mallee Fowl (*Leipoa ocellata*). Adult bird on road 9 km east of Pingrup on 3 February 1953; nest in use 7 km east of Sullivan Soak on 3 February 1953; old nest in burnt area at Greenshield Soak in November 1963; old nests recorded in April 1971. No sightings of old nests or birds in October 1972.

Little Quail (*Turnix velox*). One recorded 14 km east of Lake Grace on 25 November 1963; one in mallee/heath 39 km south of Newdegate on 26 November 1963; two at Greenshield Soak in burnt area on 27 November 1963.

Coot (*Fulica atra*). Approximately 70 on freshwater lakes at southwest fringes of Lake Magenta in October 1972.

Bustard (*Otis australis*). One near Greenshield Soak in April 1971.

Banded Plover (*Vanellus tricolor*). Three at Pingrup on 3 February 1953; ten sheltering in shade of mallees 27 km south of Newdegate on 26 November 1963.

Red-capped Dotterel (*Charadrius ruficapillus*). One at Hall Track crossing of Lake Magenta on 4 February 1953; ca 30 on salt pans of Lake Magenta

and 14 at freshwater lakes at southwest fringes of Lake Magenta in October 1972.

Hooded Dotterel (*Charadrius cucullatus*). One on small salt lake 25 km south of Newdegate on 26 November 1963; three on salt pans of Lake Magenta in October 1972. A specimen collected on 7 October 1972 had developing ovarian follicles, the largest 3.1 mm. The stomach contained fragments of gastropod shells, probably *Coxiella*.

Black-fronted Dotterel (*Charadrius melanops*). One at edge of freshwater lake at southwest fringe of Lake Magenta on 5 October 1972.

Sharp-tailed Sandpiper (*Calidris acuminata*). One on small salt lake 23 km south of Newdegate on 26 November 1963.

White-headed Stilt (*Himantopus himantopus*). Two on small lake 18 km south of Lake Grace and three 12 km east of Lake Grace on 25 November 1963.

Banded Stilt (*Cladorhynchus leucocephalus*). Approximately 50 at 7 km west of Pingrup on 25 November 1963.

Avocet (*Recurvirostra novaehollandiae*). Seven at 14 km south of Lake Grace on 25 November 1963; one on shore of nearly dry lake 14 km south of Newdegate on 27 November 1963; 18 in shallows of freshwater swamp with partially submerged Swamp Yates 44 km south of Newdegate on 27 November 1963; one on small lake 10 km north of Pingrup on 4 October 1972.

Common Bronzewing (*Phaps chalcoptera*). In February 1953 five single birds sighted in the Reserve; in November 1963 one sighted; in October 1972 four in Salmon Gum and mallee. During February 1953 twenty-three were sighted in a 28 km drive between Badgebup and Nyabing. I doubt whether similar counts could be made in this region now.

Brush Bronzewing (*Phaps elegans*). Possible sighting of single bird at granite outcrop near Greenshield Soak on 10 April 1971.

Purple-crowned Lorikeet (*Glossopsitta porphyrocephala*). Approximately 20 in Salmon Gums and four in mallee in Reserve in February 1953. Not recorded in November 1963. Recorded in April 1971. During October 1972

at least 50 pairs breeding in Salmon Gums. Young heard being fed in some of the nests on 8 October. Paired birds were combining into small flocks to feed in flowering *E. sargentii* mallee.

White-tailed Black Cockatoo (*Calyptorhynchus baudinii*). A pair in Salmon Gums 4 km southeast of Lake Magenta on 5 October 1972.

Smoker Parrot (*Polytelis anthopeplus*). One recorded 27 km east of Pingrup on 3 February 1953; six in Salmon Gums between Sullivan Soak and Lake Magenta on 4 February 1953. Large flocks recorded in the Nyabing area on 3 February 1953. Not recorded in November 1963, April 1971 or October 1972. This decline is evident throughout the Wheatbelt, as sightings of up to five birds are now only made at widely scattered localities.

Western Rosella (*Platycercus icterotis*). Recorded in Salmon Gums 7 km west of Lake Magenta on 4 February 1953. A pair in flowering *Melaleuca acuminata* among Salmon Gum woodland in the same area on 10 October 1972.

Port Lincoln Parrot (*Platycercus zonarius*). Occasional birds recorded each time the Reserve was visited.

Elegant Parrot (*Neophema elegans*). Two at 12 km east of Nyabing on 5 February 1953; five at 22 km north of Pingrup on 25 November 1963.

Pallid Cuckoo (*Cuculus pallidus*). One on west side of Lake Magenta on 5 October 1972.

Fan-tailed Cuckoo (*Cuculus flabelliformis*). Sighted occasionally in Salmon Gum woodland during October 1972.

Horsfield Bronze Cuckoo (*Chrysococcyx basalis*). One on east side of Lake Magenta on 5 October 1972, and another at the southwest end of Lake Magenta on 8 October 1972.

Golden Bronze Cuckoo (*Chrysococcyx lucidus*). Frequent in Reserve during October 1972. Mostly singly or in pairs, in mallee and Salmon Gum woodland. Three pairs in Salmon Gums on 10 October 1972 were in close proximity and displaying and calling loudly.

Boobook Owl (*Ninox novaeseelandiae*). Not recorded in February 1953 or November 1963. Heard during April 1971. During October 1972 heard nearly every night in Salmon Gums. Several seen while spotlighting along Hall Track in Salmon Gums.

Tawny Frogmouth (*Podargus strigoides*). Two in tall mallee 9 km east of Pingrup on 3 February 1953. Recorded in April 1971. During October 1972 five birds seen in mallee, chiefly *E. platypus*, during a 6 km spotlighting run along Hall Track. Nest with adult sitting, on top of Salmon Gum stump, 4 m from ground on 8 October 1972.

Crested Owlet-nightjar (*Aegotheles cristatus*). Heard nearly every night in Salmon Gums during the October 1972 survey. One flushed from hollow tree during daytime.

Laughing Kookaburra (*Dacelo gigas*). Heard during April 1971. One calling near Sullivan Soak during October 1972.

Black-tailed Bee-eater (*Merops ornatus*). Three at Greenshield Soak on 5 February 1953; four at Sullivan Soak on 8 October 1972; two on fire-break in sandplain near freshwater lakes at southwest fringe of Lake Magenta on 8 October 1972.

Welcome Swallow (*Hirundo neoxena*). Sparse outside Reserve in towns and farm country. Recorded at Newdegate on 25 November 1963; at farm tank 42 km south of Newdegate on 27 November 1963; at farm 50 km south of Newdegate on 27 November 1963.

Tree Martin (*Hirundo nigricans*). Recorded at 27 km and 28 km east of Pingrup on 3 February 1953; in Salmon Gums 5 km west of Lake Magenta, and open *Melaleuca* and *Eucalyptus spathulata* woodland east of Lake Magenta on 4 February 1953. Not recorded in November 1963. Recorded five times during October 1972, total approximately 40 birds including 20 flying south over freshwater lakes at southwest fringe of Lake Magenta.

Richard's Pipit (*Anthus novaeseelandiae*). Recorded frequently in February 1963 in cleared country. Sparse in Reserve in October 1972 round edges of Lake Magenta, on firebreaks, and in bare burnt country near Sullivan Soak.

Black-faced Cuckoo-shrike (*Coracina novaehollandiae*). Recorded in Reserve during February 1953; at and to the south of Newdegate in Nov-



ember 1963; and in Reserve during April 1971. Nine sightings totalling twelve individuals in Salmon Gums and mallee, including burnt mallee, in October 1972.

White-winged Triller (*Lalage sueurii*). Pair in regenerating mallee on firebreak on 13 October 1972.

Southern Scrub-robin (*Drymodes brunneopygia*). Recorded during February 1953, November 1963 and October 1972. In 1972 it was widespread in mallee, especially under dense understories of *Melaleuca*, *Hakea* and *Daviesia*.

White-browed Babbler (*Pomatostomus superciliosus*). Sparse in woodland in Reserve. Three groups recorded in 1953: in Salmon Gums 7 km west of Lake Magenta on 4 February; in 'woodland savannah' 2 km east of Lake Magenta on 4 February; in mallee an Greenshield Soak on 5 February. Only one pair recorded in 1972 on 5 October in Salmon Gums feeding under *Melaleuca acuminata*. This bird is rare in large blocks of undisturbed vegetation, but is much more frequent in road-verges and fringes of cleared country. It has no doubt increased since clearing.

Blue-breasted Wren (*Malurus pulcherrimus*). Recorded in February 1953 and October 1972. Widespread in Reserve in heath, dense vegetation round freshwater lakes, and mallee with under-shrubbery of *Melaleuca*, *Hakea*, *Daviesia*, and *Exocarpus aphyllus*. Nuptial male, female ratio in October 1972 was 5 : 6.

Western Warbler (*Gerygone fusca*). Single bird feeding in *Melaleuca thyoides* and *Eucalyptus spathulata* on eastern side of Lake Magenta on 5 October 1972 and single bird in *E. annulata* mallee at Greenshield Soak on 10 October.

Broad-tailed Thornbill (*Acanthiza pusilla apicalis*). Recorded in February 1953 and October 1972. In 1972 all sightings were of pairs of birds. A fledgling scarcely able to fly was being fed in *Exocarpus aphyllus* under mallee on 8 October.

Chestnut-rumped Thornbill (*Acanthiza uropygialis*). Recorded 2 km east of Lake Magenta on Hall Track on 4 February 1953 in 'savannah woodland'. This species inhabits open vegetation and its absence from the mostly dense vegetation at Lake Magenta reserve was predictable.

Yellow-rumped Thornbill (*Acanthiza chrysorrhoa*). Recorded in February 1953 and October 1972 in Salmon Gum woodland, open grassy flats at Sullivan and Greenshield Soaks, in mixed eastern fringes of freshwater lakes, and open grassy edges of Lake Magenta. Two adults feeding two young among *Melaleuca thyoides* on east side of Lake Magenta on 11 October; two adults with nest, 2 eggs, one metre from ground in *Melaleuca thyoides* at extreme west edge of Lake Magenta on 12 October.

Spotted Scrub-Wren (*Sericornis frontalis maculatus*). Recorded in February 1953 and October 1972 in *Melaleuca thyoides* fringing Lake Magenta.

Weebill (*Smicrornis brevirostris*). Recorded in February 1953, November 1963 and October 1972. In 1972 particularly common in *Eucalyptus annulata* and *E. spathulata*. Also feeding in *Melaleuca thyoides*.

Shy Ground-wren (*Hylacola cauta*). Recorded in February 1953, November 1963 and October 1972. Widespread in heath with *Eucalyptus tetragona* and *Eucalyptus* sp. emergents and in mallee regrowth to one metre with low shrubs and sparse litter.

Field Wren (*Calamanthus fuliginosus*). Several flushed in heath at northern end of Reserve 40 km south of Newdegate on 26 November 1963.

White-fronted Chat (*Epthianura albifrons*). Recorded twice in samphires at Lake Magenta in October 1972.

Brown Flycatcher (*Microeca leucophaea*). Two recorded in 'savannah woodland' 2 km east of Lake Magenta on 4 February 1953.

Red-capped Robin (*Petroica goodenovii*). In February 1953 a pair recorded in woodland 7 km west of Lake Magenta and another at 2 km east of Lake Magenta in 'savannah woodland'. In October 1972 fairly plentiful in *Eucalyptus spathulata* and *Melaleuca thyoides* association fringing Lake Magenta but sparse on the west side where the *E. spathulata* and *M. thyoides* were less than half the stature of those growing on deeper wind-deposited soils on the east side.

The population on the east side of Lake Magenta was very dense and comparable to that in *Melaleuca pubescens* thickets fringing the salt lakes on Rottneest Island (Dell, unpublished). At Lake Magenta the preferred habitat included *E. spathulata* which forms many-branched often thick-trunked trees to 11 m, mainly in groups or scattered on higher ground.

Mingled throughout the *E. spathulata* and becoming dominant in lower areas and depressions were dense, often rounded *M. thyoides* to 4.5 m with bluebush (*Kochia oppositifolia*) to a height of 80 cm. Many of the glades were carpeted with grasses and composites to 5-10 cm and there was considerable bare ground. Decaying logs of *M. thyoides* were abundant as were carpets of moss among which the birds were feeding.

A nest with two newly hatched young was 2.3 m from the ground in a *M. thyoides* on 11 October. The rim and exterior of the nest was composed largely of moss.

Western Yellow Robin (*Eopsaltria australis griseogularis*). Pair recorded in tall mallee 8 km east of Pingrup on 3 February 1953; two pairs engaged in territorial fighting under *Melaleuca acuminata* in *Eucalyptus salmonophloia* woodland on 5 October 1972.

Grey Fantail (*Rhipidura fuliginosa*). Recorded during February 1953, April 1971 and October 1972. In 1972 five sightings totalling six birds in *E. spathulata* fringing Lake Magenta and in Salmon Gums.

Willie Wagtail (*Rhipidura leucophrys*). Recorded in February 1953, November 1963 and October 1972. In 1972 six sightings totalling seven birds in Salmon Gum woodland and near freshwater lakes fringing the southwest end of Lake Magenta.

Restless Flycatcher (*Myiagra inquieta*). One near freshwater lakes at southwest fringe of Lake Magenta and a pair recorded four times in Salmon Gum woodland during October 1972.

Golden Whistler (*Pachycephala pectoralis*). One pair recorded in February 1953. Not recorded in November 1963 or April 1971. In October 1972 frequent in Salmon Gum woodland and adjacent mallee; and sparse east of Lake Magenta in *E. spathulata* and *Melaleuca thyoides*.

Rufous Whistler (*Pachycephala rufiventris*). One in Salmon Gum woodland 7 km west of Lake Magenta on 27 November 1963.

Western Shrike-thrush (*Colluricincla harmonica rufiventris*). Not recorded in February 1953 or November 1963. Recorded in April 1971 and widespread in Salmon Gums and mallee in October 1972.

Crested Bellbird (*Oreoica gutturalis*). Recorded on each trip to the

Reserve mainly in shrubbery under mallee and in heath. Two adults feeding fledgling not able to fly on 6 October 1972 in *Melaleuca* under mallee. Nest (clutch 3) in *Exocarpus aphyllus* under mallee, 70 cm from ground on 8 October.

Black-capped Sittella (*Neositta chrysoptera pileata*). Four in Salmon Gum woodland on 11 October 1972.

Rufous Tree-creeper (*Climacteris rufa*). Recorded twice in woodland 7 km west of Lake Magenta on Hall Track in February 1953; single bird in same area in October 1972.

Mistletoe-bird (*Dicaeum hirundinaceum*). One in Salmon Gums at Greenshield Soak on 5 February 1953 (D.L. Serventy pers. comm.).

Spotted Pardalote (*Pardalotus punctatus*). Common in Reserve in October 1972 throughout mallee and sandplain where there were mallee emergents. Breeding burrows along all tracks and firebreaks throughout Reserve.

Red-tipped Pardalote (*Pardalotus striatus substriatus*). Recorded in February 1953, November 1963 and October 1972 feeding among foliage of eucalypts. In October apparently moving south through Reserve, feeding as they went.

Western Silvereye (*Zosterops lateralis gouldi*). Not recorded in 1953, 1963 or 1971. In October 1972 common in *Melaleuca thyoides* fringing Lake Magenta, sparse in heath with *Eucalyptus tetragona* emergents and in scrub on laterite ridges.

Brown Honeyeater (*Lichmera indistincta*). Recorded three times in February 1953. In October 1972 frequent in flowering *Melaleuca* fringing freshwater lakes and occasional in mallee. A pair giving broken-wing distraction display among *Eucalyptus calycogona* on 8 October were probably nesting.

Singing Honeyeater (*Meliphaga virescens*). Recorded at 13 km south of Newdegate on 26 November 1963. In October 1972 a few in *Eucalyptus spathulata*/*Melaleuca thyoides* association fringing Lake Magenta, and in *Melaleuca* fringes of freshwater lakes at southwest end of Lake Magenta.

Yellow-plumed Honeyeater (*Meliphaga ornata*). A few recorded in woodland in February 1953. In October 1972 moderately common in

woodland, feeding among foliage of Salmon Gums.

Purple-gaped Honeyeater (*Meliphaga cratitia*). Recorded in mallee and woodland in February 1953 and October 1972. Feeding in flowering *Eucalyptus annulata* and *Grevillea patentiloba* at Greenshield Soak in October. Parent feeding two newly-flying young in low mallee with shrub layer to 1.5 m on 10 October.

White-eared Honeyeater (*Meliphaga leucotis*). Possible record at 26 km east of Pingrup in dense whipstick mallee merging into Salmon Gum on 3 February 1953; recorded at Sullivan Soak in open Salmon Gum woodland surrounded by mallee and *Acacia* on 5 February 1953. The apparent scarcity of this bird near Lake Magenta was not expected considering its abundance in mallee elsewhere in the wheatbelt.

Brown-headed Honeyeater (*Melithreptus brevirostris*). Recorded during February 1953 in Salmon Gum woodland and *Eucalyptus platypus* mallee. In October 1972 flocks of up to seven feeding among foliage of Salmon Gums, *E. platypus*, and *E. calycogona* and taking insects from flower-buds of *E. annulata*.

Tawny-crowned Honeyeater (*Phylidonyris melanops*). Recorded in February 1953, April 1971, and October 1972 in heath and sandplain. Breeding at Greenshield Soak : 5 October, two juveniles being fed; 10 October, nest with clutch two; 12 October, nest with clutch three.

Yellow-winged Honeyeater (*Phylidonyris novaehollandiae*). Frequent in Reserve in October 1972 in Salmon Gum woodland feeding among flowering *Melaleuca acuminata*.

Yellow-throated Miner (*Manorina flavigula*). Recorded on 3 February 1953 at Pingrup; 4 February at Sullivan Soak; 26 November 1963 at 2 km south, 13 km south, and 19 km south of Newdegate; 27 November at Sullivan Soak; October 1972, five at Sullivan Soak.

Red Wattle-bird (*Anthochaera carunculata*). Recorded in February 1953, November 1963, April 1971 and October 1972. Mainly in Salmon Gum woodland and mallee. Numbers increased during latter part of October 1972 when noisy flocks of up to twenty birds were feeding among flowers *E. annulata* and *E. sargentii* mallee. These flocks were possibly migrating southwards.

Magpie-lark (*Grallina cyanoleuca*). Recorded on 25 November 1963 at Pingrup, at 18 km north of Pingrup, at 18 km south of Lake Grace, at 12 km south of Lake Grace, and at 12 km east of Lake Grace; on 26 November 1963 at Newdegate, and at 9 km north of Hall Track on each side of Lake Magenta; in October 1972 a pair on grassy flats at Sullivan Soak.

Black-faced Wood-Swallow (*Artamus cinereus*). Recorded on 25 November 1963 at small lake 13 km south of Lake Grace, at 10 km south of Lake Grace, at 19 km west of Newdegate, at 23 km west of Newdegate.

Dusky Wood-Swallow (*Artamus cyanopterus*). Recorded in February 1953 and October 1972 in Salmon Gum woodland.

Grey Currawong (*Strepera versicolor*). Recorded on all visits. Nest with large young in Salmon Gum, 8 m from ground on 8 October 1972.

Grey Butcher-bird (*Cracticus torquatus*). Recorded in February 1953, April 1971 and October 1972 in mallee and Salmon Gum woodland.

Western Magpie (*Cracticus tibicen dorsalis*). Sparse in Reserve and adjacent country. In Reserve only in open Salmon Gum woodland or burnt areas.

Australian Raven (*Corvus coronoides*). Moderately common in Reserve and adjacent country. Bird sitting on nest in *Eucalyptus spathulata*, 10 m from ground on east side of Lake Magenta on 11 October 1972.

Little Crow (*Corvus bennetti*). Small flock on 9 October 1972 and eight in thermal over Lake Magenta on 11 October 1972.

## DISCUSSION

Carnaby (1933) made the first attempt to list the avifauna of an inland district of southern Western Australia. It is noteworthy that his list of 132 species is still the largest for inland Western Australia, *cf* Tarin Rock Reserve with 86 species (Dell & Johnstone, 1976) and Lake Magenta with 98 species (this report). Carnaby (1938) provided further comments on Lake

Grace birds together with a list for Hatters Hill, approximately 145 km east of Lake Grace.

Some of the lake or littoral birds recorded by Carnaby at Lake Grace could also occur at Lake Magenta. These include : Black-tailed Native Hen (*Gallinula ventralis*), Red-kneed Dotterel (*Charadrius cinctus*), White-necked Heron (*Ardea pacifica*) and Chestnut Teal (*Anas castanea*). Ten species of land birds included in the Lake Grace list but not recorded at Lake Magenta were Australian Dotterel (*Peltohyas australis*), King Parrot (*Purpureicephalus spurius*), White-backed Swallow (*Cheramoeca leucosterna*), Scarlet Robin (*Petroica multicolor*), Gilbert Whistler (*Pachycephala inornata*), Western Shrike-tit (*Falcunculus frontatus leucogaster*), Redthroat (*Pyrrholaemus brunneus*), Pied Honeyeater (*Certhionyx variegatus*), Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*) and Pied Butcher-bird (*Cracticus nigrogularis*). Several of these probably occur in suitable habitat at Lake Magenta.

Birds recorded as common or frequent at Lake Grace in 1933 but evidently much scarcer now at Lake Magenta are Brown Hawk (*Falco berigora*), Smoker Parrot (*Polytelis anthopeplus*), Western Rosella (*Platycercus icterotis*), Restless Flycatcher (*Myiagra inquieta*), Western Warbler (*Gerygone fusca*), White-browed Babbler (*Pomatostomus superciliosus*) and Yellow-throated Miner (*Manorina flavigula*). Most of these are species which have undergone a general decline throughout the wheatbelt. The situation regarding the Redthroat, Spiny-cheeked Honeyeater and Pied Butcher-bird is obscure. The southern limit of the Redthroat is Lake Grace and Lake King (Serventy and Whittell, 1967). It is fairly frequent around the fringes of Lake Grace (W.K. Youngson, *pers. comm.* March 1973) but is absent in similar vegetation at Lake Magenta; it occurs at Bending (Dell, unpublished) but is absent from Tarin Rock (Dell & Johnstone, 1976). The Spiny-cheeked Honeyeater was listed as plentiful at Lake Grace (Carnaby, 1933) and present at Hatters Hill (Carnaby, 1938) but was not recorded at Tarin Rock, Bending or Lake Magenta. Serventy & Whittell (1967) indicate its distribution as west and south to Kojonup, Broomehill and Bremer Bay. The range of the Pied Butcherbird is south to Lake Grace although scarce south of a line joining Wongan Hills, Wyalkatchem, Merredin and Kalgoorlie (Serventy & Whittell, 1967). Carnaby (1933) listed it as rather scarce at Lake Grace and also occurring at Hatters Hill. Its present status in the southern wheatbelt probably has not altered since Carnaby's time.

The Blue-breasted Wren (*Malurus pulcherrimus*) and Purple-gaped Honeyeater (*Meliphaga cratitia*) are moderately common at Tarin Rock and Lake

Magenta, and it is likely that they have increased in abundance since Carnaby listed them as rare in 1933 at Lake Grace. The Spotted Pardalote (*Pardalotus punctatus*) was common at Lake Magenta in October 1972. Although Carnaby (1933) described it as plentiful at Lake Grace, this record was ignored by subsequent authors (e.g. Serventy & Whittell, 1967) who stated that this species was only found west of a line joining Moora and the Stirling Range.

Only 15 of the 98 species listed in this report were noted to be breeding, but probably many more breed in the Lake Magenta area. Limited current knowledge precludes any statement about breeding seasons.

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#### REFERENCES

- BEARD, J.S. (1967)—A study of patterns in some West Australian heath and mallee communities. *Aust. J. Bot.* 15: 131-139.
- CARNABY, I.C. (1933)—The birds of the Lake Grace district, W.A. *Emu* 33: 103-109.
- CARNABY, I.C. (1938)—Birds of the district between Norseman and Lake Grace, Western Australia. *Emu* 37: 274-275.
- DELL, J. & JOHNSTONE, R.E. (1976)—Birds of Tarin Rock and North Tarin Rock Reserves. In Biological survey of the Western Australian Wheatbelt. *Rec. West. Aust. Mus.* Suppl. no. 2.
- KITCHENER, D.J. (1976)—Preface to the series. In Biological survey of the Western Australian Wheatbelt. Part 1. *Rec. West. Aust. Mus.* Suppl. no. 2.
- SERVENTY, D.L. & WHITTELL, H.M. (1967)—*Birds of Western Australia*. Perth, W.A.: Lamb Publications.