

Handbook of AUSTRALIAN, NEW ZEALAND & ANTARCTIC BIRDS

Volume 2 Raptors to Lapwings

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Melbourne
Oxford University Press 1993
Oxford Auckland New York

OXFORD UNIVERSITY PRESS AUSTRALIA

Oxford New York Toronto Delhi
Bombay Calcutta Madras Karachi
Petaling Java Singapore Hong Kong Tokyo
Nairobi Dar es Salaam Cape Town
Melbourne Auckland

and associated companies in
Berlin Ibadan

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First published 1993

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Recommended citation

Marchant, S., & P.J. Higgins (Eds) 1993.
Handbook of Australian, New Zealand and Antarctic Birds. Volume 2: Raptors to Lapwings.
Oxford University Press, Melbourne

National library of Australia
Cataloguing-in-Publication data:

Handbook of Australian, New Zealand and Antarctic birds.
Volume 2, Raptors to lapwings.

Includes index.

ISBN 0 19 553069 1

ISBN 0 19 553244 9 (complete set)

I. Birds — Australia. 2. Birds — New Zealand. 3. Birds —
Antarctic regions. I. Marchant, S. (Stephen), 1912-
II. Higgins, P. J. (Peter Jeffrey), 1959-

598,299

Edited by Venetia Nelson
Designed and typeset by Derrick I. Stone Design, Melbourne
Separations by Scanagraphix Pty Ltd, Melbourne
Printed by Impact Printing, Melbourne
Published by Oxford University Press
250 Normanby Road, South Melbourne, Australia

APPENDIX I

ECTOPARASITES OF AUSTRALIAN, NEW ZEALAND AND ANTARCTIC BIRDS

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INTRODUCTION

The format followed is the same as presented in Volume 1. Only published data have been listed (excluding records considered to be stragglers or contaminants), because it was thought that much of the material in collections needs to be re-examined to avoid a perpetuation of errors. Only those hosts are listed on which, or in association with which, ectoparasites have been found; absence of a host from the list means ignorance. The nomenclature of hosts follows that of the Handbook and, in the main, subspecies are not given. However, it must be emphasized that subspecies of hosts are important as usually they differ in distribution, and ectoparasites, such as fleas and ticks, have distinct geographical distributions of their own related to the conditions that favour the survival when not on the host of the several stages of their life cycles. Even lice, which live permanently on their hosts, may differ between subspecies of their hosts. The subspecies of hosts are given, therefore, where they are considered to be relevant and informative.

Even more obvious than in the checklist given in Volume 1 is the lack of publications describing lice from Australian birds. From Table 1, which shows the affinities of bird and lice genera, the Charadriiformes have been excluded because this Order is only partially covered in this Volume. They will be included in the table that will appear in Volume 3.

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Table 1 Genera of lice associated with families of birds

| Orders and families of birds | Sub-orders and genera of lice | |
|------------------------------|--|--|
| | Amblycera | Ischnocera |
| Falconiformes | | |
| Accipitridae | <i>Colpocephalum, Laemobothrion, Nosopon</i> | <i>Craspedorrhynchus, Degeeriella, Falcolipeurus</i> |
| Falconidae | <i>Colpocephalum, Laemobothrion, Nosopon</i> | <i>Craspedorrhynchus, Degeeriella</i> |
| Galliformes | | |
| Megapodiidae | <i>Colpocephalum</i> | <i>Goniodes, Lipeurus, Megapodiella, Oxylipeurus.</i> |
| Phasianidae | <i>Amyrsidea, Colpocephalum, Menacanthus</i> | <i>Chelopistes, Cuclogaster, Goniocotes, Goniodes, Lagopoeus, Lipeurus, Oxylipeurus.</i> |
| Turniciformes | | |
| Turnicidae | | <i>Turnicola.</i> |
| Gruiformes | | |
| Gruidae | <i>Heleonomus</i> | <i>Esthiopterum, Saemundsonia, Rallicola</i> |
| Rallidae | <i>Laemobothrion, Pseudomenopon</i> | <i>Fulicoffula, Incidifrons,</i> |

CHECKLIST OF ECTOPARASITES

Family ACCIPITRIDAE

Elanus axillarisLice: *Degeeriella elani* Tendeiro, 1955**Haliastur spheurnus**Lice: *Laemobothrion (Laemobothrion) maximum* (Scopoli, 1763)
Laemobothrion (Laemobothrion) vulturis (J.C. Fabricius, 1775)
Degeeriella regalis (Giebel, 1866)**Haliaeetus leucogaster**Lice: *Craspedorrhynchus* sp.**Circus assimilis**Lice: *Degeeriella fusca* (Denny, 1842)**Circus approximans**Lice: *Colpocephalum turbinatum* Denny, 1842
Degeeriella fusca (Denny, 1842)
Laemobothrion (Laemobothrion) maximum (Scopoli, 1763)
Nosopon lucidum (Rudow, 1869)**Accipiter n. novaehollandiae**Lice: *Colpocephalum zerafae* Ansari, 1955**Accipiter f. fasciatus, A.f. didimus, A.f. natalis**Lice: *Craspedorrhynchus haematopus* (Scopoli, 1763)
Degeeriella fulva (Giebel, 1874)
Degeeriella fusca (Denny, 1842)**Accipiter c. cirrhocephalus, A.c. quaesitandus**Lice: *Craspedorrhynchus* sp.**Aquila a. audax, A.a. fleayi**Lice: *Colpocephalum impressum* Rudow 1866
Colpocephalum turbinatum Denny, 1842
Craspedorrhynchus sp.
Falcolipeurus saturalis (Rudow, 1869)
Nosopon australiense Price, 1976**Hieraetus m. morphnoides**Lice: *Colpocephalum turbinatum* Denny, 1842
Degeeriella sp.

Family FALCONIDAE

Falco berigora tasmanicaLice: *Colpocephalum berigorae* Tendeiro, 1988
Craspedorrhynchus sp.
Degeeriella rufa (Burmeister 1838)**Falco berigora melvillensis**Lice: *Colpocephalum berigorae* Tendeiro, 1988**Falco c. cenchroides**Lice: *Colpocephalum subzerafae* Tendeiro, 1988
Degeeriella rufa rufa (Burmeister, 1838)
Laemobothrion (Laemobothrion) tinnunculi (Linnaeus, 1758)
Ticks: *Argas (Argas) falco* Kaiser & Hoogstraal, 1974
Argas (Argas) lowryae Kaiser & Hoogstraal, 1975**Falco l. longipennis**Lice: *Laemobothrion (Laemobothrion) tinnunculi* (Linnaeus, 1758)**Falco novaeseelandiae**Lice: *Degeeriella rufa rufa* (Burmeister, 1838)
Nosopon sp.**Falco subniger**Lice: *Degeeriella* sp.

Family MEGAPODIIDAE

Megapodius reinwardtLice: *Goniodes biordinatus* Clay, 1940
Goniodes minor (Piaget), 1880
Lipeurus sinuatus Taschenberg, 1882**Leipoa ocellata**Lice: *Goniodes australis* Emerson & Price, 1986
Goniodes leipoae Emerson & Price, 1984
Lipeurus parkeri Emerson & Price, 1986
Megapodiella parkeri Price & Emerson, 1984**Alectura lathamii**Lice: *Colpocephalum alecturae* Price & Beer, 1964
Colpocephalum lathamii Price & Beer, 1964
Goniodes fissus (Rudow, 1869)
Goniodes macrocephalus (Taschenberg, 1882)
Lipeurus crassus Rudow, 1869
Oxylipeurus ischnocephalus (Taschenberg, 1882)
Louse flies: *Icosta (Ornithoponus) australica* (Paramanov, 1954)

Family MELEAGRIDAE

Meleagris gallopavoLice: *Chelopistes meleagridis* (Linnaeus, 1758)
Menacanthus stramineus (Nitzsch, 1818)
Oxylipeurus p. polytrapezius (Burmeister, 1838)
Ticks: *Argas (Persicargas) robertsi*
Ixodes holocyclus Neumann, 1899

Family PHASIANIDAE

Lophortyx californicusLice: *Goniodes stefani* Clay & Hopkins, 1955
Lagopoecus docophoroides (Piaget, 1880)
Oxylipeurus ellipticus (Kéler, 1958)**Gallus gallus**Lice: *Lipeurus caponis* (Linnaeus, 1758)
Cuclotagaster heterographus Nitzsch, 1866
Goniodes dissimilis Denny, 1842
Goniodes gigas Taschenberg, 1879
Goniocotes gallinae (De Geer, 1778),
Fleas: *Ceratophyllus gallinae* (Schrank, 1803)
Echidnophaga gallinacea (Westwood), 1875
Ticks: *Argas (Persicargas) robertsi* Hoogstraal, Kaiser & Kohls, 1968
Ixodes holocyclus Neumann, 1899**Pavo cristatus**Lice: *Amyrsidea minuta* Emerson, 1961
Colpocephalum tauasi (Ansari, 1951)
Goniodes pavonis (Linnaeus, 1758)**Phasianus colchicus**Lice: *Amyrsidea perdicis* (Denny, 1842)
Goniocotes chrysocephalus Giebel, 1874
Goniodes colchici Denny, 1842
Lipeurus m. maculosus Clay, 1938
Menacanthus sp.

Oxylpeurus mesopelios colchicus Clay, 1938

Alectoris chukar

Lice: *Cuclotogaster heterographus* (Nitzsch, 1866)

Goniocotes pusillus (Nitzsch, 1866)

Goniodes dispar Burmeister, 1838

Coturnix ypsilophora

Lice: *Cuclotogaster synoicus* (Clay, 1938)

Goniodes retractus L \acute{e} Sou \acute{e} f, 1902

Menacanthus sp.

Family TURNICIDAE

Turnix varia

Lice: *Turnicola* sp.

Family GRUIDAE

Grus rubicundus

Lice: *Esthiopterum giganteum* (Le Sou \acute{e} f & Bullen, 1902)

Heleonomus laveryi Price, 1970

Saemundssonina integer (Nitzsch, 1866)

Family RALLIDAE

Gallirallus philippensis

Lice: *Pseudomenopon scopulacorne* (Denny, 1842)

Rallicola ortyometrae philippensis Emerson, 1966

Gallirallus australis

Gallirallus a. greyi

Lice: *Pseudomenopon pilgrimi* Price, 1974

Rallicola harrisoni Emerson, 1955

Gallirallus a. australis

Lice: *Pseudomenopon pilgrimi* Price 1974

Rallicola harrisoni Emerson, 1955

Fleas: *Pagipsylla galliralli* (Smit, 1965)

Parapsyllus n. nestoris Smit, 1965

Parapsyllus valedictus Smit, 1979

Gallirallus a. hectori

Lice: *Pseudomenopon pilgrimi* Price, 1974

Rallicola harrisoni Emerson, 1955

Gallirallus a. scotti

Lice: *Rallicola harrisoni* Emerson, 1955

Fleas: *Notiopsylla enciani regula* Smit, 1979

Dryolimnas pectoralis

Lice: *Pseudomenopon scopulacorne* (Denny, 1842)

Rallicola ortyometrae affinis (Piaget, 1880)

Porzana pusilla affinis

Lice: *Fulicoffula* sp.

Incidifrons sp.

Rallicola sp.

Porzana tabuensis

Lice: *Fulicoffula* sp.

Pseudomenopon sp.

Rallicola tabuensis Emerson, 1966

Porphyrio porphyrio

Lice: *Laemobothrion (Eulaemobothrion)* sp.

Pseudomenopon concretum (Piaget, 1880)

Rallicola lugens (Giebel, 1874)

Porphyrio mantelli

Lice: *Rallicola takahe* Holloway, 1956

Gallinula ventralis

Lice: *Incidifrons flavopunctatus* (Rudow, 1870)

Pseudomenopon australis Price & Emerson, 1986

Rallicola bournei Price & Emerson, 1986

Gallinula mortierii

Lice: *Fulicoffula* sp.

Pseudomenopon phoenicuri Price, 1974

Rallicola campbelli Emerson, 1964

Rallicola mortieri Emerson, 1964

Fulica atra

Lice: *Fulicoffula lurida* (Nitzsch, 1818)

Incidifrons fulicae (Linnaeus, 1758)

Pseudomenopon pilosum (Scopoli, 1763)

Rallicola fulicae (Denny, 1842)

Family JACANIDAE

Irediparra gallinacea

Lice: *Saemundssonina platygaster theresae* Timmermann, 1962

Rallicola sp.

Family CHIONIDIDAE

Chionis alba

Lice: *Quadriceps ornatus antarcticus* Timmermann, 1952

Chionis minor

Lice: *Actornithophilus pauliani* Seguy, 1954

Quadriceps vaginalis Timmermann, 1963

Saemundssonina australis Timmermann, 1955

Family HAEMATOPODIDAE

Haematopus longirostris

Lice: *Actornithophilus grandiceps* (Piaget, 1880)

Quadriceps auratus (Haan, 1829)

Quadriceps ridgwayi (Kellogg, 1906)

Saemundssonina haematopi (Linnaeus, 1758)

Haematopus finschi

Lice: *Actornithophilus grandiceps* (Piaget, 1880)

Quadriceps auratus (Haan, 1829)

Saemundssonina haematopi (Linnaeus, 1758)

Haematopus chathamensis

Lice: *Actornithophilus grandiceps* (Piaget, 1880)

Quadriceps auratus (Haan, 1829)

Haematopus unicolor

Lice: *Actornithophilus grandiceps* (Piaget, 1880)

Quadriceps auratus (Haan, 1829)

Quadriceps ridgwayi (Kellogg, 1906)

Saemundssonina haematopi (Linnaeus, 1758)

Haematopus fuliginosus

Lice: *Actornithophilus grandiceps* (Piaget, 1880)

Quadriceps auratus (Haan, 1829)

Quadriceps ridgwayi (Kellogg, 1906)

Saemundssonina haematopi (Linnaeus, 1758)

Family RECURVIROSTRIDAE

Himantopus himantopus

- Lice: *Austromenopon himantopi* Timmermann, 1954
Quadraceps hemichrous (Nitzsch, 1866)
Quadraceps semifissus (Nitzsch, 1866)
Saemundssonina platygaster (Denny, 1842)

Himantopus novaeseelandiae

- Lice: *Quadraceps hemichrous* (Nitzsch, 1866)

Cladorhynchus leucocephalus

- Lice: *Quadraceps kosswigi* Timmermann, 1956

Recurvirosta novaehollandiae

- Lice: *Quadraceps decipiens* (Denny, 1842)
Quadraceps recurvirostrae (Linnaeus, 1758)
Quadraceps signatus (Piaget, 1880)

Family CHARADRIIDAE

Pluvialis fulva

- Lice: *Actornithophilus ochraceus* (Nitzsch, 1818)
Quadraceps charadrii (Linnaeus, 1758)
Saemundssonina conica conica (Denny, 1842)

Charadrius obscurus

- Lice: *Actornithophilus ochraceus* (Nitzsch, 1818)
Quadraceps dominella Timmermann, 1953

Charadrius ruficapillus

- Lice: *Quadraceps macrocephalus* (Waterston, 1914)

Charadrius bicinctus

Charadrius b. bicinctus

- Lice: *Quadraceps cedemajori* Timmermann, 1969
Saemundssonina platygaster (Denny, 1842)

Charadrius bicinctus exilis

- Lice: *Quadraceps cedemajori* Timmermann, 1969
Quadraceps novaeseelandiae Timmermann, 1953

Charadrius australis

- Lice: *Quadraceps neoaustralis* Emerson & Price, 1986

Elsayornis melanops

- Lice: *Quadraceps bicuspis dressleri* Timmermann, 1971

Thinornis rubicollis

- Lice: *Quadraceps cucullatus* Timmermann, 1955
Quadraceps rubicollis Emerson & Price, 1985

Thinornis novaeseelandiae

- Lice: *Quadraceps novaeseelandiae* Timmermann, 1953
Saemundssonina chathamensis Timmermann, 1977

Anarhynchus frontalis

- Lice: *Quadraceps cedemajori* Timmermann, 1969

Vanellus tricolor

- Lice: *Quadraceps australis* Emerson & Price 1986

Vanellus miles

- Lice: *Actornithophilus hoplopteri* (Mjöberg, 1910)
Austromenopon aegialitidis (Durrant, 1906)
Quadraceps renschi Timmermann, 1954

ERRATA

CORRECTIONS TO VOLUME 1

Page 84. Sonagram A. Calls about 1.1 kHz too high; i.e. calls should be in range 2.4–3.7 kHz.

Page 158. Masthead, line 4. Amend 'Mme Adélie' to 'Mme Adèle'.

Page 409. Column 2, lines 41–42. Delete '(see figure)'.

Page 427. Map. Arrow to NZ should be non-breeding (pale red).

Page 1355. Sonagrams. Smudge on sonagram A between 2 and 3 kHz extending to c. 0.6 s. Smudge on sonagram B above 7 kHz.

Page 1366. Table 1, Apterygidae. The genus *Apterygon* should be listed under the Amblycera.

Page 1375. Column 1, line 3. Amend 'Himantandraceae' to 'Himantandraceae'.

Page 1376. Column 1, line 28. Amend 'Zanichelliaceae' to 'Zannichelliaceae'.

Pages 1386–92. The columns of foreign names were not labelled. They are (from left to right): Dutch, French, German, Japanese and Russian.

Pages 1386–92. French names. A complete world list of French names has been published (Commission Internationale des Noms Français des Oiseaux. 1993. *Noms Français des Oiseaux du Monde*. Editions Multimondes, Sainte Foy, Quebec, & Editions Chabaud, Bayonne, France) and should be consulted for additions and changes to the species in Volume 1. Errors in Volume 1 are corrected below.

Dromaius novaehollandiae. Change 'l'Emeu noir' to 'Émeu d'Australie'.

Dromaius ater. Change 'l'Emeu d l'Île King' to 'Émeu noir'.

Dromaius baudinianus. Change 'l'Emeu d l'Île des Kangourous' to 'Émeu de Baudin'.

Diomedea melanophrys. Change 'Albatros à sourcil noir' to 'Albatros à sourcils noirs'.

Diomedea melanophrys. Change 'Albatros à bec juane' to 'Albatros à nez jaune'.

Pterodroma arminjoniana. Change 'Pétrel de la Trinite du sud' to 'Pétrel de la Trinité du Sud'.

Pterodroma mollis. Change 'Pétrel de Madère (soyeux)' to 'Pétrel soyeux'.

Pterodroma tenuirostris. Change 'Puffin à bec grêle' to 'Puffin à bec grêle'.

Fregetta tropica. Change 'Océanite à ventre blanc et noir' to 'Océanite à ventre noir'.

Sula sula. Change 'Fou a pieds rouges (pattes rouges)' to 'Fou à pieds rouges'.

Ardea novaehollandiae. Change 'Héron a face blanche' to 'Héron à face blanche'.

Ixobrychus flavicollis. Change 'Blongios à con jaune' to 'Blongios à cou jaune'.

Cygnus olor. Change 'Cygne tubuclé (muet)' to 'Cygne tuberculé'.

Anas chlorotis. Change 'Sarcelle brune' to 'Sarcelle de Nouvelle-Zélande'.

Anas aucklandica. Should be 'Sarcelle brune'.

Anas superciliosa. Change 'Canard à sourails' to 'Canard à sourcils'.