

# LANDBIRDS RECORDED AT THE CHATHAM ISLANDS, 1940 TO DECEMBER 1993

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## ABSTRACT

Between 1940 and December 1993, 66 species of landbirds (including shore and freshwater birds) were recorded at the Chatham Islands. Of these, 38 were native and introduced breeding species, 4 were regular summer visitors and 24 were occasional visitors or stragglers. Published and unpublished records of these species on the Chatham Islands are summarised.

## INTRODUCTION

Travers & Travers (1872), Forbes (1893), Archey & Lindsay (1924), and Fleming (1939) gave accounts of the avifauna of the Chatham Islands, with Fleming's being by far the most detailed. Between Fleming's visit (November 1937-January 1938) and the 1950s, there are few records of Chatham Island landbirds. In the 1950s, L.C. Bell of the Wildlife Service (then the Wildlife Branch of the Department of Internal Affairs) began regular visits to the Chathams group. Records from his June/July 1951 and December 1952 - February 1953 trips are published in Bell (1955). The New Zealand Oceanographic Committee also sponsored an expedition to the Chathams from January-February 1954. The results of faunal surveys from this expedition are reported in Dawson (1955). Lindsay *et al.* (1959) report on their visit to the Chathams from February to May 1957.

In the 1960s and 1970s, most data on landbirds at the Chathams were collected during four visits by Wildlife Service parties led by B.D. Bell: September-December 1961; April-May 1967; August-September 1968; and October 1977. Over the last 20 or so years, conservation programmes for several endangered species on the Chatham Islands have been developed, notably, among the landbirds, for the Black Robin. Many of the records reported in this paper were made by personnel engaged in these programmes mounted by the Department of Conservation and its predecessor, the Wildlife Service. This paper summarises published and unpublished records of landbirds on the Chatham Islands from 1940 to December 1993.

## METHODS

Data were extracted from published reports as cited and from unpublished reports of the Department of Conservation and former Wildlife Service. Records from the Wildlife Service's 1961 visit to the Chatham Islands are from an unpublished manuscript (Bell in ms).

Notes and observations were also contributed by several Ornithological Society of New Zealand members. Contributors of unpublished data are identified by their initials in the text:- B.D. Bell, A.J. Beauchamp, D.E. Crockett, F. de Hamel, A. Grant, I.S. Hogarth, M.J. Imber, L.B. McPherson, D.V. Merton, R.J. Scarlett, B. & L. Simpkin, G.A. Tunncliffe.

Some records were taken from Classified Summarised Notes published in *Notornis*. This is indicated in the text by the abbreviation (CSN). Contributors of this data are not listed separately here, but are identified in the appropriate issue of *Notornis*.

Abbreviations: Chatham (CH), Pitt (P), South East/Rangitira (SE), The Forty Fours (FF), The Sisters (S), Star Keys (SK), Mangere (M), Little Mangere (LM), The Pyramid (TP), Murumurus (MM), Rabbit (R). Pair(s), pr(s); juvenile(s), juv(s); adult(s), ad(s). Compass directions: n, s, w, e, etc.

### SYSTEMATIC LIST

White-faced Heron *Ardea novaehollandiae novaehollandiae* Rare visitor before 1970s, when breeding was first recorded. 1, SE, 6/11/72; 1, Point Gap, CH, 18/1/75 (CSN). 1 ad, nest, eggs, SE, 25/11/77 (Wright 1979); Gordon (1979), early record of breeding, SW coast, CH. 69, Te Whanga Lagoon, 16/1/78; 65 on rocky shores; 1, Lake Huro and 2, Lake Marakapia, CH, Jan 1978 (Robertson & Dennison 1979). 50, Te Whanga Lagoon, 14/1/80; nest, SE, 21/1/80; 1, R, 2/11/80 (CSN). Nest, 3 chicks, Motuhinahina Island, Te Whanga Lagoon, 16/12/86; nest, 3 eggs, SE, Dec 1986; periodic nesting in *Macrocarpa* at Kaiwhata, CH, noted (Hemmings & Chappell 1988). M, 1 or 2 seen on six occasions between 20/10/87-24/3/88; south coast, CH, 4 during summer 1988-89 (CSN). Nov-Dec 1985: 3, near Waitangi; 1, Point Gap, CH; up to 50, Te Whanga Lagoon; 1 nest Waikawa Is, Te Whanga Lagoon; 1, Pitt Strait; and in Nov-Dec 1987: up to 15, Te Whanga Lagoon; 2, n end Long Beach (Müller 1989). Recorded on P, Apr 1993 (GAT).

White Heron *Egretta alba modesta* Infrequent reports from Chatham Island residents (Bell in ms).

Reef Heron *Egretta sacra sacra* Rare; 1, Owenga c. 1985 (Turbott 1990).

Cattle Egret *Bubulcus ibis coromandus* 3, Owenga, 12/10/83; 7, The Bluff, P, 13/7/86; 7, Lake Huro, 17/7/86 (CSN).

Glossy Ibis *Plegadis falcinellus* 1, near Te Hapupu, CH, 31/12/84 (Powlesland & Crockett 1986).

Black Swan *Cygnus atratus* CH population 20,000-30,000 in 1953 (Bell 1955). 'Large numbers' (Dawson 1955), Lindsay *et al.* (1959). CH population 8000-9000, 1961 after period of reduced food supply (Bell in ms). 500, Lake Huro; 60, Lake Rangitai, Sep-Oct 1961 (ISH); c.12, Lake Te Wapu, 24/1/68 (RJS); 1 pr, 3 cygnets, Awatapu Slump, CH, 29/11/84; 1, Cascade Gorge, CH, 11/1/85 (CSN); flocks (40-700) on parts of Te Whanga Lagoon, Nov-Dec 1985; 92, Lake Rangitai; 657, ne Te Whanga Lagoon, 3/12/87 (Müller 1989); 3439, Te Whanga Lagoon, 22/11/88 (CSN).

Canada Goose *Branta canadensis maxima* Rare sightings by Chatham Island residents before 1961 (Bell in ms); 3, Glory, P, 10/7/86 (CSN).

Paradise Shelduck *Tadorna variegata* Rare sightings by Chatham Island residents before 1961 (Bell in ms); 1, SE, Jan 1984 (Fennell & Merton 1984).

Mallard *Anas platyrhynchos platyrhynchos* 3, Te Whanga Lagoon near Te Hapupu, Dec 1952 (Bell 1955); <4% of ducks seen, 1961 (Bell in ms); 3, Lake Huro, 4, Lake Rangitai, Sep-Oct 1961 (ISH); 1 pr, with young, Thinornis Bay, SE, Jan 1982; 5, Te Whanga Lagoon, 10/11/84 (CSN); flocks (up to 30), Te Whanga Lagoon, Nov-Dec 1985; flocks (up to 20), Te Whanga Lagoon, Dec 1987 (Müller 1989); 93, Te Whanga Lagoon, 22/11/88 (CSN); P, occasionally, Apr 1993 (GAT).

Grey Duck *Anas superciliosa superciliosa* CH, well-distributed, present on P and SE (Bell 1955; Lindsay *et al.* 1959). 200, Te Whanga Lagoon near Awapatika, 70 n of Te Kiato Point, Te Whanga Lagoon, winter 1951; 40, P, ad, 2 ducklings, SE, Jan 1953 (Bell 1955); 300, Lake Huro, 7/3/57; c.20, P, Feb 1957 (Lindsay *et al.* 1959). CH population c.500, 1961 (Bell in ms); 55, Lake Huro; up to 60, Lake Rangitai; 39, small lake in Te Hapupu Spit area, CH, Sep-Oct 1961; 12 prs, SE, Nov 1961 (ISH). 1 ad, 6 ducklings, Lake Te Wapu, 24/1/68 (RJS); 8 large broods, SE, Nov 1970 (Horgan 1971). 1 pr, Thinornis Bay, SE, Nov 1981; 3, Big Slump, CH, 29/11/84; 2, Lake Rakeinui, 12/1/85 (CSN); flocks (up to 29), Te Whanga Lagoon, Nov-Dec 1985, 1987; 2, near Murphey's Hill, CH, 26/11/85; 3, Waitangi West, 1/12/85; 2, near Taiko Hill, CH, 28/11/87; 2, e Otawae Point, 29/11/87; 1, 3 juvs, Te Whanga Lagoon, 2/12/87; 29, Te Whanga Lagoon, 16, Lake Rangitai, 3/12/87 (Müller 1989). 13, Southern CH, summer 1988-89 (CSN).

Grey Teal *Anas gracilis* Ad ♂, shot, Te Whanga Lagoon 1/7/51 first record (Bell 1955).

Australasian Harrier *Circus approximans* CH, P; 20, SE, early 1953 (Bell 1955). Single prs Waitangi, Te One and Te Roto, occasional bird in bush behind Owenga, March 1961 (FdH). Common throughout, CH 1961; 5, SE, (Bell in ms). Numerous, CH, recorded P, Apr-May 1967 (BDB). 1, Kawhata Peninsula, CH, 24/1/68; 1, P, 27/1/68 (RJS). 1, over M, visitor from P, Aug 1968 (DVM). 4, heard, Tuku area 13/1/81 (LBM). Sep 1981-Jan 1982, M, 1-2, regular visitors from P (CSN); Tuku Nature Reserve, CH, Woolshed Bush, SE, Nov-Dec 1983 (West 1988); several, SE, 28/1/85 (CSN); Nov-Dec 1985, 1987 a few at Taiko camp, between Murphey's Hill and The Horns, near Waitangi, Otawae Point, Te Whanga Lagoon, Cape Fournier, Tuku River, dunes near Owenga, Point Gap, Lake Rotoparaoa, CH (Müller 1989); 12, Te Whanga Lagoon, 22/11/88; 20 over 12500 ha, s CH, summer 1988-89; 8 resident, SE, Mar-Apr 1990 (CSN). CH, P, Apr 1993 (GAT).

California Quail *Callipepla californica brunnescens* Small numbers; c.30, Lake Koomutu, CH; few, North Head, P (Bell 1955); Waitangi, 21/5/57; small flocks (<12), Glory Bay, P, 28/2/57 (Lindsay *et al.* 1959). 1, P, 26/1/68 (RJS); 2, Canister Cove area, Glory Block, P, Oct 1977 (BDB); 2, ne side Te Whanga Lagoon 15/11/85; 1, Hapupu, CH, 23/11/85 (Müller 1989).

Buff Weka *Gallirallus australis hectori* Abundant throughout, CH, P (Dawson 1955); 1961, greatest densities sw of CH, along Te Whanga Lagoon between Te Matarae and Waikato Point (Bell in ms); 25, Kawhata Peninsula, CH, 24/1/68; 2, P, 27/1/68 (RJS); P, Apr-May 1967; common Glory Block, P, Feb 1978 (BDB); Tuku Nature Reserve Nov-Dec 1983 (West 1988); Wiesner Reserve, CH, 28/12/74; Tuku River area, CH, Jan 1975, Dec 1978, Jan 1981 (LBM); common, Pinnacles to Ko Oreao, CH, 13-30/11/84; few, Cascade Gorge, CH, 9-12/1/85; 86, Te Whanga Lagoon, 22/11/88; 47, in 12500 ha, southern CH, summer 1988/89; 1 pr, 3 chicks, Kaingaroa, 2/7/86 (CSN); Nov-Dec 1985, 1987, Taiko camp, Waitangi, The Horns, Point Gap, Moriori, Murphey's Hill, Cape Fournier, Te Whanga Lagoon, Waitangi West, Waikawa Island (Te Whanga Lagoon), Taiko Hill, Lake Rangitai, Long Beach, CH, (Müller 1989); average 15 juvs, Taiko camp, CH, Jan 1987 (AJB); CH, P, Apr 1993 (GAT).

Spotless Crake *Porzana tabuensis plumbea* 1, caught by dog, Moera, 1949, (Bell 1955).

Marsh Crake *Porzana pusilla affinis* Present (Turbott 1990).

Pukeko *Porphyrio porphyrio melanotus* Abundant, Kaingaroa, Jan 1954 (Dawson 1955); many locations, CH; small colony, lower Tupungi Creek valley, P; 1, SK, c.1951 (Lindsay *et al.* 1959); 1961, well distributed throughout CH, except tableland; main concentrations in n, smaller populations along w shore Te Whanga Lagoon, Lake Huro, and near Owenga (Bell in ms); 2, Lake Rangitai, Sept-Oct 1961 (ISH); 4, 7 +, near Waitangi, Apr-May 1967 (BDB); 2, Kawhata Peninsula, CH, 24/1/68 (RJS); 4, Waitangi, Jan 1975 (CSN); Nov-Dec 1985, 1987, a few on parts of Te Whanga Lagoon; 1, Lake Rangitai, 3/12/87 (Müller 1989); 7, Te Whanga Lagoon 22/11/88; 5, in *Spagnum* swamps, CH, summer 1988-89 (CSN); occasional, P, Apr 1993 (GAT).

South Island Pied Oystercatcher *Haematopus ostralegus finschi* 1, Sep 1968 (DVM & BDB).

Chatham Island Pied Oystercatcher *Haematopus chathamensis* On s coast, CH (Bell 1955); SE (Bell 1955; Dawson 1955); P (Dawson 1955); Tupungi Creek, Motutapu Point, Glory Bay, P; Wharekauri, Cape Patisson, near The Pinnacles, CH; M, 1 pr in each area (Lindsay *et al.* 1959); 2, Owenga, March 1961 (FdH); 1 pr, Shelly Beach (Tongarewa), n of Owenga, 21/9/61; 1 pr, Wharekauri Beach, 3/10/61; 1 pr, e side Cape Young, 4/10/61; 1 pr, mouth Kawhaki Creek, CH, 13/10/61; 1, rock shelf south of Manakau Point, 20/10/61; 1, Waitangi Beach, 1/11/61 (Bell in ms); 9, Awamata River mouth, CH; 6, Shelly Beach (Tongarewa), n of Owenga, Apr-May 1967 (BDB); SE Nov 1961, 5 prs with nests, 2-3 unoccupied prs; 30 Aug 1968, 6 prs, at least 1 single; Nov 1970, 28 birds, 9 nests (BDB & DVM); M, 1 pr 1961; at least 9 birds 16-22/8/68; 3 prs bred 1970 (BDB & DVM); 1 pr, Point Gap, 16/1/75; 2, Pateriki beach, 19/5/76 (CSN); SE, 9 prs, Oct 1977; 11 prs, Nov 1977; 26 ads, 11 chicks, Feb 1978; M, 2 prs, Nov 1977; P, Glory Bay, Canister Cove, Feb 1978 (BDB); M, 2 prs, 1 juv each, 15/1/81; SE, 24, 19-27/1/81; P, 4, 28/1/81; 2, Kaingaroa Beach, 28/11/81; 2, Tahatika beach, CH, 30/11/81; SE, 11 prs, 2 singles, 27/12/81; M, 3 prs, Dec 1981 (CSN); groups of 1-4 Nov-Dec 1985, 1987, Cape Patisson, near Point Gap, Cape Fournier,

near Owenga, Hikurangi Channel, Cascade Gorge, The Horns, Otawae Point, CH; SE; M (Müller 1989); survey summer 1987-88, c.100; 4, s coast, CH, summer 1988-89; 5 ads, 1 juv, SE, autumn 1990 (CSN).

Australasian Pied Stilt *Himantopus himantopus leucocephalus* 1 pr, with nest, Lake Huro, 22/9/61, first record (Bell in ms; Falla *et al.* 1982); 2, Rangiriri, CH, 28/11/81 (CSN); 7, Te Awapatiki, Jan 1982 (DEC); 10, Tennants Lake, 1/12/85; 6, Hikurangi Channel, 7/12/85; 3, ne Te Whanga Lagoon, 3/12/87, CH, (Müller 1989); 15, Te Whanga Lagoon, 22/11/88 (CSN); 1 pr, Moreroa, Jan 1993 (DEC).

Banded Dotterel *Charadrius bicinctus bicinctus* Few prs, on peat clears, CH (Bell 1955); many, flocking on grassy flats ne shore Te Whanga Lagoon near Te Hapupu, 10/4/57 (Lindsay *et al.* 1959); 1 pr, Hikurangi, CH, 30/9/61; several flocks ne end Te Whanga Lagoon, near Te Hapupu, 3/12/61; 3, se corner SE, 21-23/11/61 (Bell in ms); 38, Wairua Flats, Te Whanga Lagoon 12/4/67 (BDB); several prs, rough farmland, sw CH, Nov-Dec 1978; 101, Te Whanga Lagoon, 24/11/78; few prs, near Port Hutt, 22/10/79; 2, Te Whanga Lagoon entrance, 14/1/81; 6, Te Whanga Lagoon, 26/11/81; 2, Te Whanga Lagoon, 10/11/84 (CSN); 4, n Te Whanga Lagoon, 2 near Cape Patisson, 14/11/85; 2, Cape Fournier, 16/11/85; 47, over 10 km ne Te Whanga Lagoon, 17/11/85; 51 over 8 km, ne Te Whanga Lagoon, 23/11/85; 6, Maunganui Beach, 1/12/85; 6-8, Hikurangi Channel, 6-7/12/85; 2, w of Taiko camp, 13/12/85; 35, ne Te Whanga Lagoon, 15/12/85; 1, near Taiko camp, 16/11/87; 10, over 3 km n Te Whanga Lagoon, 24/11/87; 62, over 15 km ne Te Whanga Lagoon, 3/12/87; 12, Long Beach, 7/12/87, (Müller 1989); 3, Hapupu golf course, 2/7/86; 2, SE, 12/7/86; 35, Te Whanga Lagoon, 22/11/88; 15 ads, chicks, CH, summer 1988-89; c.30, airfield, CH, 12/4/90 (CSN); 1 pr, most Sep-Oct 1972-88, clears between Tuku River and Kiringe Creek, CH (DEC); occasional, CH, Apr 1993 (GAT).

Mongolian Dotterel *Charadrius mongolus* First record, 1 imm, ne Te Whanga Lagoon, 3/12/87 (Müller 1989).

Shore Plover *Thinornis novaeseelandiae* Breeding SE; c.20 ads, SE, 4/2/54 (CSN); 1961, 31 nests, 3 broods, further 13 prs with territories (Bell in ms); Aug 1968 census, 95; Nov 1970 census 90 (BDB & DVM); 106, SE, Nov 1977; 87 ads, 28 juvs, SE, 1 juv Glory Bay, P, Feb 1978 (BDB); 101, not including juvs, 26/11-19/12/80; 145, including 28 juvs, 19-28/1/81; 40 breeding prs, total 105, Dec 1981 (CSN); 120, survey, summer 1987-88; autumn census 23/3-6/4/90, 118 (CSN); Jan-Feb 1993, est 131 (Dowding & Kennedy 1993).

Pacific Golden Plover *Pluvialis fulva* Regular summer visitor; 11, Wairua Flats, ne Te Whanga Lagoon, 12/4/67 (BDB); 1, CH, Jan 1975; 2, Te Whanga Lagoon, 24/11/78 (CSN); 19, ne Te Whanga Lagoon, 17/11/85; 62, ne Te Whanga Lagoon, 23/11/85; 5, over 3 km n Te Whanga Lagoon, 1, near Taiko camp, 24/11/87; 6, wnw Taiko camp, 30/11/87; 5, Te Whanga Lagoon near Waitaha Creek, 2/12/87; 38, over 15 km, ne Te Whanga Lagoon, 3/12/87 (Müller 1989).

Grey Plover *Pluvialis squatarola* First record, Sep 1968, CH, (DVM & BDB); 2, ne Te Whanga Lagoon, 17/11/85; 1, n Owenga, e Te Whanga Lagoon, 6/12/85 (Müller 1989).

Spur-winged Plover *Vanellus miles novaehollandiae* Well-established, CH, P; Tioriori, near Cape Young, Jan 1982 (DEC); 1 pr, with juv, CH, 14/1/81; 3, Tennants Lake, 25/11/81; 3, Hapupu, CH, 26/11/81; 2, Te Whanga Lagoon, 10/11/84 (CSN); Nov-Dec 1985, CH, groups 2-9, Moriori Creek, w of Taiko camp; North Beach, Te Whanga Lagoon; ne Te Whanga Lagoon; Waihi Farm, e Waitangi West; Owenga (Müller 1989); groups of 2-5, Point Munning, Hapupu golf course, Waitangi West, Lake Huro, CH, Jul 1986; 2, Waipaua, P, 10/7/86; 1, SE, 12/7/86 (CSN); resident group of 7, lower Tuku-Moriori Creek area, CH, since Jan 1987 (DEC); 2, M, 11/10/87 (CSN); Nov-Dec 1987, CH; 4, Moriori Creek, w Taiko camp; 8 over 3 km n Te Whanga Lagoon; 28, ne Te Whanga Lagoon over 15 km stretch, 2 Lake Rangitai; 14, Port Hutt road area between Lake Rotoparaoa and Lake Te Roto; 2, near Waihi, Waitangi West, (Müller 1989); 124, Te Whanga Lagoon, 22/11/88; 9, airfield, P, 22/3/90 (CSN); P, Apr 1993 (GAT).

Turnstone *Arenaria interpres* First record, 55, n Waitangi West 20-22/3/57; c.150, ne Te Whanga Lagoon near Te Hapupu, 4/4/57; 2 flocks (8, 12) Hanson Bay, CH, 5/4/57 (Lindsay *et al.* 1959); 70, near Okawa, 1/10/61; 3, Matarakau, 2/10/61; 12 +, Cape Patisson, 5/10/61; 1, Te Whanga Lagoon near Te Hapupu, 3/12/61, CH (Bell in ms); 265, Wairua Flats, Te Whanga Lagoon, 12/4/67 (BDB); 62, Waitangi, 266, Te Whanga Lagoon, 23/11/78; 9, SE, 16/12/78 (CSN); 116, Okawa Point, 27/1/81; 10, Point Alison, 30/1/81; 20, Cape Patisson, 31/1/81; 214, Te Awapatiki, 14/1/82; 35, Taupeka Point, 4/2/82 (DEC); c.50, Waitangi West beach, 26/12/82 (CSN); groups of 3-70, Point Gap; n and ne parts Te Whanga Lagoon; Murphey's Hill; Tapurangi Monau Reef, w Cape Patisson; Hikurangi Channel; Seal Rocks, ne Round Is; Owenga; Nov-Dec 1985, 38, over 3 km n Te Whanga Lagoon, 24/11/87; 214, over 15 km ne Te Whanga Lagoon, 3/12/87 (Müller 1989); 210, Te Whanga Lagoon, 22/11/88 (CSN); 33, Matarakau, 27, Waitangi West beach, Jan 1993 (DEC).

Chatham Island Snipe *Coenocorypha pusilla* Abundant, SE, 1961 (Bell in ms); abundant SE, SK; Woolshed Bush, SE, Nov-Dec 1983 (West 1988); reintroduced, M, 1970 (DVM & BDB); 20-30 prs, M, summer 1981/82 (CSN); 3, M, 22/11/87; 4, SE, 10/12/87 (Müller 1989); 1, SK, 10/2/88 (CSN).

Lesser Knot *Calidris canutus canutus* Small flocks, CH, over summer; 2, n shore Te Whanga Lagoon, 12/4/57 (Lindsay *et al.* 1959); 500 +, Te Whanga Lagoon, 24/11/78; 75 +, Taupeka Point, 27/11/81 (CSN); 13, n Te Whanga Lagoon, 14/11/85; 664 over 10 km n, ne Te Whanga Lagoon, 17/11/85; 1472 over 9 km ne Te Whanga Lagoon, 23/11/85; 32, near Hikurangi Channel, e Te Whanga Lagoon, 7/12/85; 1106, Te Whanga Lagoon near Hapupu, 15/12/85; 43, over 3 km n Te Whanga Lagoon, 24/11/87; 750, over 15 km N Te Whanga Lagoon, 3/12/87; 27, Te Whanga Lagoon near airport, 9/12/87 (Müller 1989); 816, Te Whanga Lagoon, 22/11/88 (CSN).

Sanderling *Calidris alba* Straggler, CH, 1977 (Turbott 1990); 3, near Hikurangi Channel, e Te Whanga Lagoon, 6-7/12/85 (Müller, 1989).

Sharp-tailed Sandpiper *Calidris acuminata* Straggler, CH, 1977, 1983 (Turbott 1990); 3, Hapupu, CH, 26/11/81 (CSN); 2, Te Whanga Lagoon n of Hikurangi Channel, 7/12/85; 5, ne Te Whanga Lagoon, 3/12/87 (Müller 1989); 20, Te Whanga Lagoon, 22/11/88 (CSN); 1, small muddy pool on top of main island, FF, 2/12/83 - first wader record from FF (MJI).

Pectoral Sandpiper *Calidris melanotos* Undated record(s) (BDB *pers. comm.*).

Red-necked Stint *Calidris ruficollis* 1, ne Te Whanga Lagoon, 17/11/85; 1, n Te Whanga Lagoon, 24/11/87; 2, ne Te Whanga Lagoon, 3/12/87 (Müller 1989).

Eastern Curlew *Numenius madagascariensis* Undated record(s) (BDB *pers. comm.*).

Asiatic Whimbrel *Numenius phaeopus variegatus* 1, Sep 1968 (DVM & BDB); 1, ne Te Whanga Lagoon, 3/12/87 (Müller 1989).

Eastern Bar-tailed Godwit *Limosa lapponica baueri* 5, near Te Awapatiki, CH, 21/2/57; 37, n Te Whanga Lagoon, 12/4/57 (Lindsay *et al.* 1959); 1, Cape Patisson, 5/10/61; resident reported small flock, n Te Whanga Lagoon, 1961 (Bell in ms); 10, Wairua Flats, Te Whanga Lagoon, 12/4/67 (BDB); 8, Te Whanga Lagoon, 26/11/81 (CSN); 2, Waitangi Harbour, 5/11/85; n and ne Te Whanga Lagoon; 54, 14/11/85, 96, 17/11/85, 476, 23/11/85, 732, 15/12/85, 27, 24/11/87, 151, 3/12/87; 7, Te Whanga Lagoon near Waitaha creek, 2/12/87; 12, Te Whanga Lagoon near airport, 9/12/87; 2, Hikurangi Channel, CH, 6/12/85; 45, Hikurangi Channel, 7/12/85; 5, Point Gap, 27/11/87 (Müller 1989); 314, Te Whanga Lagoon, 22/11/88 (CSN).

Tattler sp. *Tringa incana* or *brevipes* 1, Cape Young, 4/12/87 (Müller 1989).

Wandering (Alaskan) Tattler *Tringa incana* 1, Okawa Point, 1961 (Bell in ms); 1, Cape Patisson, 1/12/85; 1, Seal Rocks, ne Round Is, 8/12/85; 1, Otawae Point, CH, 29/11/87 (Müller 1989).

Siberian (Grey-tailed) Tattler *Tringa brevipes* 1, Wairua Flats, Te Whanga Lagoon, 12/4/67 (BDB); 1, Cape Patisson, 23/11/78 (CSN).

Greenshank *Tringa nebularia* Straggler. 1978 (Turbott 1990).

Marsh Sandpiper *Tringa stagnatilis* Undated record(s) (BDB *pers. comm.*).

Lesser Yellowlegs *Tringa flavipes* 1, Te Whanga Lagoon, 14/11/85, first record (Müller 1989).

Chatham Island Pigeon *Hemiphaga novaeseelandiae chathamensis* 6, all s of Waitangi Jun-Jul 1951; P, Jan 1953 (Bell 1955); 5, P, 3/2/57; several, Pipitarawai Hill, CH, 22/5/57 (Lindsay *et al.* 1959); spring 1968, CH, 1, just n of Tuku River, 1 in wooded gully in 'clears', 1, patch forest, headwaters of Mangahou Stream (DVM & BDB); 10, over 12 days, Cascade Gorge, CH, Mar 1977 (Morris 1979); 5, 16/3-3/4/78, Tuku Valley, CH, (CSN); Tuku gully, CH, 5/1/79 (LBM); 8, Tuku camp, CH, 21/12/81 (CSN); Tuku Nature Reserve, CH, Nov-Dec 1983 (West 1988); 8+, Cascade Gorge, CH, 9-12/1/85; 4-6, Murphey's Hill, CH, 15-22/1/85; 2, 'Taiko Town', CH, 12-23/1/85 (CSN); 4, regularly, Tuku River, CH, Nov-Dec 1985; 2, Taiko

camp, CH, 6/11/85; 3, reserve e Taiko camp, 19/11/85; 6 Tuku River, 12/12/85; 1, regularly, near Taiko camp, Nov 1987; 3, resident, Tuku River, Nov 1987; 2, Taiko Hill, CH, 2 e side Tuku River 19/11/85; 3, Taiko Hill, 28/11/87 (Müller 1989); 7, in 2500 ha, s CH, summer 1988-89; 8, Tuku reserve, 1, Awatotara, CH, 8/4/90; 1, Lake Huro, March 1990 (CSN).

Chatham Island Red-crowned Parakeet *Cyanoramphus novaezelandiae chathamensis* 1, heard, sw coast CH (Bell 1955); P, most plentiful bird SE (Bell 1955; Dawson 1955); P, s CH; heard, M, 30/3/57; 2, Waitangi, 11/3/57 (Lindsay *et al.* 1959); 1, near Hitingataua; 3, inland from The Horns; CH, spring 1961 (Bell in ms); spring 1968, 6, s CH, 5, heard P; 1, heard, R; flocks (up to 40) SE (15 Woolshed - summit), 27/8/68; flocks (up to 16), M (DVM & BDB); Tuku area, CH, Jan 1981 (LBM); Tuku Nature Reserve, CH, Woolshed Bush, SE, Nov-Dec 1983 (West 1988); few, at Ko Oreao, CH, Nov 1984; 2, Cascades, CH, 10/1/85; a few, Murphey's Hill, CH, 15-20/1/85 (CSN); 3, Taiko camp, CH, 6/11/85; 5, Tuku River, CH, 2, Taiko camp, 12/11/85; 3, Tuku River, 26 & 29/11/85; 6, SE, 8/12/85; 3, Tuku River, 17/11/87; 9, Tuku River area, 1, near Taiko camp, 19/11/87; 4, M, 22/11/87; 4, Taiko camp to Taiko hill, 28/11/87; 5, SE, 10/12/87 (Müller 1989); 161 in 12500 ha, s CH, summer 1988/89; numerous, SE, 22/3-7/4/90 (CSN); P, Apr 1993 (GAT).

Forbes' Parakeet *Cyanoramphus auriceps forbesi* 26, LM, in scrub, 3/9/68; population est. 50-100, LM (DVM & BDB); 2, M, 1961; several, M, 1970 (DVM & BDB); 1, CH, 1975-76 (Greene 1989); est. 40, in 4 ha bush, M, 1981-82 (CSN); 1, Forbes' or Forbes'-like parakeet, Sore-tooth Spur, near Taiko camp, CH, 29/12/82 (Melville 1984); 1, CH, 30/12/87, and later (BS & LS); 8-10, M, 22/11/87 (Müller 1989); 1, Tuku Nature Reserve, CH, summer 1988-89 (AG).

Forbes' Parakeet x Chatham Island Red-crowned Parakeet 5, M, 22/11/87 (Müller 1989).

Shining Cuckoo *Chrysococcyx lucidus lucidus* Heard, lower Makara River, CH, 25/9/61; up to 4 heard, Te Whanga Lagoon between Te Matarae and Waikato Point; heard SE (Bell in ms); 1-2, SE, summer 1981, 1982; 1, M, Nov 1981 (Dennison *et al.* 1984); Tuku Nature Reserve, CH, Woolshed Bush, SE, Nov-Dec 1983 (West 1988); 6, in 12500ha, s CH, summer 1988-89 (CSN).

Long-tailed Cuckoo *Eudynamis taitensis* Straggler (Turbott 1990). 1, CH, Mar 1946 (CSN).

Skylark *Alauda arvensis* Extremely common CH; 1, SE; 2, M, 1961 (Bell in ms); common, P, Apr-May 1967 (BDB); 1, Kawhata Peninsula, CH, 24/1/68; several, P, 26/1/68, 5, P, 27/1/68 (RJS); up to 30, M, 16-22/8/68 (DVM); Tuku Nature Reserve, CH, Woolshed Bush, SE, Nov-Dec 1983 (West 1988); common, Ko Oreao, CH, 13-30/11/84 (CSN); 25, regularly, Taiko camp to Point Gap Nov-Dec 1985, 1987; 40, Waitangi - Tuku River, 5/11/85; 10, Taiko camp to Murphey's Hill, Nov-Dec 1987; 20, Waitangi to Tuku River, 16/11/87; 4, M, 22/11/87; 10, over 3 km n Te Whanga Lagoon, 30, Point Gap to Otawae Point, 24/11/87; 40, over 15 km ne Te Whanga Lagoon, 3/12/87; 14 near Cape Young, 4/12/87 (Müller 1989);



common, M, summer 1987-88; 413, in 12500 ha, s CH, summer 1988/89 (CSN).

Welcome Swallow *Hirundo tahitica neoxena* First records; 10, Te Hapupu airstrip, CH, 11/6/70; P, Dec 1970 (Hollay 1971); Kaingaroa, 9/8/75 (CSN); 2, Waitangi, 5/11/85; 1, n Te Whanga Lagoon, 24/11/87; 1, Long Beach, n Waitangi, 7/12/87; 2, airport, near Te Whanga Lagoon, 9/12/87 (Müller 1989); 6, Te Whanga Lagoon, 22/11/88 (CSN); since Jan 1989, prs in Taiko camp area (DEC); CH, P, Apr 1993 (GAT).

Chatham Island Pipit *Anthus novaeseelandiae chathamensis* Common throughout, CH, P, SE, M, S, FF, TP, (FdH; Dawson 1955; Bell 1955; Lindsay *et al.* 1959; Bell in ms); numerous about coast and Te Whanga Lagoon; common P, Apr-May 1967 (BDB); widely distributed, M, 16-22/8/1968 (DVM); common, M, SE; present R, 1980 (CSN); Nov-Dec 1985; 2, Moriori Creek, CH; 2, near Waitangi; 1, w of Murphey's Hill, CH; up to 8, n and ne Te Whanga Lagoon; 2 prs, Beacon Hill, CH; 5, Waitangi West; 10, n Owenga dunes; 18, Hikurangi Channel to n Owenga; Nov-Dec 1987: 3, Moriori Creek; 2, M; 2, Houruakopara Is; up to 17 over 15 km, n and ne Te Whanga Lagoon; 4, Long Beach; 3, dunes near Waitangi West (Müller 1989); common, SK, 10/2/88, M, summer 1987-88; common on coast, SE, 22/3-7/4/90 (CSN).

Hedge Sparrow *Prunella modularis* CH, P, SE (Bell 1955); flocks, SE, Feb 1954 (Dawson 1955); 1, P, 3/2/57, 1, Te One, 11/2/57 (Lindsay *et al.* 1959); one of commonest, CH, 'fair numbers' SE, 1, M, Sep-Dec, 1961 (Bell in ms); common, Te Roto, CH, Mar 1961 (FdH); M, 16-22/8/68 (DVM); Glory Block, P, Feb 1978 (BDB); 3, n slopes, SE, 27/8/68; 14, LM, 3/9/68 (DVM & BDB); est. 30 prs, M, 1981/82; Ko Oreao, CH, 25/11/84; Murphey's Hill, CH, 15-22/1/85 (CSN); Nov-Dec 1985; c.10, Taiko camp, CH; 1, Murphey's Hill, CH; 3, forest, n coast, CH; 1, Hapupu, CH; 6, Tuku River, CH; 5, N Owenga; 2, s Hikurangi Channel, CH; 1, Waihi Farm, e Waitangi West; Nov-Dec 1987; 2, Taiko camp; 5, Tuku River; 1, M; 8, e Taiko camp to Taiko hill; 3, forest n Te Whanga Lagoon; 2, SE (Müller 1989); 3, SK, 10/2/88; common, SE, 22/3-7/4/90 (CSN).

Blackbird *Turdus merula* CH, P, SE (Bell 1955); few Lake Huro, SE (Dawson 1955); common throughout, CH, P (Lindsay *et al.* 1959); common, Te Roto, a few, near Owenga, n of Te One, CH, March 1961 (FdH); numerous, SE; 1, M; nest, LM, Sep-Dec 1961 (Bell in ms); P, Apr-May 1967 (BDB); up to 10 prs, M, 16-22/8/68; 4, n slopes SE, 27/8/68; 17, LM, 3/9/68 (DVM & BDB); Glory Block, P, Feb 1978 (BDB); Tuku Nature Reserve, CH, Woolshed Bush, SE, Nov-Dec 1983 (West 1988); Nov-Dec 1985, up to 15, Taiko camp/ Nature Reserve area, CH; 2, Murphey's Hill, CH; 4, forest on n coast, CH; 2, Hapupu, CH; 1, Waihi Farm, e Waitangi West; 1, dunes n Owenga; 1, bush s Hikurangi Channel, CH; 2, SE; Nov-Dec 1987, up to 10, Taiko camp/Nature Reserve area; 2, Murphey's Hill; 10, Tuku River, CH; 1, Otawae Point, CH; 12, forest n, ne Te Whanga Lagoon; 5, Cape Young; 1, Lake Roto, CH; 3, SE; 1, Maunganui Hill, CH (Müller 1989); 2, Western Nugget, MM, 2/12/87 (Tennyson *et al.* 1993); c.5, SK, 10/2/88; SE, 22/3-7/4/90 (CSN); occasional, P, Apr 1993 (GAT).

Song Thrush *Turdus philomelos* CH, P (Bell 1955), SE (Dawson 1955); scarce, P, CH, except at Wharekauri (Lindsay *et al.* 1959); occasional, in patches of bush n of Te One, March 1961 (FdH); CH, throughout pasture wherever suitable cover; a few, SE, Sep-Dec 1961 (Bell in ms); P, Apr-May 1967 (BDB); small number, M, 16-22/10/68 (DVM); Glory Block, P, Feb 1978 (BDB); Tuku Nature Reserve, CH, Woolshed Bush, SE, Nov-Dec 1983 (West 1988); 2, Murphey's Hill, CH, 20/1/85 (CSN); Nov/Dec 1985; 3, Taiko camp, CH; 8, forest around Taiko camp; 2, Murphey's Hill, CH; 1, Hapupu, CH; 1, Waihi Farm, e Waitangi West; 1, SE; Nov-Dec 1987; 2, Taiko camp; 10, e side Tuku River, CH; 11, e Taiko camp to Taiko hill; 6, forest n to ne Te Whanga Lagoon; 2, Cape Young; 2, near Lake Roto, CH; 2, SE; 1, Maunganui Hill, CH (Müller 1989); 1, Waitangi, 13/2/88; 20 in 12500 ha, summer 1988-89 (CSN); occasional, P, Apr 1993 (GAT).

Chatham Island Warbler *Gerygone albofrontata* Uncommon CH, P, common SE (Bell 1955); common P, along Te Whanga Lagoon, CH (Dawson 1955); singles in small bush areas, sw side Te Whanga Lagoon, Lake Huro; 'fair numbers' Pipitarawai Hill, sw coast, CH; common s P (Lindsay *et al.* 1959); Sep-Dec 1961, northernmost at Te Hapupu, Lake Marakapia, more numerous along s coast, CH; very abundant SE; not common M; very common LM (Bell in ms); only 1, P, Apr-May 1967 (BDB); 15 on n slopes SE, 27/8/68; 60, LM, 3/9/68; also common CH, P, M, SK, 1968 (DVM & BDB); small numbers, Glory Block, P, Feb 1978 (BDB); SE, 75 mist-netted in 420 net-h, 1979, 11 mist-netted in 80 net-h, in 1981; M, 8 mist-netted in 27 net-h, 1981 (Dennison *et al.* 1984); Tuku Nature Reserve, CH, Woolshed Bush SE, Nov-Dec 1983 (West 1988); Nov-Dec 1985; 2, Taiko camp, CH; 2, Murphey's Hill, CH; 4, e Taiko camp; 6, SE, 8/12/85; Nov-Dec 1987 1, Taiko camp; 3, e side Tuku River, CH; 2-6, Taiko Hill area, CH; 2, Hatwell's Hole, CH; 2, M; 3, SE (Müller 1989); 'few', Ko Oraeo, CH, 13-30/11/84, Cascades, CH, 10/11/84; common, M, summer 1987-88; 5, SK, 10/2/88; 434 in 12500 ha, s CH, summer 1988/89; common SE, 22/3-7/4/90; only 4, Tuku Reserve, CH, 8-12/4/90 (CSN); occasional, P, Apr 1993 (GAT).

Chatham Island Fantail *Rhipidura fuliginosa penita* CH, sparingly distributed but throughout; 4 in bush Te One - Te Whanga Lagoon; several, near The Horns; P, 'a few' (Bell 1955); Te Whanga Lagoon, Kaingaroa (Dawson 1955); common in bush and plantations, CH, P (Lindsay *et al.* 1959); common, Te Roto, CH; a few, bush patches, behind Owenga, Te One, CH, Mar 1961 (FdH); 1961, widespread throughout CH, not large numbers; rare, SE (Bell in ms); P, Apr-May 1967 (BDB); 1968, moderate numbers in wooded areas, s CH, P, rare elsewhere; apparently absent SE; Nov 1970, present but uncommon, SE (DVM & BDB); Wiesner Reserve, CH, 28/12/74 (LBM); pr, nest, near Tuku Valley, CH, 19/1/78 (Dennison *et al.* 1979); Feb 1978, 1, SE (first for some years); common, Glory Block, P, (BDB); 5 occupied nests, several other prs, family groups, Tuku, Awatotara Valleys, CH, 17/11-27/12/78 (Dennison *et al.* 1979); 'few pairs', Port Hutt, 22/10/79 (CSN); Abyssinia Track, Tuku area, CH 13/1/81 (LBM); Tuku Nature Reserve, CH, Woolshed Bush, SE, Nov-Dec 1983 (West 1988); common, Cascade Gorge, CH, 9-12/1/85 (CSN); Nov-Dec 1985, 1 pr, Taiko camp, CH; 4, forest, ne coast, CH; 6, reserve e Taiko camp;

nest, 4 chicks, e of Taiko camp; 3, Tuku River, CH; 2, Waihi Farm, e Waitangi West; Nov-Dec 1987; 2, Taiko camp; 2, Murphey's Hill, CH; 6, Tuku River; 4, Taiko hill, CH; 11, e of Taiko camp - Taiko hill; 1, Lake Te Roto, CH (Müller 1989); 4, Waitangi, 13/2/88; 459 in 12500 ha, s CH, summer 1988/89; only 2, SE, 22/3-7/4/90; common, Tuku Reserve, CH, 8-12/4/90 (CSN); CH, P, Apr 1993 (GAT).

Chatham Island Tomtit *Petroica macrocephala chathamensis* P; good numbers, SE (Bell 1955; Dawson 1955); CH, M; common s P (Lindsay *et al.* 1959); good numbers, SE; 1 pr, 3 young, near woolshed, 11/11/61 (Bell in ms); in most bush remnants, P, Apr-May 1967 (BDB); 1, P, 26/1/68 (RJS); 13, n slopes SE, 27/8/68; small numbers, M, 1968 (DVM & BDB); abundant, SE, 1970 (DVM & BDB); extinct CH; last observed Tuku Gully, Jan 1970, near Green Point, Jan 1975 (DEC); 1978, 'thriving', SE; 'persisting', Glory Block, P (CSN); 1, M, 27/1/82 (CSN); Woolshed Bush, SE, Nov-Dec 1983 (West 1988); 5, SE, 8/12/85; 4, SE, 10/12/87 (Müller 1989); numerous, SE, 22/3-7/4/90 (CSN).

Black Robin *Petroica traversi* Restricted to LM by 1937 (Fleming 1939); now established M, SE (Cemmick & Veitch 1985); SE, M, total population 38, Oct 1987; 87 Feb 1988; 57 Oct 1988; 98 Feb 1989; SE, 99, M, 20 end of 1989-90 season (CSN).

Silvereye *Zosterops lateralis* Common, CH, P (Bell 1955; Lindsay *et al.* 1959; Bell in ms); small flock regular, Waitangi, flock (10), Te Roto, 'a few', bush patches behind Owenga, n of Te One, Mar 1961 (FdH); numerous, P, Apr-May 1967 (BDB); 3+ in small flock, M, 16-22/8/68 (DVM); 6, n slopes SE, 27/8/68 (DVM & BDB); small number, LM, 3/9/68 (DVM); common, Glory Block, P, Feb 1978 (BDB); Tuku area, CH, 1975, 1981 (LBM); Tuku Nature Reserve, CH, Woolshed Bush SE, Nov-Dec 1983 (West 1988); Nov-Dec 1985, 10, Taiko camp, CH; 4, Murphey's Hill, CH; 20, e of Taiko camp; 2, Hapupu, CH; 10, Tuku River, CH; Nov-Dec 1987, 10, Taiko camp; 4, Murphey's Hill; 15, e side Tuku River; 6, Taiko Hill, CH; 33, e of Taiko camp - Taiko Hill (Müller 1989); 1110 in 12500 ha, s CH, summer 1988/89; most numerous passerine, SE, 22/3-7/4/90 (CSN); CH, P, Apr 1993 (GAT).

Chatham Island Tui *Prosthemadera novaeseelandiae chathamensis* Only Nairn River valley, CH; P; rare, SE (Bell 1955); Glory Bay, P, SE (Dawson 1955); Pipitarawai Hill, Tuku Stream, e of The Horns, CH, s P (Lindsay *et al.* 1959); 1961, 1, in bush e of lower Makara River, CH; 2, Wharekauri; about 10, s coast, CH; estimated 10-12 prs, SE (Bell in ms); 1968, several, headwaters Nairn River; 1, seen in 3 day traverse, s bush area, CH; uncommon, P; 10, n slopes SE, 27/8/68 (DVM & BDB); 1, P, 26/1/68 (RJS); small numbers, Glory Block, P, Feb 1978 (BDB); Tuku Gully, 5/1/79; Abbasynia Track, Tuku area, CH, 10-13/1/81 (LBM); Woolshed Bush, SE, occasional, Tuku area, and s tableland and coast area, CH, Nov-Dec 1983 (West 1988); 'few', Ko Oraeo, CH, 13-30/11/84; the Cascades, CH, 9/1/85; flock (c.20), SE, 5/2/85 - 11 flew toward P (CSN); Nov-Dec 1985; 1, Taiko camp, CH; 1-2, 3 times, Tuku River, CH; 2, SE; in Nov-Dec 1987; 1, Tuku River near Taiko camp; 1, e side of Tuku River; 3, SE (Müller 1989); 2, M, 23/10/87 - 1 flew to P; 30 in 12500 ha s CH, summer 1988-89; common,

SE, 22/3-7/4/90; 2, reported, Lake Huro, Mar 1990 (CSN); at least 5 prs, Lower Tuku Gully, CH until 1990; only 1 pr in 1992-93 (DEC); occasional, P, Apr 1993 (GAT).

Yellowhammer *Emberiza citrinella* 1, Waipaua, P, 1/3/57 (Lindsay *et al.* 1959); 1, SE, 1961 (Bell in ms); 6, M, 16-22/8/68 (DVM); 2, Tuku area, CH, Dec 1978; 2, near The Horns, CH, 17/10/87 (CSN).

Chaffinch *Fringilla coelebs* CH, P, SE (Bell 1955); P (Dawson 1955), 1, CH, 1, P (Lindsay *et al.* 1959); 1961, common throughout, CH; 3, SE; 1, M; 1, LM (Bell in ms); P, sw CH; common, Te Roto, few, bush patches behind Owenga, and n of Te One, Mar 1961 (FdH); P, Apr-May 1967 (BDB); probably not  $\geq 30$ , M, 16-22/8/68 (DVM); common, Glory Block, P, Feb 1978 (BDB); Wiesner Reserve, CH, 28/12/74; Tuku River area, CH, 28/12/78, 10-13/1/81 (LBM); Tuku Nature Reserve, CH, Nov-Dec 1983 (West 1988); a few, Ko Oreao, CH, Nov 1984 (CSN); Nov-Dec 1985, 6, Taiko camp, CH; 10, forest, around Taiko camp; 4, Murphey's Hill, CH; 20, near The Horns, CH; 10, forest, n coast, CH; 3, ne Te Whanga Lagoon; 3, Hapupu, CH; 6, on shore w of Murphey's Hill; 2, Waihi Farm, e Waitangi West; 2, Owenga; 2, near Hikurangi Channel, CH; Nov-Dec 1987, 15, Taiko camp; 2, Murphey's Hill; 16, e Tuku River, CH; 2, n Te Whanga Lagoon; 21, Taiko camp - Taiko hill; 13, n Otawae Point; 30, forest n and ne Te Whanga Lagoon; 6, Cape Young; 5, beach, Waitangi - Port Hutt; 2, Maunganui Hill, CH (Müller 1989); rare, M, summer 1987-88; 1201 in 12500 ha s CH, summer 1988/89 (CSN); occasional, P, Apr 1993 (GAT).

Greenfinch *Carduelis chloris* P (Bell 1955); small numbers, CH, Mar 1961 (FdH); 1961, throughout central and n CH, but small numbers; 1 flock (10) near Te Whanga Lagoon mouth (Bell in ms); P, Mar 1961 (FdH), Apr-May 1967 (BDB); skeletal material, MM, 1968 (BDB); Nov-Dec 1985, 2, Waitangi; 5, Taiko camp, CH; 2, Murphey's Hill, CH; 2, forest, n coast, CH; 1, Hapupu, CH; 1, Waihi Farm, e Waitangi West; Nov-Dec 1987, 2, Taiko camp; 2, near Cape Young; 2, near Lake Roto, CH (Müller 1989); 5, in 12500 ha s CH, summer 1988/89 (CSN).

Goldfinch *Carduelis carduelis* CH (Bell 1955; Lindsay *et al.* 1959), P (Bell 1955); 1961, central and n CH, small numbers, more common sw corner (Bell in ms); common, Te Roto, few, in bush patches, behind Owenga and n of Te One, Mar 1961 (FdH); P, Mar 1961 (FdH), Apr-May 1967 (BDB); 1, M, 19/11/80 (CSN); Nov-Dec 1985, 1, near Murphey's Hill, CH; 1, Taiko camp, CH; 4, Waihi Farm, e Waitangi West; 2, Waitangi; 3, near Hapupu, CH; Nov-Dec 1987, 8, Waitangi - Tuku River; 2, near Taiko camp; 2, near Otawae Point, CH; 4, Waitangi; 6, in forest n and ne Te Whanga Lagoon; 4, near Cape Young; 6, beach, Waitangi - Port Hutt (Müller 1989); several, Waitangi, 13/2/88; 14 in 12500 ha s CH, summer 1988-89 (CSN).

Redpoll *Carduelis flammea* CH (Bell 1955; Dawson 1955; Lindsay *et al.* 1959), P (Bell 1955), SE (Bell 1955; Dawson 1955); 1961, very common, CH, SE, present, M (Bell in ms); P, Apr-May 1967 (BDB); small flocks, (1 of 20), M, 16-22/8/68 (DVM); 15, LM, 3/9/68 (DVM & BDB); common, Glory Block, P, Feb 1978 (BDB); Tuku Gully, CH, 5/1/79 (LBM); 2, Rangiriri, CH, 28/11/81 (CSN); Tuku Nature Reserve, CH, Woolshed Bush SE, Nov-Dec 1983 (West 1988); Nov-Dec 1985, up to 55, Taiko camp area,

CH; 6, Murphey's Hill, CH; 15, near The Horns, CH; 20, forest on n coast, CH; 2-25, ne Te Whanga Lagoon; 20, e of Taiko camp; 5, Waihi Farm, e Waitangi West; 5, e Te Whanga Lagoon; 3, n Owenga; Nov-Dec 1987, flocks (up to 20), Taiko camp area; 10, e Tuku River, CH; 2, M; 3, n Te Whanga Lagoon; 22, e of Taiko camp; 2, e Otawae Point, CH; 25, ne Te Whanga Lagoon; 3, near Cape Young; 5, Long Beach (Müller 1989); common, M, summer 1987-88; 655 in 12500 ha s CH, summer 1988/89; numerous, SE, 22/3-7/4/90 (CSN); CH, P, Apr 1993 (GAT); loose flocks (up to 25-30 birds) feed on rough pasture, scrub Awatotora River - Moriori Creek, CH (DEC).

House Sparrow *Passer domesticus* CH (Bell 1955; Lindsay *et al.* 1959), P (Bell 1955; Lindsay *et al.* 1959), SE (Dawson 1955); 1961, common, near dwellings, pasturelands, CH; present SE (Bell in ms); small flocks, Te Roto, occasional near houses, Owenga; more on P than CH, Mar 1961 (FdH); P, Apr-May 1967 (BDB); 15-20, regular around Waitangi, Nov-Dec 1985, 1987; 1, 1/12/85; 2, 13/12/87, Old Stone Cottage (German Mission); 4, near Te One, 30/11/87 (Müller 1989); 13, near habitation s CH, summer 1988/89 (CSN); until c.1990, flocks (up to 10), *Macrocarpa* plantations, lower Tuku Gully, Blyth homestead site near Moriori Creek, CH (DEC); CH, P, Apr 1993 (GAT).

Starling *Sturnus vulgaris* CH, flock (over 100) Glory Bay P, SE (Bell 1955); abundant, FF, SE, CH (Dawson 1955); most numerous land bird, CH, P, flocks (up to 500); large roost (4000) Weisner's property, Kaingaroa (Lindsay *et al.* 1959); 1961, present throughout CH, SE, M, LM; large roost, Weisner's property, still thousands of birds; birds flying P - SE for night roost (Bell in ms); very few, Waitangi; flock (60), 4 miles sw Waitangi, Mar 1961 (FdH); P, not high numbers, Mar 1961 (FdH), Apr-May 1967 (BDB); c.30, Kawhata Peninsula, CH, 24/1/68; 60, P, 27/1/68 (RJS); flock (c.100), other (smaller) flocks M, 16-22/8/68 (DVM); 11, n slopes SE, 27/8/68 (DVM & BDB); Woolshed Bush SE, Nov-Dec 1983 (West 1988); several, Pinnacle Islets, 22/11/84 (CSN); Nov-Dec 1985, 25, near Waitangi; 20, near The Horns, CH; 15, s Point Gap; 60, n side Te Whanga Lagoon; up to 500, over 8-10 km, n and ne Te Whanga Lagoon; 12 prs, rocky coast near Point Gap; 40, dunes at Hikurangi Channel, CH; Nov-Dec 1987, 15, Taiko camp - Point Gap area; 10, in cliffs s Point Gap; 30, Waitangi - Tuku River; 6, M; 60-160 over 3-15 km, n and ne Te Whanga Lagoon; 5, forest e Taiko camp; 60, Point Gap - Otawae Point; 60, beach, Waitangi - Port Hutt; 4, SE (Müller 1989); 1, in flight, TP; 1, Western Nugget, MM, 2/12/87 (Tennyson *et al.* 1993); common, M, summer 1987-88; c.6, SK, 10/2/88; c.200 flew P - roost on SE each night 22/3-6/4/90 (CSN); CH, P, Apr 1993 (GAT); generally distributed, pasture lands on s coast, CH; regularly visit flowering flax, sw coastal cliffs (DEC).

Rook *Corvus frugilegus* 1, Owenga, CH, 17/4/73, only record (CSN).

## DISCUSSION

The Chatham Island avifauna reflects the groups' isolation. The islands lie 900 km east of the New Zealand mainland, and have not been connected to any other land mass since the Upper Cretaceous (Hay *et al.* 1970).

Landbirds have colonised only rarely, resulting in a landbird fauna that is depauperate and displays considerable endemism.

A high proportion of Chatham Island landbird species have become extinct or endangered since humans colonised the group. Species on the two main islands, Chatham and Pitt, have been particularly affected by the habitat loss associated with pastoral farming, and by predation by introduced mammals. As the species accounts in this paper reflect, the Chatham Island landbirds are now largely represented by remnant populations on the southern plateau of the main Chatham Island and the smaller outlying islands.

Although many people have made detailed records of Chatham Island landbirds over the last fifty or so years, little has been published. The Fleming Memorial issue of *Notornis* has provided an opportunity to gather together some of the data contained in notebooks and Government departmental reports. It should be noted that, relying as it has, on proffered contributions from Ornithological Society members and others, this paper has been compiled from limited sources.

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