

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, *Franciscolea* Conci, 1942, *Penenirmus* Clay & Meinertzhagen, 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this paper is to update the list of genera and species of bird lice known from the New Zealand region, adding hitherto unpublished identifications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-lice 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-lice 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

- Apteryx australis mantelli* Bartlett, 1850 North Island Brown Kiwi
Rallicolica (Aptericola) rodericki Palma, 1991 (S)

Order PROCELLARIIFORMES

Family Diomedeidae

- Diomedea cauta eremita* (Murphy, 1930) Chatham Island Mollymawk
Austromenopon navigans (Kellogg, 1896) (H)
Harrisoniella ferox (Giebel, 1867) (H)
- Phoebetria fusca* (Hilsenberg, 1822) [Note 1] Sooty Albatross
Perineus circumfasciatus Kéler, 1957 (H)

Family Procellariidae

- Puffinus carneipes* Gould, 1844 Flesh-footed Shearwater
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
- Puffinus pacificus pacificus* (Gmelin, 1789) Wedge-tailed Shearwater
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
- Puffinus bulleri* Salvin, 1888 Buller's Shearwater
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
- Puffinus griseus* (Gmelin, 1789) Sooty Shearwater
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
- Puffinus tenuirostris* (Temminck, 1835) Short-tailed Shearwater
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
- Puffinus nativitatis* (Streets, 1877) Christmas Island Shearwater
Trabeculus sp. (H)

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

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

- Pterodroma inexpectata*** (Forster, 1844) **Mottled Petrel**
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
- Pterodroma cervicalis cervicalis*** (Salvin, 1891) **White-naped Petrel**
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
- Pterodroma solandri*** (Gould, 1844) **Providence Petrel**
Naubates thieli Timmermann, 1965 (N)
Trabeculus schillingi Rudow, 1866 (H)
- Pterodroma macroptera gouldi*** (Hutton, 1869) **Grey-faced Petrel**
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
Saemundssonina (Puffinoecus) enderleini (Eichler, 1949) (N)
- Pterodroma magentae*** (Giglioli & Salvadori, 1868) **Chatham Island Taiko**
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
Halipeurus (Halipeurus) theresae Timmermann, 1969 (H)
Longimenopon sp. (H)
Saemundssonina (Puffinoecus) sp. (H)
- Pterodroma lessonii*** (Garnot, 1826) **White-headed Petrel**
Ancistrona vagelli (J.C. Fabricius, 1787) (SN)
Saemundssonina (Puffinoecus) enderleini (Eichler, 1949) (SN)
- Pterodroma mollis*** (Gould, 1844) **Soft-plumaged Petrel**
Naubates pterodromi Bedford, 1930 (H)
Saemundssonina (Puffinoecus) enderleini (Eichler, 1949) (N)

Family Oceanitidae

- Oceanodroma leucorhoa*** (Vieillot, 1818) **Leach's Storm Petrel**
Halipeurus (Synnautes) pelagicus (Denny, 1842) (H)
Saemundssonina incisa Timmermann, 1950 (N)
- Pelagodroma marina albiclunis*** Murphy & Irving, 1951
Ancistrona vagelli (J.C. Fabricius, 1787) (SN) **Kermadec Storm Petrel**
- Fregatta grallaria*** (Vieillot, 1817) **White-bellied Storm Petrel**
Philoceanus fasciatus (Carriker, 1958) (H)

Order PELECANIFORMES

Family Sulidae

- Sula leucogaster plotus*** (Forster, 1844) **Brown Booby**
Pectinopygus annulatus (Piaget, 1880) (H)
- Sula dactylatra personata*** Gould, 1846 **Masked Booby**
Eidmanniella albescens (Piaget, 1880) (H)

Family Phalacrocoracidae

- Leucocarbo carunculatus*** (Gmelin, 1789) **New Zealand King Shag**
Eidmanniella pellucida (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**
Quadriceps semifissus (Nitzsch (in Giebel), 1866) (H)

Family Charadriidae

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

- Charadrius bicinctus bicinctus* Jardine & Selby, 1827 **Banded Dotterel**
Saemundssonina (Saemundssonina) 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**
Quadriceps 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)
Quadriceps normifer parvopallidus (Eichler, 1951) (N)
Saemundssonina (Saemundssonina) inexpectata Timmermann, 1951 (N)

Family Laridae

- Sterna vittata bethunei* Buller, 1896 **New Zealand Antarctic Tern**
Quadriceps houri Hopkins, 1949 (H)

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

Gygis alba royana Mathews, 1912 White Tern
Saemundssonina (Saemundssonina) sp. (H)

Order PSITTACIFORMES

Family Cacatuidae

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

Family Psittacidae

Cyanoramphus unicolor (Lear, 1831) Antipodes Island Parakeet
Forficuloecus pilgrimi Guimarães, 1985 (S)

Cyanoramphus novaezelandiae novaezelandiae (Sparrman, 1787)
Forficuloecus pilgrimi Guimarães, 1985 (S) Red-crowned Parakeet

Cyanoramphus novaezelandiae chatbamensis Oliver, 1930
Chatham Island Red-crowned Parakeet
Forficuloecus pilgrimi Guimarães, 1985 (S)

Cyanoramphus novaezelandiae hochstetteri (Reischek, 1889)
Forficuloecus pilgrimi Guimarães, 1985 (S) Reischek's Parakeet

Cyanoramphus auriceps auriceps (Kuhl, 1820) Yellow-crowned Parakeet
Forficuloecus pilgrimi Guimarães, 1985 (S)

Cyanoramphus auriceps forbesi Rothschild, 1893 Forbes' Parakeet
Forficuloecus pilgrimi 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) fasciiventris Carriker, 1955 (N)

Scytbrops 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

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

Family Emberizidae

- **Emberiza citrinella* Linnaeus, 1758 **Yellowhammer**
Myrsidea serini (Séguy, 1944) (S)

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 *Saemundssonina upoluensis* (Rudow, 1870) under *Pbaethon lepturus dorotheae* 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 *Saemundssonina uppalensis* (Rudow, 1870).

D. Pilgrim & Palma (1982) listed *Colpocephalum zerafae* Ansari, 1955 under *Falco cencbroides cencbroides* 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. cencbroides*, 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 *Eudypetes 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).

Cuclotogaster heterographus (Nitzsch (in Giebel), 1866)

Goniocotes gallinae (De Geer, 1778)

Gontodes 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>Moboua ochrocephala</i> (Gmelin, 1789)	Yellowhead
<i>Moboua 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 cirrus</i> Linnaeus, 1766	Cirl Bunting
* <i>Fringilla coelebs</i> Linnaeus, 1758	Chaffinch
* <i>Carduelis flammea</i> (Linnaeus, 1758)	Redpoll

ACKNOWLEDGEMENTS

I am very grateful to Robert L. C. Pilgrim (University of Canterbury, Christchurch, N.Z.), Alan J. D. Tennyson and Philip J. Sirvid (Museum of New Zealand Te Papa Tongarewa, Wellington, N.Z.) for their critical review of the manuscript; to J. A. (Sandy) Bartle and Alan J. D. Tennyson (Museum of New Zealand Te Papa Tongarewa, Wellington, N.Z.) for their advice on various ornithological matters; and to many collectors of birds and lice who contributed with the valuable samples which made this paper possible. I thank Christopher H. C. Lyal (Natural History Museum, London, England) and the staff of the Entomology Department of the Australian Museum (Sydney, Australia) who kindly lent me specimens relevant to this paper.

LITERATURE CITED

- CLAY, T. 1967. Mallophaga (biting lice) and Anoplura (sucking lice). Part 1: *Austrogoniodes* (Mallophaga) parasitic on penguins (Sphenisciformes). Pp. 149-155 in Gressitt, J.L. (ed.) Antarctic Research Series, volume 10. American Geophysical Union, Washington D.C.
- GUIMARÃES, L. R. 1985. Ischnocera (Mallophaga) infesting parrots (Psittaciformes). V. Four new species of *Forficuloecus* Conci, 1941 (Phloptericidae) from the South Pacific. *Papéis Avulsos de Zoologia* (São Paulo) 36: 41-49.
- HARRISON, L. 1937. Mallophaga and Siphunculata. Pp. 1-47, pls 1-3 in Johnston, T.H. (ed.) Scientific reports, Australasian Antarctic Expedition 1911-14, series C, Zoology and Botany, volume 2(1). Government Printer, Sydney.
- HEATHER, B. D.; ROBERTSON, H. A. 1996. The Field Guide to the Birds of New Zealand. Viking, Auckland.
- HOPKINS, G. H. E.; CLAY, T. 1952. A Check List of the Genera & Species of Mallophaga. Trustees of the British Museum, London.
- KLOCKENHOFF, H. F. 1984. A redescription of *Myrsidea serini* (Mallophaga: Menoponidae), a parasite from passerine birds. *New Zealand Journal of Zoology* 11: 17-22.
- LYAL, C. H. C. 1985. Phylogeny and classification of the Psocodea, with particular reference to the lice (Psocodea: Phthiraptera). *Systematic Entomology* 10: 145-165.
- MEY, E. 1990. Eine neue ausgestorbene Vogel-Ischnozere von Neuseeland, *Huiacola extinctus* (Insecta, Phthiraptera). *Zoologischer Anzeiger* 224: 49-73.
- ORNITHOLOGICAL SOCIETY OF NEW ZEALAND. 1970. Annotated Checklist of the Birds of New Zealand including the Birds of the Ross Dependency. The Checklist Committee (F.C. Kinsky, Convener). A. H. & A. W. Reed, Wellington.
- ORNITHOLOGICAL SOCIETY OF NEW ZEALAND. 1990. Checklist of the Birds of New Zealand and the Ross Dependency, Antarctica. Third Edition. The Checklist Committee (E. G. Turbott, Convener). Random Century, Auckland.
- PALMA, R. L. 1991. A new species of *Rallicola* (Insecta: Phthiraptera: Philopteridae) from the North Island brown kiwi. *Journal of the Royal Society of New Zealand* 21: 313-322.
- PALMA, R. L. 1994. New synonymies in the lice (Insecta: Phthiraptera) infesting albatrosses and petrels (Procellariiformes). *The New Zealand Entomologist* 17: 64-69.
- PALMA, R. L.; PILGRIM, R. L. C. 1988. [1987]. A revision of the genus *Perineus* (Phthiraptera: Philopteridae). *New Zealand Journal of Zoology* 14: 563-586.
- PILGRIM, R. L. C.; PALMA, R. L. 1982. A list of the chewing lice (Insecta: Mallophaga) from birds in New Zealand. *Notornis* 29 (Supplement), 32 pp.

- RUDOW, F. 1870. Beobachtungen über die Lebensweise und den Bau der Mallophagen oder Pelzfresser sowie Beschreibung neuer Arten. Zeitschrift für die gesammten Naturwissenschaften (Halle) (N.F. 2) 35: 449-487.
- TAYLOR, G. A. 1996. Seabirds found dead on New Zealand beaches in 1994. Notornis 43: 187-196.
- TENDEIRO, J. 1988. Etudes sur les *Colpocephalum* (Mallophaga, Menoponidae) parasites des Falconiformes I. Groupe *zerafae* Price & Beer. Bonner zoologische Beiträge 39: 77-102.
- TENNYSON, A. J. D. 1997. First record of a Black-faced Monarch (*Monarcha melanopsis*) in New Zealand. Notornis 44: 267-269.
- WATSON, K. C. 1967. The terrestrial Arthropoda of Macquarie Island. ANARE Scientific Reports, series B(1) Zoology 99: xii + 90 pp., 2 maps, 12 pls.
- WHITTEN, L. K. 1971. Diseases of domestic animals in New Zealand. Editorial Services Limited, Wellington.

Manuscript received 25 November 1998, revised and accepted 29 January 1999