

## 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	Ichnocera
<b>Falconiformes</b>		
Accipitridae	<i>Colpocephalum</i> , <i>Laemobothrion</i> , <i>Nosopon</i>	<i>Craspedorrhynchus</i> , <i>Degeeriella</i> , <i>Falcolipeurus</i>
Falconidae	<i>Colpocephalum</i> , <i>Laemobothrion</i> , <i>Nosopon</i>	<i>Craspedorrhynchus</i> , <i>Degeeriella</i>
<b>Galliformes</b>		
Megapodiidae	<i>Colpocephalum</i>	<i>Goniodes</i> , <i>Lipeurus</i> , <i>Megapodiella</i> , <i>Oxylipeurus</i> .
Phasianidae	<i>Amyrsidea</i> , <i>Colpocephalum</i> , <i>Menacanthus</i>	<i>Chelopistes</i> , <i>Cuclotogaster</i> , <i>Gonicotes</i> , <i>Goniodes</i> , <i>Lagopoecus</i> , <i>Lipeurus</i> , <i>Oxylipeurus</i> .
<b>Turniciformes</b>		
Turnicidae		<i>Turnicola</i> .
<b>Gruiformes</b>		
Gruidae	<i>Heleonomus</i>	<i>Esthiopterium</i> , <i>Saemundssonina</i> , <i>Rallicola</i>
Rallidae	<i>Laemobothrion</i> , <i>Pseudomenopon</i>	<i>Fulcoffula</i> , <i>Incidifrons</i> .

## CHECKLIST OF ECTOPARASITES

## Family ACCIPITRIDAE

**Elanus axillaris**Lice: *Degeeriella elani* Tendeiro, 1955**Haliastur sphenurus**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 zeratae* 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 suturalis* (Rudow, 1869)  
*Nosopon australiense* Price, 1976**Hieraetus m. morphnoides**Lice: *Colpocephalum turbinatum* Denny, 1842  
*Degeeriella* sp.

## Family FALCONIDAE

**Falco berigora tasmanica**Lice: *Colpocephalum berigora* Tendeiro, 1988  
*Craspedorrhynchus* sp.  
*Degeeriella rufa* (Burmeister 1838)**Falco berigora melvillensis**Lice: *Colpocephalum berigora* Tendeiro, 1988**Falco c. cenchroides**Lice: *Colpocephalum subzeratae* 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 reinwardt**Lice: *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: *Costa (Ornithoponus) australica* (Paramanov, 1954)

## Family MELEAGRIDAE

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

## Family PHASIANIDAE

**Lophortyx californicus**Lice: *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* (Schränk, 1803)  
*Echidnophaga gallinacea* (Westwood), 1875  
Ticks: *Argas (Persicargus) robertsi* Hoogstraal, Kaiser & Kohls, 1968  
*Ixodes holocyclus* Neumann, 1899**Pavo cristatus**Lice: *Amyrsidea minuta* Emerson, 1961  
*Colpocephalum tausi* (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.

*Oxylipurus 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* Le Souëf, 1902  
*Menacanthus* sp.

Family TURNICIDAE

**Turnix varia**

Lice: *Turnicola* sp.

Family GRUIDAE

**Grus rubicundus**

Lice: *Esthiopternum giganteum* (Le Souëf & Bullen, 1902)  
*Heleonomus laveryi* Price, 1970  
*Saemundssonina integer* (Nitzsch, 1866)

Family RALLIDAE

**Gallirallus philippensis**

Lice: *Pseudomenopon scopulacorne* (Denny, 1842)  
*Rallicola ortygometrae 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: *Pagipysylla 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 enciari regula* Smit, 1979

**Dryolimnas pectoralis**

Lice: *Pseudomenopon scopulacorne* (Denny, 1842)  
*Rallicola ortygometrae 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 bourmei* 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  
*Quadriceps hemichrous* (Nitzsch, 1866)  
*Quadriceps semifissus* (Nitzsch, 1866)  
*Saemundssonina platygaster* (Denny, 1842)

**Himantopus novaeseelandiae**

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

**Cladorhynchus leucocephalus**

- Lice: *Quadriceps kossuigi* Timmermann, 1956

**Recurvirosta novaehollandiae**

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

## Family CHARADRIIDAE

**Pluvialis fulva**

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

**Charadrius obscurus**

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

**Charadrius ruficapillus**

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

**Charadrius bicinctus****Charadrius b. bicinctus**

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

**Charadrius bicinctus exilis**

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

**Charadrius australis**

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

**Elsyornis melanops**

- Lice: *Quadriceps bicuspis dressleri* Timmermann, 1971

**Thinornis rubicollis**

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

**Thinornis novaeseelandiae**

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

**Anarhynchus frontalis**

- Lice: *Quadriceps cedemajori* Timmermann, 1969

**Vanellus tricolor**

- Lice: *Quadriceps australis* Emerson & Price 1986

**Vanellus miles**

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