THE SUNBIRD



Journal of the QUEENSLAND ORNITHOLOGICAL SOCIETY

Volume 20

Number 3

November 1990

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THE SUNBIRD

Volume 20 No. 3

November 1990

MORE SOUTHERN RECORDS OF THE CRIMSON FINCH

GARY W. WILSON

In Wilson (1988) I presented details of a pair of Crimson Finches *Neochmia phaeton* building a nest at a site on the Connors River at its junction with Lotus Creek (22 25'S, 148 59'E). This record represented the first of the species south of 21 S since 1900 (Blakers *et al.* 1984). This paper presents details of a further record of the species at the Connors River site, of a sighting of a bird on Apis Creek (22 53'S, 149 32'E), and of possible sightings on the Capricorn Coast.

I revisited the Connors River site on 1-3 September 1989, in company with staff and students of the University College of Central Queensland Department of Biology. The visit was part of field work for the subjects of Field Biology and Field Techniques.

Mid-afternoon on 2 September I observed three Crimson Finches in dense long grass and low shrubs at the edge of the Connors River. Two birds were females, the third amale, and I was able to view them through binoculars and with the naked eye for 10 minutes at distances ranging from 4 to 15 m. I returned to the site with six students at 1600h, and a mist-net was erected in an attempt to capture the birds. Immediately after erecting the net we were able to observe both male and females in grass 30 m from the initial location. The birds were observed at a distance of 3-5 m and were in close proximity to a group of Red-backed Wrens Malurus melanocephalus. Students from northern Queensland advised that the birds were immediately recognizable to them as Crimson Finches.

No birds were netted that evening and the nets were not reopened until 0800h the next day. At 0845h, five female and two male birds were netted, having

entered the net at the level of the top of the grass. They were removed, examined, photographed and released. All birds were adult and in good plumage. None of the females had brood patches. The two male birds were fully coloured and had the black belly of the subspecies *iredalei*. Abrief search failed to reveal any nests.

On 3 September, whilst returning to Rockhampton from Connors River, staff member Robyn Wilson noted a road-kill Crimson Finch at Apis Creek. The bird was a fully coloured male.

Information regarding the possible presence of the species on the Capricorn Coast has also come to my attention. A Rock hampton duck shooter has advised me that he has seen the species in the area bounded by Keppel Sands, Broadmount and Cattle Point. This area is within the documented range of the species (Slater 1974, Pizzey 1980) and is little disturbed by man or cattle. It contains water courses, eucalyptus woodlands, stands of pandanus and rich grasslands.

DISCUSSION

The capture of Crimson Finches at Connors River confirms that the species is resident in the area. It does not clarify its status. The maximum of seven birds seen may have been descended from the pair observed in 1988, or they may have been vagrants to the area. The latter is unlikely, and I believe more field work will reveal a larger population. One wonders whether this is an overlooked or recently established population. Given the size, habitat preferences and behaviour of the species I suggest the former is the more likely. This proposal is supported by the Apis Creek sighting, and I suggest that if further investigations reveal the presence of the species on the Capricorn Coast then it will be for the same reason.

The habitat at Connors River exactly paralleled that indicated in Blakers et al. (1984). The grass was both dense and undisturbed, and no cattle were seen in the immediate vicinity. The Apis Creek site was more heavily grazed but had permanent water and carried good grass cover. The habitat in the portion of the Capricorn Coast described is also ideal for this species. There are no public roads in the area and visitation by the public is minimal. A further population of the species could remain undetected.

ACKNOWLEDGEMENTS

I wish to record my gratitude to Dr. John Parmenter for permission to attend the field excursion, to Robyn Wilson for details of the Apis Creek sighting, and to staff and students for their assistance in the field.

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THE QUEENSLAND ORNITHOLOGICAL SOCIETY BIRD REPORT, 1989

P.L. BRITTON

This seventh annual report lists bird records from Queensland for 1989. Data summarized on Garden Bird Charts have been a valuable addition this year, though the response from Q.O.S.I. members as a whole has been disappointing. An earlier appeal for more records (Britton 1990) seems to have been overlooked by many. It is nevertheless pleasing to note that there are numerous interesting sightings, which add to a now substantial bank of data for the State.

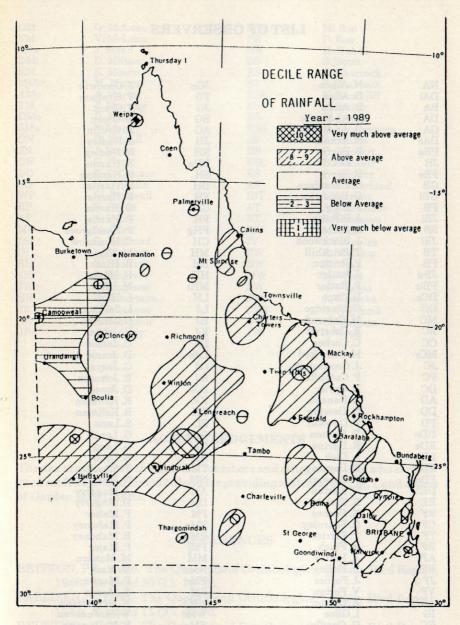
A lack of records from Torres Strait Islands is a noteworthy feature of this report. Rarely recorded migrant waders and gulls from elsewhere include Asian Dowitcher, Pectoral Sandpiper and Redshank at Cairns, Pacific Gull, Kelp Gull and Franklin's Gull at Scarborough, and a Whimbrel of the race hudsonicus at Coombabah Creek. In the Systematic List, I have drawn attention to the need for proper documentation for this Nearctic Whimbrel and for a Palaearctic Great Reed-Warbler banded at Townsville.

Most of the State experienced average or above average rainfall (Fig. 1), which is a welcome improvement. In particular, Cyclone Aivu and its aftermath transformed the Channel Country and other inland areas, which have likewise experienced exceptional conditions in 1990. Prolonged inaccessibility will inhibit documentation, but it is hoped that interesting records will surface eventually.

METHODS

Records included have been selected by the compiler. Omission from this report in no way implies that a record was considered erroneous. Format, nomenclature, abbreviations and sources for published records are as used in the 1986 Bird Report (Redhead 1988). The regional location (Fig. 2) is given in parenthesis for less well-known localities the first time each appears. Initials of the observers appear after other details of each record.

Observers of especially interesting species are encouraged to submit more detailed statements for publication in future issues of *The Sunbird*. The following records from the vicinity of Cooktown attributed to J. McKean in Britton (1990) were in fact recorded by J. McLean: Peregrine Falcon, Rednecked Crake, Torresian Imperial-Pigeon, Common Bronzewing, Common Koel, Noisy Pitta, Noisy Miner, Bridled Honeyeater, Metallic Starling and Pied Currawong. I regret this error which arose from the marked similarity of the observers' names and initials.



Adapted from the Monthly Weather Review – Queensland Bureau of Meteorology Department of Science Fig. 1. Rainfall Sumary for 1989.

LIST OF OBSERVERS

	THE REAL PROPERTY OF THE PARTY		
NA	N. Aiken	JGo	J. Goodwin
DAI	D. Allen	TG	T. Graham
BA	B. Amos	JG	J. Grant
DA	D. Anderson	BG	B. Green
GA	G. Anderson	AG	A. Griffin
DAr	D. Arnold	JH	J. Hadley
PBa	P. Barry	RH	R. Hadley
JB	J. Beavis	RHa	R. Hando
PBe	P. Berry	SH	S. Harding
GB	G. Beruldsen	DH	
GBi	G. Bielewicz	FH	D. Harris
FB	F. Bigg		F. Harris
JBi		GH	G. Harris
Contraction of the Contract of	J. Birbeck	PH	P. Harris
SB	S. Blaber	PHg	P. Haselgrove
JBl	J. Blackwood	CH	C. Hembrow
TB	T. Brickhill	MH	M. Higgs
PB	P. Britton	BH	B. Hines
JBu	J. Butler	HH	H. Hines
PBu	P. Butler	MHi	M. Hirst
DCa	D. Cape	LH	L. Hug
GC	G. Claridge	LJ	L. Jackson
MC	M. Cobcroft	BJ	B. Jahnke
RC	R. Cobcroft	KJ	K. Jakes
CC	C. Corben	DJ	A STATE OF THE PARTY OF THE PAR
		The state of the s	D. James
MCr	M. Crawford	DJe	D. Jeans
JC	J. Crowhurst	CJ	C. Jeays
PC	P. Cutcliffe	RJ	R. Johnson
DC	D. Cyrus	DJo	D. Jones
AD	A. Danson	KK	K. Kellman
DD	D. Dawson	RK	R. Kellman
PD	P. Dawson	SL	S. Lane
DDe	D. Denton	GLe	G. Leach
RDe	R. Devine	GL	G. Long
LD	L. Dick	BL	
RD	R. Dowling	TMa	B. Lyon
PDo	D. Downson	AND REPORTS OF THE PARTY OF THE	T. Macsloy
	P. Downey	NM	N. Macumber
DE	D. Easton	AM	A. Magarry
RE	R. Elvish	DM	D. Magarry
RF	R. Farnes	PM	P. Maher
CF	C. Fearnley	PMa	P. Mahoney
TF	T. Ferrier	RMa	R. Mahoney
BF	B. Finch	PMi	P. Major
AFi	A. Finlay	MM	M. Manson
BFi	B. Finlay	NMa	N. Marr
JF	J. Forbes	PMn	P. Martin
VF	V. Forbes	EM	E. Mason
AGi	A. Gibson	NMc	N. McFadzean
IG	I. Giles	WMc	W. McFadzean
GG	G. Goadby	EMc	E. McIlwraith
MG	M. Goadby	JM	J. McKean
MIC	III. Goadby	2141	J. McKean

G. McLean	MR.	M. Roe
V. McLean	PR	P. Roe
		H. Ruhde
		B. Scott
K. Moore	RS	R. Sharrock
M. Moore		S. Sharrock
A. Morice		K. Shurcliff
T. Murphy	FS	F. Smith
D. Moss	KS	K. Smith
S. Moss	RSo	R. Sonnenburg
D. Niland	JS	J. Squire
J. Noyce	DS	D. Stewart
G. Nye	ESt	E. Sticklen
D. O'Connor	ES	E. Stickler
S. O'Keeffe	AS	A. Sutherland
W. Pickwell	IBT	I. Tarrant
R. Pryde	AT	A. Thelander
A. Pyle	RT	R. Thomson
M. Pratt	MU	M. Uhr
D. Redhead	IV	I. Venables
I. Reynolds	RW	R. Wallace
R. Ricketts	NW	N. Weir
J. Ringrose	MW	M. West
	AW	A. Weston
B. Robertson		J. Wieneke
J. Robinson		C. Williams
S. Robinson		C. Wingate
J. Rodway	JW	J. Wren
	V. McLean J. Mead D. Milton K. Moore M. Moore M. Moore A. Morice T. Murphy D. Moss S. Moss D. Niland J. Noyce G. Nye D. O'Connor S. O'Keeffe W. Pickwell R. Pryde A. Pyle M. Pratt D. Redhead I. Reynolds R. Ricketts J. Ringrose T. Ringrose B. Robertson J. Robinson S. Robinson	V. McLean PR J. Mead HR D. Milton BS K. Moore RS M. Moore SS A. Morice KSh T. Murphy FS D. Moss KS S. Moss RSo D. Niland JS J. Noyce DS G. Nye ESt D. O'Connor ES S. O'Keeffe AS W. Pickwell IBT R. Pryde AT A. Pyle RT M. Pratt MU D. Redhead IV I. Reynolds RW R. Ricketts NW J. Ringrose AW B. Robertson JWi J. Robinson CWi

ACKNOWLEDGEMENTS

Thanks are due to all the Q.O.S.I. members and other observers who contributed records, and to David Niland for providing material for Fig. 1 and copies of Garden Bird Charts.

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SYSTEMATIC LIST

- Great Crested Grebe Podiceps cristatus. Nesting, Windorah, 13 Jun, BS; 4 pairs nesting, Lake Samsonvale, Jan early Mar, IBT; 2 nests, N Pine Dam, 10 Nov, MW; pair with young, Lake Powlathanga, 7 May, PB; Lake Broadwater, Dalby, 2 Nov, LD.
- Providence Petrel Pterodroma solandri. Fairly common on pelagic trip near Pt Lookout, 24 Jun, IBT, CC, LH.
- Tahiti Petrel Pterodroma rostrata. Several, off Manly, 4 Feb, IBT; E of N Stradbroke Is, 25-26 Nov, CC, LH, DS, IBT.
- Gould's Petrel Pterodroma leucoptera. 15-20 heading south, near Pt Lookout, 25 Nov. CC, LH, DS, IBT.
- Streaked Shearwater Calonectris leucomelas. Near Pt Lookout, 4 Feb, IBT, CC, LH.
- Flesh-footed Shearwater Puffinus carneipes. Several, off Pt Lookout, 4 Feb, 25 Nov, IBT.
- Buller's Shearwater Puffinus bulleri. Near Pt Lookout, 25 Nov, and 12 seen from Pt Lookout the next day, IBT.
- Fluttering Shearwater Puffinus gavia. Near Pt Lookout: small numbers on 4 Feb and one on 24 Jun. IBT.
- Hutton's Shearwater Puffinus huttoni. Fairly common, near Pt Lookout, 4 Feb, IBT, CC, LH.
- Wilson's Storm-Petrel Oceanites oceanicus. Price Cay (MEQ), 15 Jul, SL.
- Great Frigatebird Fregator minor. Male, Moreton Is, 18 Mar, RD; pair, Norman Park, 28 Apr, PD; 2 males and 1 female, Caloundra, 5 Apr, PM.
- Least Frigatebird Fregator ariel. Noosa Heads, 9 on 30 Jan, DD, and 20 on 25 Feb, JRi, TRi; off Pt Lookout, 4 Feb, IBT, CC, LH; S Stradbroke Is, 24 Apr, MR; 170, Bowen, 5 Apr, JW; 15, Alva Beach (NEQ), 27 Mar, PB.
- Great-billed Heron Ardea sumatrana. Trinity Inlet, Cairns, 3 Jul, DM; Daintree River, 27 Jan, JH.

Pied Heron Ardea pictata. Blakey's Crossing, Townsville, 17 Feb, PB, and 3 Dec, RJ.

- Eastern Reef Egret Egretta sacra. Nesting, Horseshoe Reef (MEQ), 17 Jul, SL; Tallebudgera Creek, Jun, KS; Scarborough, Jul, KS.
- Little Bittern Ixobrychus minutus. Melanistic bird, Cubberla Creek, Kenmore, 24 31 Mar, HH, GLe, IV.
- Black Bittern Dupetor flavicollis. Bribie Is, 1 Jan 4 Mar, FB; Giesseman Park, Logan River, 14 Jan, JBi; White Falls, Great Basalt Wall (NEQ), 10 Sep, PB.
- Black-necked Stork Xenorhynchus asiaticus. Breeding records: Narangba, Sep, PM; near Gympie, 5 Oct, GL; Bald Hills, Jul, GH.
- Glossy Ibis Plegadis falcinellus. Bald Hills, 23 Jul, KM; 10, Carbrook, 23 Feb, 20 Jul, LD.
- Royal Spoonbill Platalea regia. 15 occupied nests, Bruce Hwy near Ayr, 28 Mar, PB.
- Magpie Goose Anseranus semipalmata. Lake Clarendon, 30 May, RH.
- Wandering Whistling-Duck Dendrocygna arcuata. 30, Boondall, 4 Nov, GL; 15, Sandgate Lagoon, 21 Oct, AT.
- Plumed Whistling-Duck Dendrocygna eytoni. Nesting, Windorah, 13 Jun, BS; 4, Lake Bindegolly, Thargomindah, 9 Aug, PM.
- Black Swan Cygnus atratus. Nesting, Lake Yamma Yamma, Windorah, 19 Jun, BS.
- Australian Shelduck Tadorna tadornoides. Female, Lake Moondarra, Mt Isa, 19 Feb, PH.
- Radjah Shelduck Tadorna radjah. Pair with young, Yeppoon, 1 Oct, MCr; 2, Earlando, N of Proserpine, 10 Dec, PB; Sarina, mid-Jun, SH.
- Australasian Shoveler Anas rhynchotis. Reeves Lake, 20 Jan, and 4 on 8 Apr, PB; near Goomeri, 20 Mar, ES.
- Cotton Pygmy-Goose Nettapus coromandelianus. Lake Samsonvale, 24 Sep, CW, and pair, 30 Sep, JN, WP; 2, N Pine Dam, 10 Oct, MW;

- breeding, Mirtna (inland MEQ), 26 Feb, PB; pair, Seven Mile Lagoon, near Atkinson's Dam, 22 Oct, IBT; 45, Reeves Lake, 10 Sep, PB.
- Blue-billed Duck Oxyura australis. Jahnke's Lagoon, 30 Apr, JN.
- Musk Duck Biziura lobata. Tingalpa, 3 Sep, SO; Lake Broadwater, 2 Nov, LD.
- Pacific Baza Aviceda subcristata. Nesting, Mitchell, 8 Nov, DAI, LS, RS; loose flock of 14 moving southwest, Kenmore, 17 May, GB. Numerous other records from SEQ at Oxley, St Lucia, Cashmere, Beerwah SF, Burpengary, Pullenvale, Beachmere, Everton Park, Taringa, Arana Hills, Corinda, Beaudesert and Eight Mile Plains.
- Black Kite Milvus migrans. Burpengary, 1 Jun, JN.
- Square-tailed Kite Lophoictinia isura. Mt Elliot, 6 May, PB; Woodgate NP, 17 Aug, IV; Burpengary, 6 Dec, JN; Petrie, 29 Apr, DAr; near Charters Towers, 26 Feb, 8 Apr, 1 Aug, PB; E of Dirranbandi (SWQ), 14 Feb, DN; Samsonvale, 17 Dec, IBT.
- Black-breasted Buzzard Hamirostra melanosternon. S of Charters Towers, 26 Feb, PB.
- Brahminy Kite Haliastur indus. Indooroopilly, 22 Oct, TF; Tennyson, 10 Oct, IBT; nesting pair, Nudgee Water Hole, 27 Mar, GL; Wof Kuranda (NEQ), 3 Apr, PB.
- Brown Goshawk Accipiter fasciatus. Nesting, Fernvale, 1 Dec, JF, VF.
- Collared Sparrowhawk Accipiter cirrhocephalus. Chelmer, 28 Sep, AP.
- Red Goshawk Erythrotriorchis radiatus. Paluma (NEQ), 8 Aug, DJ; Finch Hatton, W of Mackay, 3 Dec, FS.
- White-bellied Sea-Eagle Haliaeetus leucogaster. Jindalee, 26 May, RC; Indooroopilly, 8 May, BJ; 2, Prenzlau, 28 May, GLe.
- Wedge-tailed Eagle Aquila audax. Doolandella, 1 Oct, SH.
- Little Eagle Hieraaetus morphnoides. Confluence of Fletcher Creek and Burdekin River (NEQ), 29 Jan, PB; Cungulla, S of Townsville, 10 Jun, PB.

Spotted Harrier Circus assimilis. Mt Elliot, 2 on 26 Jun, 1 on 19 Sep, PB.

- Marsh Harrier Circus aeruginosus. Carbrook, 26 Jan, MP; near Canungra, 15 Jun, BR, LD.
- Black Falcon Falco subniger. Springsure, 18 Dec, PB.
- Peregrine Falcon Falco peregrinus. Brisbane City Centre, 19 Jan, 17 Nov, DR, PB; Karana Downs, 3 Apr, RMa; Mt Mitchell, Cunningham's Gap, 23 Sep, GL; Amity, N Stradbroke Is, 2 Dec, IBT.
- Australian Hobby Falcolongipennis. Indooroopilly, 28 Sep, SO; Nundah, 8 Feb, GL; West Burleigh Heads, 17 Jun, KS.
- Grey Falcon Falco hypoleucos. 2, Georgetown, 3 Apr., AM, DM, AS, TB.
- King Quail Coturnix chinensis. Samsonvale, 30 Jan, IBT; Mt Elliot, 26 Jun, 29 Jul, 3 Dec, PB.
- Red-backed Button-quail Turnix maculosa. Reeves Lake, 20 Jan, PB; N of Mareeba, 30 Sep, JS.
- Painted Button-quail Turnix varia. Nof Mareeba: pair, 17 Nov, JS; 8 Aug, DM, AM; 4 Sep, KSh, BF. Single female near Lake Samsonvale, 8 Oct, IBT.
- Buff-breastedButton-quail Turnixolivei. N of Mareeba: 3 Jun, JM; 4 Sep, KS, BF.
- Black-breasted Button-quail Turnix melanogaster. Female, Mt Nebo, 1 May, ES; pair, Yarraman, 22 Oct, IBT.
- Little Button-quail Turnix velox. Road kill, S of Charters Towers, 26 Feb, PB.
- Red-chested Button-quail Turnix pyrrhothorax. Blakey's Crossing, Townsville, 3 Dec. PB.
- Plains-wanderer Pedionomus torquatus. Pair, between Theodore and Taroom. 25 Jun, RHa.
- Buff-banded Rail Rallisphilippensis. Mt Coot-tha, 7 Dec, PC; Rochedale, 23
 Feb, P Be; W of Kuranda, Nov, JRo; Blakey's Crossing, Townsville, 3
 Dec, PB; Bribie Is, 28 Oct, FB; Mingela Pool (NEQ), 11Sep, PB;

- Mudgeeraba, 1 Jan, A Mo; Mt Elliot, 18 Sep, 29 Oct, PB; Numinbah Valley, 9 Feb, MP; Rathdowney, 21 Sep, BR, LD; West Burleigh Heads, 5 Oct, BR.
- Lewin's Rail Rallus pectoralis. Near Crater NP, Atherton Tablelands, 19 Jun, PB.
- Red-necked Crake Rallina tricolor. Cairns, all months except Apr, DM; W of Kuranda, regular 22 Jan-late Mar, also 2 Sep, JRo.
- Baillon's Crake Porzana pusilla. 2, Prenzlau, 24 Nov, HH, GLe; Reeves Lake, 20 Jan, 5 Mar, 22 Apr, PB.
- Australian Crake Porzana fluminea. Prenzlau, 1 Dec, HH,GLe; Lake Samsonvale, 3 Sep, GA; Lytton, 19 Feb, DMo, SMo, GL, GA.
- Spotless Crake *Porzana tabuensis*. Mt Elliot, 11 Sep, PB; first record for Townsville area. Several heard in dense grass, shore of Lake Samsonvale, Nov-Dec, IBT.
- White-browed Crake Poliolimnas cinereus. Lake Moondarra, 15 Jan, PH; Mt Elliot, 9 Oct, 29 Oct, PB; 2, Blakey's Crossing, Townsville, 14 Sep, PB.
- Bush-hen Gallinula olivacea. Pair with 4 chicks, Cairns, 6 Mar, NM, RF.
- Sarus Crane Grus antigone. 29 roosting, Bromfield Crater, Atherton Tablelands, 21 Jun, PB.
- Comb-crested Jacana Irediparra gallinacea. 3 successive broods, Lake Samsonvale, Jan-Apr, GA; Lake Moondarra, 15 Jan, PH; breeding, Gold Creek Reservoir, 25 Feb, IV.
- Bush Thick-knee Burhinus magnirostris. Breeding, near Reeves Lake, 5 Nov, PB; Herston, 9 Nov, MC.
- Beach Thick-knee Burhinus neglectus. S Stradbroke Is, 19 Feb, NW.
- Painted Snipe Rostratula benghalensis. Georgetown, 8 Mar, NM, RF; female, Reeves Lake, 20 Jan, PB; male, Blakey's Crossing, Townsville, 17 Feb, PB.
- Pied Oystercatcher Haematopus longirostris. 2, Cairns Esplanade, 3 Jan, DM.

- Banded Lapwing Vanellus tricolor. Gordonvale (NEQ), 15 Oct, DM.
- Grey Plover Pluvialis squatarola. 28, Alva Beach, 12 Mar, PB; 6, Cungulla, 26 Jan, PB.
- Red-kneed Dotterel Erythrogonys cinctus. Coombabah Sewage Works, 19 Oct, MMo
- Red-capped Plover Charadrius ruficapillus. Lake Buchanan (CQ): at least 30 on 29 Jun, including 3 breeding pairs with eggs or young, PB.
- Whimbrel Numenius phaeopus. A bird of the distinctive race hudsonicus at Coombabah Creek, 16 Feb, 30 Mar, MP, KS, LD, BR. This interesting record requires proper documentation.
- Wood Sandpiper Tringa glareola. Prenzlau, 8-22 Oct, GLe, GA.
- Wandering Tattler Tringa incana. Dunk Is, 31 Mar, PB; Heron Is, 18 Nov, RE; Noosa Heads NP, Jan-Feb, JR, TR, MCr.
- Common Sandpiper Tringa hypoleucos. 2, Dunk Is, 31 Mar; Alva Beach, 12 Mar; Charters Towers, 1 Oct; Mission Beach (NEQ), 30 Mar; Noosa Heads NP, 22 Dec; all PB.
- Redshank Tringa totanus. Cairns, 1 Mar, SB, DG.
- Latham's Snipe Gallinago hardwickii. Up to 8, Reeves Lake, 20 Jan-16 Mar, PB; Bribie Is, 3 on 8 Jan, 6 on 15 Jan, 1 on 11 Nov, FB; Carbrook, 2 on 23 Feb, 3 on 30 Nov, LD, BR; Merrimac Sewage Works, 5 Oct, BR; Coombabah Sewage Works, 19 Oct, MMo; 2, Lake Broadwater, 2 Nov, LD.
- Asian Dowitcher Limnodromus semipalmatus. Cairns, early Dec, LG.
- Black-tailed Godwit Limosa limosa. 18, Alva Beach, 29 Oct, PB.
- Great Knot Calidris tenuirostris. 60, Cungulla, May-Jul, PB.
- Pectoral Sandpiper Calidris melanotos. Blakey's Crossing, Townsville, 16 Mar, PB; 5, Cairns, 29 Dec, DM.
- Ruff Philomachus pugnax. Alva Beach, 12 Mar, PB.
- Oriental Pratincole Glareola maldivarum. Windmill Plains, near Yeppoon, 5 Dec, MCr.

- Silver Gull Larus novaehollandiae. Lake Buchanan, 90 on 29 Jun, including at least 6 very young and partly dependent immatures; no nests found, PB.
- Pacific Gull Larus pacificus. Scarborough, 6 Aug, RMa.
- Kelp Gull Larus dominicanus. Scarborough, from 18 Mar for a few weeks, IBT, CC; Caloundra, early Jun, CJ.
- Franklin's Gull Larus pipixcan. Scarborough, 30 Mar-1 Apr, JM, IBT; photographed in almost full summer plumage, few Australian records.
- Laughing Gull Larus atricilla. The two birds at Cairns remained until 1990, DM et al.
- White-winged Tern Chlidonias leucoptera. 6, Sandgate Lagoon, 10 Apr, KJ; 30, near Ayr, 23 Apr, PB; 130, Brisbane Airport, 25 Apr, ES; 12, Cairns, late Nov, JG; Giru (NEQ), 120 on 23 Apr and 600 on 25-26 Nov, PB.
- Sooty Tern Sterna fuscata. Close to Rosslyn Bay Harbour, Yeppoon, 14 Mar, MCr.
- Grey Ternlet Procelsterna albivittata. Bird overtook boat and headed towards Pt Lookout, westerly wind, E of N Stradbroke Is, 24 Jun, CC, IBT. Freshly dead bird, Heron Is, 31 May, DC; specimen now in Queensland Museum.
- White Tern Gygis alba. Maryborough, 26 Apr, RR.
- Superb Fruit-Dove Ptilinopus superbus. Killed at window, escarpment at Buderim, 21 Apr., AGi.
- Rose-crowned Fruit-Dove Ptilinopus regina. Pullenvale, May, GG, MG; Bribie Is, 28 Oct, FB; Lake Samsonvale, 12 Nov, IBT; Amity Point, N Stradbroke Is, 2 Dec, IBT. Birds flew into windows at Broken Ridge, 11 Oct, PBa, and at Buderim, 28 Jan, AGi.
- Wompoo Fruit-Dove Ptilinopus magnificus. Pullenvale, May, GG, MG; Natural Arch NP, 26 Oct, MMo, LD.
- Torresian Imperial-Pigeon Ducula spilorrhoa. 2, Pioneer Valley, W of Mackay, 5 Dec, PB.
- Topknot Pigeon Lopholaimus antarcticus. Mt Cotton, 30 Mar, RD; Tallebudgera Valley, 22 Jun, 3 Aug, BR, LD.

White-headed Pigeon Columba leucomela. Tallebudgera Valley, 22 Jun; Canungra, 6 Jul; near Pimpama, 27 Jul; Currumbin Creek, 3 Aug; all SEQ, BR, LD; also Austinville, near Mudgeeraba, 14 Sep, MMo.

- Bar-shouldered Dove Geopelia humeralis. 125 km NW of Charleville, at edge of range, 4 Apr, DN.
- Squatter Pigeon Petrophassa scripta. Esk Gatton Road, Brisbane, 30 Apr, JN; 30 km W of Charleville, at edge of range, 28 Feb, DN; pair, Hood's Lagoon, Helidon (SEQ), 22 Apr, IBT.
- Spinifex Pigeon Petrophassa plumifera. Betoota (SWQ), 17 Aug, DMi.
- Red-tailed Black-Cockatoo Calyptorhynchus magnificus. Dalmoak, Stanthorpe, Jan-Feb, NA.
- Glossy Black-Cockatoo Calyptorhynchus lathami. Pair, Macleay Is, 29 Aug, MM; 4, Hood's Lagoon, Helidon, 22 Apr, IBT.
- Yellow-tailed Black-Cockatoo Calyptorhynchus funereus. At least 30, Bribie Is, 20 Apr, HR; 8, Brookfield, 2-3 Aug, MR, PR, DE; regular, Maroochydore, GM, VM; Slaughter Falls, 15 Jul, GL.
- Galah Cacatua roseicapilla. 20, Nundah, 26 Jun, GL; one at sea on pelagic trip, 25km from Pt Lookout, 24 Jun, IBT, CC, LH.
- Long-billed Corella Cacatua tenuirostris. Feral birds: 6, Cairns, 6 Apr, DM; 20, Wacol, Jan-Feb, RH.
- Little Corella Cacatua sanguinea. Mt Gravatt, 25 Jul, DJ; Everton Park, 5 Dec, BH; 100, Redcliffe, 8 May, MH; 200, Lake Broadwater, 7 Oct, GL; 30, Bracken Ridge, 29 Oct, RSo; Surfers Paradise Golf Course, 17 Jun, 10 Aug, 5 Oct, KS, LD, BR. Corellas appear to be on the increase in the Brisbane area.
- Pink Cockatoo Cacatua leadbeateri. Fairly common on Balonne Hwy, Cunnamulla to Eulo, 29 Apr, IBT. Pair in district for 2 weeks from 3 Dec, Forest Grove, Palmwoods, PBu, JBu; presumed escapees.
- Rainbow Lorikeet Trichoglossus haematodus. Augathella (SWQ), at edge of range, 8 Aug, DN.
- Varied Lorikeet Psitteuteles versicolor. Georgetown, 24 Mar, DM.

- Musk Lorikeet Glossopsitta concinna. Toowong, 4 Oct, GN; Lake Manchester, 10 May, PR; nesting pair, Cunningham's Gap NP, 12 Jun, IBT.
- **Double-eyed Fig-Parrot** *Psittaculirostris diophthalma*. 10, W of Kuranda, 30 Sep, JRo.
- Red-winged Parrot Aprosmictus erythropterus. Presumed escapee, Indooroopilly, 30 May, BJ.
- Superb Parrot Polytelis swainsonii. Escaped bird, Wacol, 15 Feb, RH.
- Cockatiel Nymphicus hollandicus. 2, Brookfield, 22 Jul, MR, PR; throughout year, Maroochydore, GM, VM.
- Budgerigar Melopsittacus undulatus. 40, Woodstock, Sof Townsville, 29 Jul, PB.
- Crimson Rosella Platycercus elegans. Bracken Ridge, 28 Oct, RSo.
- Pale-headed Rosella Platycercus adscitus. Augathella (SWQ), 8 Aug, DN; 18 km W of Charleville, 3 Mar, DN.
- Mallee Ringneck Barnardius barnardi. Fairly common, Balonne Hwy W of St George, 29 Apr, IBT; escaped bird, 15 Aug, GBi.
- Port Lincoln Ringneck Barnardius zonarius. Escaped bird, Bribie Is, 2 Sep, FR.
- Red-rumped Parrot Psephotus haematonotus. Flock, including juveniles, Northgate Primary School, 27 Aug, LJ; Banyo High School, early Nov, RSo; Crassbrook Creek, late Dec, WP; 24, including juveniles, Nundah, 9 Jul, GL. The small population at Nudgee continues to expand and spread.
- Mulga Parrot Psephotus varius. Small numbers, Balonne Hwy, Cunnamulla to Eulo, 29 Apr, IBT.
- Blue Bonnett Northiella haematogaster. 4, Eurombah Station, Taroom, 3 Dec, MHi; Chinchilla, 11 Oct, GL; small numbers, near Eulo, 29 Apr, IBT; presumed escapee, Bribie Is, Feb-Mar, FB.
- Bourke's Parrot Neophema bourkii. 100 km W of Quilpie, 21 Aug, DMi; small flock, Turkey's Nest Bore, E of Eulo, 30 Apr, IBT.

- Turquoise Parrot Neophema pulchella. 2, Blackbutt, 23 Sep, BG; several pairs nesting, Girraween NP, 12 Jun, IBT; presumed escapee, Bribie Is, Jan, FB.
- Oriental Cuckoo Culculus saturatus. Mooloolah, 27 Mar, MH; Pullenvale, 1 Apr, GG, MG; Kin Kin, end Feb, NMa; The Gap, 22 Apr, DR; S Stradbroke Is, 28 Jan, MR, PR.
- Pallid Cuckoo Cuculus pallidus. Two or three very noisy birds, Mt Elliot, 15-28 Sep, possibly breeding, PB; fairly common, near Eulo, 29 Apr, IBT.
- Horsfield's Bronze-Cuckoo Chrysococcyx basalis. Townsville, 15 Jan, CWi; singing, E of Eulo, 31 Apr, IBT.
- Shining Bronze-Cuckoo Chrysococcyx lucidus. Simpson's Falls, Jul, DO.
- Little Bronze-Cuckoo Chrysococcyx malayanus. Kin Kin, 28 Jun, NMa, CH.
- Common Koel Eudynamis scolopacea. Tewantin, from 26 Aug, FH, DH; Minden, 3 Sep, GLe; winter record, Fairfield, 3-10 Jun, BA; Charters Towers, from 21 Aug, PB.
- Channel-billed Cuckoo Scythrops novaehollandiae. Breeding, Jindalee, Jan-Feb, RW; 7 together, Kin Kin, 18 Feb, JRi, TRi.
- Powerful Owl Ninox strenua. Nesting pair, Mt Coot-tha, May, CW; Tallegalla, 11 Jun, GLe, BH; The Gap, 30 Jan, JM; Coal Creek, Pine Mt, 2 Jan, JBi.
- Southern Boobook Ninox novaeseelandiae. Communal roost, Mt Cotton, 17 Jan, AD.
- Barn Owl Tyto alba. 12 together, Bowenville, 6 Sep, MHi; bird seen hunting near Cunnamulla, 28 Apr, IBT.
- Sooty Owl Tyto tenebricosa. Nesting pair, Mt Glorious, 20 Jun, RK, KK; W of Kuranda, 29 Jan, JRo; pair calling near road, Boombana NP, 28 Mar, IBT.
- Papuan Frogmouth Podargus papuensis. Nesting pair, Lake Barrine, Atherton Tablelands, late Nov, JC.
- Marbled Frogmouth Podargus ocellatus. Breeding pair at Miala NP; first recorded 21 Mar, found nesting Jul, IBT.

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- White-throated Nightjar Caprimulgus mystacalis. Incubating, Tallegalla, 7 Oct, GLe, HH, BH.
- White-throated Needletail Hirundapus caudacutus. 90 km W of Charleville, 6 Mar, DN.
- Laughing Kookaburra Dacelo novaeguineae. Albino, Upper Mt Gravatt, 15 May, NMc, WMc; Thargomindah, 9 Aug, JB.
- Blue-winged Kookaburra Dacelo leachii. Near Kalbar, 31 Jul, BJ.
- Buff-breasted Paradise-Kingfisher Tanysiptera sylvia. Two adults with long tails seen at close range between Gordonvale and Edmonton (NEQ), 1 Aug, AGi; an exceptional date for this species.
- Dollarbird Eurystomus orientalis. Charleville, 24 Feb, DN; Enoggera Reservoir, late bird, 27 May, WMc; 14 overhead together, Charters Towers, 23 Mar, PB; arrival, 9 Sep, Bundaberg, TG.
- Little Kingfisher Ceyx pusilla. Carmila, S of Mackay, 27 Nov, BL.
- Rufous Scrub-bird Atrichornis rufescens. Mt Cordeaux, Cunningham's Gap NP, 8 Apr, RD, PDo.
- White-backed Swallow Cheramoeca leucosternum. Indooroopilly Golf Club, 8 Oct, RT.
- Barn Swallow Hirundo rustica. Lake Moondarra, 20 on 19 Feb, 9 on 23 Dec, PH; Innisfail, 8 on 16 Jan, also noted mid-Dec, DM; Kinka Beach, Yeppoon, 21 Jan, DS.
- White-bellied Cuckoo-shrike Coracina papuensis. 12, Buderim, 30 Apr, AGi; an unusual concentration.
- Yellow-eyed Cuckoo-shrike Coracina lineata. Brookfield, 11 Feb, DA.
- Cicadabird Coracina tenuirostris. Pair nest-building, Paluma, Nov-Dec, AG; Jourama Falls (NEQ), 22 Jun, JWi; Bribie Is, 1 Jul, DR: Cairns, Jul-Dec, DM.
- Ground Cuckoo-shrike Coracina maxima. 5, Grantham, 29 Apr, CW; 3, Blackbutt, 28 Apr, EMc; 4, Sundown NP, 18 Dec, PHg; 5, Dalmoak, Stanthorpe, Feb, NA; 2, Charters Towers, 28 Jun, 8 Oct, PB; 6, near Goomeri, 20 Mar, ES.

- Rose Robin Petroica rosea. Pullenvale, 9 Jul, GG, MG; Beerwah SF; 14 Jun, AGi; near Beenleigh, 4 May, MMo, LD, BR.
- Scarlet Robin Petroica multicolor. Several, Girraween NP, 12 Jun, IBT.
- Crested Shrike-tit Falcunculus frontatus. Pair with young, Kaban, 5 Mar, DM; Bribie Is, 11 Mar, 28 Oct, FB; N of Bollon (SCQ), 24-25 Mar, MHi.
- Crested Bellbird Oreoica gutturalis. Fairly common, Balonne Hwy, Cunnamulla to Eulo, 29 Apr, IBT.
- Black-faced Monarch Monarcha melanopsis. Immature photographed, Windorah, 600 km W of usual range, 31 Mar, BS; Logan Reserve, 7-9 Jul, DD.
- White-eared Monarch Monarcha leucotis. Cairns, 8 Jul, DM; Tallegalla, 31 Mar, HH, GLe.
- Cinnamon Quail-thrush Cinclosoma cinnamomeum. Female on rocky ridge, 10 km E of Eulo, 30 Apr, IBT.
- White-browed Babbler Pomatostomus superciliosus. Flock, Sundown NP, W of Moonie, 1 May, IBT.
- Chestnut-crowned Babbler Pomatostomus ruficeps. Fairly common, near Eulo, 29 Apr, IBT.
- Great Reed-Warbler Acrocephalus arundinaceus. Townsville, 19 Mar, GC; first Queensland record. Full details will be published eventually (G.F.Claridge in litt.).
- Tawny Grassbird Megalurus timoriensis. Successful nesting of two pairs, Mingela Pool, inland from Townsville, Feb-Mar, PB; Toomba Lake, NW of Charters Towers, 16 Apr, PB.
- Little Grassbird Megalurus gramineus. 2, Mingela Pool, 13 Feb; Mt Elliot, 29 Jul; Charters Towers, 22 Feb; all PB.
- Rufous Songlark Cinclorhamphus mathewsi. Paluma, 13 Mar, AG.
- Brown Songlark Cinclorhamphus cruralis. Singing male, near Cunnamulla, 29 Apr. IBT.
- Superb Fairy-wren Malurus cyaneus. Willara Station, NE of Augathella, 8 Aug, DN.

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Splendid Fairy-wren Malurus splendens. Several flocks, most males in eclipse, Eulo area, 30 Apr, IBT.

- Variegated Fairy-wren Malurus lamberti. Surfers Paradise, on frontal dune, 11 Nov, PR, MR.
- White-winged Fairy-wren Malurus leucopterus. 3, Longreach, outside Hall of Fame, Jul, IG.
- Red-backed Wren Malurus melanocephalus. Girraween NP, Mar, PHg.
- Rufous-crowned Emu-wren Stipiturus ruficeps. Breeding at two sites near Winton, 30 Sep-1 Oct, DM.
- Striated Grasswren Amytornis striatus. Opalton, near Winton, 30 Sep, DM.
- Speckled Warbler Sericornis sagittatus. 5, Acacia Ridge, Brisbane, 16 Apr, KJ; 2, Palen Creek, near Rathdowney, 21 Sep, LD.
- Buff-rumped Thornbill Acanthiza reguloides. Clear Mt, 1 May, ES.
- White-browed Treecreeper Climacteris affinis. 2 singles, between Cunnamulla and Eulo, 29 Apr, IBT.
- Black-tailed Treecreeper Climacteris melanura. Georgetown, 8 Mar, NM, RF.
- Spiny-cheeked Honeyeater Acanthagenys rutogularis. Lake Broadwater, 2 Nov, LD.
- Striped Honeyeater Plectorhyncha lanceolata. The Gap, 9 Dec, TM.
- Regent Honeyeater Xanthomyza phrygia. 3, Eight Mile Plains, 1 Oct, NMc, WMc; Logan Reserve, 23 Sep, IR; Mt Crosby, 19 Oct, IV; pair, Sundown NP, 27 Apr, PHg; Stanthorpe area, Apr, NA, AFi, BFi. More records than usual.
- Lewin's Honeyeater Meliphaga lewinii. Near coast at Brampston Beach (NEQ), 5 Apr, PB.
- Yellow-faced Honeyeater Lichenostomus chrysops. Paluma, 14 Feb, 17 Sep, AG.
- White-gaped Honeyeater Lichenostomus unicolor. Georgetown, 24 Apr., DM.

- **Grey-fronted Honeyeater** *Lichenostomus plumulus*. 3, Nebo area (CQ), 7 Dec, BL.
- Black-chinned Honeyeater Melithreptus gularis. Pair, St Lucia, 26 Jan, SR, JR; Eulo, 30 Apr, IBT.
- Brown-headed Honeyeater Melithreptus brevirostris. Small flock, Hood's Lagoon, Helidon, 22 Apr, IBT.
- White-cheeked Honeyeater Phylidonyris nigra. In rainforest, Mt Glorious, 21 May, ESt.
- Bar-breasted Honeyeater Ramsayornis fasciatus. Mackay, late Jan, DJe; Kinka Beach, Yeppoon, 22 Dec until end of year, MCr.
- Pied Honeyeater Certhionyx variegatus. Pair, 6 km W of Quilpie, 21 Aug, DMi.
- European Goldfinch Carduelis carduelis. 12, Nudgee, 27 May, ESt; 3, Lytton, 17 Sep, DCa. These records refer to a small, apparently static population.
- Diamond Firetail Emblema guttata. Charleville district, 28 Jul, DN.
- Masked Finch Poephila personata. Georgetown, 24 Mar, DM.
- Blue-faced Finch Erythrura trichroa. Mt Lewis, Julatten (NEQ), 13 Feb, DM.
- Gouldian Finch Erythrura gouldiae. Georgetown, 24 Mar, DM.
- White-winged Wydah Euplectes albonotatus. Presumed escapee, Woodford, 29 Oct, JGo; Australian feral population believed not extant.
- Common Mynah Aeridotheres tristis. Pair, Jindalee, 3 Dec, RC; Coopers Plains, 8 Dec, RT; first records in both areas.
- Spangled Drongo Dicrurus hottentottus. 11, near Eumundi, 28 Jan, CF; an unusual concentration.
- Golden Bowerbird Prionodura newtoniana. 4 males, Paluma, 14 Sep, JMa.
- Satin Bowerbird Ptilonorhynchus violaceus. In suburban garden, Kenmore, 16 Jun, PMa.

Regent Bowerbird Sericulus chrysocephalus. Moggill Forest, 24 Jun, JBI; Sundown NP, 27 Apr, PHg.

Spotted Bowerbird Chlamydera maculata. Displaying, W of Eulo, 29 Apr, IBT.

Great Bowerbird Chlamydera nuchalis. Paluma, 12 Apr., AG.

Green Catbird Ailuroedus crassirostris. Caught in mist-net, Tallegalla, 30 Jun, GLe, GA, AW.

White-winged Chough Corcorax melanorhamphos. 2, N of Charters Towers, 23 Jan, PB; Gladstone, 29 Aug, KS.

Masked Woodswallow Artamus personatus. Nudgee Beach, 12 Nov., GL.

White-browed Woodswallow Artamus superciliosus. At least 1000, Palmwoods, early Oct, RDe.

Pied Currawong Strepera graculina. Flock of 30, Bardon, JW, GA.

PETER BRITTON, All Souls' School, Charters Towers, Q 4820.

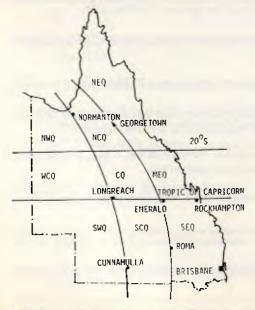


Fig. 2. Queensland districts mentioned in the text. (from Dahms, in Palliser 1985).

A REASSESSMENT OF THE IMPORTANCE OF MORETON BAY TO MIGRANT WADERS

J. THOMPSON

A first step towards the better management of waders and their overwintering quarters in Australia is to understand the relative importance of all feeding areas throughout the country. This may be accomplished by ranking areas according to the number of birds present at a census during the overwintering period, though this ignores migration and the importance of staging areas. For example, the valuable data gathered during the RAOU national wader censuses, summarized by Lane (1987), have improved our understanding of the distribution of waders in Australia. However, we now need to examine census methodology more closely to ensure that standard procedures and comparable results are achieved across the country.

Moreton Bay has long been recognized as an important area for waders, yet examination of count data and methods suggests that previous censuses have greatly underestimated true wader numbers. Large areas of Moreton Bay have been excluded from the censuses, and many areas have only been censused at high tide when it is difficult to accurately count species which roost in mangrove trees, such as Grey-tailed Tattlers, or others which roost in inaccessible and widely scattered roosts. These census difficulties are addressed in this paper, which describes the results and implications of a specially organized summer low tide census in Moreton Bay conducted by members of the Queensland Ornithological Society in February 1990.

METHODS

A total of 60 people participated in the census which was conducted on 10 February 1990. The census area was divided into 13 sections, extending from the Caboolture River south to Redland Bay along the western shore of Moreton Bay. This is the usual area that has been censused in past years. Each section was covered by a team of between two and eight people who were instructed to census in the afternoon, between 1500 and 1600 h, by walking in a direction from north to south along the shoreline. The previous high tide of 2.47m was at 1100 h that morning. The count occurred as the tidal flats became exposed by the receding tide, and while the waders were still concentrated into a relatively small area.

Two census methods were used, depending on the density of the birds. The highest densities occurred near the Luggage Point sewage outfall at the mouth of the Brisbane River. Here it was necessary to make a total estimate

of the number of birds of all species and to multiply this figure by an estimate of the proportion of each species, using data from scan-counts of feeding birds. The density of birds in other areas was low enough to count all birds individually.

Intertidal areas were calculated by tracing onto paper the outline of the shoreline and the Moreton Bay Datum mark shown on Harbours and Marine Boating Safety charts of the Bay. The tracings were processed with a Dapple Image Analyser which calculated the total intertidal area of Moreton Bay and the area covered during this census.

RESULTS

A total of 16895 waders was counted (Table 1), of which 71% were present in just four sites, at Luggage Point, Nundah Creek, Wynnum-Manly and Hays Inlet. Luggage Point and Hays Inlet attracted the highest density and diversity of waders in the Bay; both sites have sewage outfall nearby, which subject adjacent areas to organic enrichment (Davie 1982, Thompson in press). Noticeably absent or in low numbers in these latter two areas were Terek Sandpipers and Grey-tailed Tattlers. These species are common in nearby areas, and their absence at Hays Inlet and Luggage Point illustrates the marked habitat differences that occur around the Bay.

Image analysis of all intertidal areas in Moreton Bay including Pumicestone Passage, the Bay Islands and southern Moreton Bay, estimated a total intertidal area of 230.8 km². The present wader census covered 46.7 km² or 20.2% of the total intertidal area of Moreton Bay.

- 1. Nudgee Nudgee Beach
- 2. Victoria Point Eprapah Creek to Boundary Street, Redland Bay
- 3. Luggage Point sewage outfall to Juno Point
- 4. Lytton Bishop Island and opposite Whyte Island
- 5. Wellington Point Wellington Point to Ormiston House
- 6. Nundah Creek South Pine River to Nundah Creek
- 7. North Deception Bay Caboolture River to Coman Street
- 8. Cleveland Cleveland Point to Eprapah Creek
- 9. Redcliffe Castlereagh Point to Clontarf Beach
- 10. Ormiston Ormiston House to Raby Bay
- 11. Wynnum Manly Wynnum to Wellington Point
- 12. Hays Inlet Hays Inlet to Dohles Rocks
- 13. South Deception Bay Coman Street to Oyster Point

Key to the locations given in Table 1.

	LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13
	SPECIES		N 78		REE			TOTAL STATE						
Lesser Golden Plover	Pluvialis dominica	23	2	535	35	3	148	0	11	0	0	20	1	3
Grey Plover	Pluvialis squatarola	0	0	10	0	0	0	0	0	7	0	0	0	0
Large Sand Plover	Charadrius leschenaultii	0	4	0	0	3	0	0	0	0	6	3	0	0
Mongolian Plover	Charadrius mongolus	2	6	68	110	0	18	6	4	2	0	1	4	50
Double-banded Plover	Charadrius bicinctus	0	0	0	0	0	12	0	0	0	0	0	0	0
Red-capped Plover	Charadrius ruficapillus	0	31	32	19	12	40	0	19	0	1	16	54	0
Red-necked Stint	Calidris ruficollis	0	32	62	5	6	88	0	22	0	3	25	1	8
Sanderling	Calidris alba	0	0	0	0	0	0	0	0	0	0	0	0	0
Sharp-tailed Sandpiper	Calidris acuminata	0	0	56	7	3	0	60	0	0	2	8	0	5
Curlew Sandpiper	Calidris ferruginea	76	2	1382	143	0	434	25	28	3	2	110	898	3
Red Knot	Calidris canutus	6	0	2	0	0	252	0	2	0	0	0	0	0
Great Knot	Calidris tenuirostris	0	20	479	116	0	62	70	7	2	0	57	1031	0
Broad-billed Sandpiper	Limicola falcinellus	0	0	4	0	6	0	0	0	0	0	0	0	0
Ruddy Turnstone	Arenaria interpres	0	4	0	1	0	12	0	6	4	6	18	0	2
Bar-tailed Godwit	Limosa Iapponica	216	354	863	300	61	640	257	110	30	27	550	628	124
Black-tailed Godwit	Limosa limosa	0	14	56	69	0	18	0	0	0	0	0	192	0
Eastern Curlew	Numenius madagascariensis	12	119	1	167	27	72	77	79	2	13	229	71	52
Whimbrel	Numenius phaeopus	10	42	0	50	11	70	19	33	2	16	62	99	31
Greenshank	Tringa nebularia	2	0	6	20	13	34	11	13	9	2	13	39	13
Marsh Sandpiper	Tringa stagnatilis	0	0	14	0	0	4	0	0	5	0	0	0	3
Terek Sandpiper	Tringa terek	0	28	2	32	0	0	0	33	0	45	125	2	14
Common Sandpiper	Tringa hypoleucos	0	0	0	0	0	2	0	0	0	0	0	0	0
Grey-tailed Tattler	Tringa brevipes	1	222	0	2	149	170	26	56	0	10	370	7	92
	Unidentified	335	18	0	0	0	68	14	255	0	0	288	1211	6
	TOTAL	683	898	3572	1076	294	2348	565	680	66	133	1895	4269	416
	PER CENT OF TOTAL	4	5	21	6	2	14	3	4	<1	1	11	25	2
	AREA (km²)	5.1	4.6	2.2	6.0	3.2	3.3	2.4	4.2	0.8	3.3	5.1	3.9	2.6
	PER CENT AREA	10.9	9.9	4.7	12.8	6.9	7.1	5.1	9.0	1.7	7.1	10.9	8.4	5.6

DISCUSSION

Since the inception of the RAOU national wader censuses in 1981, the highest estimate for Moreton Bay has been 18200 waders. This result is surprisingly close to the present estimate of 16895 waders, suggesting that counts from previous years have been adequate for the area that is normally covered.

The far more serious cause of underestimation is the exclusion of approximately 80% of Moreton Bay in this and previous counts. Missing from the counts are the sites at Moreton and North Stradbroke Islands, much of Pumicestone Passage, Mud Island, Green Island, St. Helena Island, Peel Island and the entire southern half of Moreton Bay south of Victoria Point. The exclusion of these areas makes it necessary to apply a correction factor to the mainland count to allow an estimate for the whole Bay.

Assuming that Moreton Bay has a uniform density of waders similar to the usual census area, and correcting according to the area not censused, the corrected number of birds in Moreton Bay would be 84475 birds, which is five times the recorded number. However, waders are not uniformly distributed around Moreton Bay, and this figure is likely to be an overestimate for a number of reasons.

Firstly, wader distribution is affected by the unusual localized feeding conditions at sewage outflows at Luggage Point and Hays Inlet. These sites attract large numbers of birds, partly because of the organically enriched conditions in nearby intertidal areas which artificially increases their carrying capacity for waders. Also, there appears to be a non-linear relationship between bird numbers and intertidal area in Moreton Bay. For example, areas with steep intertidal zones may have a sizeable cumulative intertidal area, but distributed as a narrow strip along the shoreline. During neap tides, feeding conditions here are limiting since the tidal flats are either covered by the tide or provide only a narrow feeding area which appears to be less attractive to foraging birds. Consequently, the density of waders in areas such as southern Moreton Bay is surprisingly low in relation to the feeding area, whereas the densities in the northern half of Moreton Bay, where the most extensive tidal flats occur, are disproportionately high. Finally habitat differences around Moreton Bay (Young 1978, Thompson in press) result in an uneven pattern of species distribution, making projections for each species difficult.

The above considerations require that care be exercised when making estimates of the total number of waders in Moreton Bay by directly extrapolating from the census area to the remainder of the Bay. However, given that 16895

birds were counted in this census over approximately 20% of the Bay, a correction factor of three giving an estimate of around 50000 waders is conservative. Estimates for each species are not possible until censuses are conducted in all intertidal habitats in the Bay.

The importance of Moreton Bay in relation to other wader resorts in the country is now considered. Disregarding the dependence of passage birds on Moreton Bay during migration, it is tempting to use these results to compare data collected elsewhere to assess the relative importance of the Bay for each species. For example, the estimate of 50000 birds would upgrade the rank for Moreton Bay from the 20th to the 11th equal most important wader resort in the country (Lane 1987). A more prudent course, however, is to verify the reliability of data from other locations to ensure that they have been censused adequately, and to apply a correction factor if necessary. This will then allow a better comparison of Moreton Bay with other wader resorts in Australia.

ACKNOWLEDGEMENTS

I wish to thank the following people who acted as area coordinators: Eddie Hegerl, Diane Tarte, Barry Jahnke, Julian Bielewicz, Peter Driscoll, Ian Venables, Graham Leach, David Stewart, Dennis Watson, Duncan Cape, Peter Roe, Tom Tarrant, Sandra Harding and Bob James. Thanks also to Ross Clift, John Noyce, Ian Parkin, Scott O'Keeffe, Harry Zawacki, Doug Armstrong, Ron and Sheila Cartner, Phillip Major, Dean Moss, Diana O'Connor, Shan Clarke, Jan England, Mary Hockly, Marion Buchanan, Lynda Litz-Tyne, Greg Anderson, David Redhead, Gunela Astbrink, Sue Heussler, Roy Sonnenburg, Narelle White, Dennis Taylor, Arthur Green, Marie Johnson, John Chostnor, Steve Blaber, Fran Guard, Neil and Wendy McFadden, Phyllis Pledger, Malcolm Jenkins, Darryl Jones, Greg Nye, Gary Stipanov, Andrew Thelander, Doug Cook, Joyce Harding, Gordon Harris, Bob James, Joy Lock, Dawn Muir, Polly Cutcliffe, Bob Pryde, Karl Schlobohm, Carol Wingate, David Milton and other unknown volunteers for participating in this census.

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COMMENT FROM THE EDITOR

Contributions on disk are most welcome. As assistant Editor, Phillip Major can provide advice on matters such as compatability.

The Q.O.S.I. Council has initiated two positive changes involving "enviromentally friendly" materials in the production of this and future issues of *The Sunbird*. The cover is now made from a recycled product, while the pages themselves are printed on wood-free paper.

INSTRUCTIONS TO AUTHORS

The Sunbird is published quarterly by the Queensland Ornithological Society to further the knowledge of birds in Queensland and adjacent northern regions of Australia.

Papers are invited from non-members as well as members on all aspects of ornithology, e.g. life history, taxonomy, distribution, behaviour, and ecology. Articles may take the form of major articles on specific birds, birds in specific areas or habitats, or short notes on either birds themselves or the literature on birds, such as reviews of books or comments on published articles.

Submission of a paper implies that the results reported have not been published and are not being considered for publication elsewhere. The editor reserves the right to submit records of rare birds to the Records Appraisal Committee of the Royal Australasian Ornithologists Union.

Manuscripts can be supplied on floppy disk (IBM or MACINTOSH systems using plain text 'ASCII format') or in typed form on paper. When typed, the manuscript should be double-spaced and two copies sent. Papers longer than four typed A4 pages should have a summary. If needed, help may be given to authors to find relevant literature. Common names, scientific names and order of names should follow 'Recommended English Names for Australian Birds', in The Emu Volume 77, Supplement, 1978. Intending authors should consult recent issues of The Sunbird to see acceptable forms of contributions.

References should be listed in alphabetical order at the end of papers in the following styles; titles of journals will be abbreviated as in the World List of Scientific Periodicals:

FLEAY, D.H. 1937. Nesting habits of the brush turkey. Emu 36: 153-163.

FRITH, H.J. (Ed.). 1976. Mallee fowl. In Complete Book of Australian Birds, pp. 136-137. Sydney: Reader's Digest.

SERVENTY, D., SERVENTY, V.N. & WARHAM, J. 1971. The Handbook of Australian Sea-birds. Sydney: Reed.

SLATER, P. 1970. A Field Guide to Australian Birds. Non-Passerines. Adelaide: Rigby.

Tables and Figures should be numbered with Arabic numerals. Drawings and diagrams should be in Indian Ink on cartridge paper or tracing cloth. If authors cannot arrange suitable drawings, the editor may arrange the drawing of figures and diagrams. Authors may submit photographs (preferably black and white) with their manuscripts.

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