

Amendments and additions to the 1982 list of chewing lice (Insecta: Phthiraptera) from birds in New Zealand

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ABSTRACT

Twenty four species and two subspecies of bird lice are recorded from New Zealand for the first time. Also, 52 new host-louse associations are listed for louse species already recorded from New Zealand. The genera *Cuculiphilus* Uchida, 1926, *Franciscoloa* Conci, 1942, *Penenirmus* Clay & Meinertzhangen, 1938 and *Psittoecus* Conci, 1942 are recorded from New Zealand for the first time. Since the publication of the previous list of chewing lice from New Zealand birds, four further lice have been published as new species, and another identified and reported in the literature. One species has been synonymised and its name is deleted from the fauna. Considering the above additions, deletion and other amendments, the total number of species and subspecies of bird lice recorded from the New Zealand region and the Antarctic Ross Dependency is now 301. A further 105 records still remain at generic level only, but all these do not necessarily represent different taxa.

KEYWORDS: lice, Phthiraptera, new records, New Zealand birds.

INTRODUCTION

Pilgrim & Palma (1982) recorded 267 species and subspecies of chewing (feather) lice from birds collected within the New Zealand region and the Antarctic Ross Dependency, as defined in the Ornithological Society of New Zealand (1970: 14) Checklist. Since the publication of Pilgrim & Palma's list, I have identified samples of lice which represent 26 new records of species and subspecies for the region. A further four species have been described as new (see Guimarães, 1985; Palma & Pilgrim, 1988; Mey, 1990; Palma, 1991) and one was identified and recorded from the New Zealand region for the first time by Klockenhoff (1984). The inclusion of the domestic fowl in this paper adds 4 further louse species not listed by Pilgrim & Palma (1982) but recorded from New Zealand by Whitten (1971). Other research on New Zealand and Australian bird lice since January 1982 has shown that a number of amendments to the records published by Pilgrim & Palma (1982) are also necessary.

The purpose of this paper is to update the list of genera and species of bird lice known from the New Zealand region, adding hitherto unpublished identifications

and literature reports made from 1 January 1982 to 31 December 1998. After considering all the additions and amendments, the total number of species and subspecies of feather lice known from the New Zealand region and the Antarctic Ross Dependency stands at 301. A further 105 records remain at generic level only, but all these do not necessarily represent different taxa. The list below also includes 52 new host-louse associations for louse species already recorded from that geographical area by Pilgrim & Palma (1982).

This paper adds 26 further host species with lice recorded from the New Zealand region to the 250 hosts listed in Pilgrim & Palma (1982). There are still a large number of bird species which reach the New Zealand region regularly or occasionally but do not breed there, from which no lice have been collected. However, there are only 24 breeding bird species with no lice recorded from them in the region (see list below). Seven of these birds are rare endemic species seldom searched for lice. Most of the remainder are known to harbour lice in other parts of the world, although in New Zealand they are rare or have a restricted distribution. In the latter category there are 11 species introduced by humans, either purposely or by accidental escape from captivity, which may not harbour any lice because these birds are often deloused before their release into the wild. Lice from any of these 24 bird species and/or dead birds sent to me at the Museum of New Zealand will be greatly appreciated. Suggested methods for collecting lice are given in Pilgrim & Palma (1982).

Scientific and vernacular names of all the birds, as well as the sequence of all avian taxa, follow those given in the Ornithological Society of New Zealand (OSNZ) (1990) Checklist. There are some host species from which lice have been recorded in New Zealand which are not included in the OSNZ (1990) Checklist for a variety of reasons. I have included those hosts in the present list and an explanatory note, referred to in square brackets, is given for each host at the end of the list.

The format of the present list follows that used by Pilgrim & Palma (1982) with the exception that the numbering of bird taxa has been omitted. The reason for the omission is to avoid possible confusion arising from the radically different numbering system used in the Ornithological Society of New Zealand (1990) Checklist as compared with that used in the previous edition of the Checklist (Ornithological Society of New Zealand, 1970). The latter system was adopted by Pilgrim & Palma (1982) for their list of lice.

Pilgrim & Palma (1982) used the term *Mallophaga* as an ordinal name for all chewing lice. However, since the publication by Lyal (1985) of an excellent analysis on the phylogeny and classification of the lice, I have adopted his conclusions and rejected the name *Mallophaga*, using instead the term *Phthiraptera* as an ordinal name for all parasitic *Psocodea* (lice).

Samples of the lice, on which all the new records listed in this paper are based, have been deposited in the entomology collection of the Museum of New Zealand Te Papa Tongarewa.

LIST OF BIRDS AND NEW RECORDS OF LICE

* denotes a host introduced to New Zealand by human agency.

(N) denotes a new louse species or subspecies record from New Zealand.

(H) denotes a record of a new host-louse association from New Zealand.

(S) denotes lice listed as "sp." in Pilgrim & Palma (1982) which have been identified to species and reported in the literature from New Zealand since that date.

(SN) denotes lice listed as "sp." or as "s. l." in Pilgrim & Palma (1982) which have been identified further herein and are new records from New Zealand.

Order APTERYGIFORMES

Family Apterygidae

<i>Apteryx australis mantelli</i> Bartlett, 1850	North Island Brown Kiwi
<i>Rallicola (Apterocola) rodericki</i> Palma, 1991 (S)	

Order PROCELLARIIFORMES

Family Diomedeidae

<i>Diomedea cauta eremita</i> (Murphy, 1930)	Chatham Island Mollymawk
<i>Austromenopon navigans</i> (Kellogg, 1896) (H)	
<i>Harrisoniella ferox</i> (Giebel, 1867) (H)	

<i>Phoebetria fusca</i> (Hilsenberg, 1822) [Note 1]	Sooty Albatross
<i>Perineus circumfasciatus</i> Kéler, 1957 (H)	

Family Procellariidae

<i>Puffinus carneipes</i> Gould, 1844	Flesh-footed Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	

<i>Puffinus pacificus pacificus</i> (Gmelin, 1789)	Wedge-tailed Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	

<i>Puffinus bulleri</i> Salvin, 1888	Buller's Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	

<i>Puffinus griseus</i> (Gmelin, 1789)	Sooty Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	

<i>Puffinus tenuirostris</i> (Temminck, 1835)	Short-tailed Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	

<i>Puffinus nativitatis</i> (Streets, 1877)	Christmas Island Shearwater
<i>Trabeculus</i> sp. (H)	

<i>Puffinus newelli</i> Henshaw, 1900 [Note 2]	Newell's Shearwater
<i>Austromenopon paululum</i> (Kellogg & Chapman, 1899) (H)	
<i>Halipeurus (Halipeurus) placodus</i> Edwards, 1961 (H)	
<i>Trabeculus mirabilis</i> (Kellogg, 1896) (H)	
<i>Puffinus gavia</i> (Forster, 1844)	Fluttering Shearwater
<i>Saemundssonia (Puffinoecus) valida</i> (Kellogg & Chapman, 1899) (SN)	
<i>Puffinus buttoni</i> Mathews, 1912	Hutton's Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (N)	
<i>Puffinus assimilis kermadecensis</i> Murphy, 1927	Kermadec Little Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Puffinus assimilis baurakiensis</i> Fleming & Serventy, 1943	North Island Little Shearwater
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Puffinus assimilis elegans</i> Giglioli & Salvadori, 1869	Subantarctic Little Shearwater
<i>Austromenopon paululum</i> (Kellogg & Chapman, 1899) (H)	
<i>Procellaria cinerea</i> Gmelin, 1789	Grey Petrel
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Procellaria parkinsoni</i> Gray, 1862	Black Petrel
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (N)	
<i>Procellaria westlandica</i> Falla, 1946	Westland Petrel
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Procellaria aequinoctialis aequinoctialis</i> Linnaeus, 1758	
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	White-chinned Petrel
<i>Bulweria bulwerii</i> (Jardine & Selby, 1828) [Note 3]	Bulwer's Petrel
<i>Halipeurus (Halipeurus) bulweriae</i> Timmermann, 1960 (N)	
<i>Austromenopon bulweriae</i> Timmermann, 1963 (N)	
<i>Pseudobulweria rostrata</i> (Peale, 1848)	Tahiti Petrel
<i>Halipeurus (Halipeurus) marquesanus</i> (Ferris, 1932) (N)	
<i>Saemundssonia (Puffinoecus)</i> sp. (H)	
<i>Lugensa brevirostris</i> (Lesson, 1833)	Kerguelen Petrel
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Longimenopon</i> sp. (H)	
<i>Daption capense capense</i> (Linnaeus, 1758)	Cape Pigeon
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Daption capense australe</i> Mathews, 1913	Snares Cape Pigeon
<i>Ancistriona vagelli</i> (J.C. Fabricius, 1787) (SN)	

<i>Thalassoica antarctica</i> (Gmelin, 1789)	Antarctic Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Fulmarus glacialisoides</i> (Smith, 1840)	Antarctic Fulmar
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Macronectes giganteus</i> (Gmelin, 1789)	Southern Giant Petrel
<i>Perineus macronecti</i> Palma & Pilgrim, 1988 (S)	
<i>Macronectes halli</i> Mathews, 1912	Northern Giant Petrel
<i>Perineus macronecti</i> Palma & Pilgrim, 1988 (S)	
<i>Pachyptila turtur</i> (Kuhl, 1820)	Fairy Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pachyptila crassirostris crassirostris</i> (Mathews, 1912)	Fulmar Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pachyptila crassirostris pyramidalis</i> Fleming, 1939	Chatham Fulmar Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (N)	
<i>Pachyptila belcheri</i> (Mathews, 1912)	Thin-billed Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pachyptila desolata desolata</i> (Gmelin, 1789)	Antarctic Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pachyptila desolata banksi</i> Smith, 1840	Antarctic Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pachyptila salvini salvini</i> (Mathews, 1912)	Salvin's Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pachyptila vittata</i> (Forster, 1777)	Broad-billed Prion
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Halobaena caerulea</i> (Gmelin, 1789)	Blue Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pterodroma longirostris</i> (Stejneger, 1888)	Stejneger's Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Austromenopon</i> sp. (H)	
<i>Pterodroma leucoptera caledonica</i> Imber & Jenkins, 1981	
<i>Austromenopon</i> sp. (H)	New Caledonian Petrel
<i>Pterodroma cookii</i> (Gray, 1843)	Cook's Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Austromenopon</i> sp. (H)	
<i>Longimenopon</i> sp. (H)	
<i>Pterodroma nigripennis</i> (Rothschild, 1893)	Black-winged Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	

<i>Pterodroma inexpectata</i> (Forster, 1844)	Mottled Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pterodroma cervicalis cervicalis</i> (Salvin, 1891)	White-naped Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Pterodroma solandri</i> (Gould, 1844)	Providence Petrel
<i>Naubates thieli</i> Timmermann, 1965 (N)	
<i>Trabeculus schillingi</i> Rudow, 1866 (H)	
<i>Pterodroma macroptera gouldi</i> (Hutton, 1869)	Grey-faced Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Saemundssonia (Puffinoecus) enderleini</i> (Eichler, 1949) (N)	
<i>Pterodroma magentae</i> (Giglioli & Salvadori, 1868)	Chatham Island Taiko
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Halipeurus (Halipeurus) theresae</i> Timmermann, 1969 (H)	
<i>Longimenopon</i> sp. (H)	
<i>Saemundssonia (Puffinoecus)</i> sp. (H)	
<i>Pterodroma lessonii</i> (Garnot, 1826)	White-headed Petrel
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	
<i>Saemundssonia (Puffinoecus) enderleini</i> (Eichler, 1949) (SN)	
<i>Pterodroma mollis</i> (Gould, 1844)	Soft-plumaged Petrel
<i>Naubates pterodromi</i> Bedford, 1930 (H)	
<i>Saemundssonia (Puffinoecus) enderleini</i> (Eichler, 1949) (N)	
Family Oceanitidae	
<i>Oceanodroma leucorhoa</i> (Vieillot, 1818)	Leach's Storm Petrel
<i>Halipeurus (Synnautes) pelagicus</i> (Denny, 1842) (H)	
<i>Saemundssonia incisa</i> Timmermann, 1950 (N)	
<i>Pelagodroma marina albiclinis</i> Murphy & Irving, 1951	
<i>Ancistrona vagelli</i> (J.C. Fabricius, 1787) (SN)	Kermadec Storm Petrel
<i>Fregetta grallaria</i> (Vieillot, 1817)	White-bellied Storm Petrel
<i>Philoceanus fasciatus</i> (Carriker, 1958) (H)	
Order PELECANIFORMES	
Family Sulidae	
<i>Sula leucogaster plotus</i> (Forster, 1844)	Brown Booby
<i>Pectinopygus annulatus</i> (Piaget, 1880) (H)	
<i>Sula dactylatra personata</i> Gould, 1846	Masked Booby
<i>Eidmanniella albescens</i> (Piaget, 1880) (H)	
Family Phalacrocoracidae	
<i>Leucocarbo carunculatus</i> (Gmelin, 1789)	New Zealand King Shag
<i>Eidmanniella pellucida</i> (Rudow, 1869) (H)	

Stictocarbo featherstoni (Buller, 1873) **Pitt Island Shag**
Eidmanniella pellucida (Rudow, 1869) (H)

Order CICONIIFORMES

Family Ardeidae

Egretta sacra sacra (Gmelin, 1789) **Reef Heron**
Ardeicola pallidus (Piaget, 1880) (N)
Ciconiphilus decimfasciatus (Boisduval & Lacordaire, 1835) (H)

Bubulcus ibis coromandus (Boddaert, 1783) **Cattle Egret**
Ardeicola expallidus Blagoveshtchensky, 1940 (H)

Order ANSERIFORMES

Family Anatidae

Anser anser* (Linnaeus, 1758) [Note 4] **Domestic Goose
Anaticola anseris (Linnaeus, 1758) (N)
Ciconiphilus pectiniventris (Harrison, 1916) (H)

Branta canadensis maxima* Delacour, 1951 **Canada Goose
Anaticola anseris (Linnaeus, 1758) (N)

Tadorna tadornoides (Jardine & Selby, 1828) **Chestnut-breasted Shelduck**
Anaticola magnificus Ansari, 1955 (H)
Anatoecus icterodes (Nitzsch, 1818) (H)
Holomenopon tadornae (Gervais, 1844) (H)

Chenonetta jubata (Latham, 1801) **Australian Wood Duck**
Anaticola sp. (H)
Anatoecus dentatus dentatus (Scopoli, 1763) (H)

Anas gracilis Buller, 1869 **Grey Teal**
Holomenopon leucoxanthum (Burmeister, 1838) (H)

Aythya novaeseelandiae (Gmelin, 1789) **New Zealand Scaup**
Anatoecus dentatus dentatus (Scopoli, 1763) (H)

Order FALCONIFORMES

Family Falconidae

Falco novaeseelandiae Gmelin, 1788 **New Zealand Falcon**
Nosopon lucidum (Rudow, 1869) (H)

Order GALLIFORMES

Family Phasianidae

Colinus virginianus* (Linnaeus, 1758) **Bobwhite Quail
Goniodes ortygis Denny, 1842 (SN)

****Gallus gallus*** (Linnaeus, 1758) [Note 5] **Domestic Fowl**
Menacanthus pallidulus Neumann, 1912 (N)

Order CHARADRIIFORMES

Family Haematopodidae

Haematopus ostralegus finschi Martens, 1897 **South Island Pied Oystercatcher**
Austromenopon haematopi Timmermann, 1954 (N)

Family Recurvirostridae

Himantopus novaezealandiae Gould, 1841 **Black Stilt**
Quadraceps semifissus (Nitzsch (in Giebel), 1866) (H)

Family Charadriidae

Charadrius obscurus (Gmelin, 1789) **New Zealand Dotterel**
Saemundssonia (Saemundssonia) platygaster (Denny, 1842) sensu lato (H)

Charadrius bicinctus bicinctus Jardine & Selby, 1827 **Banded Dotterel**
Saemundssonia (Saemundssonia) platygaster balati Timmermann, 1969 (SN)

Charadrius bicinctus exilis Falla, 1978 **Auckland Island Banded Dotterel**
Austromenopon aegialitidis (Durrant, 1906) (H)

Charadrius veredus Gould, 1848 **Oriental Dotterel**
Quadraceps assimilis (Piaget, 1890) (N)

Family Scolopacidae

Calidris acuminata (Horsfield, 1821) **Sharp-tailed Sandpiper**
Actornithophilus umbrinus (Burmeister, 1838) (H)
Carduiceps zonarius (Nitzsch (in Giebel), 1866) (H)
Lunaceps sp. (H)

Calidris ruficollis (Pallas, 1776) **Red-necked Stint**
Lunaceps sp. (H)

Family Stercorariidae

Stercorarius longicaudus Vieillot, 1819 **Long-tailed Skua**
Austromenopon fuscofasciatum (Piaget, 1880) (H)
Quadraceps normifer parvopallidus (Eichler, 1951) (N)
Saemundssonia (Saemundssonia) inexpectata Timmermann, 1951 (N)

Family Laridae

Sterna vittata bethunei Buller, 1896 **New Zealand Antarctic Tern**
Quadraceps bouri Hopkins, 1949 (H)

Anous stolidus pileatus (Scopoli, 1786) **Common Noddy**
Quadraceps separatus (Kellogg & Kuwana, 1902) (N)

Gygis alba roiana Mathews, 1912 **White Tern**
Saemundssonia (Saemundssonia) sp. (H)

Order PSITTACIFORMES

Family Cacatuidae

***Cacatua galerita** (Latham, 1790) **Sulphur-crested Cockatoo**
Franciscoea (Franciscoea) pallida (Piaget, 1880) (N)
Neopsittaconirmus albus (Le Souëf & Bullen, 1902) (N)
Psittoecus vanzolinii Guimarães, 1974 (N)

Family Psittacidae

Cyanoramphus unicolor (Lear, 1831) **Antipodes Island Parakeet**
Forficuloeucus piligrimi Guimarães, 1985 (S)

Cyanoramphus novaezelandiae novaezelandiae (Sparrman, 1787)
Forficuloeucus piligrimi Guimarães, 1985 (S) **Red-crowned Parakeet**

Cyanoramphus novaezelandiae chathamensis Oliver, 1930
Chatham Island Red-crowned Parakeet
Forficuloeucus piligrimi Guimarães, 1985 (S)

Cyanoramphus novaezelandiae hochstetteri (Reischeck, 1889)
Forficuloeucus piligrimi Guimarães, 1985 (S) **Reischeck's Parakeet**

Cyanoramphus auriceps auriceps (Kuhl, 1820) **Yellow-crowned Parakeet**
Forficuloeucus piligrimi Guimarães, 1985 (S)

Cyanoramphus auriceps forbesi Rothschild, 1893 **Forbes' Parakeet**
Forficuloeucus piligrimi Guimarães, 1985 (S)

Order CUCULIFORMES

Family Cuculidae

Cuculus saturatus Blyth, 1843 **Oriental Cuckoo**
Cuculicola latirostris (Burmeister, 1838) (N)

Eudynamys taitensis (Sparrman, 1787) **Long-tailed Cuckoo**
Cuculiphilus (Cuculiphilus) fasciativentris Carriker, 1955 (N)

Scythrops novaehollandiae Latham, 1790 **Channel-billed Cuckoo**
Cuculiphilus (Cuculiphilus) platygaster (Giebel, 1874) (N)

Order PASSERIFORMES

Family Motacillidae

Anthus novaeseelandiae novaeseelandiae (Gmelin, 1789)
Menacanthus eurysternus (Burmeister, 1838) (H) **New Zealand Pipit**
Myrsidea sp. (H)

Family Muscicapidae

- **Turdus merula* Linnaeus, 1758 Blackbird
Brueelia amsel (Eichler, 1951) (SN)

**Turdus philomelos* Brehm, 1831 Song Thrush
Brueelia turdinulae Ansari, 1956 (SN)

Family Sylviidae

- Bowdleria punctata wilsoni** Stead, 1936 **Codfish Island Fernbird**
Penenirmus sp. (N)

Family Pachycephalidae

- Moboua albicilla*** (Lesson, 1830) Whitehead
Brueelia sp. (H)

Family Monarchidae

- Monarchha melanopsis** (Vieillot, 1818) [Note 6] **Black-faced Monarch**
Brueelia sp. (H)

Family Emberizidae

Family Fringillidae

- **Serinus canaria* (Linnaeus, 1758) [Note 7] **Canary**
Myrsidea serini (Séguy, 1944) (H)

- **Carduelis chloris* (Linnaeus, 1758) Greenfinch
 Myrsidea serini (Séguy, 1944) (S)**

- **Carduelis carduelis* (Linnaeus, 1758) Goldfinch
Myrsidea serini (Séguy, 1944) (S)**

Family Callaeidae

- Heteralocha acutirostris** (Gould, 1837) Huia
Rallicola (Huiacola) extinctus (Mey, 1990) (S)

Family Paradisaeidae

- Turnagra capensis capensis** (Sparrman, 1787) **South Island Piopio**
Brueelia sp. (H)

**EXPLANATORY NOTES FOR HOSTS NOT INCLUDED IN THE OSNZ (1990)
CHECKLIST**

1. *Phoebetria fusca* was first reported from New Zealand in 1991 (Heather & Robertson 1996). The louse species listed under that host in this paper is based on a sample collected by A. J. D. Tennyson from a live bird at the Antipodes Islands on 3 November 1995.
2. *Puffinus newelli* was first recorded in New Zealand by Taylor (1996) based on a beached bird collected near Dargaville, Northland, on 12 November 1994. That specimen carried the three louse species reported in this paper.
3. A specimen of *Bulweria bulwerii* was collected dead at Te Horo Beach by J. Luke on 8 January 1998. That bird carried the two louse species reported in this paper, and has been preserved as a study skin and partial skeleton in the collection of the Museum of New Zealand Te Papa Tongarewa (Registration Number 25739).
4. *Anser anser* is not listed in the Ornithological Society of New Zealand (1990) Checklist, or in the OSNZ (1970) edition. However, there are feral populations established in rough farmland (A. J. D. Tennyson pers. comm., 1998). Two samples of each of the two louse species listed under that host in this paper have been collected, at Rakaia Gorge, Lake Coleridge and Lake Ellesmere, all in Canterbury.
5. *Gallus gallus* is not listed in the Ornithological Society of New Zealand (1990) Checklist, or in the OSNZ (1970) edition, because there are no feral populations of this bird known in New Zealand (J. A. Bartle pers. comm., 1998). However, I have included this host in the present list because (a) there are several species of lice recorded from it in New Zealand (see below, under Amendment G.) and (b) it is found throughout the country.
6. *Monarcha melanopsis* was first recorded in New Zealand by Tennyson (1997) based on a bird collected in Stratford, Taranaki, on 19 April 1996. That specimen carried the louse reported in this paper.
7. *Serinus canaria* is not listed in the Ornithological Society of New Zealand (1990) Checklist, or in the OSNZ (1970) edition, because it is only a cage bird. However, Klockenhoff (1984) reported it from Christchurch, New Zealand, as a host for *Myrsidea serini*.

AMENDMENTS TO PILGRIM & PALMA (1982) LIST

- A. Pilgrim & Palma (1982) listed *Austrogoniodes hamiltoni* Harrison, 1937 under *Eudyptes sclateri* Buller, 1888, following the record of a single female published by Clay (1967). I have not been able to find any further specimen of *A. hamiltoni* despite extensive subsequent collections of lice made from this host. Therefore, I regard the above female as a straggler and delete *Austrogoniodes hamiltoni* under *E. sclateri*.

B. Pilgrim & Palma (1982) listed *Austromenopon bulleri* Price & Clay, 1972 under *Diomedea bulleri* Rothschild, 1893. Palma (1994) regarded *A. bulleri* as a junior synonym of *Austromenopon navigans* (Kellogg, 1896). Therefore, the name *A. bulleri* is deleted from the New Zealand louse fauna.

C. Pilgrim & Palma (1982) listed *Saemundssonia upoluensis* (Rudow, 1870) under *Phaethon lepturus dorothae* Mathews, 1913. The epithet "upoluensis" as emended by Hopkins & Clay (1952) is an invalid emendation of the original spelling "uppalensis". Therefore, the correct name of this louse is *Saemundssonia uppalensis* (Rudow, 1870).

D. Pilgrim & Palma (1982) listed *Colpocephalum zerafae* Ansari, 1955 under *Falco cenchroides cenchroides* Vigors & Horsfield, 1827. Following the publication of the new species *Colpocephalum subzerafae* Tendeiro, 1988 for the louse populations parasitic on several species of *Falco*, including *F. cenchroides*, the name *C. zerafae* needs to be replaced by *C. subzerafae* in the list of New Zealand bird lice under this host.

E. Pilgrim & Palma (1982, Note 7) regarded Harrison's (1937) record of a female *Austrogoniodes waterstoni* (Cummings, 1914) from *Eudyptes sclateri* as a straggler. I have subsequently examined that female louse, held in the collection of the Australian Museum, and have identified it as *Austrogoniodes cristati* Kéler, 1952. This louse species is a regular parasite of *E. sclateri*, and so the above specimen is not a straggler.

F. Pilgrim & Palma (1982, Note 15) regarded Watson's (1967) record of *Halipeurus turtur* Edwards, 1961 from *Pachyptila desolata desolata* as a straggler. I have subsequently examined a male *Halipeurus* with the same data as given by Watson (1967), held in the collection of the Natural History Museum in London, and have identified it as *Halipeurus diversus* (Kellogg, 1896). Considering that no species of *Halipeurus* is a regular parasite of any *Pachyptila* host (see Pilgrim & Palma (1982)), I still regard this host-louse association as the result of straggling or contamination, almost certainly from a specimen of *Puffinus griseus*.

G. Pilgrim & Palma (1982) did not include the bird *Gallus gallus* as a host for lice in New Zealand (see explanatory note 5 above). However, seven species of lice are known to parasitise domestic fowl in this country. Whitten (1971) recorded the six species listed below, and a new species record is added in this paper (see above).

Cyclotogaster heterographus (Nitzsch (in Giebel), 1866)

Goniocotes gallinae (De Geer, 1778)

Goniodes dissimilis Denny, 1842

Lipeurus caponis (Linnaeus, 1758)

Menacanthus stramineus (Nitzsch, 1818)

Menopon gallinae (Linnaeus, 1758)

**LIST OF BIRD SPECIES WHICH BREED IN THE NEW ZEALAND REGION
BUT WITH NO LICE COLLECTED FROM THEM IN THE REGION**

(* denotes a bird introduced to New Zealand by human agency)

<i>Tachybaptus novaehollandiae</i> (Stephens, 1826)	Australasian Little Grebe
<i>Pelecanoides georgicus</i> Murphy & Harper, 1916	South Georgian Diving Petrel
<i>Pygoscelis papua</i> (Forster, 1781)	Northern Gentoo Penguin
<i>Pygoscelis antarctica</i> (Forster, 1781)	Chinstrap Penguin
* <i>Cereopsis novaehollandiae</i> Latham, 1801	Cape Barren Goose
* <i>Alectoris rufa</i> (Linnaeus, 1758)	Red-legged Partridge
* <i>Numida meleagris</i> (Linnaeus, 1758)	Tufted Guineafowl
<i>Rallus pectoralis muelleri</i> Rothschild, 1893	Auckland Island Rail
<i>Charadrius melanops</i> Vieillot, 1818	Black-fronted Dotterel
<i>Sterna nereis davisae</i> (Mathews & Iredale, 1913)	New Zealand Fairy Tern
* <i>Streptopelia roseogrisea</i> (Sundevall, 1857)	Barbary Dove
* <i>Streptopelia chinensis tigrina</i> (Temminck, 1810)	Spotted Dove
* <i>Platycercus elegans</i> (Gmelin, 1788)	Crimson Rosella
* <i>Platycercus eximius</i> (Shaw, 1792)	Eastern Rosella
* <i>Dacelo novaeguineae</i> (Hermann, 1783)	Kookaburra
<i>Xenicus gilviventris</i> Pelzeln, 1867	Rock Wren
<i>Hirundo tabitica neoxena</i> Gould, 1843	Welcome Swallow
<i>Mohoua ochrocephala</i> (Gmelin, 1789)	Yellowhead
<i>Mohoua novaeseelandiae</i> (Gmelin, 1789)	Brown Creeper
<i>Gerygone albofrontata</i> Gray, 1844	Chatham Island Warbler
<i>Petroica traversi</i> (Buller, 1872)	Black Robin
* <i>Emberiza cirlus</i> Linnaeus, 1766	Cirl Bunting
* <i>Fringilla coelebs</i> Linnaeus, 1758	Chaffinch
* <i>Carduelis flammea</i> (Linnaeus, 1758)	Redpoll

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