

A SURVEY OF THE ADELAIDE BOTANIC PARK AND GARDENS

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INTRODUCTION

Although most city parklands do not represent the indigenous flora and fauna of the area, they are important for social and ornithological reasons. Many ornithologists are city-dwellers with limited opportunities for visiting relatively untouched and distant areas of scrub as opposed to parklands near their homes or places of work. Parks and gardens are used by a significant number and variety of birds, and may provide refuges for migrant and vagrant birds. Furthermore, in the planning of additional parks in old and new cities, information about birds likely to be attracted to such places is of value.

The inner suburbs of Adelaide are fortunate in the amount of land set aside for public parks, most of which are well-established. The Botanic Park and Gardens are notable in several respects. They are watered throughout the year and both contain water courses: the River Torrens forms the northern boundary of the Park, while a stream, derived from First Creek, flows through the Gardens. Much of the vegetation is exotic to the Adelaide Plains, South Australia and even Australia. The Park, of 30 hectares, is predominantly open savannah, with small patches of low more dense vegetation and reeds along the river. The Gardens (18 hectares) contain a more varied range of vegetation types, including formal gardens, open savannah and dense shrubbery.

Some historical perspective can be gained on the birds of these two areas, as published records exist in the *S.A. Orn.* from early this century. Such records give some idea of the birds present and their status. A more recent publication is Glover's (1953) list of birds seen in the Park and Gardens up to that date. This list was based on personal records and those published in the *S.A. Orn.* The present paper summarizes a survey, from January 1971 to December 1974, of birds seen in or flying over the Park and Gardens (despite the temptation to include birds seen just outside) so that comparisons could be made with Glover's list. In addition, the current survey attempted to assess status and discover breeding species. By comparison of the present situation with the avifauna recorded before 1953, changes and trends may be revealed.

Over the period 1971-74 the Park was surveyed more frequently than the Gardens,

and the discussion therefore applies more to the birds of the Park. Regular fortnightly visits were made to the Park in late 1973 and 1974, with the intent of observing what birds were present, and in many cases, of recording the actual numbers seen. Before this, more attention was given to recording unusual or rare birds. The data in Table 1 are based on personal records, those printed in the *S.A.O.A.* Newsletter and sightings from other observers—namely E. Bridgman, J. Finnegan, B. Miller, D. Paton, J. and N. Reid and H. Sunter, to whom I am very grateful.

DISCUSSION

Glover's (1953) list contains 78 species, of which eight are introduced. Of our list of 81 species, 10 are introduced, and an additional four are probably cage escapees. 57 species are common to both lists. It is difficult to make comparisons between two basically dissimilar reports, because, for example, Glover's covers a much greater period of time and does not specify status. Also both lists are deceptive, in that they contain vagrant birds, which were seen very infrequently, and other species which merely flew over the area. Despite such problems, tentative conclusions have been drawn. It seems that the diversity of species using the area has not altered greatly. The latter survey recorded a slightly higher number of species. This may have been due to the more intensive nature of the survey and the inclusion of more transient species. Even so, it appears that the variety of species has not declined markedly, if at all. In the current survey, evidence of resident status was found for only 12 species, all but one of which were recorded in the earlier period. Although relevant data is not available for the early part of this century, I imagine that there has been a decrease in the number of resident birds in the Park and Gardens: e.g. the Dusky Woodswallow *Artamus cyanopterus* once bred in the Park, but was not seen between 1971 and 1974. This decline in residents is not surprising when the environmental alterations associated with the growth of the city are considered. Nevertheless, 12 out of a total of 81 species is a fairly small proportion, and emphasizes the importance of such parklands for migratory and nomadic birds.

Five broad categories of birds have been identified. Some species seem to have completely

TABLE 1

	1958	1971-74	Abundance 1971-74	Status 1971-74	Fre- quency 1973-74		1958	1971-74	Abundance 1971-74	Status 1971-74	Fre- quency 1973-74
Little Grebe	x	x	x	Tt.		Blue Bonnet Parrot		x E	x	Tt.	
Hoary-headed Grebe		x	x	Tt.		Pallid Cuckoo	x	x	x	Tt.	
Black Cormorant		x	xx	F.O.		Fan-tailed Cuckoo	x	x	x	Ty.	
Little Black Cormorant	x	x	xxxx	Tt.	6	Horsfield Bronze-Cuckoo	x	x	x	Tt.	
Pied Cormorant	x	x	x	F.O.		Boobook Owl	x				
Little Pied Cormorant	x	x	xx	F.O.		Owl sp.		x	x	Tt.	
Darter	x					Fork-tailed Swift		x	xxx	F.O.	
White-faced Heron	x	x	x	Ty.	24	Azure Kingfisher	x				
White Egret		x	x	Ty.		Kookaburra	x	x	x	Pc.	12
Nankeen Night-Heron	x	x	x	F.O.		Sacred Kingfisher	x	x	x	Tt.	
Cape Barren Goose		x	x	F.O.		Pacific Swallow	x	x	xxx	Pc.	78
Black Swan	x	x	x	Pt.	12	Tree Martin	x	x	xx	Tt.	18
Mountain Duck		x	x	Tt.		Black-faced Cuckoo-Shrike	x	x	xx	Pc. B.	24
Black Duck	x	x	x	Tt.		Little Cuckoo-Shrike	x				
Mallard*	x					White-winged Triller	x				
Mallard x Black Duck		x	xxx	Pt.		Blackbird*	x	x	xxxx	Pt. B.	100
Chestnut Teal	x	x	x	Tt.		White-browed Babbler	x				
Grey Teal	x					Little Grassbird	x	x	x	Pc.	9
Maned Goose		x	x	Tt.		Reed Warbler	x	x	x	Pc.	39
Whistling Kite	x	x	x	F.O.		Yellow-tailed Thornbill	x	x	x	Tt.	
Brown Goshawk	x	x	x	Tt.		Blue Wren	x				
Brown Falcon		x	x	Tt.		Grey Fantail	x				
Little Falcon	x	x	x	Tt.	6	Willie Wagtail	x	x	xxxx	Pt. B.	100
Peregrine Falcon		x	x	Tt.		Restless Flycatcher	x				
Nankeen Kestrel	x	x	x	F.O.		Scarlet Robin	x				
Brush Turkey		x E	x	Pc.		Golden Whistler		x	x	Tt.	
Banded Landrail	x	x	x	Tt.		Grey Shrike-Thrush	x	x	x	Ty. B.	6
Marsh Crake	x					Eastern Shrike-Tit	x				
Black-tailed Native-Hen	x	x	x	Ty.		Mistletoe Bird	x	x	x	Tt.	
Dusky Moorhen	x	x	xxxx	Pt. B.	90	Striated Pardalote	x	x	x	Tt.	3
Eastern Swampphen	x	x	xx	Pc.	36	Grey-backed Silvereye	x	x	xx	Tt. B.	
Coot	x	x	x	Tt.		White-plumed Honeyeater	x	x	xxx	Pt. B.	93
Black-fronted Dotterel	x					White-naped Honeyeater	x				
Silver Gull	x	x	x	Tt.	6	Black-chinned Honeyeater	x				
Caspian Tern		x	x	Tt.		New Holland Honeyeater	x	x	x	Tt.	
Peaceful Dove	x	x E	x	Tt.		Regent Honeyeater	x				
Crested Pigeon	x	x	xx	Pt.	96	Eastern Spinebill	x	x	x	Tt.	
Rock Dove*	x	x	xxx	Tt.	27	Noisy Miner	x	x	xxxx	Pt. B.	87
Burmese Spotted Dove*	x	x	xx	Pt. B.	92	Little Wattlebird	x	x	xxx	Pc. B.	9
Yellow-tailed Black Cockatoo	x					Red Wattlebird	x	x	xxx	Pc.	54
White Cockatoo		x	x	Tt.	3	Goldfinch*	x	x	xx	Tt.	6
Little Corella		x	x	Tt.		Greenfinch*	x	x	xx	Ty.	9
Galah	x	x	xxxxx	Ty.	57	House Sparrow*	x	x	xxxxx	Pt. B.	75
Rainbow Lorikeet		x	xxx	Pc.	21	Starling*	x	x	xxxxx	Pt. B.	100
Musk Lorikeet	x	x	xxxxx	Pc.	63	Indian Myna*		x	x	Ty. B.	
Purple-crowned Lorikeet	x	x	xxx	Pc.	15	Olive-backed Oriole	x				
Cockatiel		x	x	Tt.		Magpie-Lark	x	x	xxx	Pt. B.	100
Adelaide Rosella	x	x	xx	Pc.	39	White-winged Chough		x	x	Tt.	
Eastern Rosella		x	x	Ty.	18	Dusky Woodswallow	x				
Mallee Ring-Neck Parrot		x E	x	Tt.		White-backed Magpie	x	x	xxx	Pt. B.	100
Port Lincoln Parrot		x E	x	Tt.		Little Raven		x	xx	Pc.	75
Red-rumped Parrot	x	x	xx	Pc.	72	Guinea Fowl		x E	x	Tt.	

disappeared from the area, possibly never to return. Others have declined considerably in number and frequency of occurrence. Yet others have come into the suburbs and become resident there, probably because of changes made by man. There is also a small number of birds which seem to be re-establishing themselves close to the city, after absences of up to 20 years, or at least after a decline in abundance. The fifth category contains those birds which are very infrequent visitors to the area and usually show no pattern in their movements.

The 1953 list records over 20 species which were not seen in the current survey. I suspect that birds like the White-browed Babbler *Pomatostomus superciliosus*, Scarlet Robin *Petroica multicolor*, and Regent Honeyeater *Xanthomyza phrygia*, if not actually resident in, were regular visitors to the Park and Gardens, at least until the 1940s. From published data it is known that the Dusky Woodswallow and Blue Wren *Malurus cyaneus* were once resident there. Other species not recorded in the recent survey include the Azure Kingfisher *Ceyx azurea*, Little Cuckoo-Shrike *Coracina robusta* and Black-chinned Honeyeater *Melithreptus gularis*. I presume that they were not frequently seen in the parklands, and that the chances of sighting these now have been significantly reduced by the growth of the city and associated changes.

The Mistletoe Bird *Dicaeum hirundinaceum* is an example of those birds which are now less common than in the past in the Park and Gardens. The species is described by Condon (1969) as nomadic, yet it seems to be an

autumn-winter visitor to the Adelaide Plains. Our records from the Park come from March to May, and Jarman (1935) stated that this bird could be seen in the Park between February and August. Furthermore, up to 40 birds had been seen at one time, although the average number was about 12. Our few sightings were all of solitary birds.

Other birds appear to have taken advantage of the changes created by man. The influx of some northern species, like the Galah *Cacatua roseicapilla* and Crested Pigeon *Ocyphaps lophotes*, into the southern districts, is well known. J. N. McGilp (1937) commented on this, attributing it partly to the stocking, and drying-up, of the interior. Another reason for their southward expansion could be the extensive clearing of the mallee and its replacement by wheatland. McGilp also stated that the Crested Pigeons were quite numerous in the vicinity of the city by the 1930s, whereas formerly they were rarely sighted within 50 miles of Adelaide. This trend seems to be continuing, at least for the Crested Pigeon (B. Glover pers. comm.).

The history of the Little Raven *Corvus mellori* near the city is of interest. Beck (1921) reported that crows—presumably *C. mellori*—were then becoming very scarce near Adelaide. It is only over the past 15 to 20 years that this species has become a fairly common city bird (B. Glover pers. comm.), which explains its absence from the 1953 list for the Park and Gardens. Apparently this bird was not uncommon around the city before the early twentieth century, virtually disappeared in the first half of the century, and then gradually increased in numbers. This species was seen on most visits to the survey area, and was recorded in every month. While I do not have sufficient evidence to describe it as permanent in the Park and Gardens, I think that it is approaching this status there. The Kookaburra *Dacelo novaeguinae* shows some similarities with the Little Raven. Early records show that it was not uncommon in the vicinity of Adelaide, but in recent years it has rarely been sighted in the parklands. However, from March to at least September 1974, Kookaburras were seen or heard in the Park quite frequently, and may even have been resident there. Sightings of one, two and three birds were made during this period, and there was one record of a solitary bird in mid-1972. Subsequent visits to the area in 1975 and 1976 have shown that the Kookaburras are still in the area.

The Eastern Rosella *Platycercus eximius* is one of the species recorded in 1971-74, but not

Key to Table 1 (Opposite)

B. indicates that definite evidence for breeding was found; E. a cage escapee; *, an introduced bird.

Abundance (x = 1-5 birds, xx = 5-15, xxx = 16-30, xxxx = 31-50, xxxxx = 51+) refers to the largest number of birds seen on any one occasion, and represents birds seen over the total area of the Park and Gardens.

Symbols used for status: F.O. = birds only flew over area; Tt. = transient, seen on isolated occasions only; Ty. = temporary, seen regularly over a period of 2-4 months; Pc. = periodic, seen regularly over a period of 4-12 months; Pt. = permanent, species that were usually seen.

Frequency is the % of 33 visits that a species was recorded, between June 1973 and December 1974. A figure is only given when the species was recorded during this period. There are a few anomalies, e.g. the Black Swan, which is described as permanent, has a frequency of only 12%. The Swan is almost completely confined to the Gardens, and most visits were to the Park only. However, Barbara Miller (pers. comm.) regularly reported Swans in the Gardens.

on the earlier list. Small groups of these birds were seen on a number of occasions in the Park, often in company with Adelaide Rosellas *P. elegans*. Hybrids between the two were also noted. Kraehenbuehl (S.A.O.A. Newsletter, June 1971) reported their presence in the north parklands as early as 1968. These birds are presumably the wild descendants of cage birds. Yet in 1937, it was recorded in the *S.A. Orn.* that a small flock of these rosellas had been seen regularly over two seasons at Springfield, about seven km east of Adelaide. Likewise Rainbow Lorikeets *Trichoglossus haematodus* are absent from Glover's (1953) list, but were seen quite often during our survey. Neither was this species on a list, published in 1915, of birds seen in the City of Adelaide and its parklands. This list is informative in another respect, in that the Red-rumped Parrot *Psephotus haematotus* is marked as rare. Yet these birds have recently been seen in the central city, are fairly common in most parklands, and were recorded in every month in the Park in our survey.

The record of the Black-tailed Native-Hen *Tribonyx ventralis* supports my contention that the Park and Gardens provide a refuge for vagrants. Our first record of this bird in the Gardens was in June 1972, with further sightings in July and December of the same year, with the last record in March 1973.

These dates correlate well with the irruption of this species in 1972-73, documented by Matheson (1974). Sightings of abnormally large numbers of Native-Hens extended from May 1972 to February 1973, and although our records were all of solitary birds, the correlation seems valid.

CONCLUSION

It seems likely that some species of bird will never return to the city and parklands, at least as resident species. Yet when one considers the case of the Little Raven, and also those birds which have extended their range and increased in numbers in the city, it is more difficult to justify such a statement. I hope that this paper, coupled with earlier reports, will form a baseline for the recognition of future changes and trends, and stimulate interest in more comprehensive studies of suburban and city parks.

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