

Bird Survey of City of Holdfast Bay Reserves—Autumn 2019

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Summary

A survey of birds at six sites (nine specific reserves) in the City of Holdfast Bay local government area (Adelaide, South Australia) was undertaken during Apr–May 2019 (two surveys at each site) for the purpose of providing baseline data in advance of upcoming habitat improvement works. A total of 35 bird species was recorded—30 native (including one considered alien to the Adelaide region) and five introduced species. The highest total numbers of native bird species ($n = 18$ and $n = 20$) were recorded at the two most habitat-rich sites, and lowest numbers of native species ($n \leq 11$) at the three parkland-like sites. Survey timing and frequency was constrained by overarching administrative requirements. Any future comparative work should be based on surveys undertaken using the same method and at the same time of year.

Background

The author was engaged by the City of Holdfast Bay (Adelaide, South Australia) to survey birds across nine reserves in its local government area. The aim of the survey was to record bird species for the purpose of baseline data in advance of upcoming (commencing Jun 2019) habitat improvement works at each site. This document reports on surveys undertaken in autumn 2019.

Methods

The nine specific reserves of interest were treated as six nominal survey sites (Table 1; Figures 1–6), each of which was surveyed by the author on 10 Apr 2019 and again on 6 May 2019. An area-search, ramble-type survey method was used, wherein birds were recorded whilst the author walked an arbitrary route that effectively covered the entire site. Numbers of each species were recorded, mindful of the potential for multiple counts. Birds foraging in the airspace above or flying over sites were included along with species located on terrestrial microhabitats within sites. Weather during the survey was fine (variously cool to mild, overcast to sunny, calm to light winds and no precipitation).

Table 1. City of Holdfast Bay bird survey sites, autumn 2019.

Site	Name	Description	Area* (ha)
1	Barton Gully Reserve	mixed remnant native vegetation and planted native/alien vegetation; few eucalypts flowering	1.3
2	Kingston Cliff Face and Pine Gully	coastal native vegetation remnant, substantial shrub cover, but relatively few eucalypts and numerous Aleppo Pine; drought-stressed shrub/ground-layer vegetation (particularly during first survey)	4.0
3	Gilbertson Gully Reserve	urban bushland; numerous eucalypts and some alien/non-local trees; many eucalypts flowering; uncommon small (< 5 cm opening) tree hollows	3.4
4	Shannon Avenue Reserve and Blackburn Avenue Reserve	parkland (scattered trees over grass, and no understorey); few eucalypts flowering; birds exclusively using shallow water in the adjacent Sturt River (concrete) channel excluded	2.1
5	Fordham Reserve	parkland (scattered trees over grass, and no understorey); many alien/non-local trees; few eucalypts flowering	1.2
6	Bob Lewis Reserve and Stewart Avenue Reserve	parkland (scattered trees over grass, and no understorey); many alien/non-local trees; few eucalypts flowering	0.7

* Approximate area based on City of Holdfast bay spatial data provided—actual area surveyed was generally slightly greater (i.e. due to imprecise boundaries in spatial data).



Figure 1. Site 1—Barton Gully Reserve.



Figure 2. Site 2—Kingston Cliff Face (left) and Pine Gully (right).



Figure 3. Site 3—Gilbertson Gully Reserve.



Figure 4. Site 4—Shannon Avenue Reserve (left) and Blackburn Avenue Reserve (right; birds in Sturt River channel excluded).



Figure 5. Site 5—Fordham Reserve.



Figure 6. Site 6—Bob Lewis Reserve (left) and Stewart Avenue Reserve (right).

Results and Comments

A total of 35 bird species was recorded (Table 2)—30 native and five introduced species, although note that one native species recorded (Long-billed Corella) is generally considered alien to the Adelaide region. The greatest number of native species ($n = 20$) was recorded at Site 3 (Gilbertson Gully Reserve), and the smallest number of native species was recorded at Site 6 (Bob Lewis Reserve and Stewart Avenue Reserve).

Not surprisingly, the highest total numbers of native bird species were recorded at the two most floristically and structurally diverse (i.e. habitat-rich) sites—Site 1 (Barton Gully Reserve) and Site 3 (Gilbertson Gully Reserve) (Tables 1 and 2; Figures 1 and 3). Although a large and somewhat floristically diverse area occurs at Site 2 (Kingston Cliff Face and Pine Gully) much of the area comprises structurally simple shrubland and this was quite drought-stressed at the time of surveys (Table 1; Figure 2). Similarly, expected low diversity was recorded at all three parkland type sites (Tables 1 and 2; Figures 3–6).

Four species of conservation significance were recorded—one Rare in SA and in the AMLR (Adelaide Mount Lofty Ranges) region, two Vulnerable in the AMLR region, and one Near Threatened in the AMLR region (Table 2)—although note that the three listed only regionally are generally widespread and relatively abundant.

Full survey results and accompanying species particulars are included in the associated dataset (CoHB_BirdSurveysAutumn2019.xlsx)—including conservation status, movement status, number of each species recorded by survey date, food type, food substrate, shelter/roost particulars, nest particulars and miscellaneous comments.

Note that the number of survey visits and survey timing were constrained by City of Holdfast Bay administrative requirements and baseline data would ideally be collected over a greater period of time and across contrasting seasons. Nevertheless, the survey data provides a reasonable indication of bird diversity across the sites of interest. Any comparative work should be based on surveys undertaken using the same method and at the same time of year.

Table 2. Birds recorded at City of Holdfast Bay bird survey sites, autumn 2019.

Group	Family	Alien	Scientific Name	Common Name	Conservation Status			Site*						Comments
					AUS ^	SA ^^	AMLR ^^^	1	2	3	4	5	6	
Geese, swans & ducks	ANATIDAE		Anas superciliosa	Pacific Black Duck			VU				Y			
Ibises & Spoonbills	THRESKIORNITHIDAE		Threskiornis moluccus	Australian White Ibis			LC				Y	Y	Y	
Hawks, eagles & allies	ACCIPITRIDAE		Accipiter cirrocephalus cirrocephalus	Collared Sparrowhawk			LC	Y						
Plovers & dotterels	CHARADRIIDAE		Vanellus miles novaehollandiae	Spur-winged Plover			LC				Y			
Gulls, skuas & allies	LARIDAE		Chroicocephalus novaehollandiae	Silver Gull			LC				Y			mostly flying over only
Pigeons & doves	COLUMBIDAE	Y	Columba livia	Feral Pigeon					Y	Y	Y			mostly flying over only
			Ocyphaps lophotes	Crested Pigeon			LC	Y	Y	Y	Y	Y		
		Y	Spilopelia chinensis	Spotted Dove				Y	Y	Y			Y	
Kingfishers	ALCEDINIDAE		Dacelo novaeguineae	Laughing Kookaburra			LC			Y				
Falcons	FALCONIDAE		Falco peregrinus	Peregrine Falcon		R	RA		Y					foraging overhead
Cockatoos	CACATUIDAE		Cacatua sanguinea sanguinea	Little Corella			LC	Y	Y					
		**	Cacatua tenuirostris	Long-billed Corella							Y	Y		
			Eolophus roseicapilla	Galah			LC	Y				Y		flying over only
Parrots & allies	PSITTACULIDAE		Glossopsitta concinna	Musk Lorikeet			LC	Y		Y		Y		
			Platycercus elegans	Crimson Rosella***			LC	Y	Y	Y				
			Platycercus eximius	Eastern Rosella			LC			Y		Y	Y	
			Trichoglossus haematodus	Rainbow Lorikeet			LC	Y	Y	Y	Y	Y	Y	some flying over only
Honeyeaters & Australian chats	MELIPHAGIDAE		Acanthorhynchus tenuirostris	Eastern Spinebill			LC			Y				
			Anthochaera carunculata	Red Wattlebird			LC	Y	Y	Y				
			Gavicalis virescens	Singing Honeyeater			LC	Y	Y					
			Manorina melanocephala	Noisy Miner			LC	Y	Y	Y	Y	Y	Y	
			Phylidonyris novaehollandiae	New Holland Honeyeater			LC	Y	Y	Y			Y	
			Ptilotula penicillata	White-plumed Honeyeater			LC	Y		Y				
Pardalotes	PARDALOTIDAE		Pardalotus striatus	Striated Pardalote			LC	Y		Y				
Woodswallows, butcherbirds & allies	ARTAMIDAE		Gymnorhina tibicen	Australian Magpie			LC	Y	Y	Y	Y	Y	Y	
Whistlers, shrike-tits & allies	PACHYCEPHALIDAE		Pachycephala pectoralis	Golden Whistler			LC			Y				
Fantails	RHIPIDURIDAE		Rhipidura leucophrys	Willie Wagtail			NT	Y	Y	Y				
Monarch flycatchers	MONARCHIDAE		Grallina cyanoleuca	Magpie-lark			LC	Y	Y	Y	Y	Y	Y	
Crows	CORVIDAE		Corvus mellori	Little Raven			LC	Y		Y				some flying over only
Swallows & martins	HIRUNDINIDAE		Hirundo neoxena	Welcome Swallow			LC	Y		Y	Y	Y	Y	foraging overhead
Timaliids	TIMALIIDAE		Zosterops lateralis	Silvereye			VU		Y	Y				some flying over only
Starlings	STURNIDAE	Y	Sturnus vulgaris	Common Starling				Y	Y		Y		Y	flying over only
Thrushes	TURDIDAE	Y	Turdus merula	Common Blackbird					Y	Y				
Sunbirds & spiderhunters	DICAEIDAE		Dicaeum hirundinaceum	Mistletoebird			LC			Y				
Sparrows	PASSERIDAE	Y	Passer domesticus	House Sparrow				Y		Y				
					Total Native Species			18	13	20	11	11	8	
					Total Alien Species			3	4	4	2	0	2	
					Total Species			21	17	24	13	11	10	

* See text for name/description.

** Considered alien to Adelaide region.

*** Includes Adelaide Rosella—hybrid Platycercus elegans fleurieuiensis (southern MLR) X P. e. subadelaidae (southern FR).

^ Australian *Environment Protection & Biodiversity Conservation Act 1999* conservation status.

^^ South Australia National Parks & Wildlife Act 1972 conservation status.

^^^ Adelaide Mount Lofty Ranges subregional conservation status (Gillam & Urban 2014; excludes non-local native species): VU = Vulnerable; RA = Rare; NT = Least Concern.

References

Gillam, S. and Urban, R. (2014). *Regional Species Conservation Assessment Project, Phase 1: Regional Species Status Assessments, Adelaide and Mount Lofty Ranges NRM Region*. Technical Report 2014/12. Department of Environment, Water and Natural Resources: Adelaide.

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