

ANNOTATED CHECKLIST
OF THE BIRDS
OF NEW ZEALAND



ANNOTATED CHECKLIST
OF THE BIRDS OF NEW ZEALAND

PREPARED BY THE BIRD SOCIETY OF NEW ZEALAND INC.

ANNOTATED CHECKLIST
OF THE
BIRDS OF NEW ZEALAND

INCLUDING THE BIRDS OF THE ROSS
DEPENDENCY

by
THE CHECKLIST COMMITTEE
(F. C. Kinsky, Convener)
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Maps by Julius Petro

INTRODUCTION

The value of the work done by the first Checklist Committee in elucidating the problems of the nomenclature of New Zealand birds, and furnishing a handy key to their distribution was inestimable. Such was the demand for the first *Checklist of New Zealand Birds* published in 1953 that within a few years it was virtually unobtainable. This prompted various workers in ornithology and allied disciplines to demand either a new printing or a revised edition of the list.

The Council of the Ornithological Society of New Zealand therefore appointed a new Committee in 1964, and asked it to prepare a revised *Checklist of New Zealand Birds*. The following members were asked to serve on this Committee:

- B. D. Bell, Wildlife Service, Dept. of Internal Affairs, Wellington.
- D. H. Brathwaite, Christchurch.
- R. A. Falla, Nature Conservation Council, Wellington.
- F. C. Kinsky, Dominion Museum, Wellington (Convener).
- R. B. Sibson, Editor, *Notornis*, Auckland.
- E. G. Turbott, War Memorial Museum, Auckland.

At its first meeting the Committee decided that:

- (a) The revised version of the *Checklist* should, because of its scope, which somewhat exceeds the usual scope of a checklist, be entitled: *Annotated Checklist of the Birds of New Zealand*.
- (b) New knowledge obtained since 1953 including any distributional changes be incorporated.
- (c) Birds of the Ross Dependency (New Zealand administered territory in Antarctica) be added.
- (d) Because of the greatly extended interest in archaeology throughout New Zealand, a list of extinct birds be added.

The Convener in collaboration with R. B. Sibson prepared the first draft of the revised *Checklist*, which was submitted for comment to the other members of the Committee during 1967. In addition the draft was also forwarded for comment to the following: A. Blackburn, P. C. Bull, A. T. Edgar, C. A. Fleming, H. R. McKenzie, J. Warham. Their helpful comments are herewith gratefully acknowledged. Comments received were assembled by the Convener and, where appropriate, the original draft was amended. The final manuscript was completed in December 1969. In the meantime the Convener had had the opportunity to study for some weeks the important Reischek collection of New Zealand birds in the Natural History Museum, Vienna.

R. B. Sibson prepared the Suspense List (Appendix A), which contains: (a) old records, some of which are unique, and no longer verifiable either because no specimens were obtained, or because specimens said to have been obtained are no longer traceable; (b) recent records of rare vagrants which are unsupported by adequate evidence in the form of specimens, satisfactory photographs or documentation. It is doubtful if unanimity will ever be attained, in the acceptance or rejection of sight records of some rare birds, especially species new to the New Zealand list.

There have been occasions when the members of the committee have been unable to agree.

Appendices B and C containing birds extinct before European settlement began, have been compiled by R. B. Sibson, whose task would have been much more difficult without the ready assistance and experienced advice of R. J. Scarlett, Canterbury Museum, Christchurch. These lists have been subdivided in a somewhat arbitrary manner into fossil and subfossil birds. In the present state of knowledge several problems remain necessarily unresolved.

The scope of this *Annotated Checklist*, except for the three appendices mentioned above, closely resembles that of the original (1953) *Checklist*, the arrangement and format of which has in general been retained. In many instances the actual wording has not been changed. New species on the New Zealand list have been included, and changes in the distribution of indigenous and self-introduced species, as well as additional records of stragglers and rarer species, have been added.

The main changes from the 1953 *Checklist* are in the classification and in the numbering system throughout the list. The classification of orders, families and subfamilies generally follows Niethammer's *Übersicht über die Ordnungen und Familien der Vögel*, 1967, which is based on Peters's *Checklist of Birds of the World*. The arrangement of genera and species in some orders has been changed to follow recent authors, e.g. Procariiformes as recommended by Alexander *et al.* in an open letter to *Ibis*, published 1965, Volume 107. No. 3, and Anatiformes as in Delacour and Scott, *Waterfowl of the World*. The placement of species into genera in the Charadriiformes generally follows Vaurie, *The Birds of the Palearctic Fauna*.

The numbering system has been changed by allotting numbers to full species only, with letters used for subspecies. However, the arrangement of subspecies in geographic order from north to south has been retained.

Most references to habitats have been omitted, as these are now adequately covered by the *Field Guide to New Zealand Birds*. References to literature and to colour plates have been expanded, where it has been found necessary, and in some cases have been reduced. However, literature references to Buller, *A History of the Birds of New Zealand*, Oliver, *New Zealand Birds*, and Falla, *et al. A Field Guide to Birds of New Zealand* are, with few exceptions, not included in the text for obvious reasons.

Maps of the region covered by this *Checklist*, and of the two main islands of New Zealand showing many of the place names mentioned, accompany this list as Figs. 1-4.

There are now 248 birds (species and subspecies) breeding or known to have bred, in New Zealand since European contact and ten species breeding in the Ross Dependency. Of these New Zealand breeding birds, thirty-four were introduced by man. In addition, forty-two other birds have been recorded as regular migrants or sporadic (more than about ten records) visitors and fifty-seven birds are listed as rare stragglers (less than ten records). The Suspense List contains fifteen birds which have been reported from New Zealand without satisfactory substantiation. There are fifteen birds known from the Pleistocene or older remains and forty-five others are known as subfossils only.

PREVIOUS NEW ZEALAND LISTS.—The first of a considerable series of New Zealand bird lists was G. R. Gray's Appendix to Dieffenbach's *Travels in New Zealand* (1843). Later lists include Gray's report in *The Zoology of the Voyage of H.M.S. Erebus and Terror* (1845), Bowdler Sharpe's appendix to the same work (1875), Otto Finsch's papers

in *Journal für Ornithologie* (1867-74), Hutton's *Catalogue of the Birds of New Zealand* (1871), Buller's two editions of the *History of the Birds of New Zealand* (1872-3 and 1888), its supplement (1905) and his *Manual of the Birds of New Zealand* (1882). A *Handlist of Birds Inhabiting New Zealand* based on Buller's *Supplement*, was published by A. Hamilton in 1909. Trinomial nomenclature was introduced in *A Reference List of the Birds of New Zealand* by G. M. Mathews and Tom Iredale (*Ibis*, 1913), which was abstracted by Benham (*Trans.N.Z.Inst.* 46:188-204, 1914). Mathews published several lists of Australian birds and his *List of the Birds of Australia* (1931) remains a valuable bibliographic source book. Oliver's *New Zealand Birds* (1930) and its second edition (1955) has been the standard reference work up to the present time. B. J. Marples prepared a list which was published by the Ornithological Society of New Zealand in 1946, and another list of New Zealand Birds forms part of Mathew's *Working List of Australian Birds, including the Australian Quadrant and New Zealand*, published in the same year. C. A. Fleming's *Checklist of New Zealand Birds* was published by the Ornithological Society of New Zealand in 1953, and Falla, Sibson and Turbott's *Field Guide to the Birds of New Zealand*, a very handy guide to field identification, habits and distribution was published in 1966.

Although all new data which have come to hand during the preparation of this list have been incorporated, this *Annotated Checklist of the Birds of New Zealand* will probably be out of date, even before it is published. It is therefore felt appropriate to cite at this place C. A. Fleming's last sentence of his introduction to the (1953) *Checklist*, as follows: 'When the list is published, it will be necessary to keep it up to date by corrections and additions, but its purpose will be served if it can be used as a basis for an improved later edition and if it focuses attention upon notable gaps in knowledge.'

On behalf of the Checklist Committee,
F. C. Kinsky, Convener,
Wellington, December 1969.

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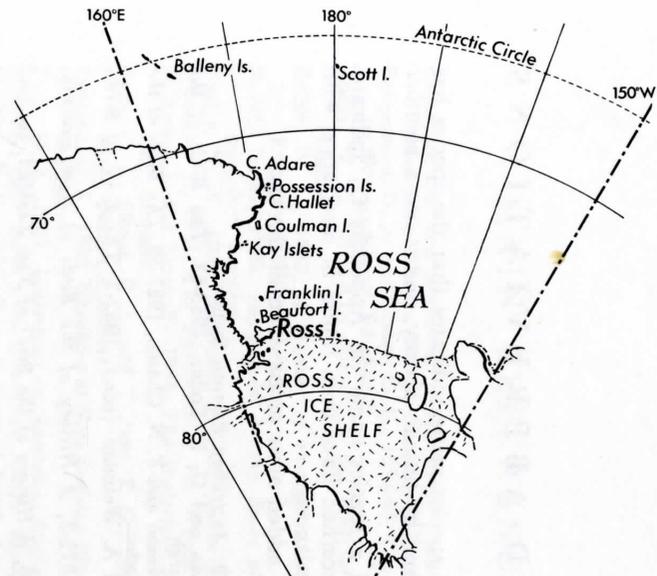
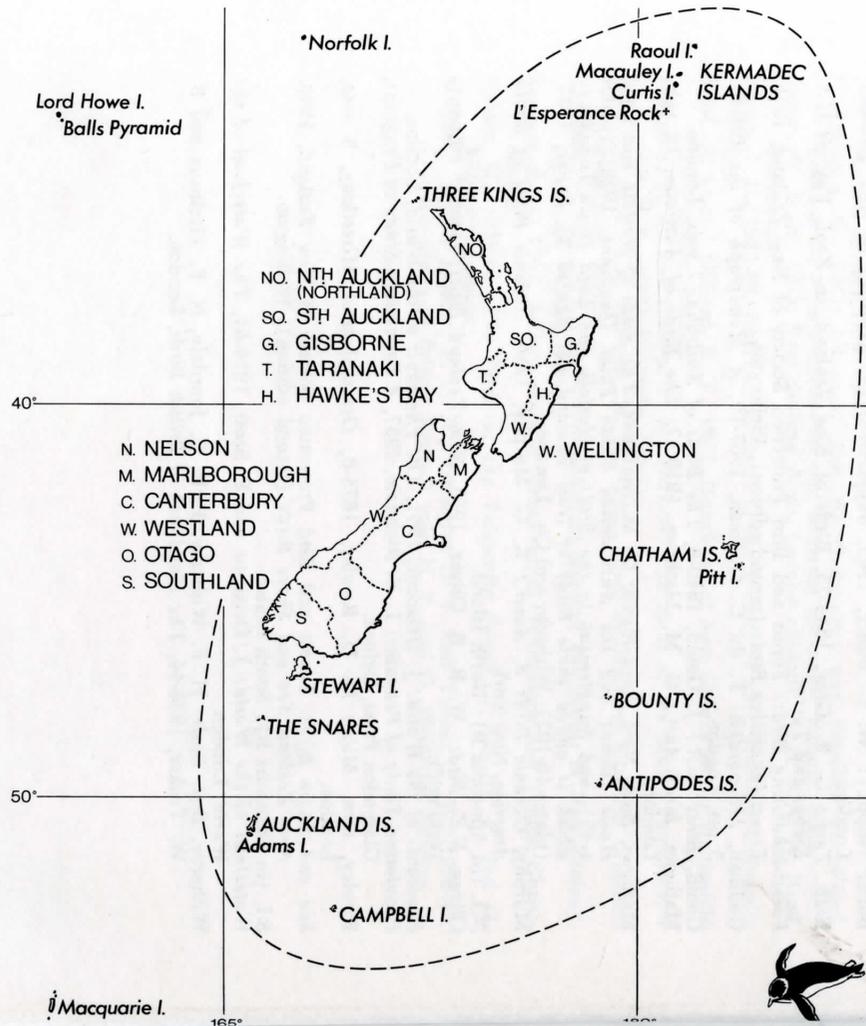
SYMBOLS AND ABBREVIATIONS

* An asterisk in front of a species name indicates that the species has been introduced to New Zealand by human agency, and is not a member of the indigenous fauna.

** Two asterisks in front of a species name (in Appendix C) indicates that remains of the birds concerned have been found in association with middens or campsites of Polynesian man.

† A dagger indicates a species added after preparation of the ms.

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ROSS DEPENDENCY (N. Z.)

SOUTH POLE

2. THE ROSS SEA AREA
(C. J. R. Robertson del.)

ANNOTATED CHECKLIST OF THE BIRDS OF NEW ZEALAND

ORDER APTERYGIFORMES

FAMILY APTERYGIDAE : KIWIS

1. *Apteryx australis* Shaw and Nodder, 1813

a. *A. australis mantelli* Bartlet, 1850 North Island Kiwi

North Island, fairly general in forested areas north of 40°S latitude; Little Barrier, Ponui and Kapiti Islands (introduced).

Plates: Gould, *Birds Aust.*, vi, pl. 47; Buller, (ed. 1), pl. 33; (ed. 2), pl. 47; *Forest-inhabiting Birds*, pl. 1.

b. *A. australis australis* Shaw and Nodder, 1813

South Island Brown Kiwi (Tokoeke)

South Island high rainfall districts of west Otago, Southland, Westland and ?Nelson; ?D'Urville Island, ?Marlborough.

Plate: Rowley, *Orn.Misc.*, 1, pl. 4.

c. *A. australis lawryi* Rothschild, 1893 Stewart Island Kiwi (Tokoeke)

Stewart Island (main island only).

Plate: *Novitates Zoologicae*, vi, pl. 14.

2. *Apteryx oweni* Gould, 1847 Little Spotted Kiwi (Kiwi—pukupuku)

South Island, high rainfall districts, chiefly west of the divide, Nelson and Southland; Kapiti Island (introduced), ?Marlborough. Formerly also North Island.

Credence is given to the authenticity of the Tararua record (1875) by the discovery in recent years of subfossil bones, indistinguishable from those of *oweni*, in widespread midden deposits in the North Island.

Plates: Gould, *Birds Aust.*, vi, pl. 3; Rowley, *Orn.Misc.*, i, pl. 2; Buller (ed. 1), pl. 36; (ed. 2), pl. 148.

3. *Apteryx haasti* Potts, 1872 Great Spotted Kiwi (Roa)

South Island, chiefly west of the divide, north of Okarito, but entering Canterbury near Lewis, Arthur's and Porter's Passes; ?Little Barrier Island (introduced).

Plates: Rowley, *Orn.Misc.*, i, pl. 1; Buller, suppl., pl. 1.

ORDER SPHENISCIFORMES

FAMILY SPHENISCIDAE : PENGUINS

4. *Aptenodytes forsteri* Gray, 1844 Emperor Penguin

Breeding on sea ice at suitable localities along the shores of the Antarctic continent; circumpolar; at least six colonies known in Ross Sea area. Seldom ranging north of Antarctic Circle. One New Zealand record, Oreti Beach, Southland (Apr 1967).

References: Budd, 1961, *Emu*, 61:171-89; Prevost, 1961, *Expedition Polaires*

Francaises, 222; Cranfield, 1966, *Antarctic*, 4:365-6; Henderson, 1968, *Notornis*, 15:34-5.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 30.

5. *Aptenodytes patagonicus* Miller, 1778 **King Penguin**

Breeding on (low latitude) Antarctic islands, including Macquarie and Kerguelen Islands, ranging north to subantarctic islands (regularly straggling to Campbell Island) and rarely to the South Island of New Zealand. Once to the North Island (Auckland Harbour).

Reference: Stonehouse, 1960, *F.I.D.S.Rept.*, 23:1-81.

Plates: *Ereb.Terr.*, pl. 32; Mathews, *Birds Norf. Lord Howe*, pl. 30; Murphy, *Oceanic Birds S. Amer.*, vol. i.

6. *Megadyptes antipodes* (Hombron and Jacquinot, 1841)

Yellow-eyed Penguin

Breeding coast of Otago (as far north as Oamaru) and Southland; Stewart, Auckland and Campbell Islands. Straggling north to Cook Strait.

References: Falla, 1935, *Rec.Auck.Mus.*, 1:319-21; Richdale, 1941, *Emu*, 40:265-87; Richdale, 1957, *Population Study of Penguins*; Kinsky, 1968, *Notornis*, 15:144-6.

Plates: *Ereb.Terr.*, pl. 27; Buller (ed. 2), pl. 46; Mathews, *Birds Norf. Lord Howe*, pl. 75.

7. *Pygoscelis adeliae* (Hombron and Jacquinot, 1841) **Adelie Penguin**

Circumpolar, breeding on coasts and islands around the shores of the Antarctic continent. At least twenty eight large breeding colonies known in the Ross Sea region. Rarely straggling north beyond 60°S. Twice Macquarie Island (Nov 1950 and Feb 1964) and a dried corpse found on east coast of Marlborough (Dec 1962).

References: Gwynn, 1953, *Emu*, 53:150; Sladen, 1958, *F.I.D.S.Rept.*, 17:1-97; Kennington, 1963, *Notornis*, 10:150; Taylor, 1964, *Antarctic*, 3:566-70.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 31.

8. *Pygoscelis papua* (Forster, 1781) **Gentoo Penguin**

Circumpolar, breeding on Antarctic islands including Macquarie Island. Rarely straggling to Campbell Island (1964).

Note: Three subspecies have been described but need confirmation.

Reference: Kinsky, 1969, *Notornis*, 16:226.

Plates: *Ereb.Terr.* pl. 25; Mathews, *Birds Norf. Lord Howe*, pl. 31.

9. *Pygoscelis antarctica* (Forster, 1781), **Chinstrap Penguin**

Mainly breeding on islands of the American Antarctic quadrant. Recently discovered breeding on islet off Sabrina Island, Balleny Islands. Ranging south to Ross Sea and straggling to Macquarie Island.

References: Keith and Hines, 1958, *C.S.I.R.O.Wildlife Res.*, 3:52; Hatherton, Dawson and Kinsky, 1965, *N.Z.Journ.Geol.Geophys.*, 8:169-70; Robertson, 1965, *Antarctic*, 4:76-7.

10. *Eudyptula minor* (Forster, 1781)

a. *E. minor* subspecies

Northern Blue Penguin

Breeding North Island and outlying islands, north and north-east coast of South Island, including Cook Strait islands. Also south-eastern Australia.

Recent studies indicate that two different races occupy respectively (i) the coast of northern New Zealand roughly south to 39°S and (ii) the region of Cook Strait. Both differ from the Fairy Penguin of south-eastern Australia to which the name *novaehollandiae* Stephens, 1826, belongs.

Reference: Kinsky, 1960, *Rec.Dom.Mus.*, 3:145-218.

Plates: Buller (ed. 1), pl. 32; Mathews, *Birds Aust.*, pl. 66.

- b. **E. minor minor** (Forster, 1781) **Southern Blue Penguin (Korora)**
Breeding Otago, Southland, west coast of South Island, and Chatham and Stewart Islands. Straggles to Snares Island.

Reference: Richdale, 1940, *Emu*, 40:180-217; Warham, 1969, *Notornis*, 16:222.

Plates: Buller (ed. 1), pl. 32; Mathews, *Birds Aust.*, pl. 67.

11. **Eudyptula albosignata** Finsch, 1874 **White-flipped Penguin**
Breeding Canterbury, including Banks Peninsula and Motunau Island. Straggling south to Otago Peninsula and north to Marlborough.

References: O'Brien, 1940, *Emu*, 40:180-217; Richdale, 1940, *Emu*, 40:206-7.

Plates: Mathews, *Birds Norf. Lord Howe*, pl. 76.

12. **Eudyptes crestatus** Miller, 1784 **Rockhopper Penguin**
Circumpolar, breeding on subantarctic islands, including Campbell, Antipodes, Bounty, Auckland and Macquarie Islands; ranging to Snares Islands and straggling north to Cook Strait.

Note: Three subspecies have been described.

Reference: Warham, 1963, *Auk*, 80:229-56.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 32.

13. **Eudyptes chrysolophus** Brandt, 1837

- a. **E. chrysolophus chrysolophus** Brandt, 1837 **Macaroni Penguin**

Circumpolar, breeding on islands of the South Atlantic and South Indian Oceans, straggling to Campbell Island (Jan 1968), Macquarie Island (Dec 1957) and south to Ross Sea region, Cape Hallett (Feb 1964) and Sabrina Island, Balleny Islands (Mar 1964).

References: Hatherton, Dawson and Kinsky, 1965, *Journ. Geology and Geophysics*, 8:169-70; Kinsky, 1969, *Notornis*, 16:226-9.

- b. **E. chrysolophus schlegeli** Finsch, 1876 **Royal Penguin**
Breeding Macquarie Island; ranging to Campbell Island and straggling north to Cook Strait; once to Hawke's Bay.

References: Falla, 1937, *B.A.N.Z.A.R.E.*, 2:100-13; Bailey and Sorensen, 1962, *Denver Mus. Nat. Hist.*, 10:111-3; Kinsky, 1969, *Notornis*, 16:226-9.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 33.

14. **Eudyptes pachyrhynchus** Gray, 1845

- a. **E. pachyrhynchus pachyrhynchus** Gray, 1845

Fiordland Crested Penguin

Breeding Westland south of Waitangi-toana River, Fiordland, Southland; Solander, Codfish, Stewart and some outlying islands; ranging north occasionally to Bay of Islands and Auckland west coast, and south to the Snares, Auckland and Campbell Islands.

References: Falla, 1935, *Rec.Auck.Mus.*, 1:322-3; Falla, 1948, *N.Z. Bird Notes*, 3:52-3.

Plate: Mathews, *Birds Aust.*, pl. 65.

- b. **E. pachyrhynchus atratus** Finsch, 1875 **Snares Crested Penguin**
Breeding Snares Islands; ranging north to Akaroa and east to Antipodes Island (one record). Straggling to Macquarie Island.

References: Falla, 1935, *Rec.Auck.Mus.*, 1:324; Fleming, 1948, *N.Z. Bird Notes*, 2:182; Stead, 1948, *N.Z. Bird Notes*, 3:70-2; Oliver, 1953, *Emu*, 53:185-7; Keith and Hines, 1958, *C.S.I.R.O. Wildlife Res.*, 3:52; Warham, 1967, *Notornis*, 14:122-39.

Plate: Buller (ed. 2), pl. 146 (Melanic type specimen).

- c. **E. pachyrhynchus sclateri** Buller, 1888 **Erect-crested Penguin**
Breeding Antipodes, Campbell and Bounty Islands, ?Auckland Islands;

ranging north on both coasts to North Cape and east to Chatham Islands; straggling to Macquarie Island. Attempted breeding recorded Otago Peninsula.

References: Falla, 1935, *Rec.Auck.Mus.*, 1(6):326; Richdale, 1941, *Emu* 41:25-53; Richdale, 1950, *Emu*, 49:153-66.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 32.

ORDER PODICIPEDIFORMES

FAMILY PODICIPEDIDAE : GREBES

15. *Podiceps cristatus* (Linnaeus, 1758)

P. cristatus australis Gould, 1844

Southern Crested Grebe (Puteketeke)

Australia and New Zealand. Now breeding South Island only; lowland lakes west of the ranges, subalpine and alpine lakes within and east of the ranges; now absent from Nelson and Marlborough. No acceptable recent North Island records, but subfossil bones from Taupo in cave middens.

Plates: Gould, *Birds Aust.*, vii, pl. 80; Mathews, *Birds Aust.*, pl. 64.

16. *Podiceps rufopectus* Gray, 1843 New Zealand Dabchick (*Weweaia*)

North Island; coastal and sand dune lakes from North Cape to Muriwai and from Taranaki to Paraparaumu; lakes and dams of Volcanic Plateau from Mt Edgecombe to Taupo, Waikaremoana and Gisborne, and lakes and dams of Hawke's Bay and Wairarapa. South Island now very rare.

Reference: Buddle, 1939, *Emu*, 39:77-84.

Plates: *Ereb.Terr.*, pl. 19; Mathews, *Birds Norf. Lord Howe*, pl. 78.

17. *Podiceps novaehollandiae* (Stephens, 1826) Australian Little Grebe

Breeding Australia, New Guinea, New Caledonia and New Hebrides; straggling to New Zealand, one record, Arrowtown (Aug 1968).

Reference: Chance, 1969, *Notornis*, 16:3-4.

Plate: Mathews, *Birds Aust.*, pl. 69.

ORDER PROCELLARIIFORMES

FAMILY DIOMEDEIDAE : ALBATROSSES

18. *Diomedea exulans* Linnaeus, 1758

a. *D. exulans exulans* Linnaeus, 1758 Wandering Albatross (*Toroa*)

Breeding at Antipodes, Auckland, Adams, Disappointment and Campbell Islands; also on subantarctic islands of the Indian and Atlantic Oceans; ranging all New Zealand seas, north to about 18°S and straggling to Fiji.

Reference: Bailey and Sorensen, 1962, *DenverMus.Nat.Hist.Proc.*, 10:121-43.

Plates: Buller (ed. 2), pl. 40; Godman, *Monograph*, pl. 89; Mathews, *Birds Aust.*, pl. 95.

b. *D. exulans chionoptera* Salvin, 1895

Snowy Albatross

Breeding on high-latitude subantarctic and Antarctic islands of Indian

and Atlantic Oceans, including Macquarie Island; ranging into New Zealand seas (Wellington Harbour, 1954; Bay of Plenty, 1962; off Farewell Spit, 1968).

Plates: Godman, *Monograph*, pl. 91; Mathews, *Birds Aust.*, pl. 369.

19. *Diomedea epomophora* Lesson, 1825

a. *D. epomophora sanfordi* (Murphy, 1917) **Northern Royal Albatross**
Breeding Taiaroa Head, Otago, and at the Sisters and Forty Fours Rocks, Chatham Islands; ranging north in New Zealand seas, and east to the coasts of South America.

References: Murphy, 1937, *Bull.Am.Nat.Hist.*, 37:861; Falla, 1938, *Rec.Cant.Mus.*, 4:213-7; Richdale, 1939, *Emu*, 38:467-88; Richdale, 1942, *Emu*, 41:169-264; Richdale, 1943, *N.Z. Bird Notes*, 1:36-8.

b. *D. epomophora epomophora* Lesson, 1825 **Southern Royal Albatross**
Breeding Campbell Island and Enderby Island (Auckland Islands); ranging north to New Zealand seas, east to both coasts of South America and west to Australia and the southern Indian Ocean.

References: Falla, 1938, *Rec.Cant.Mus.*, 4:213-7; Sorensen, 1950, *Cape Expedition Bull.*, 2; Bailey and Sorensen, 1962, *DenverMus.Nat.Hist.Proc.*, 10:145-75; *N.Z. Banding Reports*.

Plates: Buller (ed. 2), pl. 40 (? subspecies); Godman, *Monograph*, pl. 90; Mathews, *Birds Norf. Lord Howe*, pl. 40.

20. *Diomedea melanophris* Temminck, 1828

a. *D. melanophris melanophris* Temminck, 1928

Black-browed Mollymawk
Circumpolar; breeding at Macquarie Island and on islands in the Atlantic and Indian Oceans; probably ranging regularly to New Zealand seas.

Reference: Tickell, 1967, *Emu*, 66:357-68.

Plate: Godman, *Monograph*, pl. 97 (?subspecies).

b. *D. melanophris impavida* Mathews, 1912

New Zealand Black-browed Mollymawk
Breeding Campbell and Antipodes Islands; ranging widely in New Zealand seas and north to about 16°S.

Reference: Bailey and Sorensen, 1962, *DenverMus.Nat.Hist.Proc.*, 10:176-89.

Plate: Mathews, *Birds Aust.*, pl. 96.

21. *Diomedea chrysostoma* Forster 1785

Grey-headed Mollymawk
Breeding Campbell, Macquarie and ?Antipodes Islands; also on islands in the south Atlantic and south Indian Oceans; ranging north to New Zealand seas. A regular winter casualty on Auckland west coast.

Reference: Bailey and Sorensen, 1962, *DenverMus.Nat.Hist.Proc.*, 10:190-9; Tickell, 1967, *Emu*, 66:357-68.

Plates: Godman, *Monograph*, pl. 101; Mathews, *Birds Aust.*, pl. 97.

22. *Diomedea chlororhynchus* Gmelin 1789

Yellow-nosed Mollymawk
Breeding on low latitude islands of the South Atlantic and Indian Oceans (Tristan da Cunha, Gough and St Paul Islands); ranging east to Australia and northern New Zealand coastal waters, including outer Hauraki Gulf and Bay of Plenty.

References: Falla, 1933, *Rec.Auck.Mus.*, 1:180; Bell, 1960, *Notornis*, 9:109.

Plates: Godman, *Monograph*, pl. 102; Mathews, *Birds Aust.*, pl. 98.

23. *Diomedea bulleri* Rothschild, 1893 **Buller's Mollymawk**
Breeding Solander, Snares and Chatham (Sisters and Forty Fours) Islands; ranging north to northern New Zealand and eastern Australia, south to Auckland Islands and east to west coast of South America.
References: Falla, 1948, *N.Z. Bird Notes*, 3:53; Richdale, 1949, *Bird Banding*, 204:127-41.
Plates: Buller, *Suppl.*, pl. 5; Godman, *Monograph*, pl. 98.
24. *Diomedea cauta* Gould, 1841
- a. *D. cauta cauta* Gould, 1841 **White-capped (Shy) Mollymawk**
Breeding Auckland and Disappointment Islands and on islets off Tasmania; ranging commonly north to northern New Zealand and west to South Africa (three band recoveries).
Reference: *N.Z. Banding Reports*.
Plates: Godman, *Monograph*, pl. 99; Mathews, *Birds Aust.*, pl. 100.
- b. *D. cauta salvini* (Rothschild, 1893) **Salvin's Mollymawk**
Breeding Snares Island (Western Reef) and Bounty Islands; ranging north at least to outer waters of Hauraki Gulf and the Bay of Plenty; east to Chile and Peru and west to South Africa.
References: Murphy, 1936, *Oceanic Birds S.Am.*:527; Roberts, 1949, *Birds of South Africa* (7th imp):5.
Plates: Buller, *Suppl.*, pl. 5; Godman, *Monograph*, pl. 100.
- c. *D. cauta eremita* (Murphy, 1930) **Chatham Island Mollymawk**
Breeding Chatham Islands (Pyramid Rock); ranging to eastern coast of South Island, apparently rare north of Cook Strait.
References: Fleming, 1939, *Emu*, 38:393-5; Imber, 1966, *Notornis*, 13:219.
25. *Diomedea nigripes* Audubon, 1839 **Black-footed Albatross**
North Pacific Ocean, breeding on outer Hawaiian Islands; straggling to New Zealand (one record, Dusky Sound, July 1884, Reischek collection).
Plates: Godman, *Monograph*, pl. 94, 95; Mathews, *Birds Norf. Lord Howe*, pl. 84; *Book of Birds*, 1:41.
26. *Phoebetria palpebrata* (Forster, 1785) **Light-mantled Sooty Albatross**
Breeding Auckland, Campbell, Antipodes and Macquarie Islands, and other subantarctic islands in the Atlantic and Indian Oceans; ranging north to about 36°S.
References: Sorensen, 1950, *Cape Expedition Bull.*:8; Bailey and Sorensen, 1962, *DenverMus.Nat.Hist.Proc.*, 10:201-13.
Plate: Mathews, *Birds Aust.*, pl. 101.

FAMILY PROCELLARIIDAE :

FULMARS, PETRELS AND SHEARWATERS

27. *Macronectes giganteus* (Gmelin, 1789)
- a. *Macronectes giganteus halli* Mathews, 1912 **Northern Giant Petrel (Nelly)**
Breeding on islands in the subantarctic zone of surface water, including Chatham Islands (Sisters and Forty Fours), Stewart Island (Port Pegasus), Antipodes, Campbell, Auckland and Macquarie Islands; also on Kerguelen, Crozet, Marion and Gough Islands; ranging widely throughout the southern hemisphere.
References: Warham, 1962, *Auk*, 79:139-60; Bourne and Warham, 1966, *Ardea*, 54:45-67.

b. *M. giganteus giganteus* (Gmelin, 1789)

Southern Giant Petrel (Nelly)

Breeding Macquarie Island and other high latitude islands in Antarctic seas; ranging widely and abundantly in New Zealand seas, rarely as far north as 18°S. Circumpolar wandering at least during subadult stages.

References: Warham, 1962, *Auk*, 79:139-60; Morgan, 1965, *Notornis*, 12:158; Bourne and Warham, 1966, *Ardea*, 54:45-67; Sibson, 1969, *Notornis*, 16:45-50.

Plates: Godman, *Monograph*, pl. 76 (?subspecies); Mathews, *Birds Aust.*, pl. 89 (?subspecies).

28. *Fulmarus glacialis* (Smith, 1840)

Antarctic Fulmar

Circumpolar, breeding on Antarctic coast, and outlying Antarctic islands, including Balleny and Heard Islands; possibly regular winter straggler to New Zealand as far north as Auckland west coast and Bay of Plenty (at least twenty records).

References: Falla, 1937, *B.A.N.Z.A.R.E.Rept.* (B), 2:158-64; Hatherton, Dawson, Kinsky, 1965, *N.Z.Journ.Geol.Geophys.*, 8:169-70.

Plates: Godman, *Monograph*, pl. 43; Mathews, *Birds Aust.*, pl. 82.

29. *Thalassoica antarctica* (Gmelin, 1789)

Antarctic Petrel

Breeding Antarctic coast and outlying islands, probably also further inland. Common in the Ross Sea, although breeding has not yet been proved in the Ross Dependency; moves north with the pack ice in winter; but rarely ranging north of 60°S.

References: Falla, 1937, *B.A.N.Z.A.R.E.Repts.* (B), 2:151-7; Hatherton, Dawson, Kinsky, 1965, *N.Z.Journ.Geol.Geophys.*, 8:169-70.

Plates: Godman, *Monograph*, pl. 42; Mathews, *Birds Norf. Lord Howe*, pl. 37.

30. *Daption capensis* (Linnaeus, 1758)a. *D. capensis australis* Mathews, 1913

Snares Cape Pigeon

Breeding Snares, Antipodes, Bounty and Campbell Islands; ranging to New Zealand seas.

Reference: Stead, 1948, *N.Z. Bird Notes*, 3:72-3.

b. *D. capensis capensis* (Linnaeus, 1758)

Cape Pigeon

Breeding Antarctic coasts and outlying islands including Balleny Islands; ranging widely in southern seas to northern New Zealand.

References: Falla, 1937, *B.A.N.Z.A.R.E.Rept.* (B), 2:146-50; Hatherton, Dawson, Kinsky, 1965, *N.Z.Journ.Geol.Geophys.*, 8:169-70.

Plates: Godman, *Monograph*, pl. 80 (?subspecies); Mathews, *Birds Aust.*, pl. 90.

31. *Pagodroma nivea* (Forster, 1777)

Snow Petrel

Circumpolar, breeding on Antarctic continent and off-lying islands, including Franklin, Possession and Ross Islands, and in Edisto Inlet in the Ross Sea; rarely ranging north of 60°S.

Note: A larger form corresponding to *P. nivea confusa* Mathews, 1912, breeds on the Balleny Islands.

References: Falla, 1937, *B.A.N.Z.A.R.E.Rept.* (B), 2:165-71; Maher, 1962, *Condor*, 64:488-99; Hatherton, Dawson and Kinsky, 1965, *N.Z.Journ.Geol.Geophys.*, 8:169-70; Brown, 1966, *A.N.A.R.E.Rept.*, (B), 89:1-63.

Plates: Godman, *Monograph*, pl. 73; Mathews, *Birds Norf. Lord Howe*, pl. 39.

32. *Pterodroma macroptera* (Smith, 1840)*P. macroptera gouldi* (Hutton, 1869)

Grey-faced Petrel (Oi)

Breeding on most islands and many headlands from the Three Kings in the north, throughout the Hauraki Gulf and Bay of Plenty to south of Gisborne, also about the Auckland west coast and some headlands as far

south as Taranaki; ranging north to about 30°S and widely in the South Pacific Ocean. Straggling to Raoul Island.

References: Falla, 1934, *Rec.Auck.Mus.*, 1:255-6; Murphy, 1952, *Am.Mus. Novit.*, 1580; Medway, 1966, *Notornis*, 13:17.

Plates: Mathews, *Birds Aust.*, pl. 83 (?subspecies); Godman, *Monograph*, pl. 46 (?subspecies).

33. *Pterodroma lessoni* (Garnot, 1826). **White-headed Petrel**
Breeding Auckland, Antipodes and Macquarie Islands (also Kerguelen Island); ranging north to about 34°S. Regularly recorded on Auckland west coast beaches.

Reference: Buller (ed. 2), pl. 29; Godman, *Monograph*, pl. 48; Mathews, *Birds Aust.*, pl. 85.

34. *Pterodroma externa* (Salvin, 1875)
P. externa cervicalis (Salvin, 1891) **Black-capped Petrel**
Formerly breeding in numbers at higher levels on Raoul Island, Kermadec Group, now apparently very rare. Not recorded from mainland of New Zealand.

Reference: Oliver, *N.Z. Birds*, 158-9.

Plates: Buller, *Suppl.*, pl. 4; Godman, *Monograph*, pl. 63.

35. *Pterodroma solandri* (Gould, 1844) **Bird of Providence**
Breeding Lord Howe and (formerly) Norfolk Islands; recorded Tuamotu and Austral Groups; one New Zealand record (Muriwai, Jan 1921).

References: Falla, 1933, *Rec.Auck.Mus.*, 1:175-6; Hindwood, 1940, *Emu*, 40:41-3; Murphy, 1952, *Am.Mus.Novit.*, 1580:15-7.

Plates: Godman, *Monograph*, pl. 61; Mathews, *Birds Aust.*, pl. 84.

36. *Pterodroma alba* (Gmelin, 1789) **Phoenix Petrel**
Breeding on islands of the central Pacific, such as Christmas, Phoenix, Canton, Marquesas and Ducie Islands and possibly formerly on Raoul Island, Kermadec Group, where four birds were seen on ground in forest in Mar 1913.

References: Murphy, 1952, *Am.Mus.Novit.*, 1580:32-5; Oliver, 1955, *N.Z. Birds*, 155.

Plates: Godman, *Monograph*, pl. 52; Mathews, *Birds Norf. Lord Howe*, pl. 80.

37. *Pterodroma inexpectata* (Forster, 1844) **Mottled Petrel (Korure)**
Breeding on southern outlying islands, such as Stewart and neighbouring islands, Snares, possibly Chatham, Antipodes, Auckland and Bounty Islands; ranging south to pack ice and migrating as far north as the Bering Sea. Thought to have formerly bred on many ranges of the New Zealand mainland.

References: Stead, 1932, *Life Histories N.Z. Birds*:72-80; Falla, 1937, *B.A.N.Z.A.R.E.Repts.*, (B), 2:186-7.

Plates: Buller (ed. 2), pl. 41; Godman, *Monograph*, pl. 68; Mathews, *Birds Aust.*, pl. 368.

- †37. *Pterodroma mollis* Gould, 1844 **Soft-plumaged Petrel**
Breeding Tristan do Cunha and Gough Islands and other islands in the Atlantic Ocean, and on St. Paul and ?Kerguelen Islands in the Indian Ocean. Recently discovered at and probably breeding on Antipodes Island.

Note: A detailed account of this new record and its subspecific status is in preparation.

References: Murphy, *Oceanic Birds S.Amer.*:711-3; Warham, 1969, *Antarctic*, 5:282.

Plates: Godman, *Monograph*, pl. 54; Mathews, *Birds Aust.*, pl. 86; Bannerman, *Birds of the Atlantic Islands*, 2, pl. 2.

38. Pterodroma brevirostris (Lesson, 1831) **Kerguelen Petrel**

Breeding Kerguelen and Marion Islands (Indian Ocean); ranging east to South Pacific and west to South Atlantic Oceans; possibly regular winter visitor to Tasman Sea, about twenty records mainly from North Island west coast beaches.

References: Oliver, 1935, *Emu*, 34:158; Davenport and Sibson, 1955, *Notornis*, 6:115.

Plates: Godman, *Monograph*, pl. 60; Mathews, *Birds Norf. Lord Howe*, pl. 38.

39. Pterodroma neglecta (Schlegel, 1863) **Kermadec Petrel**

Breeding Macauley, Raoul and Herald Islands, Kermadec Group (formerly numerous but now very rare on Raoul); also Lord Howe and southern Polynesian islands east to Juan Fernandez.

References: Murphy, 1952, *Am.Mus.Novit.*:1580; Oliver, *N.Z. Birds*, 155-8; Edgar, Kinsky, Williams, 1965, *Notornis*, 12:33.

Plates: Godman, *Monograph*, pl. 64; Mathews, *Birds Norf. Lord Howe*, pl. 11.

40. Pterodroma magentae (Giglioli and Salvadori, 1868)

Chatham Island Taiko

Formerly breeding commonly at Chatham Islands, now possibly surviving though not seen for many years.

References: Fleming, 1939, *Emu*, 38:381-509; Fleming, 1944, *N.Z. Bird Notes*, 1:58; Bourne, 1964, *Notornis*, 11:139-44.

Plate: Godman, *Monograph*, pl. 55.

41. Pterodroma longirostris (Stejneger, 1888) **Stejneger's Petrel**

Breeding Mas Afuera Island, Juan Fernandez Group, migrating to North Pacific Ocean, and straggling west to New Zealand (four records; Cook Strait, Dec 1961; Bay of Plenty two, Jan 1962; Wanganui, Nov 1963).

Reference: Falla, 1962, *Notornis*, 9:275-7.

42. Pterodroma pycrofti Falla, 1933 **Pycroft's Petrel**

Breeding Hen, Chickens, Poor Knights and Stephensen Islands; Red Mercury and Kawitihu Islands in the Bay of Plenty. Apparently leaving New Zealand waters in winter.

References: Falla, 1933, *Rec.Auck.Mus.*, 1:176-7; Buddle, 1941, *Emu*, 41:62; Fleming, 1941, *Emu*, 41:69-80; Skegg, 1963, *Notornis*, 10:161; Bartle, 1968, *Notornis*, 15:70-99.

43. Pterodroma leucoptera Gould, 1844

a. P. leucoptera leucoptera Gould, 1844 **Gould's Petrel**

Breeding Cabbage Tree Island, New South Wales; straggling to New Zealand (two records, Muriwai, 1946, Otaki, June 1961) and one collected off Westland (Mar 1965).

References: Serventy and Hindwood, 1941, *Emu*, 41:1-19; Bull, 1946, *N.Z. Bird Notes*, 2:29-30.

Plates: Godman, *Monograph*, pl. 69; Mathews, *Birds Aust.*, pl. 88; *Emu*:41, pl. 1.

- b. *P. leucoptera* subspecies
Breeding station not known, straggling to New Zealand. (Muriwai, Auckland west coast, ten birds cast ashore Apr 1942).
Reference: Bull, 1943, *Emu*, 42:145-52.
44. *Pterodroma cooki* (Gray, 1843) **Cook's Petrel (Titi)**
P. cooki cooki (Gray, 1843)
Breeding Little Barrier and Great Barrier Islands; also Codfish Island, Foveaux Strait; migrating across Pacific to coasts of South and North America and as far north as the Bering Sea.
References: Falla, 1934, *Rec.Auck.Mus.*, 1:257; Fleming, 1941, *Emu*, 41:69-76; Falla, 1942, *Emu*, 42:115; Turbott, 1947, *N.Z. Bird Notes*, 2:101; Sibson, 1947, *N.Z. Bird Notes*, 2: 137-8.
Plates: *Ereb.Terr.*, pl. 35; Godman, *Monograph*, pl. 71; Mathews, *Birds Aust.*, pl. 87.
45. *Pterodroma hypoleuca* (Salvin, 1888)
a. *P. hypoleuca nigripennis* (Rothschild, 1893) **Black-winged Petrel**
Breeding Kermadec Islands (Raoul, Heralds, Macauley and Curtis Islands) Three Kings Islands and South-East Island, Chatham Islands; also Austral Islands. Ranging east into the Pacific and straggling west to Lord Howe Island and the New South Wales coast. Rare in New Zealand mainland coastal waters (three records up to 1968; more than forty were found wrecked in the southern part of the North Island after an unusually severe gale in April 1968).
References: Falla, 1942, *Emu*, 42:117; Turbott and Buddle, 1948, *Rec.Auck.Mus.*, 3:323; Turbott, 1948, *Rec.Auck.Mus.*, 4:141; Fleming, 1954, *Notornis*, 6:20; Hindwood, 1965, *Emu*, 64:104; Imber, 1966, *Notornis*, 13:170; Kinsky, 1968, *Notornis*, 15:143-55.
Plates: Godman, *Monograph*, pl. 59; Mathews, *Birds Norf. Lord Howe*, pl. 81.
- b. *P. hypoleuca axillaris* (Salvin, 1893) **Chatham Island Petrel (Ranguru)**
Breeding South East Island, Chatham Islands; doubtfully recorded away from breeding island.
References: Fleming, 1939, *Emu*, 38:49; Fleming, 1941, *Emu*, 41:69-75; Falla, 1942, *Emu*, 42:117.
Plates: Godman, *Monograph*, pl. 72; Mathews, *Birds Norf. Lord Howe*, pl. 81.
Note: The classification of these two "subspecies" follows Falla, 1942, *Emu*, 42:116-8. However, following the recent discovery of *P.h.nigripennis* breeding on South-East Island, Chatham Islands, their relationship needs re-examination.
46. *Halobaena caerulea* (Gmelin, 1789) **Blue Petrel**
Breeding South Georgia, Kerguelen and Marion Islands; winter visitor to Tasman Sea.
References: Falla, 1937, *B.A.N.Z.A.R.E.Repts.*, (B), 2:188-90; Dell, 1952, *Emu*, 52:147-54; Davenport and Sibson, 1955, *Notornis*, 6:115.
Plates: Godman, *Monograph*, pl. 81; Mathews, *Birds Aust.*, pl. 91.
47. *Pachyptila vittata* (Forster, 1777) **Broad-billed Prion (Parara)**
P. vittata vittata (Forster, 1777)
Breeding coasts of Foveaux Strait and ?Dusky Sound, islets off Stewart Island, Chatham Islands and Snares Island; also in South Atlantic. Ranges widely throughout New Zealand seas. Birds closely resembling the race described as *P. vittata macgillivrayi* (Mathews, 1912) from St Paul Island in the Indian Ocean are occasionally found storm-wrecked on the Wellington coast.

References: Falla, 1940, *Emu*, 40:219-22; Fleming, 1941, *Emu*, 41:131-55; Richdale, 1965, *Trans.Zool.Soc.London*, 31:124-41.
Plates: *Ereb.Terr.* pl. 29; Godman, *Monograph*, pl. 82.

48. ***Pachyptila salvini*** (Mathews, 1912)
P. salvini salvini (Mathews, 1912) **Lesser Broad-billed Prion**
Breeding Marion and Crozet Islands, Indian Ocean; ranging eastwards to New Zealand, often abundant in winter months.

Small-billed *P. salvini* occur in the Tasman Sea in winter and are sometimes storm-wrecked. They have been treated as *P. salvini crozeti* Mathews, 1932, the type specimen of which is understood to have been collected on the eastern Crozet Islands.

Reference: Falla, 1940, *Emu*, 40:222-5.

49. ***Pachyptila desolata*** (Gmelin, 1789)

- a. ***P. desolata desolata*** (Gmelin, 1789) **Antarctic Prion**
Breeding Kerguelen and Macquarie Islands; ranging widely, but apparently rare in Tasman sea.

Reference: Falla, 1940, *Emu*, 40:225-7.

Plates: Godman, *Monograph*, pl. 84; Mathews, *Birds Norf. Lord Howe*, pl. 58.

- b. ***P. desolata banksi*** (Smith, 1840) **South Georgian Prion**
Breeding South Georgia (probably Scott Island and possibly elsewhere); ranging widely and straggling to New Zealand.

References: Falla, 1940, *Emu*, 40:227; Tickell, 1962, *F.I.D.S.Sci.Rept.*, 33:1-55.

- c. ***P. desolata alter*** (Mathews, 1912) **Auckland Island Prion**
Breeding Auckland Islands and Heard Island.

Reference: Falla, 1940, *Emu*, 40:226.

50. ***Pachyptila belcheri*** (Mathews, 1912) **Narrow-billed Prion**
Breeding Kerguelen and Falkland Islands; ranging to New Zealand, regular in winter on west coast beaches. Straggling to Kermadec Islands (July 1944).

Reference: Cawkell and Hamilton, 1961, *Ibis*, 103a:1-27.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 58.

51. ***Pachyptila turtur*** (Kuhl, 1820) **Fairy Prion (Titi Wainui)**

Breeding Poor Knights and possibly other islands in the outer Hauraki Gulf; many islands in the Cook Strait area, specially on Stephen, Brothers and Trio Islands; Motunau Island, islets off Banks Peninsula, Mangere and Little Mangere (Chatham Islands), Open Bay Islands, islets off South Otago coast, many islands in Foveaux Strait and off Stewart Island; Snares, Antipodes and Macquarie Islands; Bass Strait islands, Marion Island and Falkland Islands. Ranges commonly throughout New Zealand seas, and straggles west to New South Wales, north to New Guinea and east to South America.

Several races of this species, described as *P. turtur armiger* Mathews, 1943, *P. turtur fallai* Oliver, 1930, and *P. turtur subantarctica* Oliver, 1955, need confirmation.

References: Oliver, *N.Z. Birds*, 117-9; Keith and Hines, 1958, *C.S.I.R.O. Wildlife Research*, 3:50; Richdale, 1965, *Trans.Zool.Soc.London*, 31:91-124; Phillippi, 1967, *Boll.Mus.Natn.Hist.Nat.*, 29:121-2.

Plates: Gould, *Birds Aust.*, vii, pl. 54; Godman, *Monograph*, pl. 85; Mathews, *Birds Aust.*, pl. 93.

52. *Pachyptila crassirostris* (Mathews, 1912)

- a. *P. crassirostris crassirostris* (Mathews, 1912) **Fulmar Prion**
Breeding Bounty Islands; straggling rarely to Cook Strait.
- b. *P. crassirostris eatoni* (Mathews, 1912) **Lesser Fulmar Prion**
Breeding Heard Island and apparently Kerguelen Island (Indian Ocean), Auckland and ?Antipodes Islands.
Reference: Falla, 1940, *Emu*, 40:234.
- c. *P. crassirostris pyramidalis* Fleming, 1939 **Chatham Fulmar Prion**
Breeding Pyramid Rock and Forty Fours Islets, Chatham Islands, straggling to Cook Strait (July, 1963).
Reference: Fleming, 1939, *Emu*, 38:396-401.

53. *Procellaria cinerea* Gmelin, 1789**Grey Petrel**

Circumpolar, breeding on subantarctic islands, including Antipodes, Campbell and Macquarie Islands; ranging north to about 30°S. Recorded from Wellington, Kapiti, Hawke's Bay, Bay of Plenty and Auckland west coast.

Plates: Godman, *Monograph*, pl. 41; Mathews, *Birds Aust.*, pl. 81; Murphy, *Oceanic Birds S.Amer.*, vol. 2.

54. *Procellaria parkinsoni* Gray, 1862**Black Petrel (Taiko)**

Breeding Little Barrier and Great Barrier Islands, Taranaki and possibly central North Island. Formerly some ranges of the North and South Islands. Ranging to Australia and the west coast of South America, rarely seen at sea.

References: Falla, 1934, *Rec.Auck.Mus.*, 1:254-5; Falla, 1946, *Rec.Cant.Mus.*, 5:113; Sibson, 1947, *N.Z. Bird Notes*, 2:135-6; Bell and Brathwaite, 1964, *Notornis*, 10:367.

Plates: Godman, *Monograph*, pl. 45; Mathews, *Birds Aust.*, pl. 80.

55. *Procellaria westlandica* Falla, 1946**Westland Black Petrel**

Breeding Barrytown, Westland. Ranging west to New South Wales, north to Auckland west coast and habitually through Cook Strait as far south as Banks Peninsula.

References: Falla, 1946, *Rec.Cant.Mus.*, 5:111-3; Jackson, 1958, *Notornis*, 7:230-3; Sibson, 1960, *Notornis*, 8:263-4.

56. *Procellaria aequinoctialis* Linnaeus, 1758*P. aequinoctialis steadi* Mathews, 1912**White-chinned Petrel**

Breeding Antipodes, Auckland, Campbell and ?Macquarie Islands; ranging north to about 30°S.

Plates: Godman, *Monograph*, pl. 44 (subspecies); Mathews, *Birds Norf. Lord Howe*, pl. 57.

57. *Calonectris diomedea* (Scopoli, 1769)*C. diomedea borealis* Cory, 1881**North Atlantic Shearwater**

Breeding on islands of eastern North Atlantic Ocean, ranging widely in the Atlantic and south to Cape of Good Hope. A single New Zealand record (Foxton, Jan 1934).

Reference: Oliver, 1934, *Emu*, 34:23-4.

Plates: Godman, *Monograph*, pl. 26; *Birds Brit. Isles*, vol. 8, pl. 8.

58. *Puffinus carneipes* (Gould, 1844)*P. carneipes hullianus* Mathews, 1912

Flesh-footed Shearwater

Breeding Hen and Chickens, Mercury, Alderman and Karewa Islands and possibly other islands in the Hauraki Gulf and Bay of Plenty, East Island (off East Cape), Trio and Titi Islands (Cook Strait), islets off Taranaki coast and on Lord Howe Island. Ranging south to latitude of Foveaux Strait and east to Chatham Islands. Migrating to North Pacific Ocean and western coasts of American continent.

References: Falla, 1934, *Rec.Auck.Mus.*, 1:249-50; Hindwood, 1945, *Emu*, 44:241-8.

Plates: Godman, *Monograph*, pl. 37; Mathews, *Birds Aust.*, pl. 76.

59. *Puffinus pacificus* (Gmelin, 1789)a. *P. pacificus pacificus* (Gmelin, 1789)

Wedge-tailed Shearwater

Breeding Kermadec, Norfolk and Kandavu Islands; ranging south to about 35°S, rarely straggling to New Zealand; two records (Otaki, June 1962 and Waiuku Peninsula, Nov 1966).

Reference: Murphy, 1951, *Am.Mus.Novit.*:1512.

Plates: Godman, *Monograph*, pl. 24; Mathews, *Birds Aust.*, pl. 75.

b. *P. pacificus cuneatus* Salvin, 1888

Breeding Hawaiian islands and probably other islands in the North Pacific Ocean. A single specimen Wellington west coast (Jan 1961).

Reference: Falla, 1961, *Notornis*, 9:278-9.

60. *Puffinus bulleri* Salvin, 1888

Buller's Shearwater

Breeding Poor Knights Islands; ranging south on east coast to Otago Peninsula and Foveaux Strait, and on west coast to Greymouth; straggling to eastern Australia. Migrating to the Northern Pacific and west coasts of the American continent (as far south as Chile).

References: Falla, 1934, *Rec.Auck.Mus.*, 1:250-1; Buddle, 1941, *Emu*, 41:61-2.

Plates: Buller (ed. 2), pl. 41; Godman, *Monograph*, pl. 23.

61. *Puffinus griseus* (Gmelin, 1789)

Sooty Shearwater (Titi)

Breeding on offshore islands and rarely on mainland, from Three Kings to Campbell and Macquarie Islands; in small numbers in the north, more abundantly in Cook Strait, and in vast numbers south of Foveaux Strait, diminishing at its southern limits. Also south-east Australia (rare), South America and Falkland Islands. Ranging south to pack ice and migrating to North Pacific as far as the Bering Sea.

Sooty Shearwaters banded in New Zealand have been recovered in Japan (two in May), off the Aleutian Islands (one in August) and off the west coast of U.S.A. (two in August).

References: McGill, 1954, *Emu*, 54:121-3; Richdale, 1963, *Proc.Zool.Soc. London*, 141:1-117; *N.Z. Banding Reports*.

Plates: Godman, *Monograph*, pl. 38; Mathews, *Birds Aust.*, pl. 78.

62. *Puffinus tenuirostris* (Temminck, 1835)

Short-tailed Shearwater (Tasmanian Muttonbird)

Breeding on islands off south east Australia and Tasmania, ranging south to about 60°S and migrating to northern hemisphere; occurring regularly in New Zealand coastal waters from November to May.

References: Serventy and Whittell, 1962, *Birds W. Aust.*, 90-1; Serventy, 1967, *Proc.XIV Int.Orn.Congr.*:165-90.

Plates: Godman, *Monograph*, pl. 39; Mathews, *Birds Aust.*, pl. 78.

63. **Puffinus gavia** (Forster, 1844)
P. gavia gavia (Forster, 1844) **Fluttering Shearwater (Pakaha)**
 Breeding on many offshore islands from Three Kings to Cook Strait, with largest concentrations in Hauraki Gulf, Bay of Plenty and Cook Strait; ranging south and east to Banks Peninsula and the Chatham Islands and west to south-east Australia. A smaller subspecies of unknown origin was described and named *Puffinus gavia byroni* (Mathews, 1913). Similar birds are sometimes found storm wrecked on New Zealand west coasts.
 Reference: Falla, 1934, *Rec.Auck.Mus.*, 1:252-3.
 Plates: Godman, *Monograph*, pl. 32; Mathews, *Birds Aust.*, pl. 74, 367.
64. **Puffinus huttoni** Mathews, 1912 **Hutton's Shearwater**
 Breeding Seaward Kaikoura Range from about 4000'; ranging south to Banks Peninsula, north to the Auckland area and west to the Great Australian Bight.
 References: Serventy and Whittell, 1962, *Birds W. Aust.*:87; Harrow, 1965, *Notornis*, 12:59-65; Falla, 1965, *Notornis*, 12:65-70.
65. **Puffinus assimilis** Gould, 1838
- a. **P. assimilis assimilis** Gould, 1838 **Norfolk Island Little Shearwater**
 Breeding Norfolk and Lord Howe Islands; straggling to New South Wales and Auckland west coast.
 References: Fleming and Serventy, 1943, *Emu*, 43:117; Fleming and Serventy, 1952, *Emu*, 52:17-23.
 Plate: Gould, *Birds Aust.*, vii, pl. 59.
- b. **P. assimilis kermadecensis** Murphy, 1927 **Kermadec Little Shearwater**
 Breeding Kermadec Islands (Meyer, Raoul), not recorded from New Zealand mainland.
 References: Fleming and Serventy, 1943, *Emu*, 43:118; Edgar, Kinsky and Williams, 1965, *Notornis*, 12:32-3.
 Plate: Godman, *Monograph*, pl. 35 (subspecies).
- c. **P. assimilis haurakiensis** Fleming and Serventy, 1943
North Island Little (Allied) Shearwater
 Breeding Stephenson, Cavalli, Poor Knights, Hen and Chickens, Moko-hinau, Mercury and Alderman Islands; ranging south-west to Wellington west coast and south-east to Bay of Plenty; rarely to Hawkes Bay and further south (one specimen Castlepoint, Aug 1967).
 Birds closely resembling *P. assimilis tunneyi* Mathews, 1912, of south-western Australia are occasionally storm wrecked on North Island west coast beaches.
 References: Falla, 1934, *Rec.Auck.Mus.*, 1(5):253-4; Fleming and Serventy, 1943, *Emu*, 43:119; Bell, 1960, *Notornis*, 8:255.
- d. **P. assimilis elegans** Giglio and Salvadori, 1869
Subantarctic Little Shearwater
 Breeding Chathams, Antipodes and Auckland Islands; also Gough Island and Tristan da Cunha. Straggles to the South Island.
 Reference: Falla, 1965, *Proc.N.Z.Ecol.Soc.*, 12:63-8.
 Plate: Godman, *Monograph*, pl. 36.

FAMILY HYDROBATIDAE : STORM PETRELS

66. **Oceanodroma leucorhoa** (Vieillot, 1817)
O. leucorhoa leucorhoa (Vieillot, 1817) **Leach's Fork-tailed Petrel**
 Breeding in northern hemisphere and migrating south; straggling to

New Zealand (one record, Muriwai. Auckland west coast, Aug 1922).

Plates: Godman, *Monograph*, pl. 4; *Birds Brit. Isles*, vol. 8, pl. 5.

67. *Oceanites oceanicus* (Kuhl, 1820)

O. oceanicus oceanicus (Kuhl, 1820)

Wilson's Storm Petrel

Breeding coastlines and outlying islands of Antarctica, including Edisto Inlet, Possession Islands, Balleny Islands, Scott Island and many other places in the Ross Sea. Migrating to the northern hemisphere, but rarely recorded in New Zealand seas (three specimens, Hamilton, Mar 1950; Gisborne, 1963, and Makarewa, Southland, Apr 1969).

References: Falla, 1933, *Rec.Auck.Mus.*, 1:173; Roberts, 1940, *Brit.Graham Land Exped.Rep.*, 1:42-194; Serventy, 1952, *Emu*, 52:106-16; Murphy, 1952, *Am.Mus.Novit.*, 1:596; Norris, 1965, *Notornis*, 12:99; Hatherton, Dawson and Kinsky, 1965, *N.Z.Journ.Geol.Geophys.*, 8:169-70.

Plate: Mathews, *Birds Aust.*, pl. 68.

68. *Garrodia nereis* (Gould, 1841)

Grey-backed Storm Petrel

Breeding Pyramid Rock, Antipodes and Auckland Islands (and possibly on other Chatham Islands and on Campbell Island); also in South Atlantic and Indian Oceans. Ranging the seas south of New Zealand, recorded from Snares, Campbell, Macquarie and Bounty Islands, and straggling northwards to about 36°S.

References: Fleming, 1939, *Emu*, 38:407; Keith and Hines, 1958, *C.S.I.R.O. Wildlife Research*, 3:51; Norris, 1965, *Notornis*, 12:101; Kinsky, 1969, *Notornis*, 16:230.

Plates: Godman, *Monograph*, pl. 14; Mathews, *Birds Aust.*, pl. 69.

69. *Pelagodroma marina* (Latham, 1790)

a. *P. marina maoriana* Mathews, 1912

White-faced Storm Petrel

Breeding on many islands of northern New Zealand, including Three Kings, Cavalli, Poor Knights, Mokohinau, Noises, Cow and Motuokino Islands (Coromandel), (?Mercury), Alderman Islands; Motumahunga Island (Taranaki), Sentinel Rock, Cook Strait; Motunau and Tomahawk Islands; many islands off Stewart Island; Chatham and Auckland Islands. Ranging throughout New Zealand seas, apparently absent from New Zealand during the winter.

References: Falla, 1934, *Rec.Auck.Mus.*, 1:247-48; Murphy and Irving, 1951, *Am.Mus.Novit.*, 1506:7-11; Merton, 1961, *Notornis*, 9:168; Richdale, 1965, *Trans. Zool.Soc.London*, 31:56-85.

Plate: Godman, *Monograph*, pl. 15.

b. *P. marina albiclunis* Murphy and Irving, 1951

Kermadec Storm Petrel

Breeding place not known, but presumed to be on islands of the Kermadec group. Formerly numerous around the Kermadec Islands, but now apparently rare.

References: Oliver, 1955, *N.Z. Birds*:103-4; Murphy and Irving, 1951, *Am.Mus. Novit.*, 1506:15-6; Edgar, Kinsky and Williams, 1965, *Notornis*, 12:33.

70. *Fregatta tropica* (Gould, 1844)

Black-bellied Storm Petrel

Breeding Auckland, ?Bounty and Antipodes Islands; and South Atlantic and Indian Oceans; abundant in subantarctic seas and straggling north to about 35°S in New Zealand coastal waters and to the Chatham Islands. Several races have been described.

Plates: Godman, *Monograph*, pl. 17; Mathews, *Birds Aust.*, pl. 71.

71. **Fregetta grallaria** (Vieillot, 1818) **White-bellied Storm Petrel**
Breeding Macauley Island (Kermadecs), Lord Howe, Rapa, Juan Fernandez Islands and Tristan da Cunha. Only one recorded off New Zealand mainland. Two recent sight records off the New Zealand mainland (two off Farewell Spit, Nov 1969, and one off Poor Knights Islands, Dec 1969). Several races have been described, but need confirmation.
Reference: Mathews, *Bull.Brit.Orn.Club*, 52:146.
Plates: Godman, *Monograph*, pl. 18; Mathews, *Birds Aust.*, pl. 72.

FAMILY PELECANOIDIDAE : DIVING PETRELS

72. **Pelecanoides urinatrix** (Gmelin, 1789)
a. **P. urinatrix urinatrix** (Gmelin, 1789) **Northern Diving Petrel (Kuaka)**
Breeding on many islands in the north from Three Kings to Hauraki Gulf and Bay of Plenty, islets off New Plymouth (Taranaki), on many islands in the Cook Strait region and in Foveaux Strait. Ranging throughout northern New Zealand seas.
References: Falla, 1934, *Rec.Auck.Mus.*, 1:246-47; Merton, 1961, *Notornis*, 9:168; Richdale, 1965, *Trans.Zool.Soc.London*, 31:16-55; Bourne, 1968, *Bull.Brit.Orn.Club*, 88:77-85; Thoresen, 1969, *Notornis*, 16:241-60.
Plate: Godman, *Monograph*, pl. 86 (?subspecies).
- b. **P. urinatrix exsul** Salvin, 1896 **Subantarctic Diving Petrel**
Breeding Auckland and Antipodes Islands; and also Kerguelen, Marion and Heard Islands (Indian Ocean); range in New Zealand waters not clearly defined.
Reference: Falla, 1937, *B.A.N.Z.A.R.E.Repts.*(B), 2:214-6.
- c. **P. urinatrix chathamensis** Murphy and Harper, 1916 **Southern Diving Petrel**
Breeding Chatham Islands, islands off Stewart Island, Solander Islands and Snares; ranging northward as a straggler.
References: Murphy and Harper, 1916, *Bull.Amer.Mus.Nat.Hist.*, 35:65; Richdale, 1965, *Trans.Zool.Soc.London*, 31:14-86.
Plate: Mathews, *Birds Aust.*, pl. 94.
73. **Pelecanoides georgicus** Murphy and Harper, 1916 **South Georgian Diving Petrel**
Breeding South Georgia, Kerguelen, Heard and other high latitude subantarctic and Antarctic islands, including Auckland and Macquarie Islands.
References: Murphy and Harper, 1916, *Bull.Amer.Mus.Nat.Hist.*, 35:66; Downes et al, 1959, *A.N.A.R.E.Rep.Zoology*, 1:100-3.
Plate: Mathews, *Birds Norf. Lord Howe*, pl. 86.

ORDER PELECANIFORMES

SUBORDER PHAETHONTES

FAMILY PHAETHONTIDAE : TROPIC BIRDS

74. **Phaethon rubricauda** Boddaert, 1783
P. rubricauda roseotincta Mathews, 1926 **Red-tailed Tropic Bird (Amokura)**
Breeding Kermadec, Norfolk and Lord Howe Islands. Straggling

south to Tasman Sea and northern New Zealand (once reported regular), but few recent records. (Taupo, Feb 1936; Muriwai, May 1942; off Taranaki, Apr 1961 and Toreparu Beach, Oct 1963).

Plate: Mathews, *Birds Aust.*, pl. 231 (subspecies *westralis*, Mathews, 1912).

SUBORDER PELECANI

FAMILY PELECANIDAE : PELICANS

75. *Pelecanus conspicillatus* Temminck, 1824

P. conspicillatus conspicillatus Temminck, 1824 **Australian Pelican**
Australia, migrating to New Guinea; straggling to New Zealand; one record Wanganui River, 1890.

Plate: Mathews, *Birds Aust.*, pl. 233.

FAMILY SULIDAE : GANNETS AND BOOBIES

76. *Sula bassana* (Linnaeus, 1758)

S. bassana serrator Gray, 1843 **Australian Gannet (Takapu)**
Breeding on outlying islands from Three Kings to Hauraki Gulf, Bay of Plenty, Poverty Bay and Hawkes Bay on the east coast; Oaia and Gannet Islands on the west coast of the North Island. Cape Kidnappers (south end of Hawke Bay) is the only mainland colony. In addition two breeding colonies near the south end of the South Island. The Nuggets and Little Solander Island (Thirteen gannetries known in New Zealand). Also on islets off Tasmania and south-east Australia.

Adult birds range widely in New Zealand seas during the winter; juvenile birds migrate to coastal waters of Australia, as far west as to the Indian ocean. Stragglers reach Chathams, Auckland and Campbell Islands (Jan 1968).

References: Fleming and Wodzicki, 1952, *Notornis*, 5:39-78; Wodzicki and Stein, 1958, *Emu*, 58:289-312; Wodzicki, 1967, *Trans.R.S.N.Z.*, 8:149-62; Wodzicki, 1967, *Trans.R.S.N.Z.*, 9:17-31; *New Zealand Banding Reports*.

Plates: Mathews, *Birds Aust.*, pl. 266.

77. *Sula leucogaster* (Boddaert, 1783)

S. leucogaster plotus (Forster, 1844) **Brown Booby**
Tropical western and central Pacific Ocean, reaching New Zealand waters probably every summer, occasionally to about 40°S; in New Zealand normally associating with Gannets.

Reference: Stein, 1952, *Notornis*, 4:213.

Plate: Mathews, *Birds Aust.*, pl. 288.

78. *Sula dactylatra* Lesson, 1831

S. dactylatra personata Gould, 1846 **Masked (Blue-faced) Booby**
Breeding Herald, Macauley and Curtis Islands (Kermadec Islands) and many other places in the tropical south-west Pacific. Straggling south to northern New Zealand; Gannet Island, 1883 (Reischek) and west of North Cape, 1964.

Plate: Mathews, *Birds Aust.*, pl. 227.

FAMILY PHALACROCORACIDAE : SHAGS (CORMORANTS)

79. *Phalacrocorax carbo* (Linnaeus, 1758)
P. carbo novaehollandiae Stephens, 1826 **Black Shag (Kawau)**
 Throughout New Zealand and on Chatham Islands; also Australia and Tasmania. Straggling to Campbell and Macquarie Islands (several sight records).
 References: Stead, 1932, *Life Histories N.Z. Birds*: 1-11; Falla, 1932, *Rec.Auck. Mus.* 1: 139-40; Keith and Hines, 1958, *C.S.I.R.O. Wildlife Research*, 3: 51.
 Plate: Mathews, *Birds Aust.*, pl. 219.
80. *Phalacrocorax varius* (Gmelin, 1789)
P. varius varius (Gmelin, 1789) **Pied Shag (Kahuriruhi)**
 Coasts, harbours, estuaries and offshore islands of New Zealand, from Three Kings to Stewart Island, rarely on inland waters, straggling to Snares Island.
 References: Stead, 1932, *Life Histories N.Z. Birds*: 12-7; Falla, 1932, *Rec. Auck. Mus.*, 1: 143-4.
 Plate: Buller (ed. 2), pl. 38.
81. *Phalacrocorax sulcirostris* (Brandt, 1837) **Little Black Shag**
 Widely distributed on lakes and estuaries of the North Island south to Taupo and Hawkes Bay, on west coast as far south as Wellington; South Island, rare (Southland, 1963; Nelson, 1966). Breeding regularly in Lower Waikato and Rotorua, probably elsewhere.
 Reference: Falla, 1932, *Rec. Auck. Mus.*, 1: 140-1.
 Plate: Mathews, *Birds Aust.*, pl. 220.
82. *Phalacrocorax melanoleucos* (Vieillot, 1817)
P. melanoleucos brevisrostris Gould, 1837. **Little Shag (Kawaupaka)**
 Throughout main islands of New Zealand from North Cape to Stewart Island, and on nearby outlying islands. Straggling to Snares and Auckland Islands (sight records) and breeding Campbell Island since 1967.
 Note: Primarily a dimorphic subspecies with some intermediate variants.
 References: Falla, 1932, *Rec. Auck. Mus.*, 1: 141-3; Sibson *et al.*, 1956, *Notornis*, 7: 20-4; Kinsky, 1969, *Notornis*, 16: 231-3; Warham, 1969, *Notornis*, 16: 222.
 Plates: Buller (ed. 1), pl. 30; Mathews, *Birds Norf. Lord Howe*, pl. 101.
83. *Leucocarbo carunculatus* (Gmelin, 1789)
- a. **L. carunculatus carunculatus** (Gmelin, 1789) **King Shag**
 Breeding White Rocks, Sentinel Rock, Duffer's Reef, Stewart Island (French Pass) and North Trio Island, Cook Strait. Not ranging far from breeding islands.
 Reference: Falla, 1932, *Rec. Auck. Mus.*, 1: 145-7.
 Plate: *Sea and Shore Birds*, pl. 21.
- b. **L. carunculatus chalconotus** (Gray, 1845) **Stewart Island Shag**
 Coastal waters from Otago Peninsula to Foveaux Strait and Stewart Island. A dimorphic subspecies, of which the dark phase is commonly called the Bronze Shag.
 Reference: Falla, 1932, *Rec. Auck. Mus.*, 1: 147-9.
 Plates: *Ereb. Terr.*, pl. 21; Mathews, *Birds Norf. Lord Howe*, pl. 97, 98.
- c. **L. carunculatus onslowi** Forbes, 1893 **Chatham Island Shag**
 Chatham Islands.
 Reference: Fleming, 1939, *Emu*, 38: 409-10.
 Plates: Buller (ed. 1), pl. 30; Buller (ed. 2), pl. 38.

84. *Leucocarbo campbelli* (Filhol, 1878)
- a. *L. campbelli ranfurlyi* Ogilvie-Grant, 1901 **Bounty Island Shag**
Breeding Bounty Islands and straggling to Antipodes Islands.
Reference: Oliver, *N.Z. Birds*: 193.
- b. *L. campbelli colensoi* Buller, 1888 **Auckland Island Shag**
Auckland Islands.
(A variable subspecies with black-necked phases approaching *L. c. campbelli*).
- c. *L. campbelli campbelli* (Filhol, 1878) **Campbell Island Shag**
Campbell Island.
References: Falla, 1932, *Rec.Auck.Mus.*, 1:151; Bailey and Sorensen, 1962, *DenverMus.Nat.Hist.Proc.*, 10:236-41.
Plate: Mathews, *Birds Norf. Lord Howe*, pl. 98.
85. *Leucocarbo albiventer* (Lesson, 1831)
L. albiventer purpurascens (Brandt 1837) **Macquarie Island Shag**
Macquarie Island.
Reference: Falla, 1937, *B.A.N.Z.A.R.E.Repts.*(B), 2:220-4.
86. *Stictocarbo punctatus* (Sparman, 1786)
- a. *S. punctatus punctatus* (Sparman, 1786) **Spotted Shag**
Breeding several islands of inner Hauraki Gulf, such as Noises, Waiheke, Tarakihi and North Kahau Islands; Oaia Island, Te Henga and Girdwood Point (Auckland west coast); Marlborough Sounds and D'Urville Island, Banks Peninsula, Otago Peninsula and coastal cliffs east of Palmerston (Otago), ranging short distances from breeding colonies.
References: Stead, 1946, *N.Z. Bird Notes*, 2:30-1; Turbott, 1956, *Rec.Auck.Mus.*, 4:343-63.
Plates: Gould, *Birds Aust.*, 7, pl. 71; Buller (ed. 1), pl. 31; (ed. 2), pl. 39.
- b. *S. punctatus steadi* (Oliver, 1930) **Blue Shag**
Stewart and inshore islands; Codfish and Centre Islands, and along the South Island west coast, where three breeding colonies are known (Steeple, Perpendicular Point and Open Bay Islands).
Reference: Stead, 1948, *N.Z. Bird Notes*, 3:79-80.
- c. *S. punctatus featherstoni* Buller, 1873 **Pitt Island Shag**
Chatham Islands.
Reference: Fleming, 1939, *Emu*, 38:410-1.
Plates: Buller (ed. 1), pl. 32; (ed. 2), pl. 39.

FAMILY ANHINGIDAE : DARTERS

87. *Anhinga rufa* (Daudin, 1802)
A. rufa novaehollandiae (Gould, 1847) **Australian Darter**
Australia, straggling to New Zealand (one record, Hokitika, 1874).
Reference: Oliver, *N.Z. Birds*:201.
Plate: Mathews, *Birds Aust.*, pl. 224.

SUBORDER FREGATAE

FAMILY FREGATIDAE : FRIGATE BIRDS

88. *Fregata minor* (Gmelin, 1789) **Greater Frigate Bird**
Breeding tropical islands of Atlantic, Indian and Pacific oceans (several subspecies); straggling to New Zealand seas, twelve records since

1861, the most southerly being Westport. (New Zealand records have not been subspecifically identified).

Plate: Mathews, *Bird Aust.*, pl. 229.

89. *Fregata ariel* (Gray, 1845) **Lesser Frigate Bird**
F. ariel ariel (Gray, 1845)
 Breeding off Queensland, New Caledonia, Fiji and other places in tropical Pacific Ocean; straggling to New Zealand, at least thirteen records since 1907, mostly in the north, but once to Cook Strait and once to Chatham Islands.
 Reference: Turbott, 1952, *Rec. Auck. Mus.*, 4:187-8.
 Plate: Mathews, *Birds Aust.*, pl. 230.

ORDER CICONIIFORMES

SUBORDER ARDEAE

FAMILY ARDEIDAE : HERONS, EGRETS AND BITTERNES

90. *Ardea novaehollandiae* (Latham, 1790) **White-faced Heron**
 East Indies, Australia and New Guinea; formerly a regular straggler to New Zealand; established here since about 1940. Widespread and breeding both on coast and inland. Straggling to Kermadec Islands, Chatham Islands and south to Campbell and Macquarie Islands.
 Reference: Keith and Hines, 1958, *C.S.I.R.O. Wildlife Res.*, 3:51.
 Plates: Buller (ed. 1), pl. 24; Mathews, *Birds Aust.*, pl. 188.
91. *Ardea pacifica* Latham, 1801 **White-necked Heron**
 Australia and Tasmania, straggling to New Zealand (one sight record near Methven, Apr-July 1952).
 Reference: Stidolph, 1952, *Notornis*, 5:38.
 Plate: Mathews, *Birds Aust.*, pl. 189.
92. *Egretta alba* (Linnaeus, 1758) **White Heron (Kotuku)**
E. alba modesta (Gray, 1831)
 Australia to India, widespread; New Zealand, breeding Okarito (Westland), dispersing throughout from Parengarenga to Stewart Island; straggling to Auckland, Campbell, Macquarie and Chatham Islands. Occasional invasions from Australia (1957).
 Reference: Andrew, 1963, *Notornis*, 10:311-6.
 Plates: Buller (ed. 2), pl. 36; Mathews, *Birds Aust.*, pl. 187.
93. *Egretta garzetta* (Linnaeus, 1766) **Little Egret**
E. garzetta immaculata Gould, 1846
 Australia, now straggling almost annually to New Zealand and recorded from many localities, mainly coastal, throughout both main islands. (Two Australian banded specimens recovered Otago 1963 and 1966 respectively).
 References: Falla, 1958, *Notornis*, 8:29-31; Kinsky, 1963, *13th N.Z. Bird Banding Report*: 31.
 Plate: Mathews, *Birds Aust.*, pl. 185.

94. *Egretta sacra* (Gmelin, 1789)
E. sacra sacra (Gmelin, 1789) **Reef Heron (Matuku-moana)**
 Asia to Australia, eastern Polynesia and New Zealand. Breeding North, South and Stewart Islands including many offshore islands; straggling to Chatham Islands.
 Reference: Mayr, 1941, *Am.Mus.Novit.*:1144.
 Plates: Buller (ed. 1), pl. 24; (ed. 2), pl. 36; Mathews, *Birds Aust.*, pl. 191.
95. *Bubulcus ibis* (Linnaeus, 1758)
B. ibis coromandus (Boddaert, 1783) **Cattle Egret**
 Throughout southern Asia including South China and Japan, and south to Australia since about 1948; straggling to New Zealand (Otago, 1963; Canterbury, 1963-4; West Coast, 1964 and (three) 1969; Wairarapa, 1964; Levin (five), 1964, (one) 1966; Te Awamutu (two), 1964; Kaitaia, 1966; Stewart Island, 1967).
 References: Turbott et. al., 1963, *Notornis*, 10:316; Turbott, 1964, *Notornis*, 10:383-5; Grant, 1964, *Notornis*, 11:86; Boeson, 1964, *Notornis*, 11:135-6; Jones, 1964, *Notornis*, 11:194-5.
 Plates: *BirdsBrit.Isles*, 6, pl. 7 (subspecies *ibis*); Witherby, *Brit.Birds*, 3, pl. 74.
96. *Nycticorax caledonicus* (Gmelin, 1789) **Nankeen Night Heron**
 East Indies, Australia, South West Pacific and New Caledonia (several subspecies); straggling to New Zealand and also unsuccessfully liberated (Wellington, 1852). Records from Maungatautari, Wellington (1856), Lake Ellesmere, Hokitika, Okarito, Catlins (1888), Pahana River (1892), Blenheim (1958) and an unconfirmed record from Herekino, Northland (1964). (New Zealand records are not subspecifically identified).
 Reference: Bell, 1958, *Notornis*, 8:52-3.
 Plate: Mathews, *Birds Aust.*, pl. 193.
97. *Botaurus stellaris* (Linnaeus, 1758)
B. stellaris poiciloptilus (Wagler, 1827) **Australian Bittern (Matuku)**
 New Zealand, Australia and New Caledonia; throughout main islands and formerly at the Chatham Islands.
 Plates: Buller (ed. 2), pl. 37; Mathews, *Birds Aust.*, pl. 199.
98. *Ixobrychus minutus* (Linnaeus, 1766)
I. minutus novaezelandiae (Potts, 1871) **Little Bittern**
 Australia and Tasmania; straggling to New Zealand. Recorded about twenty times in South Island (west Nelson, Westland, Wakatipu) but has not been seen for many years. Breeding not recorded. No satisfactory North Island records.
 Reference: Falla, 1964, *Notornis*, 10:412-3.
 Plate: Mathews, *Birds Aust.*, pl. 197.

SUBORDER CICONIAE

FAMILY THRESKIORNITHIDAE : IBISES AND SPOONBILLS

99. *Plegadis falcinellus* (Linnaeus, 1766)
P. falcinellus peregrinus (Bonaparte, 1855) **Glossy Ibis**
 Australia, East Indies, Philippines; straggling to New Zealand occasionally; sometimes in flocks (1953-4), Stewart Island (nine in Nov 1968) and Lake Taieri (ten in Jan 1969).
 Note: The validity of this subspecies is in doubt.
 Reference: Wilson, 1954, *Notornis*, 6:18-9.
 Plate: Mathews, *Birds Aust.*, pl. 179.

100. *Threskiornis molucca* (Cuvier, 1829) **Australian White Ibis**
Australia; straggling to New Zealand occasionally in numbers; five records in 1925 (Westland, Nelson and Taranaki), and several between Southland and Kaipara Harbour (1957-8).

Reference: Falla, 1958, *Notornis*, 8:30-1.

Plate: Mathews, *Birds Aust.*, pl. 177.

101. *Platalea leucorodia* Linnaeus, 1758

P. leucorodia regia Gould, 1838

Royal Spoonbill (Kotuku-ngutupapa)

Australia, ranging north to Moluccas, Celebes and New Guinea. Occasional stragglers to New Zealand have been recorded since 1861. Breeding Okarito (Westland) since 1950 (perhaps before) and slowly increasing in numbers. A large part of the New Zealand population winters at Manawatu River mouth; others dispersing as far north as Northland and Hawkes Bay, and as far south as Southland.

Plate: Mathews, *Birds Aust.*, pl. 180.

ORDER ANSERIFORMES

SUBORDER ANSERES

FAMILY ANATIDAE : SWANS, GEESE AND DUCKS

SUBFAMILY ANSERINAE : SWANS AND GEESE

102. *Dendrocygna eytoni* (Eyton, 1838) **Plumed Whistling Duck**
Australia, ranging to Tasmania; straggling to New Zealand, three records; Thames (1871), Kaitangata (flock of fourteen, 1871), Ashburton (three in 1894-6).

Plates: Mathews, *Birds Aust.*, pl. 207; *Waterfowl of the World*, 1, pl. i.

- *103. *Cygnus olor* (Gmelin, 1789) **Mute Swan**
Northern Eurasia; introduced to New Zealand as an ornamental waterfowl; established locally south of 40°S (greatest numbers on Lake Ellesmere).

Plate: *Waterfowl of the World*, 1, pl. ii.

- *104. *Cygnus atratus* (Latham, 1790) **Black Swan**
Australia and Tasmania; introduced into New Zealand (first in 1864) and widely distributed throughout main islands and Chatham Islands.

Plates: Mathews, *Birds Aust.*, pl. 200; *Waterfowl of the World*, 1, pl. ii.

- *105. *Branta canadensis* (Linnaeus, 1758) **Canada Goose**

Introduced from North America to New Zealand, first in 1876; established throughout the South Island east of the divide, breeding mainly in mountain districts; apparent partial migration from breeding grounds to Lake Ellesmere (Canterbury) where large concentrations occur during the moulting season, straggling north to North Island; Marton (1943), Miranda (1942), Lake Horowhenua (1959), Whatipu, Auckland west coast (1967), and south to Ruapuke Island.

Note: The subspecific status of the Canada Geese introduced to New Zealand has not been determined.

Plate: *Waterfowl of the World*, 1, pl. viii.

SUBFAMILY ANATINAE : DUCKS

- *106. *Cereopsis novaehollandiae* (Latham, 1801) **Cape Barren Goose**
Islands of Bass Strait and Great Australian Bight; introduced into New Zealand, possibly persisting in Styx Valley, near Patearoa (unconfirmed report, 1966); possibly genuine straggler from Bass Strait islands.

Reference: Williams, 1968, *Notornis*, 15:66-9.

Plates: Mathews, *Birds Aust.*, pl. 204; *Waterfowl of the World*, 1, pl. xi.

107. *Tadorna variegata* (Gmelin, 1789) **Paradise Duck (Putangitangi)**
New Zealand; mainly from Volcanic Plateau and East Cape southward to Stewart Island, rare north of 38°S but recent liberations in Northland apparently successful. Straggling to Lord Howe Island (four or six birds, Mar 1950).

Plates: *Ereb.Terr.*, pl. 16; Buller (ed. 1), pl. 25; (ed. 2), pl. 43; *Waterfowl of the World*, 1, pl. xiii.

- *108. *Anas platyrhynchos* Linnaeus, 1758

A. platyrhynchos platyrhynchos Linnaeus, 1758 **Mallard**

Northern Hemisphere; introduced to New Zealand and now the dominant duck in the lowlands of main islands. Straggling to Antipodes, Auckland and Campbell Islands (possibly established) and to Macquarie Island; rarely crossing Tasman Sea to Australia (two New Zealand banded birds recovered in Australia). Self-introduced to Chatham Islands and well established.

Plate: *Waterfowl of the World*, 2, pl. ii.

109. *Anas superciliosa* Gmelin, 1789

A. superciliosa superciliosa Gmelin, 1789 **Grey Duck (Parera)**

Throughout New Zealand, Kermadec, Chatham, Snares, Auckland, Campbell and Macquarie Islands. Apparently straggling to Australia (one New Zealand banded bird recovered in Australia.)

Note: An Australian banded *A. superciliosa* was recovered in Otago (1966) and is presumably a New Zealand record of the Australian Black Duck, *A. superciliosa rogersi* Mathews, 1912.

References: Australian Bird-Banding Scheme, 1958; *Newsletter*, 1:9; Amadon, *Am.Mus.Novit.*, 1237:2.

Plate: *Waterfowl of the World*, 2, pl. iv.

110. *Anas gibberifrons* Müller, 1842

A. gibberifrons gracilis Buller, 1869 **Grey Teal**

Australia, Tasmania and New Zealand; previously rare and local in New Zealand, now apparently increasing, evidently assisted by stragglers from Australia (Victorian banded bird recovered Waikato, 1959). Locally present and sometimes common on lowland and subalpine lakes from Southland lagoons to North Auckland. Straggles to Macquarie Island.

Reference: Keith and Hines, 1958, *C.S.I.R.O.WildlifeRes.*, 3:51.

Plates: Mathews, *Birds Aust.*, pl. 212; *Waterfowl of the World*, 2, pl. vi.

111. *Anas aucklandica* (Gray, 1844)

A. aucklandica chlorotis Gray, 1845 **Brown Teal**

New Zealand, once generally distributed, range now much reduced. Present on Great Barrier Island; persisting locally in Northland, on Coromandel Peninsula, and in lower Waikato; visiting Auckland isthmus; small

numbers in Fiordland and Stewart Island. Recently introduced to Kapiti Island.

Plates: *Ereb.Terr.*, pl. 17; Buller (ed. 2), pl. 42; *Waterfowl of the World*, 2, pl. vii.

b. **A. aucklandica aucklandica** (Gray, 1844) **Auckland Island Teal**
(Flightless Duck)

Auckland Islands, chiefly confined to Enderby, Rose, Ocean, Ewing, Disappointment and Adams Islands.

Plates: *Ereb.Terr.*, pl. 17; Buller (ed. 2), pl. 42; *Waterfowl of the World* 2, pl. vii.

c. **A. aucklandica nesiotis** (Fleming, 1935) **Campbell Island Teal**

Campbell Island; not seen for many years, possibly extinct.

Plates: Mathews, *Birds Norf. Lord Howe*, pl. 96; *Waterfowl of the World*, 2, pl. vii.

112. **Anas clypeata** Linnaeus, 1758 **Northern Shoveler**

Europe, Asia and North America, migrating south and straggling to Australia and New Zealand (one record, Lower Waikato, May 1968).

Reference: Howard, 1968, *Notornis*, 15: 253.

Plate: *Waterfowl of the World*, 2, pl. xx.

113. **Anas rhynchotis** Latham, 1801

A. rhynchotis variegata (Gould, 1856) **New Zealand Shoveler**

North (rare north of Kaipara Harbour) and South Islands of New Zealand, formerly also Chatham Islands (last record, 1925), straggling to Stewart and Auckland Islands.

Reference: Sibson, 1967, *Notornis*, 14: 22-6.

Plates: Buller (ed. 1), pl. 26; (ed. 2), pl. 44; *Waterfowl of the World* 2, pl. xx.

114. **Hymenolaimus malacorhynchos** (Gmelin, 1789) **Blue Duck (Whio)**

New Zealand, mountainous districts from Coromandel Range and Pirongia southward to Fiordland.

Plates: Buller (ed. 1), pl. 27; (ed. 2), pl. 45; *Waterfowl of the World* 2, pl. xxi.

115. **Aythya australis** (Eyton, 1838)

A. australis australis (Eyton, 1838)

Australian White-eyed Duck (Hardhead)

Australia and Tasmania, ranging to Celebes, Eastern Java, New Hebrides and New Caledonia; straggling to New Zealand; once present in numbers, lower Waikato (1867-8), and also recorded at Tarawera, Manawatu, Lake Wairarapa, Otago, Tutira (1895), and Hamurana, about 1934; no recent records.

Plates: Mathews, *Birds Aust.*, pl. 216; *Waterfowl of the World*, 3, pl. v.

116. **Aythya novaeseelandiae** (Gmelin, 1789)

New Zealand Scaup (Papango)

North and South Islands of New Zealand; sand-dune lakes near Te Kao, west of Kaipara, Mayor Island, lakes of Bay of Plenty, lower Waikato, Volcanic Plateau, Hawkes Bay and some lowland and sub-montane lakes of the South Island. Recently introduced Lake Mangamahoe, Taranaki.

Plates: *Ereb.Terr.*, pl. 18; Buller (ed. 1), pl. 27; (ed. 2), pl. 45; *Waterfowl of the World*, 3, pl. vi.

117. *Chenonetta jubata* (Latham, 1801) **Wood Duck (Maned Goose)**
Australia and Tasmania; straggling to New Zealand, two records: Glendhu, Wanaka (1910), and Orawia, Southland (1944).
Plates: Mathews, *Birds Aust.*, pl. 205; *Waterfowl of the World*, 3, pl. vii.
118. *Mergus australis* Hombron and Jacquinot, 1841 **Auckland Island Merganser**
Auckland and Adams Islands, presumed extinct since 1905.
Plates: Buller, *Suppl.* pl. 6; Mathews, *Birds Norf. Lord Howe*, pl. 95; *Waterfowl of the World*, 3, pl. xv.

ORDER FALCONIFORMES : BIRDS OF PREY

SUBORDER FALCONES

FAMILY ACCIPITRIDAE : EAGLES, GOSHAWKS, ETC.

SUBFAMILY CIRCINAE : HARRIERS

119. *Circus approximans* Peale, 1848
- a. *C. approximans gouldi* Bonaparte, 1850 **Australasian Harrier (Kahu)**
Australia, Tasmania, New Guinea and New Zealand; throughout main islands and inshore islands, resident; straggling to sub-antarctic islands.
Reference: Stead, 1932, *Life Histories N.Z. Birds*: 106-15.
Plates: Buller (ed. 1), pl. 2; (ed. 2), pl. 21; Mathews, *Birds Aust.*, pl. 235.
- b. *C. approximans approximans* Peale, 1848 **Fiji Harrier**
Fiji, Society, Tonga, New Hebrides and Loyalty Islands, Wallis (Uea) Island, New Caledonia and Chatham Islands. Regular visitor to Kermadec Islands, Norfolk and Lord Howe Island.
Note: Inclusion of this subspecies in the New Zealand fauna depends on the review of Amadon (*Emu*, 40:367, 1941), who attributed Chatham Island, Kermadec and Norfolk Island specimens to the nominate form.

FAMILY FALCONIDAE : FALCONS

120. *Falco novaeseelandiae* Gmelin, 1788 **New Zealand Falcon (Karearea)**
New Zealand; main islands and Auckland Islands, including outer islands of Hauraki Gulf and Bay of Plenty; Kapiti and Cook Strait islands; very rare north of Volcanic Plateau, and restricted for most part to hilly districts. Formerly Chatham Islands.
Plates: Buller (ed. 1), pl. 1; (ed. 2), pl. 22; *Forest-inhabiting Birds*, pl. 4.
121. *Falco cenchroides* Vigors and Horsfield, 1827 **Nankeen Kestrel**
F. cenchroides cenchroides Vigors and Horsfield, 1827
Australia and Tasmania, straggling to New Zealand; at least fifteen records between 1889 and 1965; a small invasion during 1969.
Reference: Edgar, 1969, *Notornis*, 16:288-98.
Plates: Mathews, *Birds Aust.*, pl. 257, 258.

ORDER GALLIFORMES

FAMILY PHASIANIDAE : PHEASANTS, ETC.

SUBFAMILY PERDICINAE : PARTRIDGES AND QUAILS

- *122. **Alectoris chukar** (J. E. Gray, 1830) **Chukor**
 From Southeastern Balkan Peninsula to Nepal and through central Asia to outer Mongolia. Two subspecies, *A. chukar chukar* and *A. chukar koroviakovi* Zarudny, 1914, were successfully introduced to New Zealand and have probably interbred. Established Otago, Canterbury and Marlborough.
 References: Williams, 1950, *N.Z.Sci.Rev.*, 8:2-6; Williams, 1951, *Notornis*, 4:151-7.
- *123. **Perdix perdix** (Linnaeus, 1758) **Grey Partridge**
P. perdix perdix (Linnaeus, 1758)
 Europe; introduced to New Zealand from Denmark in 1962 as a game bird. Locally liberated in North and South Islands.
 Plate: *Birds Brit. Isles*, 12, pl. 29.
124. **Coturnix novaezealandiae** Quoy and Gaimard, 1830
C. novaezealandiae novaezealandiae Quoy and Gaimard, 1830
New Zealand Quail
 North and South Islands; extinct since about 1870.
 Note: The New Zealand Quail is here treated as being conspecific with the Australian Stubble Quail (*C. novaezealandiae pectoralis* Gould, 1837).
 Plates: *Voy.Astrol.*, pl. 24; *Ereb.Terr.*, pl. 8; Buller (ed. 1), pl. 18; (ed. 2), pl. 23.
- *125. **Synoicus ypsilophorus** (Bosc, 1792) **Brown Quail**
 Introduced from Australia (before 1870), widely distributed in the North Island, more common in the north and present on Three Kings, Poor Knights, Great and Little Barrier, Mayor, Mercury and Alderman Islands. Recent liberations lower Waitaki River bed (Canterbury).
 Note: Introduced stock is said to have included two subspecies (*ypsilophorus australis* Latham, 1801), which may have mingled with each other.
 Reference: Turbott and Buddle, 1948, *Rec.Auck.Mus.*, 3:327-8.
 Plate: Mathews, *Birds Aust.*, pl. 10.
- *126. **Colinus virginianus** (Linnaeus, 1758) **Bobwhite Quail**
 Introduced from U.S.A. into New Zealand as a game bird, 1898-9; the only recent reports are unconfirmed sightings from Wairoa, Hawkes Bay.
 Plate: *Book of Birds*, 1:229.
- *127. **Lophortyx californica** Shaw, 1798
L. californica brunnescens Ridgway, 1884 **Californian Quail**
 Introduced from U.S.A. first in 1865, now generally distributed in North and South Island; a limited number on Chatham Islands.
 Reference: Gurr, 1951, *Notornis*, 4:144-5.
 Plate: *Book of Birds*, 1:232 (?subspecies).

SUBFAMILY PHASIANINAE : PHEASANTS

- *128. **Phasianus colchicus** Linnaeus, 1758 **Pheasant**
 Originally central temperate Asia from Black Sea to Japan; widely

distributed by man. Introduced into New Zealand many times since 1842, and now irregularly distributed and locally maintained by release of hand-reared stock.

Note: The imported stock included representatives of several interbreeding subspecies.

Plate: *Pheasants of the World*, pl. 24.

SUBFAMILY PAVONINAE : PEAFOWL

***129. *Pavo cristatus* Linnaeus, 1758 Peafowl**

Originally India and Ceylon, widely distributed by man; introduced to New Zealand for ornamental purposes, established Marohemo and south Kaipara Heads (Northland), Opotiki, Wanganui, Hawkes Bay and Gisborne districts.

Reference: Fleming, 1947, *N.Z. Bird Notes*, 2:36.

Plate: *Pheasants of the World*, pl. 31.

ORDER GRUIFORMES

SUBORDER GRUES

FAMILY GRUIDAE : CRANES

130. *Grus rubicunda* (Perry, 1810) Brolga

Australia; straggling to New Zealand, two reports: Clevedon (1947), and Punakaiki (1968).

References: McKenzie, 1952, *Notornis*, 4:198; Westerskov, 1968, *Notornis*, 15:248-53.

FAMILY RALLIDAE : RAILS

131. *Rallus philippensis* Linnaeus, 1776

a. *R. philippensis assimilis* Gray, 1843 Banded Rail

Main islands of New Zealand, North Island: Northland, including Three Kings and Poor Knights Islands, Auckland, Coromandel and Bay of Plenty; but rare south of 38°S. South Island; coastal northwest Nelson, Golden Bay and Pelorus Sound, elsewhere rare. Stewart Island and outlying islands.

Plates: Buller (ed. 1), pl. 20; (ed. 2), pl. 33.

b. *R. philippensis dieffenbachi* Gray, 1843 Dieffenbach's Rail

Chatham Island, extinct (one specimen, 1840).

Reference: Oliver, *N.Z. Birds*: 340.

Plates: *Ereb.Terr.*, pl. 15; Buller (ed. 1), pl. 20; Rothschild, *Extinct Birds*, pl. 27.

132. *Rallus pectoralis* Temminck, 1831

***R. pectoralis muelleri* Rothschild, 1893 Auckland Island Rail**

Adams Island, probably Ewing Island and possibly others of the Auckland Islands. Doubtfully distinct from *R. pectoralis pectoralis*, Lewin Water Rail of south-eastern Australia.

Reference: Falla, 1967, *Notornis*, 14:107-13.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 78.

133. **Rallus modestus** Hutton, 1872 **Chatham Island Rail**
Mangere and Pitt Islands, Chatham Islands, extinct since about 1900.
134. **Gallirallus australis** (Sparman, 1786)
- a. **G. australis greyi** (Buller, 1888) **North Island Weka**
North Island: formerly throughout, still thriving in Poverty Bay; introduced to Kapiti Island and Mokoia Island (Rotorua); since 1959 re-introduced to several other districts of the North Island.
Plates: Buller (ed. 1), pl. 19; (ed. 2), pl. 35.
- b. **G. australis australis** (Sparman, 1786) **Western Weka**
South Island: from Nelson and northern Marlborough to Fiordland and west Otago; formerly widespread, now locally common; introduced to D'Urville and Chetwode Islands. In Fiordland, this subspecies is dimorphic.
Plates: Buller (ed. 1), pl. 19; (ed. 2), pl. 34, 35; *Forest-inhabiting* Birds, pl. 2.
- c. **G. australis hectori** (Hutton, 1873) **Buff Weka**
South Island: formerly low-rainfall districts of Canterbury, Marlborough, Otago and Southland; now probably extinct on mainland. Introduced to the Chatham Islands (1905) and now abundant there. Thence re-introduced to Canterbury and released Arthur's Pass National Park (1962).
Plates: Buller (ed. 1), pl. 19; (ed. 2), pl. 35.
- d. **G. australis scotti** (Ogilvie-Grant, 1905) **Stewart Island Weka**
Stewart Island: introduced to numerous outlying islands, including Solander and Codfish Islands, Macquarie Island (1872 and later), and Kapiti Island (c. 1895).
135. **Porzana pusilla** (Pallas, 1776) **Marsh Crake**
P. pusilla affinis (Gray, 1846)
New Zealand and Chatham Islands, generally distributed.
Plate: Buller (ed. 1), pl. 21.
136. **Porzana tabuensis** (Gmelin, 1789) **Spotless Crake**
P. tabuensis plumbea (Gray, 1829)
Australia, Tasmania and New Zealand; Kermadec Islands, Stewart Island, Chatham Islands and some coastal islands, including Three Kings, Poor Knights and Ponui Islands; generally distributed but rarely observed on mainland.
References: Buddle, 1941, *Emu*, 41:63-6; Soper, 1969, *Notornis*, 16:219-20.
Plates: Buller (ed. 1), pl. 21; (ed. 2), pl. 33.
137. **Porphyrio porphyrio** (Linnaeus, 1758) **Pukeko**
P. porphyrio melanotus Temminck, 1820
Australia, Tasmania and New Zealand; main islands and many outlying and offshore islands, including Kermadec, Great Barrier, Great Mercury, Waiheke, Kapiti, Chathams and Stewart Islands. Straggling north to Three Kings and south to Campbell Island.
Note: Some authors use the subspecific name *stanleyi* Rowley, 1871, for New Zealand birds.
References: Mayr, 1938, *Am.Mus.Novit.*:1007; Greenway, 1958, *Extinct and Vanishing Birds of the World*:244.
Plate: Buller (ed. 2), pl. 31.

138. *Notornis mantelli* Owen, 1848 **Notornis (Takaha)**
 New Zealand; south-western portion of the South Island: Dusky Sound (1849), Thompson Sound (1851), Mararoa River, south-east of Lake Te Anau (1879), Patience Bay, Te Anau (skeleton, 1884), Middle Fiord, Te Anau (1898). A small persisting population was rediscovered by G. B. Orbell, Nov 1948, west of Lake Te Anau and the population has since been found to be widespread in the Murchison Mountains. Formerly also North Island, where subfossil remains occur in many localities.
 References: Greenway, 1958, *Extinct and Vanishing Birds of the World*:244-50; Williams, 1960, *Trans.Roy.Soc.N.Z.*, 88:235-58.
 Plates: Buller (ed. 1), pl. 22; (ed. 2), pl. 32.
139. *Gallinula tenebrosa* Gould, 1846 **Dusky Moorhen**
 Australia, New Guinea and East Indies; straggling to New Zealand. One record, Lake Hayes, Otago (Aug 1968).
 Reference: Barlow, 1969, *Notornis*, 16:81-4.
 Plate: Mathews, *Birds Aust.*, pl. 62.
140. *Tribonyx ventralis* (Gould, 1837) **Black-tailed Water Hen**
 Australia; straggling to New Zealand; few substantiated records: Oraki, Colac Bay, Southland (1923), Tukituki River, Hawkes Bay (May 1957, sight record).
 Reference: Brathwaite, 1963, *Notornis*, 10:233.
 Plate: Mathews, *Birds Aust.*, pl. 56.
141. *Fulica atra* Linnaeus, 1758 **Australian Coot**
F. atra australis Gould, 1845
 Australia and Tasmania; straggling to New Zealand; eight records, all in South Island, between 1875 and 1953. Lake Tutira (Hawkes Bay) in 1954. There appears to have been an invasion of coots from Australia in, or before 1957. First proved breeding 1958, Lake Hayes (Otago); now known to breed at Lakes Alexandrina and Macgregor, St Anne's Lagoon, Cheviot; Tutira and Horse Shoe Lakes (Hawkes Bay), Virginia Lake (Wanganui), Lake Okareka (Rotorua) and probably elsewhere. Straggles to Macquarie Island.
 References: Falla, 1958, *Notornis*, 8:31; Keith and Hines, 1958, *C.S.I.R.O. Wildlife Research*, 3:51; Small and Soper, 1959, *Notornis*, 8:93; Jackson and Lyall, 1964, *Notornis*, 11:82-6; MacDonald, 1968, *Notornis*, 15:234-7.
 Plate: Mathews, *Birds Aust.*, pl. 61.

ORDER CHARADRIIFORMES

SUBORDER CHARADRII

FAMILY HAEMATOPODIDAE : OYSTERCATCHERS

142. *Haematopus ostralegus* Linnaeus, 1758
H. ostralegus finschi Martens, 1897 **South Island Pied Oystercatcher (Torea)**
 Breeding South Island (except Nelson and Westland) on shingle riverbeds, shores of mountain lakes, in pastoral and agricultural lands in the interior; partially migrating, many thousands wintering in northern

New Zealand; but still more on coasts and estuaries of South Island. Stragglings to Chatham Islands, one record (1968).

References: Falla, 1939, *Rec.Cant.Mus.*, 4:259-66; Sibson, 1945, *N.Z. Bird Notes*, 1:107-9; Sibson, 1966, *Notornis*, 13:94-7.

143. *Haematopus unicolor* Forster, 1844 **Variable Oystercatcher**

Coasts of North, South and Stewart Islands and on many offshore islands where there are sandy or pebble beaches. Apparently some local movement in winter.

Plate: *Ereb.Terr.*, pl. 10.

Apparently *H. unicolor* is a polymorphic species with pied birds commoner in the north (described as *H. unicolor reischeki* Rothschild, 1899) and black birds dominant in the south (*H. unicolor unicolor*). Further research is necessary to show whether *reischeki* deserves taxonomic status.

144. *Haematopus chathamensis* Hartert, 1927

Chatham Island Oystercatcher

Chatham, Pitt, Mangere and South-east Islands (now rare).

Reference: Fleming, 1939, *Emu*, 38:494-5.

FAMILY CHARADRIIDAE : PLOVERS

SUBFAMILY VANELLINAE : LAPWINGS

145. *Lobibyx novaehollandiae* (Stephens, 1819) **Spur-winged Plover**

Australia; self-introduced to New Zealand; since about 1947 breeding in Southland and now also commonly in Otago; present, and range expanding in Westland, Canterbury and Marlborough. Has straggled to Stewart and Campbell Islands; occasionally straggling to North Island (Lake Horowhenua, May 1947; Matata, 1957; Volcanic Plateau, 1967 and Waikanae, 1968).

Reference: Sansom, 1951, *Notornis*, 4:138-9.

Plate: Mathews, *Birds Aust.*, pl. 129.

SUBFAMILY CHARADRIINAE : TRUE PLOVERS

146. *Pluvialis squatarola* (Linnaeus, 1758) **Grey Plover**

Breeding in holarctic regions. About ten (six) records in New Zealand: Firth of Thames (1948-9), Lake Grassmere (1961), Farewell Spit (1961, two in 1962), mid-Kaipara (1961), Macquarie Island (1964), Kermadec Islands (1966), Manukau Harbour and Chatham Islands (1968) and Southland Lagoons (1969).

Reference: Sibson, 1949, *N.Z. Bird Notes*, 3:82.

Plates: Mathews, *Birds Aust.*, pl. 132; *Birds Brit. Isles*, 10, pl. 17.

147. *Pluvialis dominica* (Müller, 1776)

***P. dominica fulva* Gmelin, 1789**

Pacific Golden Plover

Breeding north-east Siberia and west Alaska, migrating to Pacific Islands, Malaysia, Australia and New Zealand. Regularly favouring certain coastal localities from Kermadec Islands to Southland lagoons east to Chatham Islands (1967) and south to Auckland Islands.

References: Stead, 1923, *Trans.N.Z.Inst.*, 54:492; Sibson, 1946, *N.Z. Bird Notes*, 2:6-7.

Plates: Mathews, *Birds Aust.*, pl. 133; *Birds Brit. Isles*, 10, pl. 16.

148. *Charadrius obscurus* (Gmelin, 1789) **New Zealand Dotterel**

New Zealand; now breeding North Island, on beaches from Spirits Bay to Aotea Harbour and Bay of Plenty; including Cavalli, Great Barrier, Great Mercury and Waiheke Islands; South Island, present Marlborough, Nelson, Westland and Southland coast to Foveaux Strait; Stewart Island, breeding Mason Bay and hill tops. Reported also from Palliser Bay, Wellington west coast and Taranaki.

References: McKenzie, 1952, *Notornis*, 5:15-7; Edgar, 1969, *Notornis*, 16: 85-100.

Plates: *Ereb.Terr.*, pl. 9; Buller (ed. 2), pl. 25.

149. *Charadrius alexandrinus* Linnaeus, 1758

C. alexandrinus ruficapillus Temminck, 1822 **Red-capped Dotterel**

Breeding Australia and Tasmania; straggling to New Zealand: Otaki (Dec 1878). In 1947 a female, apparently mated with a male *C. bicinctus*, was found on the Ashley River bed, and eggs subsequently hatched. This species is still reported on the Ashley River, but the position at present is obscure. Elsewhere several unconfirmed sightings.

Reference: Falla, 1948, *N.Z. Bird Notes*, 2:194.

Plates: Mathews, *Birds Aust.*, pl. 138.

150. *Charadrius bicinctus* Jardine and Selby, 1827

Banded Dotterel (Tuturiwhatu)

New Zealand; breeding North and South Islands and on some off-shore and outlying islands including Great Barrier, Great Mercury, Kapiti, Ruapuke, Stewart, Chatham and Auckland Islands. Partially migrating, many reaching Australia; winter flocks in many districts, mainly coastal, of both North and South Islands. Straggling to Norfolk and Lord Howe Islands, Fiji and New Hebrides.

References: Stead, 1932, *Life Histories N.Z. Birds*:81-90; Thomas, 1968, *Emu*, 68:113-4.

Plates: Buller (ed. 2), pl. 25; Mathews, *Birds Aust.*, pl. 134.

151. *Charadrius mongolus* Pallas, 1776

Mongolian Dotterel

Breeding eastern Asia, migrating south to Solomons and Australia; straggling to New Zealand: sight records from: Farewell Spit (1961, three in 1967), Karaka (1963), Lake Waituna, Southland (Dec 1964). (New Zealand records have not been subspecifically identified).

References: Hogg, 1961, *Notornis*, 9:154-6; Urquhart, 1963, *Notornis*, 10:234-5; Andrew, 1967, *Notornis*, 14:176.

Plate: Mathews, *Birds Aust.*, pl. 135.

152. *Charadrius leschenaulti* Lesson, 1826

Large Sand Dotterel

Breeding in northern Asia, migrating south; straggling to New Zealand: sight records annually since 1943 in Auckland province; Taranaki (1965). Has over-wintered.

References: Sibson and Bull, 1946, *Emu*, 45:223-4; Sibson, 1953, *Notornis*, 5:179-81.

Plate: Mathews, *Birds Aust.*, pl. 136.

153. *Charadrius veredus* Gould, 1848

Oriental Dotterel

Breeding Mongolia and northern China, migrating south; straggling to New Zealand: Raoul Island, Kermadecs (1908); Firth of Thames (ten in 1954-5) and Parengarenga (1955 and 1968).

References: Sibson, 1956, *Notornis*, 7:25-7; Edgar, 1968, *Notornis*, 15:211-2.

Plate: Mathews, *Birds Aust.*, pl. 137.

154. *Charadrius melanops* Vieillot, 1818 **Black-fronted Dotterel**
 Australia, first recorded in New Zealand from Hawkes Bay (1954); now breeding widely on riverbeds of Hawkes Bay, on Manawatu and possibly Ruamahanga Rivers; also on Wairau River. Reported from Leithfield, Canterbury (1956); Waimatuku, Southland (1963); Oamaru (1963); Lake Waikare (1966) and Taieri River (1966).
 References: Brathwaite, 1955, *Notornis*, 6:146-7; Mackenzie, 1962, *Notornis*, 9:269-70; Mackenzie, 1963, *Notornis*, 10:202-6.
 Plate: Mathews, *Birds Aust.*, pl. 180.

155. *Thinornis novaeseelandiae* (Gmelin, 1789) **New Zealand Shore Plover (Tuturuatu)**
 New Zealand; formerly North and South Islands; now restricted to Chatham Islands, breeding South-East Island, rarely straggling to other islands in the Chatham group.
 Reference: Fleming, 1939, *Emu*, 39:1-15.
 Plates: *Ereb.Terr.*, pl. 11; Buller (ed. 1), pl. 23; (ed. 2), pl. 26; *Emu*, 39, pl. 1.

156. *Anarhynchus frontalis* Quoy and Gaimard, 1830. **Wrybill (Ngutu parore)**
 New Zealand; breeding riverbeds of Canterbury and North Otago; migrating to the North Island and wintering mainly north of 38° S.
 References: Stead, 1932, *Life Histories N.Z. Birds*:91-6; Sibson, 1943, *Emu*, 43:49-62; Urquhart and Sibson, 1952, *Notornis*, 4:170-2; Sibson, 1963, *Notornis*, 10:146-53.
 Plates: Buller (ed. 2), pl. 26; *Emu*, 37, pl. 1.

FAMILY SCOLOPACIDAE : CURLEWS, SNIPES, ETC.

SUBFAMILY TRINGINAE : CURLEWS, GODWITS ETC.

157. *Numenius madagascariensis* (Linnaeus, 1766) **Long-billed Curlew**
 Breeding eastern Siberia, migrating south to Australia; regularly reaching New Zealand; recorded from Parengarenga to Southland lagoons. A few birds over-winter.
 Plate: Mathews, *Birds Aust.*, pl. 144.

158. *Numenius phaeopus* (Linnaeus, 1758)
- a. *N. phaeopus variegatus* (Scopoli, 1786) **Asiatic Whimbrel**
 Breeding eastern Siberia, migrating south; some regularly reaching the Kermadec Islands and New Zealand as far south as Southland. First New Zealand record, New Brighton, 1879. A few birds over-winter.
 Plate: Mathews, *Birds Aust.*, pl. 145.
- b. *N. phaeopus hudsonicus* Latham, 1790 **American Whimbrel**
 Breeding arctic North America, migrating to Central and South America; straying to New Zealand, one shot (Wairau, July 1874) and at least nine sight records; Ohiwa, Bay of Plenty (June 1949); Miranda (Mar-May 1964 and in 1969); Farewell Spit (Apr 1965); Okarito (Oct 1965); Waituna Lagoon, Southland; Clevedon (Sept 1968) and Parengarenga (1968 and 1969).
 Reference: Mackenzie, 1950, *Notornis*, 4:18-21.
 Plate: *Book of Birds*, 1:273.

159. *Numenius tahitiensis* (Gmelin, 1789) **Bristle-thighed Curlew**
Breeding Alaska, migrating to islands of the Central and South Pacific; straggling to Kermadec Islands; one sight record, Macauley Island (Aug 1966).

Plate: *Book of Birds*, 1:280.

160. *Numenius minutus* Gould, 1841 **Little Whimbrel**
Breeding central and eastern Siberia, migrating to Australia; straggling occasionally to New Zealand; about ten occurrences: Lake Ellesmere (1900, 1921, 1922, 1925), Napier (1952), Farewell Spit (1961 and 1968), Karaka (1964), Miranda (1964 and 1966) and Wellington west coast (1964). May over-winter.

Reference: Stead, 1923, *Trans.N.Z.Inst.*, 54:492.

Plate: Mathews, *Birds Aust.*, pl. 146.

161. *Limosa limosa* (Linnaeus, 1758)
L. limosa melanuroides Gould, 1846 **Asiatic Black-tailed Godwit**
Breeding eastern Asia, migrating south; straggling to New Zealand, sometimes in small flocks: sight recorded with some frequency (from 1952) in Firth of Thames, Manukau Harbour, Kerikeri (1963); Ahuriri Estuary, Napier (1964) and Parengarenga (1969); and one record on Enderby Island, Auckland Islands (1963). Has over-wintered.

References: Sibson, 1956, *Notornis*, 6:241-2; Sibson, 1956, *Notornis*, 7:58-9.

162. *Limosa haemastica* (Linnaeus, 1758) **American Black-tailed (Hudsonian) Godwit**
Breeding in subarctic America from north-east Alaska to Hudson Bay; migrating normally to southern South America; straying to New Zealand almost annually; recorded many harbours and estuaries from Northland to Southland (sight records only). Has been known to over-winter.

References: Stead, 1923, *Trans.N.Z.Inst.*, 54:492-3; Sibson, 1943, *Emu*, 43:136; Sibson, 1947, *N.Z. Bird Notes*, 2:35-6.

Plates: Mathews, *Birds Norf. Lord Howe*, pl. 89; *Book of Birds*, 1:273.

163. *Limosa lapponica* (Linnaeus, 1758) **Eastern Bar-tailed Godwit**
L. lapponica baueri Naumann, 1836
Breeding north-east Asia and north-west America, migrating to Australia, New Zealand, Stewart Island and Chatham Islands and occasionally to subantarctic islands. Many over-winter.

References: Turbott, 1951, *Notornis*, 4:128-30; Stidolph, 1951, *Notornis*, 4:135; McKenzie, 1967, *Notornis*, 14:18-21.

Plates: Buller (ed. 2), pl. 28; Mathews, *Birds Aust.*, pl. 148; *Book of Birds*, 1:273.

- †163. *Bartramia longicauda* (Bechstein, 1812) **Upland Plover**
Breeding North America, from South Alaska to northern Texas; migrating to southern South America. One sight record in New Zealand, Karaka, Manukau Harbour (Feb 1967).

Reference: McKenzie, 1968, *Notornis*, 15:216-8.

Plate: *Birds Brit. Isles*, 9, pl. 15.

164. *Tringa flavipes* (Gmelin, 1789) **Lesser Yellowlegs**
Breeding North America, Alaska to Manitoba and Quebec; migrating to South America as far as Chile and Patagonia. Three sight records in

New Zealand: Ahuriri Lagoon, Napier (Nov 1963), Porirua (Nov 1963) and Lake Ellesmere (Jan 1964).

References: Fleming, 1963, *Notornis*, 10:258-62; Falla, 1964, *Notornis*, 11:104-6; Mackenzie, 1964, *Notornis*, 11:100-3; Tunnicliffe, 1964, *Notornis*, 11:103-4.

Plate: *Birds Brit. Isles*, 10, pl. 5.

165. *Tringa nebularia* (Gunnerus, 1767) Greenshank

Breeding northern Europe and Asia, migrating to Australia. Only once recorded in New Zealand in 19th century, but now occurring almost annually, recorded from Northland to Southland; straggling to Snares and Macquarie Islands (1962). May over-winter.

References: Sibson, 1965, *Notornis*, 12:44-6; Warham, 1969, *Notornis*, 16:223. Plates: Mathews, *Birds Aust.*, pl. 155; *Birds Brit. Isles*, 10, pl. 9.

166. *Tringa stagnatilis* (Bechstein, 1803) Marsh Sandpiper

Breeding palaeartic region, from south-east Europe to eastern Asia, migrating south; straying to New Zealand. Six sight records: Manukau Harbour (1959 and 1969), Firth of Thames (1963), Hawera (1963), Gisborne (1964) and Westport (1968).

References: Sibson, 1959, *Notornis*, 8:125-6; Sibson, 1963, *Notornis*, 10:235-6. Plate: *Birds Brit. Isles*, 10, pl. 10.

167. *Tringa incana* (Gmelin, 1789) Wandering Tattler

Breeding north-western America and north-eastern Siberia; wintering throughout tropical Pacific; common in Fiji, straggling to Australia and to New Zealand: probably regular at Kermadec Islands, and sightings reported from Kawakawa Bay, Clevedon, Cape Kidnappers and Farewell Spit. Has over-wintered.

References: McKenzie, 1949, *N.Z. Bird Notes*, 3:178-80; Sibson, 1965, *Notornis*, 12:248-50.

Plate: Mathews, *Birds Aust.*, pl. 152; *Book of Birds*, 1:277.

168. *Tringa brevipes* (Vieillot, 1816) Siberian Tattler

Breeding eastern Siberia, migrating south, common in Australia; straggling to New Zealand; numerous sight records from Parengarenga to Otago Harbour. Has over-wintered.

References: Turbott, 1951, *Notornis*, 4:130-32; Sibson, 1956, *Notornis*, 6:243-5.

Plates: Mathews, *Birds Aust.*, pl. 151; *Birds Brit. Isles*, 10, pl. 6.

169. *Tringa hypoleucos* Linnaeus, 1758 Common Sandpiper

Breeding palaeartic region, migrating south; two sight records in New Zealand, Taranaki (Oct 1964) and Kerikeri (Mar 1969).

References: Merton et al., 1965, *Notornis*, 12:107-8; Edgar, 1969, *Notornis*, 16:202-3.

Plate: *Birds Brit. Isles*, 10, pl. 2.

170. *Xenus cinereus* (Gueldenstaedt, 1774) Terek Sandpiper

Breeding northern Europe and Asia, migrating south; first recorded in New Zealand 1951, now occurring annually; sight records from Kaipara, Manukau, Firth of Thames, Gisborne, Napier, Manawatu, Kaikoura (1966), Parengarenga and Southland (1969). Has over-wintered.

Reference: McKenzie, 1952, *Notornis*, 4:212.

Plates: Mathews, *Birds Aust.*, pl. 154; *Birds Brit. Isles*, 10, pl. 1.

SUBFAMILY ARENARIINAE : TURNSTONES

171. *Arenaria interpres* (Linnaeus, 1758)

A. interpres interpres (Linnaeus, 1758) Turnstone

Breeding holarctic region, migrating to southern hemisphere, including New Zealand; regularly favouring certain localities from Kermadec Islands to Southland lagoons, Chatham Islands and as far south as Auckland and Campbell Islands. Fair numbers may over-winter.

References: Falla, 1936, *Rec.Auck.Mus.*, 2:6; Sibson, 1946, *N.Z. Bird Notes*, 2:4-5.

Plates: Mathews, *Birds Aust.*, pl. 125; *Birds Brit. Isles*, 9, pl. 14.

SUBFAMILY SCOLOPACINAE : WOODCOCKS AND SNIPES

172. *Coenocorypha aucklandica* (Gray, 1845)

a. *C. aucklandica iredalei* Rothschild, 1921 Stewart Island Snipe

South Cape Islands till 1964, also formerly Jacky Lee Island, off Stewart Island. Possibly now extinct.

References: Guthrie-Smith, 1936, *Sorrows and Joys of a New Zealand Naturalist*:174-88; Blackburn, 1965, *Notornis*, 12:191-207.

Plate: Buller (ed. 2), pl. 28 (?subspecies).

b. *C. aucklandica pusilla* (Buller, 1869) Chatham Island Snipe

Chatham Islands, now confined to South-east Island.

Reference: Fleming, 1939, *Emu*, 38:495-7.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 90.

c. *C. aucklandica huegeli* (Tristram, 1893) Snares Island Snipe

Snares Island.

References: Stead, 1948, *N.Z. Bird Notes*, 3:73-4; Warham, 1967, *Notornis*, 14:135; Anderson, 1968, *Notornis*, 15:223-7.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 90.

d. *C. aucklandica meinertzhagenae* Rothschild, 1927

Antipodes Island Snipe

Antipodes Island.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 90.

e. *C. aucklandica aucklandica* (Gray, 1845) Auckland Island Snipe

Auckland Islands, now confined to Ewing, Adams and probably Disappointment Islands.

Plate: *Ereb.Terr.*, pl. 13.

173. *Gallinago hardwicki* (Gray, 1831)

Japanese Snipe

Breeding Japan, migrating to Australia and Tasmania; five New Zealand records: Arch Hill, Auckland (Mar 1898); Castlecliff, Wanganui (Oct 1914); sight records: Taieri Beach (Jan 1941 and Jan 1969), and Ahuriri Lagoon (Apr 1952).

Reference: Wolfe, 1954, *Emu*, 54:198-203.

Plate: Mathews, *Birds Aust.*, pl. 166.

SUBFAMILY CALIDRINAE : SANDPIPERS

174. *Calidris canutus* (Linnaeus, 1758)

C. canutus canutus (Linnaeus, 1758)

Knot (Huahou)

Breeding high arctic latitudes; migrating south and reaching its southernmost limits in New Zealand. Biggest concentrations occur in Parengarenga, Kaipara, Manukau, Firth of Thames and Farewell Spit.

Recorded in smaller numbers as far south as Southland lagoons and straggles to Chatham, Stewart, Auckland, Campbell and Macquarie Islands. Many over-winter, mainly north of 38°S.

Note: The former name *C. canutus rogersi* (Mathews, 1913), applied to this form, is now considered a synonym of *C. canutus canutus*.

Reference: McKenzie, 1967, *Notornis*, 14:154-7.

Plates: Mathews, *Birds Aust.*, pl. 163; *Birds Brit. Isles*, 9, pl. 15.

175. *Calidris tenuirostris* (Horsfield, 1821) **Great Knot**
Breeding mountainous regions of Siberia, migrating to South-east Asia and Australia; straggling to New Zealand; one sight record, Manawatu (three in 1967).

Reference: Andrew, 1968, *Notornis*, 15:207-10.

176. *Calidris acuminata* (Horsfield, 1821) **Sharp-tailed Sandpiper**
Breeding north-east Siberia, migrating to Malaya and Australia, small numbers regularly reaching Kermadec Islands and New Zealand south to Southland lagoons and Snares Island.

References: Stead, 1923, *Trans.N.Z.Inst.*, 54:494; Warham, 1969, *Notornis*, 16:222-3.

Plates: Mathews, *Birds Aust.*, pl. 161; *Birds Brit. Isles*, 9, pl. 20.

177. *Calidris melanotos* (Vieillot, 1819) **Pectoral Sandpiper**
Breeding Arctic America and north-east Siberia, migrating mainly to South America, but a few birds regularly reach New Zealand. Sight records from several coastal localities, south to Lake Ellesmere and Southland lagoons, occasionally inland, e.g. Masterton (1946) and Lake Hatuma (1966). A rare straggler to eastern Australia.

Reference: Stead, 1923, *Trans.N.Z.Inst.*, 54:494-5.

Plates: Mathews, *Birds Norf. Lord Howe*, pl. 88; *Birds Brit. Isles*, 9, pl. 21.

178. *Calidris ferruginea* (Pontoppidan, 1763) **Curlew Sandpiper**
Breeding Arctic Asia, migrating south, some annually reaching New Zealand; recorded with some regularity: Firth of Thames, Manukau, Farewell Spit and Lake Ellesmere, and casually from Kermadec Islands, Parengarenga, Kaipara, Manawatu and Te Anau. A few may over-winter.

References: Stead, 1923, *Trans.N.Z.Inst.*, 54:495; Oliver, *N.Z. Birds*:284.

Plates: Mathews, *Birds Aust.*, pl. 162; *Birds Brit. Isles*, 9, pl. 17.

179. *Calidris mauri* (Cabanis, 1857) **Western Sandpiper**
Breeding north-eastern Siberia and Alaska, migrating south; straggling to New Zealand: one sight record, Farewell Spit, 1965.

Reference: Blackburn and Bell, 1965, *Notornis*, 12:109-10.

Plate: *Book of Birds*, 1:282.

180. *Calidris ruficollis* (Pallas, 1776) **Red-necked Stint**
Breeding north-east Siberia and north-west Alaska; migrating to Malaysia and Australia, some regularly reaching New Zealand; recorded south to Southland lagoons and straggling to Auckland Islands (1963). Immature non-breeders may over-winter.

References: Stead, 1923, *Trans.N.Z.Inst.*, 54:493-4; Sibson, 1968, *Notornis*, 15:241-3.

Plate: Mathews, *Birds Aust.*, pl. 159, 160.

181. *Calidris alba* (Pallas, 1764)**Sanderling**

Breeding northern holarctic region. Most eastern Siberian birds migrate only to northern fringe of south-west Pacific, but some reach Australia and less regularly New Zealand; recorded from Lake Ellesmere (1917), Waimakariri Estuary (1934 and 1938), Waikanae (1930), Parengarenga (five in 1951), Farewell Spit (1962), Invercargill, Waituna Lagoon (five in 1966) and Maketu (five in 1967).

References: Falla, 1936, *Rec.Auck.Mus.*, 2:10; Turbott, 1951, *Notornis*, 4:127-8; Sutton, 1967, *Notornis*, 14:83.

Plates: Mathews, *Birds Aust.*, pl. 158; *Birds Brit. Isles*, 9, pl. 24.

182. *Limicola falcinellus* (Pontoppidan, 1763)***L. falcinellus sibirica* Dresser, 1876****Broad-billed Sandpiper**

Breeding north-eastern Siberia, migrating south; straggling to New Zealand; sight records from Firth of Thames (1960, 1964, 1966, 1968 two), (1969 two) and Manukau Harbour (1963). One over-wintered (1964).

References: Sibson and McKenzie, 1960, *Notornis*, 8:233-5; Sibson and McKenzie, 1965, *Notornis*, 12:55.

Plate: *Birds Brit. Isles*, vol. 10, pl. 1.

FAMILY RECURVIROSTRIDAE : STILTS AND IBISBILL

SUBFAMILY RECURVIROSTRINAE : STILTS AND AVOCETS

183. *Himantopus himantopus* (Linnaeus, 1758)***H. himantopus leucocephalus* Gould, 1837****Pied Stilt (Poaka)**

Australia and New Zealand; breeding main islands and some offshore islands, including Waiheke, Great Barrier, Kapiti, Ruapuke, Stewart Island (1956) and Chatham Islands (1961). Apparently still extending breeding range. Some local movement after mid-summer, mainly northwards. No evidence that any leave New Zealand.

References: Stead, 1932, *LifeHist.N.Z.Birds*:97-105; Sibson and McKenzie, 1944, *N.Z. Bird Notes*, 1:51-7; Soper, 1963, *N.Z. Bird Portraits*:67-8.

Plate: Buller (ed. 2), pl. 27.

184. *Himantopus novaezealandiae* Gould, 1841**Black Stilt (Kaki)**

New Zealand; now only breeding within the Waitaki river system (South Island), formerly more abundant and widespread. Black or almost black stilts reappear in northern New Zealand in autumn.

References: Soper, 1963, *N.Z. Bird Portraits*:69-70; Soper, 1967, *Notornis*, 14:8-10.

Plate: Buller (ed. 2), pl. 27.

185. *Recurvirostra novaehollandiae* Vieillot, 1816**Australian Avocet**

Breeding Australia; occasionally visiting, but not breeding Tasmania; reported widely in New Zealand in latter half of nineteenth century, mainly in the South Island: Timaru and Ashburton (1859-60), Kaiapoi, Waimate, Lake Ellesmere, Rakaia River mouth, Methven, Ashley River, Dunedin, Lake Wakatipu, Jackson's Bay, Christchurch and last recorded Invercargill (1892). North Island records from Wellington west coast (1863), and from Whangarei. Only two records during this century: Lake Ellesmere (1912), and Orowaiti Lagoon, Westport (one, Feb 1968 to at least Dec 1969).

Reference: Kaigler, 1968, *Notornis*, 15:123.

Plates: Buller (ed. 2), pl. 27; Mathews, *Birds Aust.*, pl. 143.

FAMILY PHALAROPODIDAE : PHALAROPES

186. *Phalaropus fulicarius* (Linnaeus, 1758) **Grey Phalarope**
Breeding in Arctic region, migrating to Atlantic and Pacific Oceans, mainly west of Africa and west of South America; straggling to New Zealand. Records from Waimate South (June 1883), Lake Ellesmere (1925) and Hastings (July 1934).

Note: All three specimens are females in red breeding plumage, collected in the southern winter.

Reference: Falla, 1963, *Rec.Auck.Mus.*, 2:13.

Plates: Mathews, *Birds Norf. Lord Howe*, pl. 92; *Birds Brit. Isles*, 9, pl. 12.

187. *Phalaropus lobatus* (Linnaeus, 1758) **Red-necked Phalarope**
Breeding in subarctic and Arctic regions, migrating to Atlantic, Indian and Pacific Oceans (especially seas north of New Guinea and west of South America); straggling to New Zealand. Records from Lake Ellesmere (1929), Wanganui River (Apr 1935) and Washdyke Lagoon (Mar 1961).

Reference: Crockett, 1961, *Notornis*, 9:266.

Plates: *Birds Brit. Isles*, 9, pl. 13; Mathews, *Birds Norf. Lord Howe*, pl. 93.

FAMILY GLAREOLIDAE : COURSERS AND PRATINCOLES

SUBFAMILY GLAREOLINAE : PRATINCOLES

188. *Glareola maldivarum* J. R. Forster, 1795 **Oriental Pratincole**
Breeding eastern Asia, migrating to Australia; straggling to New Zealand. Records from Westport (1898), Appleby (May 1959) and Port Adventure, Stewart Island (Apr 1963).

References: Falla, 1959, *Notornis*, 8:126-7; Falla, 1963, *Notornis*, 10:355.

Plate: Mathews, *Birds Aust.*, pl. 171.

SUBORDER LARI

FAMILY STERCORARIIDAE : SKUAS

189. *Stercorarius skua* (Brünnich, 1764)

a. *S. skua lonnbergi* (Mathews, 1912) **Southern Skua (Hakoakoa)**

Circumpolar on subantarctic islands; breeding Macquarie, Campbell, Auckland, Bounty, Snares and Chatham Islands, Solander Islands, Stewart and outlying islands. Only mainland breeding record, one pair found with nest and two eggs, vicinity Puysegur Point (Nov 1962). Also probably breeding Balleny Islands, Antarctica, and straggling south to Ross Sea during summer. Absent from breeding grounds during winter months, migrating northward; recorded as far north as 33°S and around southern Australia.

References: Stead, 1932, *Life Hist. N.Z. Birds*:60-71; Fleming, 1939, *Emu*, 38:497-8; Hatherton, Dawson, Kinsky, 1965, *N.Z. Journ. Geology and Geophysics*, 8:169-70.

Plates: Mathews, *Birds Aust.*, pl. 122; Mathews, *Birds Norf. Lord Howe*, pl. 59; Murphy, *Oceanic Birds S.Amer.*:1070.

b. *S. skua maccormicki* Saunders, 1893 **Antarctic Skua**

Circumpolar, breeding on shores and offshore islands of the Antarctic continent, including Balleny Islands, mainly in close vicinity of penguin and petrel colonies, wintering at sea and ranging to North Pacific and North Indian Oceans, but rarely observed on New Zealand coasts; six

records: Rangitikei (Jan 1940), Muriwai (Apr 1940), Mitimiti (c. 1946), Waikanae (Mar 1953), Himatangi (June 1965) and Campbell Island (Mar 1968). One banded at Cape Hallett (1964) recovered in Japan 1966.

References: Falla, 1940, *Emu*, 40:119-20; Sibson, 1950, *N.Z. Bird Notes*, 3:237; Fleming, 1953, *Notornis*, 5:182-4; Young, 1963, *Ibis*, 105:203-33, 301-18.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 42.

190. *Stercorarius pomarinus* (Temminck, 1815) **Pomarine Skua**
Breeding Arctic region, migrating to southern hemisphere; rare but probably regular in New Zealand south to Foveaux Strait during southern summer.

Reference: Falla, 1936, *Rec.Auck.Mus.*, 2:4.

Plates: Mathews, *Birds Aust.*, pl. 123; Witherby, *Brit.Birds*, 5, pl. 138; *Birds Brit.Isles*, 12, pl. 3.

191. *Stercorarius parasiticus* (Linnaeus, 1758) **Arctic Skua**
Breeding Arctic and subarctic regions, migrating to southern hemisphere including New Zealand, south to Fiordland and east to Chatham Islands. May over-winter.

References: Falla, 1936, *Rec.Auck.Mus.*, 2:4-5; Moon, 1956, *Notornis*, 6:206.

Plates: Mathews, *Birds Aust.*, pl. 124; Witherby, *Brit.Birds*, 5, pl. 139; *Birds Brit.Isles*, 12, pl. 2.

192. *Stercorarius longicaudus* Vieillot, 1819 **Long-tailed Skua**
Breeding Arctic and subarctic regions, migrating to southern hemisphere; rare in south-west Pacific; one New Zealand record Muriwai, Jan 1964.

Reference: Sibson, 1967, *Notornis*, 14:79-81.

Plates: Witherby, *Brit.Birds*, 5, pl. 139; *Birds Brit. Isles*, 12, pl. 4.

FAMILY LARIDAE : GULLS

193. *Larus dominicanus* Lichtenstein, 1823 **Southern Black-backed Gull (Karoro)**

Circumpolar, South America, South Africa, New Zealand, and on subantarctic islands of all oceans; only recently settled in Australia. New Zealand, breeding throughout coastal districts (also inland on riverbeds, lakes and mountains) and on outlying islands including Chatham and subantarctic islands, but not on Three Kings or Snares Islands; straggling south to Ross Sea and north to the Kermadec Islands.

References: Stead, 1932, *Life Hist.N.Z.Birds*:42-9; Kinsky, 1963, *Rec.Dom. Mus.*, 4:149-219; Fordham, 1964, *Notornis*, 11:3-34, 111-25; Warham, 1967, *Notornis*, 14:135.

Plate: Buller (ed. 1), pl. 28.

194. *Larus novaehollandiae* Stephens, 1826 **Red-billed Gull (Tarapunga)**
L. novaehollandiae scopulinus Forster, 1844

New Zealand, breeding coasts and islets, from Three Kings to Stewart Island and inland at Rotorua. Also Chatham, Snares, Auckland and Campbell Islands. Straggling to Kermadec Islands.

References: Gurr and Kinsky, 1965, *Notornis*, 12:223-40.

Plate: Buller (ed. 2), pl. 29.

195. **Larus bulleri** Hutton, 1871 **Black-billed Gull**
 New Zealand; breeding chiefly on South Island riverbeds; North Island: breeding on Volcanic Plateau at Lake Rotorua, and sometimes elsewhere; also on east coast from Gisborne to Porangahau. Some northward movement during winter to Wellington, Bay of Plenty and Auckland districts. Straggles to Snares Island.
 References: Stead, 1932, *Life Hist. N.Z. Birds*:50-9; Reid, 1965, *Notornis*, 12:138-57; Beer, 1965, *Auk*, 82:1-18; Warham, 1969, *Notornis*, 16:224.
 Plates: Buller (ed. 1), pl. 28; Buller (ed. 2), pl. 29.

FAMILY STERNIDAE : TERNS AND NODDIES

196. **Chlidonias hybrida** (Pallas, 1811) **Black-fronted Tern**
C. hybrida albostratus (Gray, 1845)
 New Zealand; breeding on riverbeds throughout the South Island east of the ranges; and formerly south-Westland (Reischek); ranging south to Stewart Island. Partial migration to coasts of North Island during winter; rare on Westland coast, and rarely observed inland in the North Island.
 References: Stead, 1932, *Life Hist. N.Z. Birds*:25-31; Sibson, 1948, *N.Z. Bird Notes*, 3:10-2; McKenzie, 1964, *Notornis*, 10:411.
 Plates: *Ereb. Terr.*, pl. 21; Buller (ed. 2), pl. 30.
197. **Chlidonias leucopterus** (Temminck, 1815) **White-winged Black Tern**
 Breeding Europe and Asia, migrating to southern hemisphere, including Australia and with some frequency New Zealand, where several have been known to over-winter, some in full breeding plumage. Numerous sight records throughout New Zealand as far south as Southland.
 Plates: Mathews, *Birds Aust.*, pl. 102; Witherby, *Brit. Birds*, 5, pl. 126; *Birds Brit. Isles*, 11, pl. 11.
198. **Gelochelidon nilotica** (Gmelin, 1789) **Gull-billed Tern**
G. nilotica macrotarsa (Gould, 1837)
 Cosmopolitan species (several races). Breeding south-east Asia and Australia; straggling to New Zealand; two sight records, both in Southland: Invercargill airport (May-July 1955) and Invercargill estuary (Dec 1964).
 References: McKenzie, 1955, *Notornis*, 6:163-4; Barlow, 1965, *Notornis*, 12:54.
 Plates: Mathews, *Birds Aust.*, pl. 104; Witherby, *Brit. Birds*, 5, pl. 127 (nominat. ssp.); *Birds Brit. Isles*, 11, pl. 12 (nominat. ssp.).
199. **Hydroprogne caspia** (Pallas, 1770) **Caspian Tern**
 Cosmopolitan species (but not known to breed in South America); New Zealand; coasts of the main islands; occasionally breeds and regularly occurs inland. Some northward movement of immature birds during winter.
 Reference: *New Zealand Banding Reports*.
 Plates: Gould, *Birds Aust.*, 7, pl. 22; Mathews, *Birds Aust.*, pl. 105; Witherby, *Brit. Birds*, 5, pl. 127; *Birds Brit. Isles*, 11, pl. 13.
200. **Sterna bergii** (Lichtenstein, 1823) **Crested Tern**
S. bergii cristata Stephens, 1826
 Subtropical and tropical east Atlantic, Indian and Pacific Oceans south to Australia (several subspecies); straggling to New Zealand, three

records: Kermadec Islands (Apr 1910), Spirits Bay (Mar 1951) and Farewell Spit (Jan 1960).

References: Turbott, 1952, *Rec.Auck.Mus.*, 4(3):189; Bell, 1960, *Notornis*, 8:261-2.

Plates: Gould, *Birds Aust.*, 7, pl. 23; Mathews, *Birds Aust.*, pl. 106.

201. *Sterna vittata* Gmelin, 1789

S. vittata bethunei Buller, 1896

Antarctic Tern

Breeding islands off Stewart Island, including Stage, Solomon and Moggy Islands, and on subantarctic islands including Snares, Antipodes, Bounty, Auckland and Campbell Islands, and ?Macquarie Island. Straggling to Chatham Islands (one record without date).

References: Murphy, 1938, *Am.Mus.Novit.*, 977:11-2; Falla, 1937, *B.A.N.Z.A.R.E.Repts.*(B), 2:260-61; Stead, 1948, *N.Z. Bird Notes*, 3:74-5; Blackburn, 1965, *Notornis*, 12:193-4; Kinsky, 1969, *Notornis*, 16:234.

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 76.

202. *Sterna paradisaea* Pontoppidan, 1763

Arctic Tern

Breeding northern hemisphere, migrating to Antarctic pack ice, casual in New Zealand; at least eight records: Waikanae (Dec 1929 and Oct 1952), Kaipara Heads (1939), ?Campbell Island, Auckland Islands (1943 and 1963), Manukau Harbour (four in Mar 1961 and one in May 1968), Foxton (Nov 1963) and Southland, 1969.

References: Storr, 1958, *Emu*, 58:59-62; Edgar, 1961, *Notornis*, 9:173; Imber, 1965, *Notornis*, 12:157; Kinsky, 1969, *Notornis*, 16:234.

Plates: Mathews, *Birds Norf. Lord Howe*, pl. 87; Witherby, *Brit. Birds*, 5, pl. 129; *Birds Brit. Isles*, 11, pl. 17.

203. *Sterna nereis* (Gould, 1843)

Fairy Tern

New Caledonia, Australia and Tasmania; New Zealand, rare and local; a few pairs breeding North Auckland.

Reference: Macdonald, 1953, *Notornis*, 5:84.

Plate: Mathews, *Birds Aust.*, pl. 112.

204. *Sterna albifrons* Pallas, 1764

S. albifrons sinensis Gmelin, 1789

Eastern Little Tern

Eastern Asia, New Guinea and eastern Australia (breeding); straggling to New Zealand south to Foveaux Strait, sometimes in small flocks, mainly during the summer months (Nov-Mar); rare in winter (sight records only).

References: McKenzie and Sibson, 1957, *Notornis*, 7:174-82; Sibson and Edgar, 1962, *Notornis*, 10:91-2.

Plates: Mathews, *Birds Aust.*, pl. 136; Witherby, *Brit. Birds*, 5, pl. 130 (nominat ssp.); *Birds Brit. Isles*, 11, pl. 18 (nominat ssp.).

205. *Sterna striata* (Gmelin, 1789)

White-fronted Tern (Tara)

New Zealand; breeding coasts and outlying islands, including Chatham and Auckland Islands; ranging to Snares, Campbell and Macquarie Islands. Part of the population, probably mainly immature birds, migrate to Australia.

References: Hindwood, 1946, *Emu*, 45:179-200; Stead, 1932, *Life Hist.N.Z. Birds*:32-41; *N.Z. Banding Reports*.

Plates: *Ereb.Terr.* pl. 20; Buller (ed. 2), pl. 30; Mathews, *Birds Aust.*, pl. 109.

206. *Sterna fuscata* (Linnaeus, 1766) Sooty Tern
Breeding on islands of all tropical and subtropical seas, including Kermadec Islands; straggling to northern New Zealand, as far south as Wellington west coast: Waitomo Caves (1918), Tauranga, Muriwai and Te Awamutu (1936), Manurewa (1936), New Plymouth (1951, 1964 and 1968), Pukerua Bay (1958), Manawatu River mouth, Bethells Beach and Muriwai, 1960), off Cape Reinga and Cuvier (1961), Marakopa (1964) and Paraparaumu (1966).
References: Turbott, 1952, *Rec.Auck.Mus.*, 4:190-1; Turbott, 1959, *Notornis*, 8:73; Sibson, 1961, *Notornis*, 9:137.
Plates: Mathews, *Birds Aust.*, pl. 113; Witherby, *Brit.Birds*, 5, pl. 130; *Birds Brit.Isles*, 11, pl. 19.
207. *Anous stolidus* (Linnaeus, 1758) subspecies Common Noddy
Tropical Atlantic and Pacific; straggling to New Zealand, two records: east coast of North Island (1885, Reischek) and "High Seas" (Buller).
Plate: Mathews, *Birds Aust.*, pl. 115.
208. *Anous minutus* Boie, 1844 White-capped Noddy
A. minutus minutus Boie, 1844
Tropical and subtropical seas, including Kermadec Islands; breeding Meyer and Macauley Islands; rarely straggling to northern New Zealand. Records: Kaipara (Oct 1953 and Aug 1964), Farewell Spit (Jan 1961), Spirits Bay (Jan 1965) and Whangarei Heads (Feb 1965).
References: Sibson, 1955, *Notornis*, 6:176; Sibson, 1965, 12:79; Robb, 1965, *Notornis*, 12:124; Macdonald, 1965, *Notornis*, 12:240; Soper, 1969, *Notornis*, 16:71-5.
Plate: Mathews, *Birds Aust.*, pl. 117.
209. *Gygis alba* (Sparman, 1786) White Tern
G. alba royana Mathews, 1912
Tropical and subtropical seas, including Norfolk and Kermadec Islands, breeding on Raoul Island; birds (assumed to be of this subspecies) occur as rare stragglers in New Zealand; four records: Waipu, 1883 (one specimen in Reischek coll.), Ettrick, Otago (Mar 1945), Bethell's Beach (May 1960) and Pakotai (May 1964).
Reference: Sibson, 1961, *Notornis*, 9:137.
Plate: Mathews, *Birds Aust.*, pl. 119.
210. *Procelsterna cerulea* (Bennett, 1840) Grey Ternlet
P. cerulea albivitta Bonaparte, 1856
Subtropical Pacific, including Kermadec, Norfolk and Lord Howe Islands; straggling to New Zealand, seven records: Cape Maria van Dieman, Waipu, off Cape Karikari, Doubtless Bay (four birds seen Jan 1951), off Cape Brett (Jan 1954), Bay of Islands (Jan 1963) and Little River, near Lake Ellesmere (Apr 1968).
References: Johnson, 1955, *Notornis*, 6:84; Hogg, 1963, *Notornis*, 10:239, Soper, 1969, *Notornis*, 16:75-80.
Plate: Mathews, *Birds Aust.*, pl. 118.

ORDER COLUMBIFORMES

FAMILY COLUMBIDAE : FRUIT PIGEONS, PIGEONS
AND DOVES

SUBFAMILY TRERONINAE : FRUIT PIGEONS

211. *Hemiphaga novaeseelandiae* (Gmelin, 1789)a. *H. novaeseelandiae novaeseelandiae* (Gmelin, 1789)

New Zealand Pigeon (Kereru)

New Zealand; main islands and on most larger off-lying islands.

Plates: Buller (ed. 1), pl. 17; (ed. 2), pl. 24; *Forest-inhabiting Birds*, pl. 3.

b. *H. novaeseelandiae chathamensis* (Rothschild, 1891)

Chatham Island Pigeon

Chatham Islands (now rare).

Plate: Mathews, *Birds Norf. Lord Howe*, pl. 77.

SUBFAMILY COLUMBINAE : PIGEONS AND DOVES

*212. *Columba livia* Gmelin, 1789

Rock Pigeon

Europe, north Africa and western Asia; introduced to New Zealand as domestic varieties which have become feral, especially in parts of Hawke's Bay, Marlborough, Canterbury and Otago and in all major cities, tending to revert to plumage of wild type.

Plate: Witherby, *Brit. Birds* iv, pl. 102.

*213. *Streptopelia chinensis* (Scopoli, 1786)*S. chinensis tigrina* (Temminck, 1810)

Malay Spotted Dove

Eastern Bengal, Burma, south-east Asia; a common cage-bird, introduced to parts of Australia and New Zealand: Auckland suburbs, south to Papakura and north to Albany.

Plate: *Birds Malay Peninsula*, i, pl. i.

ORDER PSITTACIFORMES

FAMILY CACATUIDAE : COCKATOOS

214. *Strigops habroptilus* Gray, 1845

Kakapo

Formerly widespread throughout the main islands of New Zealand, except Northland. Now very rare and local in high rainfall districts of the South Island, such as Fiordland, ?Westland and ?Nelson. Possibly also Stewart Island. Subfossil remains known from the Chatham Islands.

Reference: Williams, 1956, *Notornis*, 7:29-56.

Plates: *Ereb. Terr.*, pl. 7; Buller (ed. 1), pl. 4; (ed. 2), pl. 19; *Forest-inhabiting Birds*, pl. 8.

*215. *Cacatua galerita* (Latham, 1790)

White Cockatoo

Australia, New Guinea, Molucca, Lesser Sunda and Solomon Islands; New Zealand introduced (?cage escapes), established Fordell and Hunterville, and west side of lower Waikato valley; also occurring north Kaipara Heads (Auckland) and Wainuiomata Valley (Wellington). (New Zealand specimens have not been subspecifically identified.)

Reference: Martin and Bartlett, 1963, *Notornis*, 10:241.

Plates: Mathews, *Birds Aust.*, pl. 287; *Aust. Parrots*, pl. 3.

FAMILY NESTORIDAE : KAKAS AND KEAS

216. *Nestor meridionalis* (Gmelin, 1788)a. *N. meridionalis septentrionalis* Lorenz, 1896 **North Island Kaka**

New Zealand; North Island, from Mangamuka (Northland), south to Rimutaka Range, and on outlying islands, including Hen and Chickens, Great and Little Barrier, Fanal, Arid, Mayor and Kapiti Islands. Straggling to isolated bush patches, sometimes to towns and cities and to offshore and outlying islands (e.g. Poor Knights, Mokohinau and others).

Plate: Buller (ed. 2), pl. 17.

b. *N. meridionalis meridionalis* (Gmelin, 1788) **South Island Kaka**

New Zealand; South Island, Stewart Island and some outlying islands, including D'Urville, Inner Chetwodes, Bench, Codfish and Big South Cape Island. Chiefly west of the main divide, but entering Canterbury through lower mountain passes (e.g. Arthur's Pass) and southern lakes districts. Also Marlborough. Occasional stragglers as far east as coastal districts of Canterbury and Otago.

Note: Subfossil Kaka bones (not subspecifically identified) have been recorded from the Chatham Islands.

References: Dawson, 1952, *Emu*, 52:259-72; 1959, *Notornis*, 8:106-15.

Plates: Buller (ed. 1), pl. 5; suppl., pl. 8.

217. *Nestor notabilis* Gould, 1856**Kea**

New Zealand, South Island only; high country from Fiordland to Nelson and Marlborough; absent from Marlborough Sounds and eastern regions of Canterbury, Otago and Southland. Breeds chiefly above 2,500 ft. Often comes down almost to sea level along west coast at times of heavy snowfall on hills.

Reference: Jackson, 1963, *Notornis*, 10:319-26.

Plates: Buller (ed. 1), pl. 5; (ed. 2), pl. 18.

FAMILY PLATYCERCIDAE : ROSELLAS AND PARAKEETS

*218. *Platycercus elegans* (Gmelin, 1788)**Crimson Rosella**

Eastern and South Australia including Tasmania; New Zealand introduced (cage escape), established since 1963 in Wellington (north-west suburbs), where at least one pair was reported to have bred. (New Zealand specimens have not been subspecifically identified.)

Plates: Mathews, *Birds Aust.*, pl. 300; *Aust. Parrots*, pl. vi.

*219. *Platycercus eximius* (Shaw, 1792)**Eastern Rosella**

South-eastern Australia including Tasmania; New Zealand introduced (cage escapes), and well established throughout Northland from Awanui south to the lower Waikato (Waingaro) and still spreading; also Wairarapa, Waikanae and upper Hutt Valley. Isolated records from Taranaki, Gisborne and Hawkes Bay. In the South Island, restricted to Otago (Between Waikouaiti River and Waipori Gorge) but has been reported from Canterbury (Diamond Harbour, 1967). (New Zealand specimens have not been subspecifically identified.)

References: Fleming, 1944, *N.Z. Bird Notes*, 1:59-60; Turbott, 1950, *Notornis*, 4:7.

Plates: Mathews, *Birds Aust.*, pl. 306; *Aust. Parrots*, pl. vi.

220. *Cyanoramphus unicolor* (Lear, 1831)**Antipodes Island Parakeet**

Antipodes Island.

Plate: Buller, *Suppl.*, pl. 9.

221. *Cyanoramphus novaezelandiae* (Sparrman, 1787)

a. *C. novaezelandiae cyanurus* Salvadori, 1891 **Kermadec Parakeet**
Kermadec Islands. Now very rare on Raoul Island.

b. *C. novaezelandiae novaezelandiae* (Sparrman, 1787)

Red-crowned Parakeet (Kakariki)

New Zealand; North Island, resident in Urewera and Huiarau Ranges and in the Raukumaras; rare but said to persist in Puketi Forest, Whangarei district, Kaimai Range, Volcanic Plateau, Tongariro National Park, Ruahine and Tararua Ranges; common on many outlying islands, including Three Kings, Poor Knights, Hen and Chickens, Mokohinau, Fanal, Little Barrier, Arid, Mercury, Alderman and Kapiti Islands. South Island, resident in Nelson, Arthur's Pass and Fiordland National Parks, the northern watershed of Lake Wakatipu and the Dunedin district. On Stewart Island and outlying islands including Codfish, Big South Cape, Bench, Ruapuke and Green Island. It is also resident on Auckland Islands (Adams, Ewing, Enderby and Rose.)

Plates: Buller (ed. 1), pl. 6; (ed. 2), pl. 16; *Forest-inhabiting Birds*, pl. 7.

c. *C. novaezelandiae chathamensis* Oliver, 1930

Chatham Island Red-crowned Parakeet

Chatham Islands; southern portion of the main island, and on Pitt, Mangere and South East Islands.

d. *C. novaezelandiae hochstetteri* (Reischek, 1889)

Reischek's Parakeet

Antipodes Island.

e. *C. novaezelandiae erythrotis* (Wagler, 1832)

Macquarie Island Parakeet

Macquarie Island, now extinct.

222. *Cyanoramphus auriceps* (Kuhl, 1820)

a. *C. auriceps auriceps* (Kuhl, 1820)

Yellow-crowned Parakeet

New Zealand; North Island: resident Hauhangaroa, Kaimanawa, Kaweka, Ahimanawa, Huiarau and Tararua Ranges; recorded also from the Tongariro National Park, and the Raukumara and Ruahine Ranges; on outlying islands including Three Kings, Hen and Chickens, Little Barrier, and Kapiti Islands. South Island: widespread in Marlborough, Nelson, Westland, north-east Canterbury, western and southern Otago, Fiordland and Stewart Island; on outlying islands, including Chetwode, Big and Little Solander, Bench, Ulva, Jacky Lee, Codfish, Big South Cape and Auckland Islands.

Plates: Buller (ed. 1), pl. 6; (ed. 2), pl. 16; *Forest-inhabiting Birds*, pl. 7.

b. *C. auriceps forbesi* Rothschild, 1893

Chatham Island Yellow-crowned Parakeet

Chatham Islands; resident on Little Mangere Island, ranging to Pitt and Mangere Islands.

Reference: Fleming, 1939, *Emu*, 38:502-4.

223. *Cyanoramphus malherbi* (Souancé, 1857) **Orange-fronted Parakeet**

New Zealand; South Island only (very rare); recent reports from Mt Arthur Range, D'Urville River (Nelson) and Lake Sumner (Canterbury). Two specimens in Reischek collection, Vienna, collected on Hen Island (May 1880).

Plate: Buller (ed. 2), pl. 16.

ORDER CUCULIFORMES

FAMILY CUCULIDAE : CUCKOOS

224. *Cuculus saturatus* Blyth, 1843
C. saturatus horsfieldi Moore, 1857 **Oriental Cuckoo**
 Breeding central and eastern Siberia, central Asia, northern China and Japan, migrating south and wintering from India eastwards to New Guinea, Solomon Islands and Australia; straggling to New Zealand; nine records: ?Hawkes Bay (1889); Te Anau (Feb 1902); Takaka (Oct 1944); Te Kao, Northland (Dec 1952); Winton, Southland (Jan 1958); Whangaroa, Northland (Jan 1962); Hokitika (Jan-Feb 1964); Wanganui (Jan 1964) and Muriwai (Dec 1969).
 References: Watt, 1953, *Notornis*, 5:196; Roberts, 1962, *Notornis*, 10:41; Grant, 1964, *Notornis*, 11:130-3; Brathwaite, 1969, *Notornis*, 16:201.
 Plate: Mathews, *Birds Aust.*, pl. 349.
225. *Cuculus pallidus* (Latham, 1801) **Pallid Cuckoo**
 Breeding Australia and Tasmania, migrating to northern Australia, the Moluccas and New Guinea; straggling to New Zealand, one record (Craig Flat, Otago) of a bird which wintered three years (May 1939-Oct 1941), and two sight records: Okarito (Dec 1941) and Greymouth (Mar 1942).
 Reference: Marples, 1942, *Bull.O.S.N.Z.*, 2:11.
 Plate: Mathews, *Birds Aust.*, pl. 350.
226. *Cacomantis pyrrhophanus* (Vieillot, 1817)
C. pyrrhophanus prionurus (Lichtenstein, 1823) **Fan-tailed Cuckoo**
 Breeding from New Guinea, through the Solomons and New Hebrides to Australia, New Caledonia and Fiji; straggling to New Zealand; one record, Governor's Bay, Lyttelton Harbour (June, 1960).
 Reference: Turbott, 1964, *Notornis*, 11:108.
 Plate: Mathews, *Birds Aust.*, pl. 352.
227. *Chalcites lucidus* (Gmelin, 1788)
C. lucidus lucidus (Gmelin, 1788) **Shining Cuckoo (Pipiwharuroa)**
 New Zealand; summer resident (Aug-Apr, occasionally wintering); breeding (parasitic on Grey Warbler) main islands, Stewart Island, most nearer outlying islands, and Chatham Islands (parasitic on Chatham Island Warbler); migrating through Norfolk Island and Lord Howe Island (evidently breeding) and Louisiade Archipelago, to Solomon Islands and Bismarck Archipelago; straggling to Kermadec Islands and eastern Australia.
 References: Mayr, 1932, *Am.Mus.Novit.*, 520:1-9; Fell, 1947, *Trans.Roy.Soc. N.Z.*, 76:504-15; Hindwood, 1948, *N.Z. Science Review*, 6:60-1; Watson and Bull, 1950, *N.Z. Bird Notes*, 3:226; Cunningham, 1955, *Notornis*, 6:121-6.
 Plates: Buller (ed. 2), pl. 15; *Forest-inhabiting Birds*, pl. 9.
228. *Eudynamis taitensis* (Sparman, 1787) **Long-tailed Cuckoo (Koekoea)**
 New Zealand; summer resident (October-March), breeding on main islands (parasitic on Fantail, Whitehead, Yellowhead and Brown Creeper), Stewart Island, Little and Great Barrier Islands, Kapiti, straggling to Chatham Islands and ?Auckland Island; migrating through Norfolk, Lord Howe and Kermadec Island to Oceania, from the Papuan Region, Bismarck Archipelago and Micronesia to the Marquesas and Tuamotu.

Chief wintering range Fiji to Society Islands. Rarely wintering in New Zealand (records in June and August).

References: Stead, 1936, *Trans.Roy.Soc.N.Z.*, 66:182-4; Bogert, 1937, *Am.Mus.Novit.*, 933:1-12; Mayr, 1944, *Am.Mus.Novit.*, 1269:1-3.

Plates: Buller (ed. 1), pl. 8; (ed. 2), pl. 14; Mathews, *Birds Norf. Lord Howe*, pl. 19; *Forest-inhabiting Birds*, pl. 10.

229. *Scythrops novaehollandiae* Latham, 1790 Channel-billed Cuckoo

From Flores, Babar, Timorlaut and Celebes eastward to northern and eastern Australia, New Guinea and Bismarck Archipelago; straggling to New Zealand; one record, Invercargill (Dec 1924).

Reference: Marples, 1942, *Bull.O.S.N.Z.*, 2:11.

Plate: Mathews, *Birds Aust.*, pl. 361.

ORDER STRIGIFORMES

FAMILY STRIGIDAE

SUBFAMILY TYTONINAE : BARN OWLS

230. *Tyto alba* (Scopoli, 1769)

T. alba delicatula (Gould, 1837)

Australian Barn Owl

Australia and Tasmania; straggling to New Zealand; three records, all from Westland: Barrytown (Aug 1947), Haast River Mouth (Oct or Nov 1955) and Greymouth (Aug 1960).

Note: Bones identified as those of *Tyto alba* (?subspecies) have been recorded from north Auckland.

References: Grant, 1960, *Notornis*, 9:110; Scarlett, 1967, *Notornis*, 14:218-9.

Plate: Mathews, *Birds Aust.*, pl. 268.

SUBFAMILY STRIGINAE : OWLS

231. *Ninox novaeseelandiae* (Gmelin, 1788)

N. novaeseelandiae novaeseelandiae (Gmelin, 1788)

Morepork (Ruru)

New Zealand; main and outlying islands from Three Kings to Stewart Island.

Plates: Buller (ed. 1), pl. 3; (ed. 2), pl. 20; *Forest-inhabiting Birds*, pl. 5.

232. *Sceloglaux albifacies* (Gray, 1844)

a. *S. albifacies rufifacies* Buller, 1904 **North Island Laughing Owl**

New Zealand; North Island, probably extinct; reported Urewera (traditional), Mt Egmont (about 1856), Wairarapa (unique type, about 1868), Porirua and Te Karaka (sight records).

Plate: Buller, *Suppl.*, pl. 7.

b. *S. albifacies albifacies* (Gray, 1844) **Laughing Owl (Whekau)**

New Zealand; South Island, probably extinct, formerly Nelson, Canterbury, Otago, Fiordland and Stewart Island.

Plates: *Ereb.Terr.*, pl. 1; Buller (ed. 1), pl. 3; (ed. 2), pl. 20.

***233. *Athene noctua* (Scopoli, 1769)**

Little Owl

Central Europe; introduced to New Zealand 1906-10; widespread throughout South Island, east of the ranges, including Marlborough,

spreading to Westland; several reports since 1959. Stewart Island, 1957 and 1959, but not seen recently. North Island: unconfirmed sight records from Butterfly Creek (Wellington), Te Marua, Otaki, Ohau, Waitohu and Palmerston North and one recent sight record from Rotorua (July-Aug 1958).

Note: The subspecific status of the birds introduced to New Zealand has not yet been determined.

References: Marples, 1942, *Trans.Roy.Soc.N.Z.*, 72:237-52; Black, 1948, *Notornis*, 8:74.

Plates: *Birds Brit. Isles*, 4, pl. 23; Witherby, *Brit.Birds*, 2, pl. 57-8.

ORDER APODIFORMES

FAMILY APODIDAE : SWIFTS

SUBFAMILY CHAETURINAE : SPINETAILED SWIFTS, ETC.

234. *Chaetura caudacuta* (Latham, 1801)

C. caudacuta caudacuta (Latham, 1801) **Spine-tailed Swift**

Breeding east Asia to Japan; migrating to Australia and Tasmania; straggling to New Zealand, several records, including "invasions" in 1942-3 and 1968-9: Taranaki (Mar 1888), Tokomaru (Nov 1930), Mokau (Nov 1935), Levin (Dec 1951), Rangitoto (two in Apr 1958), Stephens Island (Nov 1958), Haast (Nov 1965), Kaitaia (two) and Kaipara (six) in Nov 1967.

References: McCaskill, 1943, *N.Z. Bird Notes*, 1:38-40; Buchanan, 1958, *Notornis*, 8:25; Bell, 1958, *Notornis*, 8:121; Wright and McKenzie, 1966, *Notornis*, 13:106.

Plate: Mathews, *Birds Aust.*, pl. 347.

SUBFAMILY APODINAE : TRUE SWIFTS

235. *Apus pacificus* (Latham, 1801)

A. pacificus pacificus (Latham, 1801) **Fork-tailed Swift**

Breeding eastern Asia, North China, Japan, migrating to Australia; straggling to New Zealand, four records: White Cliffs, Taranaki (four in Dec 1884); Karamea, Nelson (Dec 1952); Manakaiana, South Westland (May 1957) and Waianiwa, Southland (Nov 1960).

References: Falla, 1954, *Notornis*, 5:233; Turbott, 1964, *Notornis*, 11:108-9.

Plate: Mathews, *Birds Aust.*, pl. 348.

ORDER CORACIIFORMES

FAMILY ALCEDINIDAE : KINGFISHERS

SUBFAMILY DACELONINAE: FOREST KINGFISHERS

236. *Halcyon sancta* Vigors and Horsfield, 1827

H. sancta vagans (Lesson, 1830) **New Zealand Kingfisher (Kotare)**

New Zealand; Kermadec Islands, Three Kings, North and South Islands, Stewart Island and outlying islands.

Reference: Stead, 1932, *Life Histories N.Z. Birds*: 123-9.

Plates: *Ereb. Terr.*, pl. 1; Buller (ed. 2), pl. 13.

*237. *Dacelo gigas* Gould, 1844

Kookaburra

Australia; introduced to New Zealand, established Kawau Island and adjacent mainland; resident and breeding mainly between Auckland and Whangarei; rarely straggling elsewhere; two sight records in Westland: Haast and Greymouth (1947).

Plate: Mathews, *Birds Aust.*, pl. 335.

FAMILY CORACIIDAE : ROLLERS

SUBFAMILY CORACIINAE

238. *Eurystomus orientalis* (Linnaeus, 1766)

E. orientalis pacificus (Latham, 1801)

Broad-billed Roller (Dollar Bird)

Australia, breeding; migrating (March-October) to Moluccas, Celebes, New Guinea and Bismarck Archipelago; straggling to New Zealand, recorded (sometimes in small flocks): "Akamotu" (1882), Wairoa (Northland), Piha (spring 1881), Parihaka, Waiwakaiho River, Stoke, Awatere, near Greymouth, Hokitika, Mikonui River, Te Kao (Parengarenga) (1923), Great Barrier Island (1935), Farewell Spit (Apr 1956), Havelock North (Apr 1956), Tikitiki (May 1956) and Fortrose, Southland (Mar 1967).

References: Brathwaite, 1956, *Notornis*, 7:57-8; Barlow, 1967, *Notornis*, 14:82.

Plate: Mathews, *Birds Aust.*, pl. 331.

ORDER PASSERIFORMES

SUBORDER TYRANNI

FAMILY XENICIDAE (ACANTHISITTIDAE) :

NEW ZEALAND WRENS

239. *Acanthisitta chloris* (Sparrman, 1787)

a. *A. chloris granti* Mathews and Iredale, 1913

North Island Rifleman

New Zealand; North Island, Little and Great Barrier Islands, but no recent records on mainland north of Te Aroha.

b. *A. chloris chloris* (Sparrman, 1787)

South Island Rifleman (Titipounamu)

New Zealand; South Island, Stewart Island and outliers.

Plates: Buller (ed. 2), pl. 12 (?subspecies); *Forest-inhabiting Birds*, pl. 11.

240. *Xenicus longipes* (Gmelin, 1789)

a. *X. longipes stokesi* Gray, 1862

North Island Bush Wren

New Zealand; known from specimens collected Rimutaka Range about 1850. Very rare, possibly extinct. Unconfirmed sightings Waikaremoana region, 1955.

Reference: Edgar, 1949, *N.Z. Bird Notes*, 3:172.

Plate: Buller, *Suppl.*, pl. 11.

- b. **X. longipes longipes** (Gmelin, 1789) **South Island Bush Wren**
New Zealand; South Island, formerly widespread in forested mountain areas (Tasman and Spencer Ranges, Westland, Otago), now rare and local, chiefly in Fiordland; sight records from Milford Sound (Mar 1965) and Nelson Lakes National Park (Jan 1968).

Plates: *Ereb.Terr.*, pl. 3; Buller (ed. 1), pl. 12; (ed. 2), pl. 12.

- c. **X. longipes variabilis** Stead, 1936 **Stead's Bush Wren**
New Zealand; outlying islands southwest of Stewart Island; introduced to Kaimohu Island.

Note: Presumably the wren formerly on Stewart Island belonged to this race.

References: Stead, 1936, *Trans.Roy.Soc.N.Z.*, 66:312-3; Blackburn, 1965, *Notornis*, 12:191-207.

241. **Xenicus gilviventris** Pelzeln, 1867 **Rock Wren**
New Zealand; South Island, subalpine fell-fields from Nelson to western Southland.

References: Falla, 1953, *Notornis*, 5:142-3; Riney, 1953, *Notornis*, 5:186-8; Soper, 1961, *Notornis*, 9:158-161.

Plates: Buller (ed. 1), pl. 12; (ed. 2), pl. 12.

242. **Xenicus lyalli** (Rothschild, 1894) **Stephen Island Wren**
New Zealand; Stephen Island, Cook Strait; extinct.

Plate: Buller, *Suppl.*, pl. 10.

SUBORDER PASSERES

FAMILY ALAUDIDAE : LARKS

- *243. **Alauda arvensis** Linnaeus, 1758 **Skylark**
A. arvensis arvensis Linnaeus 1758
Europe and Asia; introduced to New Zealand; throughout main islands, outliers and Auckland Islands, Kermadec Islands, Chatham and Campbell Islands.

Plates: Witherby, *Brit.Birds*, i, pl. 19, 20; *BirdsBrit.Isles*, 2, pl. 4.

FAMILY HIRUNDINIDAE : SWALLOWS, MARTINS AND RIVER MARTINS

SUBFAMILY HIRUNDININAE : TRUE SWALLOWS

244. **Hylochelidon nigricans** (Vieillot, 1817) **Australian Tree Martin**
H. nigricans nigricans (Vieillot, 1817)
Breeding Australia and Tasmania and wintering from New Guinea east to Solomon Islands; straggling to New Zealand, several records, including small flocks: Hicks Bay, Mahia, Cape Campbell, Collingwood, Waka-puaka, Blenheim, Mokihinui, Christchurch, Oamaru, Featherston (May-Sept 1946), Farewell Spit (Jan 1960) and Snares Island (Feb 1969).

References: Wright, 1960, *Notornis*, 8:260-1; Warham, 1969, *Notornis*, 16:224.
Plate: Mathews, *Birds Aust.*, pl. 374.

245. **Hirundo tahitica** Gmelin, 1789 **Welcome Swallow**
H. tahitica neoxena Gould, 1852
Australia, Tasmania and New Zealand; previously rare straggler to New Zealand, only three records up to 1957: Auckland Islands (1943),

Stewart Island (Sept 1953) and Farewell Spit (Nov 1955). First proved breeding Northland (1958) and has spread rapidly; now known to breed Northland, Auckland, Bay of Plenty, Waikato, Hawkes Bay, Rangitikei, Wairarapa, Farewell Spit and Canterbury; has been recorded from all other districts of the main islands.

References: Michie, 1959, *Notornis*, 8:61-2; Turbott, 1965, *Notornis*, 12:241-4; Edgar, 1966, *Notornis*, 13:27-60; Tunncliffe, 1968, *Notornis*, 15:228-33.

Plate: Mathews, *Birds Aust.*, pl. 374.

FAMILY MOTACILLIDAE : WAGTAILS AND PIPITS

246. *Anthus novaeseelandiae* (Gmelin, 1789)

a. *A. novaeseelandiae novaeseelandiae* (Gmelin, 1789)

New Zealand Pipit (Pihoihoi)

New Zealand and outlying islands, including Chatham Islands; straggling to Kermadec Islands (unconfirmed reports, 1887, Nov 1964) and perhaps to Snares Island.

Plate: Buller (ed. 2), pl. 7.

b. *A. novaeseelandiae aucklandicus* Gray, 1862 Auckland Islands Pipit Auckland Islands.

c. *A. novaeseelandiae steindachneri* Reischek, 1889 Antipodes Pipit Antipodes Island.

Note: Altogether five subspecies of *A. novaeseelandiae* have been described for the New Zealand region, but the status of *reischeki*, Lorenz-Liburnau, 1902 (Waikato, Taupo and Kermadecs) and *chathamensis* Lorenz-Liburnau, 1902 (Chatham Islands) needs critical examination.

FAMILY CAMPEPHAGIDAE : CUCKOO-SHRIKES

247. *Coracina novaehollandiae* (Gmelin, 1789)

Black-faced Cuckoo-shrike

Australia, Tasmania, migrating north to East Indies, New Guinea, D'Entrecasteaux, Louisiade, Bismarck Archipelago and Nissan Island; straggling to New Zealand, several records: Motueka (1869); Invercargill (1870); Westport (about 1895 and 1931); Lake Ellesmere (1904); Grey-mouth (1914?); Okato, Taranaki (1914); north Kaipara Heads (Jan-Sept 1953); Himatangi (Jan 1955); Feilding (1965) and Okuru (1966). New Zealand records have not been subspecifically identified.

Plate: Mathews, *Birds Aust.*, pl. 413.

†247. *Lalage sueurii* (Vieillot, 1818)

L. sueurii tricolor (Swainson, 1825)

White-winged Triller

Eastern Australia, migrating to northern Australia and southeast New Guinea; a rare straggler to New Zealand; one record, Macandrew Bay, Otago Peninsula (Feb 1969).

Plate: Mathews, *Birds Aust.*, pl. 496.

FAMILY PYCNONOTIDAE : BULBULS

*248. *Pycnonotus cafer* (Linnaeus, 1766)

P. cafer bengalensis Blyth, 1846

Red-vented Bulbul

India and South East Asia; introduced to Fiji; New Zealand intro-

duced (cage escape) in 1952, and breeding in Auckland; fifty birds by 1954; believed exterminated by mid-1955.

Reference: Turbott, 1956, *Notornis*, 6: 185-93.

FAMILY PRUNELLIDAE : ACCENTORS

- *249. *Prunella modularis* (Linnaeus, 1758) **Hedge Sparrow**
P. modularis occidentalis (Hartert, 1910)
 British Isles; introduced to New Zealand; generally distributed on main islands, Kapiti and other off-shore islands; self-introduced to Stewart, Snares (not resident, 1967) and Campbell Islands.
 Plates: Witherby, *Brit. Birds*, 2, pl. 50; *Birds Brit. Isles*, 3, pl. 44.

FAMILY MUSCICAPIDAE : WARBLERS, FLYCATCHERS, THRUSHES, ETC.

SUBFAMILY SYLVIINAE : WARBLERS

250. *Bowdleria punctata* (Quoy and Gaimard, 1830)
- a. *B. punctata vealeae* Kemp, 1912 **North Island Fernbird**
 New Zealand; North Island, now local but widespread; also on Great Barrier and Alderman Islands, previously on Three Kings.
- b. *B. punctata punctata* (Quoy and Gaimard, 1830) **South Island Fernbird (Matata)**
 New Zealand; South Island, now local in Nelson, Marlborough, Westland, Otago and Southland; Open Bay Islands (subspecies unknown).
 Plates: Buller (ed. 1), pl. 13; Buller (ed. 2), pl. 7.
- c. *B. punctata wilsoni* Stead, 1936 **Codfish Fernbird**
 New Zealand; Codfish Island, west of Stewart Island.
 References: Stead, 1936, *Trans.Roy.Soc.N.Z.*, 66:312; Blackburn, 1967, *Notornis*, 14:62-6.
- d. *B. punctata stewartiana* Oliver, 1930 **Stewart Island Fernbird**
 New Zealand; Stewart, and nearby islands including Pukeawa, Cundy, Jacky Lee and Big Stage Islands, Wedge Group, ?Pikomamakuiti; previously, but possibly no longer, on Big South Cape and Solomon Islands.
 Reference: Stead, 1936, *Trans.Roy.Soc.N.Z.*, 66:312.
- e. *B. punctata rufescens* (Buller, 1869) **Chatham Island Fernbird**
 Chatham Islands, Pitt and Mangere Islands (extinct since about 1900).
 Plate: Buller (ed. 1), pl. 13.
- f. *B. punctata caudata* (Buller, 1894) **Snares Fernbird**
 Snares Island.
 Reference: Stead, 1948, *N.Z. Bird Notes*, 3:75-7.
 Plate: Lorenz-Liburnau, *Ann.K.K.Naturh.Mus.*, xviii, pl. 12.

SUBFAMILY MALURINAE : AUSTRALIAN WARBLERS

251. *Finschia novaeseelandiae* (Gmelin, 1789) **Brown Creeper (Pipipi)**
 New Zealand; South Island, forested areas, Stewart Island and outlying islands; including Codfish Island.
 Plates: *Ereb.Terr.*, pl. 5; Buller (ed. 2), pl. 6; *Forest-inhabiting Birds*, pl. 17.

252. *Mohoua albicilla* (Lesson, 1830) **Whitehead (Popokatea)**
 New Zealand; North Island, formerly in Northland, but persisting on Little Barrier, Arid and Great Barrier Islands, and locally on mainland from Te Aroha, Pirongia and East Cape southward, freely utilising forests of exotic pines; Kapiti Island.
 Plates: *Ereb.Terr.*, pl. 5; Buller (ed. 1), pl. 11; (ed. 2), pl. 6; *Forest-inhabiting Birds*, pl. 16.
253. *Mohoua ochrocephala* (Gmelin, 1789) **Yellowhead (Mohua)**
 New Zealand; formerly widespread in South Island forested areas, now local in Marlborough, Nelson, Westland, Otago and Southland. Stewart Island (doubtful, no recent records).
 References: Soper, 1960, *Notornis*, 8:259.
 Plates: Buller (ed. 1), pl. 11; (ed. 2), pl. 6; *Forest-inhabiting Birds*, pl. 16.
254. *Gerygone igata* (Quoy and Gaimard, 1830) **Grey Warbler (Riroriro)**
G. igata igata (Quoy and Gaimard, 1830)
 New Zealand; North, South, Stewart Island and most off-shore islands.
 References: Meise, 1931, *Novitates Zoologicae*, 36:349; Oliver, *N.Z. Birds*:475.
 Plates: *Ereb.Terr.*, pl. 4; Buller (ed. 1), pl. 8; (ed. 2), pl. 14; *Forest-inhabiting Birds*, pl. 12.
255. *Gerygone albofrontata* Gray, 1844 **Chatham Island Warbler**
 Chatham Islands.
 Reference: Fleming, 1939, *Emu*, 38:505.
 Plates: *Ereb.Terr.*, pl. 4; Buller, *Suppl.*, pl. 12.

SUBFAMILY MUSCICAPINAE : FLYCATCHERS

256. *Rhipidura fuliginosa* (Sparman, 1787)
- a. *R. fuliginosa placabilis* Bangs, 1921 **North Island Fantail (Piwakawaka)**
 New Zealand; Three Kings, North Island, Hen and Chickens, Great and Little Barrier, Cuvier, Mayor and Kapiti Islands (melanism occurs, but is rare).
 References: Fleming, 1949, *N.Z. Birds Notes*, 3:188-90; Blackburn, 1965, *Notornis*, 12:127-37.
 Plate: *Forest-inhabiting Birds*, pl. 15.
- b. *R. fuliginosa fuliginosa* (Sparman, 1787) **South Island Fantail (Piwakawaka)**
 New Zealand; South Island, Stewart Island and nearby outliers.
 Note: This subspecies is dimorphic. The proportion of black to pied specimens seems to vary locally.
 References: Stead, 1932, *Life Hist.N.Z.Birds*:130-8; Fleming, 1949, *N.Z. Bird Notes*, 3:188-90; Soper, 1964, *Notornis*, 11:195; Kinsky, 1965, *Notornis*, 12:187; Caughley, 1969, *Notornis*, 16:237-40.
 Plate: Buller (ed. 2), pl. 8.
- c. *R. fuliginosa penitus* Bangs, 1911 **Chatham Island Fantail**
 Chatham, Pitt and South East Islands.
 References: Fleming, 1939, *Emu*, 38:506; Fleming, 1949, *N.Z. Bird Notes*, 3:188-90.

257. *Petroica macrocephala* (Gmelin, 1789)

a. *P. macrocephala toitoi* (Lesson, 1828) **Pied Tit (Miro-miro)**
New Zealand; North Island (now rare in Northland), Hen, Chickens, Little and Great Barrier and Kapiti Islands.

References: Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:33-6; Parkin, 1951, *Notornis*, 4:162-3.

Plates: Buller (ed. 2), pl. 5; *Forest-inhabiting Birds*, pl. 13.

b. *P. macrocephala macrocephala* (Gmelin, 1789)

Yellow-breasted Tit (Ngiru-ngiru)

New Zealand; South Island, Stewart Island and outlying islets, Solander Island.

Reference: Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:28-33.

Plate: Buller (ed. 2), pl. 5.

c. *P. macrocephala chathamensis* Fleming, 1950 **Chatham Island Tit**
Chatham Islands.

References: Fleming, 1939, *Emu*, 38:506-7; Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:36-40.

d. *P. macrocephala dannefaerdi* (Rothschild, 1894) **Black Tit**
Snares Islands.

References: Stead, 1948, *N.Z. Bird Notes*, 3:77-8; Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:44-6.

Plate: Buller, Suppl., pl. 12.

e. *P. macrocephala marrineri* (Mathews and Iredale, 1913)

Auckland Island Tit

Auckland Islands, including Adams, Enderby and Rose Islands.

Reference: Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:40-4.

258. *Petroica (Miro) australis* (Sparrrman, 1788)

a. *P. australis longipes* (Lesson, 1828)

North Island Robin (Toutouwai)

New Zealand; Little Barrier, Kapiti and forested areas of central North Island; numerous in exotic forests (*Pinus* sp.) of Volcanic Plateau; now extinct Northland; local in west Taranaki, East Cape and Wellington Peninsulas.

References: Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:130-5; Parkin, 1952, *Notornis*, 4:174.

Plate: Buller (ed. 2), pl. 5; *Forest-inhabiting Birds*, pl. 14.

b. *P. australis australis* (Sparrrman, 1788)

South Island Robin (Toutouwai)

New Zealand; South Island, Marlborough, D'Urville and Chetwode Islands, Nelson, Westland, Western Otago, Southland; now local in Canterbury and east Otago.

Reference: Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:135-41.

Plates: *Ereb.Terr.*, pl. 6; Buller (ed. 2), pl. 5; *Forest-inhabiting Birds*, pl. 14.

c. *P. australis rakiura* Fleming, 1950

Stewart Island Robin

Stewart, Jacky Lee, Green Islands and Wedge Group. Now possibly extinct on Pukeweka and Big South Cape Islands.

Reference: Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:141-3.

259. *Petroica (Miro) traversi* (Buller, 1872)

Black Robin

Chatham Islands, now only on Little Mangere Island.

References: Fleming, 1939, *Emu*, 38:507-8; Fleming, 1950, *Trans.Roy.Soc.N.Z.*, 78:143-6.

Plate: Rothschild, *Extinct Birds*, pl. 5.

260. *Myiagra cyanoleuca* Vieillot, 1818 Satin Flycatcher
 Eastern Australia and Tasmania; straggling to New Zealand; one
 sight record; Hexton, Gisborne (June 1963).
 Reference: Blackburn, 1963, *Notornis*, 10:262-5.

SUBFAMILY TURDINAE : THRUSHES

- *261. *Turdus philomelos* Brehm, 1831 Song Thrush
 Europe, North Africa and west Asia; introduced to New Zealand;
 both islands and thence colonising all outlying islands, including Stewart,
 Kermadec, Chatham, Snares, Auckland and Campbell Islands.
 Note: The subspecific status of the birds introduced to New Zealand has not
 been determined.
 Plates: Witherby, *Brit. Birds*, 2, pl. 42, 43; *Birds Brit. Isles*, 3, pl. 25.

- *262. *Turdus merula* Linnaeus, 1758 Blackbird
T. merula merula Linnaeus, 1758
 Europe, North Africa and west Asia; introduced to New Zealand;
 both islands and self-introduced to outlying islands, including Stewart,
 Kermadec, Chatham, Snares, Auckland and Campbell Islands.
 Reference: Vaurie, 1959, *The Birds of the Palearctic Fauna* (Passeriformes)
 :403.
 Plates: Witherby, *Brit. Birds*, 2, pl. 42, 44; *Birds Brit. Isles*, 3, pl. 29.

FAMILY ZOSTEROPIDAE : SILVEREYES

263. *Zosterops lateralis* (Latham, 1801) Silvereye (Tauhou)
Z. lateralis lateralis (Latham, 1801)
 Originally Tasmania and Bass Strait Islands; the species colonised the
 South Island of New Zealand (before 1856), North Island (1856), Norfolk
 Island (1904), Chatham Islands (1861) and Snares, Auckland and Camp-
 bell Islands. Rare straggler to Kermadec and Macquarie Islands.
 References: Fleming, 1943, *Emu*, 42:193-217; Marples, 1945, *Emu*, 44:277-87;
 Kikkawa, 1962, *Notornis*, 9:280-91; Mees, 1969, *Zool. Verhand.* 102:50-70.
 Plates: Buller (ed. 2), pl. 9; *Forest-inhabiting Birds*, pl. 18.

FAMILY MELIPHAGIDAE : HONEYEATERS

264. *Notiomystis cincta* (Du Bus, 1839) Stitchbird (Hihi)
 New Zealand; formerly North Island, Great Barrier and ?Kapiti
 Islands; believed extinct on mainland since about 1885; now confined to
 Little Barrier Island only.
 Plates: Buller (ed. 1), pl. 10; (ed. 2), pl. 11; *Forest-inhabiting Birds*, pl. 21.
265. *Anthornis melanura* (Sparrrman, 1786)
- a. *A. melanura obscura* Falla, 1948 Three Kings Bellbird
 Three Kings Islands.
 Reference: Falla, 1948, *Rec. Auck. Mus.*, 3:337-8.
- b. *A. melanura melanura* (Sparrrman, 1786) Bellbird (Korimako, Makomako)
 New Zealand; North, South and Stewart Islands and many offshore
 islands, but rare north of Auckland on mainland; Auckland Islands.
 Plates: Buller (ed. 2), pl. 9; *Forest-inhabiting Birds*, pl. 20.

- c. **A. melanura melanocephala** Gray, 1843 **Chatham Island Bellbird**
Chatham Islands (extinct since about 1906). Unconfirmed sightings
reported from Pitt Island (1969).
Plate: *Ereb. Terr.*, pl. 2.

266. **Prothemadera novaeseelandiae** (Gmelin, 1788)

- a. **P. novaeseelandiae novaeseelandiae** (Gmelin, 1788) **Tui**
New Zealand; North and South Islands, Stewart Island and some off-
shore islands (including, formerly, Three Kings, 1887), Kermadec and
Auckland Islands.

Plates: Buller (ed. 1), pl. 9; (ed. 2), pl. 10; *Forest-inhabiting Birds*, pl. 19.

- b. **P. novaeseelandiae chathamensis** Hartet, 1928 **Chatham Island Tui**
Chatham Islands, including Pitt and South-east Islands.
Reference: Fleming, 1939, *Emu*, 38:508-9.

267. **Anthochaera carunculata** (White, 1790)

- A. carunculata carunculata** (White, 1790) **Red Wattle Bird**
South Queensland and New South Wales; straggling to New Zealand,
two records: Matakana (about 1865) and Rahotu (1882).

Plate: Mathews, *Birds Aust.*, pl. 549.

FAMILY EMBERIZIDAE : BUNTINGS, CARDINALS,
TANAGERS, ETC.

SUBFAMILY EMBERIZINAE : BUNTINGS

*268. **Emberiza citrinella** Linnaeus, 1758

E. citrinella sylvesteris, Brehm, 1831

Yellow Hammer (Yellow Bunting)

Central and south-west Europe; introduced to New Zealand and self-
introduced to some outlying islands including Stewart, Chatham and
Kermadec Islands; straggling to Snares and Campbell Islands.

Reference: Harrison, 1955, *Notornis*, 6:176-7.

Plates: Witherby, *Brit. Birds*, 1, pl. 12, 13.

*269. **Emberiza cirlus** Linnaeus, 1766

E. cirlus cirlus Linnaeus, 1766

Cirl Bunting

Europe; introduced to New Zealand, established locally in Taranaki
(no recent records), Hawke's Bay, Wellington, Nelson, Marlborough,
North Westland, Canterbury and Otago.

Plates: Witherby, *Brit. Birds*, 1, pl. 12, 13; *Birds Brit. Isles*, 1, pl. 33.

FAMILY FRINGILLIDAE : FINCHES

SUBFAMILY FRINGILLINAE : TRUE FINCHES

*270. **Fringilla coelebs** Linnaeus, 1758

F. coelebs gengleri Kleinschmidt, 1909

Chaffinch

England and Ireland; introduced to New Zealand and self-intro-
duced to many outlying islands, including Chatham, Snares, Auckland and
Campbell Islands.

Plates: Witherby, *Brit. Birds*, 1, pl. 11; *Birds Brit. Isles*, 1, pl. 28.

SUBFAMILY CARDUELINAE : GREENFINCH, GOLDFINCH, ETC.

*271. *Carduelis chloris* (Linnaeus, 1758)*C. chloris chloris* (Linnaeus, 1758)

Greenfinch

Europe; introduced to New Zealand main islands and self-introduced to some outlying islands, including Chatham Islands; straggling to Kermadec Islands (1964), Snares and Campbell Islands (1943, 1945).

References: Vaurie, 1959, *The Birds of the Palearctic Fauna* (Passeriformes), 601; Bailey and Sorensen, 1962, *Campbell Island*:288; Edgar, Kinsky, Williams, 1965, *Notornis*, 12:31-43.

Plates: Witherby, *Brit. Birds*, 1, pl. 5, 6; *Birds Brit. Isles*, 1, pl. 14.

*272. *Carduelis carduelis* Linnaeus, 1758*C. carduelis britannica* (Hartert, 1903)

Goldfinch

British Isles; introduced to New Zealand, self-introduced to many outlying islands, including Chatham, Auckland, Campbell and Antipodes Islands; straggling to Kermadec, Snares and Macquarie Islands.

References: Keith and Hines, 1958, *C.S.I.R.O. Wildlife Research*, 3:52; Sorensen, 1964, *Notornis*, 11:81.

Plates: Witherby, *Brit. Birds*, 1, pl. 5, 6; *Birds Brit. Isles*, 1, pl. 15.

*273. *Acanthis flammea* (Linnaeus, 1758)

Redpoll

Europe; introduced to New Zealand, and self-introduced to many outlying islands, including ?Kermadec, Auckland, Campbell, Snares, Chatham and Macquarie Islands.

Note: Thirty-six New Zealand specimens were determined subspecifically by K. Westerskov (1953) as belonging to *A. flammea cabaret* (Müller, 1774), Lesser Redpoll. However, D. Stenhouse (1962) suggests that *A. flammea flammea* (Linnaeus, 1758), Mealy or Common Redpoll, is also present in New Zealand, and that both subspecies have interbred.

References: Westerskov, 1953, *Notornis*, 5:189-91; Stenhouse, 1962, *Notornis*, 10:61-7.

Plates: Witherby, *Brit. Birds*, 1, pl. 6, 8; *Birds Brit. Isles*, 1, pl. 18 (*A.f. flammea*), pl. 19 (*A.f. cabaret*).

FAMILY PLOCEIDAE : WEAVERS

SUBFAMILY PASSERINAE : SPARROWS

*274. *Passer domesticus* (Linnaeus, 1758)*P. domesticus domesticus* (Linnaeus, 1758)

House Sparrow

Europe and Asia (widely spread by man); introduced to New Zealand, self-introduced to outlying islands, including Chatham, Auckland, Snares and Campbell Islands.

Plates: Witherby, *Brit. Birds*, 1, pl. 17; *Birds Brit. Isles*, 1, pl. 40.

FAMILY STURNIDAE : STARLINGS AND OXPECKERS

SUBFAMILY STURNINAE : STARLINGS

*275. *Sturnus vulgaris* Linnaeus, 1758*S. vulgaris vulgaris* Linnaeus, 1758

Starling

Europe; North Africa and south-west Asia; introduced to New Zealand, self-introduced to Chatham, Kermadec, Snares, Auckland, Campbell and Macquarie Islands.

Reference: Vaurie, 1959, *The Birds of the Palearctic Fauna* (Passeriformes) :127.

Plates: Witherby, *Brit. Birds*, 1, pl. 4; *Birds Brit. Isles*, 1, pl. 10.

***276. *Acridotheres tristis* (Linnaeus, 1766) Indian Myna**

India and neighbouring countries (widely spread by man); introduced to New Zealand and established in North Island, north of 40°S i.e. Northland, Auckland, Waikato, Bay of Plenty, Taranaki, Gisborne, Hawkes Bay, Volcanic Plateau and Northern Wairarapa; rare and local south of Wanganui and Waipukurau; straggling to Hutt Valley and Marlborough.

Note: The subspecific status of the birds introduced to New Zealand has not been determined.

Reference: Cunningham, 1951, *Notornis*, 4: 66-7.

Plate: Smythies, 1953, *Birds of Burma* (ed. 2), pl. 10.

**FAMILY CALLAEATIDAE : NEW ZEALAND
WATTLE-BIRDS**

277. *Philesturnus carunculatus* (Gmelin, 1789)**a. *P. carunculatus rufusater* (Lesson, 1828)****North Island Saddleback (Tieko)**

New Zealand; formerly North Island, Little and Great Barrier Islands and Cuvier Island, Kapiti Island (introduced, but not established); persisting only on Hen Island; recently transferred to Middle Chicken (Whatupuke), Red Mercury, Cuvier and Fanal Islands.

References: Stead, 1936, *Trans.Roy.Soc.N.Z.*, 66:185-7; Blackburn, 1964, *Notornis*, 11:87-92; Merton, 1965, *Notornis*, 12:213-22.

Plates: Buller (ed. 1), pl. 15; *Forest-inhabiting Birds*, pl. 23.

b. *P. carunculatus carunculatus* (Gmelin, 1789)**South Island Saddleback**

New Zealand; formerly South Island, D'Urville and Stephen Islands, Stewart Island and outlying islets; lately possibly limited to three of the South Cape Islands (threatened with extinction). Recently transferred to Stage and Kaimohu Islands (south-west of Stewart Island) and to Inner Chetwode Island, Cook Strait. Unconfirmed sightings in Marlborough Sound and northwest Nelson areas.

References: Stead, 1936, *Trans.Roy.Soc.N.Z.*, 66:185-7; Blackburn, 1965, *Notornis*, 12:191-207.

Plates: Buller (ed. 1), pl. 15 (Young); (ed. 2), pl. 3.

278. *Heteralocha acutirostris* (Gould, 1837)**Huia**

New Zealand; formerly North Island, from Kaimanawa Ranges south to Wellington, probably extinct since about 1907. Unconfirmed sight records from Taihape (1910), Uruti, Taranaki (1936) and from Tangarakau district, Taranaki as late as 1950.

References: Phillipps, 1963, *The Book of the Huia*; Medway, 1968, *Notornis*, 15:180-4.

Plates: Buller (ed. 1), pl. 7; (ed. 2), pl. 2; *Forest-inhabiting Birds*, pl. 22.

279. *Callaeas cinerea* (Gmelin, 1788)**a. *C. cinerea wilsoni* (Bonaparte, 1851)****North Island Kokako**

New Zealand; formerly throughout forested districts of North Island, Great and Little Barrier Islands, now rare and local but still present in widely distributed localities, including Northland, Great Barrier Island, Coromandel, Clevedon, Raglan, Kawhia, Waitomo, Rangitoto Range, Taranaki, Volcanic Plateau, Urewera, Huiarau, Raukumara and Tararua Ranges.

References: Macdonald, 1966, *Notornis*, 13:101-4; Medway, 1968, *Notornis*, 15:190-2.

Plates: Buller (ed. 1), pl. 16; (ed. 2), pl. 1.

b. **C. cinerea cinerea** (Gmelin, 1788) **South Island Kokako**

New Zealand; formerly forested districts of South Island and Stewart Island, now rare and local. Sight records: Lake Monowai (1946), Lake Manapouri (1951), Wilkin Valley (1958), Maitai Valley (1961), and Picton.

Plates: Buller (ed. 1), pl. 16; (ed. 2), pl. 1; *Forest-inhabiting Birds*, pl. 24.

FAMILY CRACTICIDAE : BELL MAGPIES

*280. **Gymnorhina tibicen** (Latham, 1801)

a. **G. tibicen tibicen** (Latham, 1801) **Black-backed Magpie**

Australia; introduced to New Zealand, established North Island; Hawke's Bay and Turakina district; also reported from Foxton and Levin, where hybrid specimens of *tibicen* and *hypoleuca* occur commonly. In South Island, breeding Cheviot and Kaikoura, also reported from Rangiora (1967).

References: McCaskill, 1945, *N.Z. Bird Notes*, 1:104; 1946, *N.Z. Bird Notes*, 2:11; 1948, *N.Z. Bird Notes*, 2:176; Carrick in Frith, 1969, *Birds in the Australian High Country*: 463.

Plate: Mathews, *Birds Aust.*, pl. 483.

b. **G. tibicen hypoleuca** (Gould, 1837) **White-backed Magpie**

South Australia, Victoria, New South Wales and Tasmania; introduced to New Zealand (1864); North Island established from Wellington to Taranaki, National Park, Volcanic Plateau, Gisborne, Bay of Plenty, Waikato and occasional in Northland; straggling to Little and Great Barrier Islands. South Island, from Nelson and Marlborough to Southland, chiefly east of the Alps.

References: McCaskill, 1945, *N.Z. Bird Notes*, 1:86-104; 1946, *N.Z. Bird Notes*, 2:11; Westerskov, 1954, *Notornis*, 5:243-8; Blanshard, 1961, *Notornis*, 9:254.

Plate: Mathews, *Birds Aust.*, pl. 483.

FAMILY TURNAGRIDAE : NEW ZEALAND THRUSHES

281. **Turnagra capensis** (Sparrrman, 1787)

a. **T. capensis tanagra** (Schlegel, 1865) **North Island Thrush (Piopio)**

New Zealand; North Island, formerly in forested districts, now rare and local, perhaps extinct, but unconfirmed sight records claimed: inland from Patea (1923), inland from Te Araroa (about 1927), between Gisborne and Wairoa (May 1947), Wanganui River (Mar 1950), Okataina and Waikaremoana.

References: Sopp, 1957, *Notornis*, 7:101-2; Medway, 1968, *Notornis*, 15:184-90.

Plates: Buller (ed. 1), pl. 14; (ed. 2), pl. 4.

b. **T. capensis capensis** (Sparrrman, 1787) **South Island Thrush (Piopio)**

New Zealand; South Island, formerly widespread in forested areas, now possibly extinct, but unconfirmed sight records claimed: west Nelson (Jan 1948), Southland (Dec 1947), West Otago (May 1963) and Lake Waiuna, Fiordland (Aug 1962)

Plates: Buller (ed. 1), pl. 14; (ed. 2), pl. 4.

FAMILY CORVIDAE : CROWS

282. *Corvus frugilegus* Linnaeus, 1758**C. frugilegus frugilegus* Linnaeus, 1758****Rook**

Europe and Asia; introduced to New Zealand (1862); established Hawkes Bay, south Wairarapa and Canterbury; recently also Tolaga Bay (six nests in 1967), Miranda (three nests in 1969), Cloverlea, Manawatu (four nests in 1969) and Awhitu Peninsula. Casual elsewhere.

Reference: Bull, 1957, *Notornis*, 7:137-61.Plates: Witherby, *Brit. Birds*, 1, pl. 1, 2; *Birds Brit. Isles*, 1, pl. 4.

APPENDIX A

SUSPENSE LIST

1. *Puffinus gravis* (O'Reilly, 1818) Great Shearwater
Reference: Jenkins, 1968, *Notornis*, 15:214-5.
2. *Ardea cinerea* Linnaeus, 1758 Grey Heron
References: Buller, 1899, *Trans.N.Z.Inst.*, 31:28.
Dawson, 1951, *N.Z. Bird Notes*, 4:41.
3. *Haliaeetus leucogaster* (Gmelin, 1788) White-bellied Sea Eagle
Reference: Oliver, *N.Z. Birds*:431.
4. *Crex crex* (Linnaeus, 1758) Corncrake
Reference: Buller, 1865, *Trans.N.Z.Inst.*, 1:18.
5. *Porzana fluminea* Gould, 1842 Australian Spotted Crake
Reference: Hutton, 1871, *Catalogue of the Birds of New Zealand*:33.
6. *Gallinula chloropus indica* Blyth, 1842 Indian Waterhen
Reference: Turbott and Scarlett, 1964, *Notornis*, 11:107-8.
7. *Calidris minutilla* (Vieillot, 1819) Least Sandpiper (Long-toed Stint)
Reference: Stidolph, 1953, *Notornis*, 5:115.
8. *Calidris subminuta* Middendorff, 1851 Semipalmated Sandpiper
Reference: Sibson and Mackenzie, 1967, *Notornis*, 14:84.
9. *Philomachus pugnax* (Linnaeus, 1758) Ruff
Reference: Mackenzie and McKenzie, 1965, *Notornis*, 12:108-9.
10. *Larus novaehollandiae novaehollandiae* Stephens, 1826 Australian Silver Gull
Reference: Dwight, 1925, *Bull.Am.Mus.Nat.Hist.*, 52:279-85.
11. *Apus apus* (Linnaeus, 1758) Swift
Reference: Gibb and Dunnet, 1969, *Notornis*, 16:204.
12. *Meliphaga chrysoptis* (Latham, 1801) Yellow-faced Honeyeater
References: Shaw, 1894, *Trans.N.Z.Inst.*, 26:638.
Oliver, *N.Z. Birds*:512.
13. *Carduelis spinus* (Linnaeus, 1758) Siskin
Reference: Thomson, 1926, *Wildlife in N.Z.*, ii, 64-6.
14. *Acanthis cannabina* (Linnaeus, 1758) Linnet
Reference: Thomson, 1926, *Wildlife in N.Z.*, ii:59-62.
15. *Corvus* sp. Raven (Australian)
References: Buddle, 1947, *N.Z. Bird Notes*, 2:122.
Turbott, 1947, *N.Z. Bird Notes*, 2:106.

APPENDIX B

CHECKLIST OF FOSSIL BIRDS OF NEW ZEALAND

ORDER DINORNITHIFORMES

Family ANOMALOPTERYGIDAE : LESSER MOAS

1. *Anomalopteryx antiquus* Hutton, 1892 Early Pleistocene. S.I.
(may be identical with *A. didiformis* (Owen))

ORDER SPHENISCIFORMES

Family SPHENISCIDAE : PENGUINS

Sub-family PALAEUDYPTINAE

2. *Palaeudyptes antarcticus* Huxley, 1859 Lower - Middle Oligocene. S.I.
3. *Palaeudyptes marplei* Brodkorb, 1963 Upper Eocene. S.I.
4. *Palaeudyptes* n.sp. Marples and Fleming, 1963 Lower Oligocene. Kawhia N.I.
5. *Pachydyptes ponderosus* Oliver, 1930 Upper Eocene. S.I.
6. *Platydyptes novaezealandiae* (Oliver, 1930) Lower Oligocene. S.I.
7. *Platydyptes amiesi* Marples, 1952 Lower - Middle Oligocene. S.I.
8. *Archaeospheniscus lowei* Marples, 1952 Lower Oligocene. S.I.
9. *Archaeospheniscus lopdelli* Marples, 1952 Lower Oligocene. S.I.
10. *Palaeospheniscus novaezealandiae* Marples, 1960 Pliocene. S.I.
11. *Duntroonornis parvus* Marples, 1952 Lower Oligocene. S.I.
12. *Korora oliveri* Marples, 1952 Middle Oligocene. S.I.

ORDER PROCELLARIIFORMES

Family DIOMEDEIDAE : ALBATROSSES

13. *Manu antiquus* Marples, 1946 Lower Oligocene. S.I.

ORDER PELECANIFORMES

SUBORDER ODONTOPTERYGI

Family PSEUDODONTORNITHIDAE

14. *Pseudodontornis stirtoni* Howard and Warter, 1969 Pliocene. S.I.
(Motunau Is.)

ORDER ANSERIFORMES

SUBORDER ANSERES

Family ANATIDAE : SWANS, GEESE AND DUCKS

15. *Cnemiornis septentrionalis* Oliver, 1955 Lower Pleistocene. N.I.

SOME RELEVANT LITERATURE

- Marples, B. J., 1946, *Trans.Roy.Soc.N.Z.*, 76:132-4.
Marples, B. J., 1952, *Palaeont.Bull.N.Z.*, 20:1-66.
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Marples, B. J. and Fleming, C. A., 1963, *N.Z. Journal of Geology and Geophysics*, 6:189-92.
Oliver, W. R. B., 1955, *N.Z. Birds* (2nd edition).
Brodkorb, P., 1963-7, *Catalogue of Fossil Birds, Bulletin of Florida State Museum*.

APPENDIX C

CHECKLIST OF THE BIRDS OF NEW ZEALAND WHICH BECAME
EXTINCT BEFORE ABOUT 1800 A.D. AND ARE KNOWN ONLY FROM
SUBFOSSIL REMAINS.

ORDER DINORNITHIFORMES

FAMILY ANOMALOPTERYGIDAE : LESSER MOAS

Sub-family Anomalopteryginae

- | | | |
|-------|---|--------------------|
| ** 1. | <i>Anomalopteryx didiformis</i> (Owen, 1844)
Note: Includes <i>A. parvus</i> (Owen, 1883) and probably
<i>A. antiquus</i> Hutton, 1892. | N.I., S.I.
N.I. |
| ** 2. | <i>Anomalopteryx oweni</i> (Haast, 1886)
Note: Smallest of the moas. | N.I. |
| ** 3. | <i>Megalapteryx didinus</i> (Owen, 1883)
Note: Includes <i>M. hectori</i> Haast, 1886. | N.I. (rare) S.I. |
| 4. | <i>Megalapteryx benhami</i> Archey, 1941 | S.I. |
| ** 5. | <i>Pachyornis elephantopus</i> (Owen, 1856) | N.I. (rare) S.I. |
| ** 6. | <i>Pachyornis mappini</i> Archey, 1941 | N.I. |
| ** 7. | <i>Pachyornis septentrionalis</i> Oliver, 1949 | N.I. |
| 8. | <i>Pachyornis australis</i> Oliver, 1949 | S.I. |
| 9. | <i>Pachyornis murihuku</i> Oliver, 1949 | S.I. |

Sub-family Emeinae

- | | | |
|-------|---|------|
| **10. | <i>Emeus crassus</i> (Owen, 1846) | S.I. |
| **11. | <i>Emeus huttoni</i> (Owen, 1879)
Note: This species and the above are possibly one
variable species. | S.I. |
| **12. | <i>Euryapteryx curtus</i> (Owen, 1846)
Note: Includes <i>E. tane</i> Oliver, 1949 | N.I. |
| **13. | <i>Euryapteryx geranoides</i> (Owen, 1848) | N.I. |
| **14. | <i>Euryapteryx gravis</i> (Owen, 1870) | N.I. |
| **15. | <i>Zelornis exilis</i> (Hutton, 1897) | N.I. |
| **16. | <i>Zelornis haasti</i> (Rothschild, 1907) | S.I. |

FAMILY DINORNITHIDAE : GREATER MOAS

- | | | |
|-------|--|------|
| **17. | <i>Dinornis novaezealandiae</i> Owen, 1843 | N.I. |
| **18. | <i>Dinornis robustus</i> Owen, 1846 | S.I. |
| **19. | <i>Dinornis giganteus</i> Owen, 1844 | N.I. |
| **20. | <i>Dinornis maximus</i> Haast, 1869 | S.I. |
| **21. | <i>Dinornis struthoides</i> Owen, 1844 | N.I. |
| **22. | <i>Dinornis torosus</i> Hutton, 1891 | S.I. |
| **23. | <i>Dinornis hercules</i> Oliver, 1949 | N.I. |
| **24. | <i>Dinornis gazella</i> Oliver, 1949 | N.I. |

ORDER PELECANIFORMES

SUBORDER PELECANI

FAMILY PELECANIDAE : PELICANS

- | | | |
|-------|---|------------|
| **25. | <i>Pelecanus conspicillatus novaezealandiae</i> Scarlett, 1966
Note: Larger than the present Australian <i>P. conspicillatus</i>
Temminck, 1824 | N.I., S.I. |
|-------|---|------------|

ORDER ANSERIFORMES

SUBORDER ANSERES

FAMILY ANATIDAE : SWANS, GEESE AND DUCKS

- **26. *Cygnus sumnerensis* (Forbes, 1892) N.I., S.I.
Chatham and
Stewart Is.
- **27. *Cnemiornis calcitrans* Owen, 1865 S.I.
28. *Cnemiornis gracilis* Forbes, 1892
Note: Very close to *C. septentrionalis* Oliver, 1955, which
is found as a true fossil. N.I.
29. *Pachyanas chathamica* Oliver, 1955 Chatham Is.
- **30. *Euryanas finschi* (Van Beneden, 1875) N.I., S.I.
31. *Malacorhynchus membranaceus* (Latham, 1801)
Australian Pink-eared Duck. A living Australian species. S.I.
32. *Biziura lobata* (Shaw, 1796)
Australian Musk duck. A living Australian species.
Note: Includes *Biziura delautouri* Forbes, 1892 N.I., S.I.

ORDER FALCONIFORMES

SUBORDER FALCONES

FAMILY ACCIPITRIDAE : EAGLES, GOSHAWKS, ETC.

- **33. *Circus teauteensis* Forbes, 1891 N.I.
- **34. *Circus eylesi* Scarlett, 1953 S.I.
- **35. *Harpagornis moorei* Haast, 1872
Note: Includes *H. assimilis* which was simply the smaller
male. N.I., S.I.
36. *Haliaeetus* n. sp.
Reference: Dawson, 1961, *Notornis*, 9:171. Chatham Is.

ORDER GRUIFORMES

SUBORDER GRUES

FAMILY RALLIDAE : RAILS

37. *Capellirallus karamu* Falla, 1954 N.I.
38. *Capellirallus hodgeni* (Scarlett, 1955) N.I., S.I.
- **39. *Gallirallus minor*, Hamilton, 1893 N.I., S.I.
Chatham and
Stewart Is.
- **40. *Diaphorapteryx hawkinsi* (Forbes, 1892) Chatham Is.
- **41. *Aptornis otidiformis* (Owen, 1844)
Note: A variable species of which *A. defossor* Owen, 1871,
is a synonym. N.I., S.I.
- **42. *Nesophalaris chathamensis* (Forbes, 1892) N.I., S.I.
Note: Includes *Fulica prisca* Hamilton, 1893. Chatham Is.

ORDER CHARADRIIFORMES

FAMILY SCOLOPACIDAE : CURLEWS, GODWITS, ETC.

- **43. *Coenocorypha chathamica* (Forbes, 1893) Chatham Is.

ORDER CAPRIMULGIFORMES

SUBORDER CAPRIMULGI

FAMILY AEGOTHELIDAE : OWLET-NIGHTJARS

44. *Megaegotheles novaezealandiae* Scarlett, 1968 N.I., S.I.

ORDER PASSERIFORMES
FAMILY CORVIDAE : CROWS

**45. *Palaeocorax moriorum* (Forbes, 1892)

N.I., S.I.
Chatham and
Stewart Is.

SOME RELEVANT LITERATURE

Archey, G., 1941, The Moa, *Bull.Auck.Inst.Mus.*, No. 1.

Dawson, E. W., 1958, Re-discoveries of the New Zealand subfossil Birds, named by H. O. Forbes, *Ibis*, 100:232-7.

Oliver, W. R. B., 1949, The Moas of New Zealand, *Bull.Dom.Mus.*, No. 15.

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**Found in association with middens or campsites of Polynesian man.

ORDER OF THE BOARD OF DIRECTORS

WHEREAS the Board of Directors of the [Company Name] has determined that it is in the best interests of the company to [Action]

IT IS HEREBY ORDERED that [Action]

IN WITNESS WHEREOF, the Board of Directors has caused this Order to be signed and the corporate seal to be hereunto affixed this [Date] day of [Month], [Year].

Secretary

ATTEST:

Notary Public

STATE OF [State]

COUNTY OF [County]

Notary Public

IN WITNESS WHEREOF, I have hereunto set my hand and the seal of my office this [Date] day of [Month], [Year].

Notary Public

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