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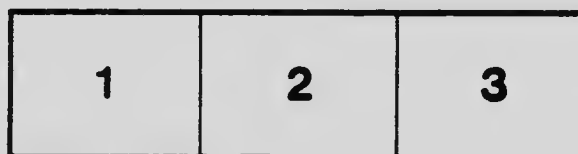
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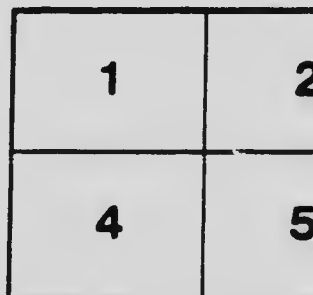
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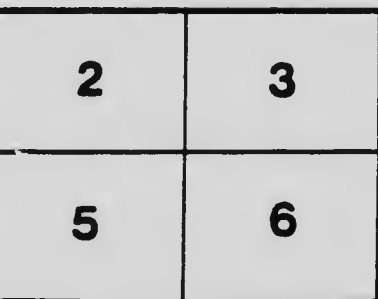
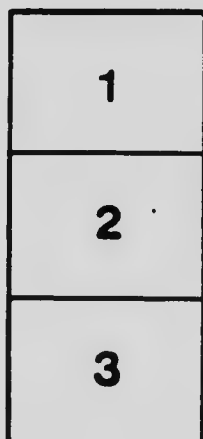
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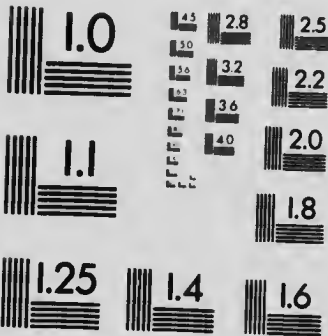
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REPORT
OF THE
CANADIAN ARCTIC EXPEDITION
1913-18

VOLUME III: INSECTS

PART D: MALLOPHAGA AND ANOPLURA

Mallophaga	A. W. Baker
Anoplura	G. F. Ferris and G. H. F. Nuttall.



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OTTAWA
J. de LABROQUERIE TACHÉ
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1919

Issued September 12, 1919

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OTTAWA
J. de LABROQUERIE TACHÉ
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1918



Mallophaga of the Canadian Arctic Expedition, 1913-18.

A. W. BAKER, *Ontario Agricultural College, Guelph.*

The Mallophaga taken on the Canadian Arctic Expedition comprise a small collection of twenty species occurring in eleven genera. These parasites were taken from thirteen species of bird hosts and one mammal. The collection shows three new records for America, and a considerable number of new host records. The specimens were collected by Mr. Frits Johansen and other members of the expedition.

In preparing this list I have followed Harrison's generic classification, and also have followed his specific synonymy. The result is that a number of common species appear under names which have not previously been given them in papers from this continent. I have also followed Harrison in giving the original bibliographical record for Nitzschian species.

Since the districts where the collections were made are so infrequently worked over I have included the dates of collections for the possible benefit of future collectors. Considerable collections of Mallophaga from Alaskan birds have been worked over by Kellogg and others, and where these workers have made previous records from Alaskan birds of one of the species occurring in this collection, I have made mention of the record.

I append figures of several forms which are new American records or of which descriptions and figures may not be readily available to Canadian students.

I am much indebted to Mr. G. F. Ferris, of Leiland Stanford Junior University, for examining a number of species in the collection and comparing them with material in the University collections. I am also indebted to Mr. H. G. Crawford, of the Department of Entomology, Ontario Agricultural College, for preparation of the material for microscopic examination.

Genus *Menopon*.

Menopon striatum Kellogg.

New Mallophaga III, 1899, p. 44, Pl. IV, f. 6.

Numerous specimens, males and females, from Rock Ptarmigan, *Lagopus rupestris* (Gmel.), taken at Bernard harbour, Dolphin and Union strait, Northwest Territories, in October, 1915, and from Willow Ptarmigan, *Lagopus lagopus* (Linn.), taken at Bernard harbour in March, 1915.

Recorded by Kellogg from *Lagopus lagopus* taken at Kodiak island, Alaska.

Menopon sp.

One specimen too immature for specific identification from a Horned Lark, *Otocoris alpestris* (Linn.), taken at Bernard harbour, Northwest Territories, in August, 1915.

Genus *Myrsidea*.

Myrsidea bra. mea Nitzsch.

Zeit. f. ges. Nat. XXVII, 1866, p. 420.

Numerous specimens, males and females, from American Raven, *Corvus corax principalis* (Ridgw.), taken at Bernard harbour, Northwest Territories, in August, 1915.

The expedition specimens under this record approach most nearly to the above species, which was described by Nitzsch from a Nutteracker, *Nucifraga carpeolactes* Linn.

Genus **Trinoton**.

Trinoton anserinum Fabricius.

Syst. Antl., 1805, p. 315.

One female from a Hutchins Goose, *Beanta canadensis hutchinsi* (Richardson), taken at Bernard harbour, Northwest Territories, in June, 1915.

Recorded by European writers (*T. conspurcatum* N.) from various species of geese and swans. Recorded by Carriker from a Whistling Swan, *Olor columbianus* (Ord), taken in Nebraska.

Trinoton querquedulae Linné.

Sys. Nat., 1758, p. 612.

One female from a Pintail, *Dafila acuta* (Linn.), taken at Barter island, Alaska, in June, 1914.

Recorded by various writers (*T. luridum* N.) from this and many other species of ducks.

Genus **Ricinus**.

Ricinus clypeatus Mjöberg.

Arkiv. f. Zool., VI, 1910, p. 60, pl. II, f. 1.

One female from a Horned Lark, *Otocoris alpestris* (Linn.), taken at Bernard harbour, Northwest Territories, in August, 1915.

Described by Mjöberg from two females from the same host in the Museum of Gothenburg.

Genus **Trichodectes**.

Trichodectes sp.

Included in the records of the collection is a statement that a red fox, *Vulpes alascensis* (Merriam), taken along the Sadlerochit river, in northern Alaska, had a species of *Trichodectes* (?) in its fur. Unfortunately no specimens were preserved.

Genus **Goniodes**.

Goniodes mammillatus Bechew.

Zeit. f. ges. Nat. XXXV, 1870, p. 483.

Numerous specimens, males and females, from Rock Ptarmigan, *Lagopus rupestris* (Gmel.), taken at Bernard harbour, Northwest Territories, in June, 1915, and May, 1916, and at Demarcation point, Alaska, in May, 1914; and from Willow Ptarmigan, *Lagopus lagopus* (Linn.), taken at Bernard harbour, Northwest Territories, in February, 1915, and March, 1915, and at Demarcation point, Alaska, in May, 1914.

Recorded by Kellogg from *Lagopus lagopus* taken at Kodiak island, Alaska.

Genus *Lipeurus*.*Lipeurus protervus* Kellogg.

New Mallophago, III, 1899, p. 31, Pl. III, f. 4.

Many specimens, males and females, from Rock Ptarmigan, *Lagopus rupestris* (Gmel.), taken at Bernard harbour, Northwest Territories, in November, 1915, and May, 1916, and at Demarcation point, Alaska, in May, 1914; and from Willow Ptarmigan, *Lagopus lagopus* (Linn.), taken at Bernard harbour, in February, 1915, and March, 1915, and at Demarcation point, Alaska, in May, 1914.

Also several males and one female from a Lapland Longspur, *Calcarius lapponicus* (Linn.), taken at Demarcation point, Alaska, in May, 1914. Since the species is typically a parasite of grouse, one is led to question the authenticity of this record.

Recorded by Kellogg, and Kellogg and Kuwana from *Lagopus lagopus* from Alaska.

From a comparison of the expedition specimens with the descriptions of European writers, I am led to the conclusion that *L. protervus* is closely related to, if not identical with, the *Nirmus quadrinotus* of Nitzsch. This species, which Harrison looks on as a synonym of *Degeerella camerata* Nitzsch., has been recorded by a number of European writers from various species of *Tetrao* and *Lagopus*.

Genus *Phlopterus*.*Phlopterus ceblebrachys* Nitzsch.

In Denny, Anoplur. Brit., 1812, p. 92, Pl. I, f. 3.

Numerous specimens, males and females, from Snowy Owl, *Nyctea nyctea* (Linn.), taken at Barter island, Alaska, in June, 1914.

Recorded by Kellogg from the same host taken at point Barrow, Alaska.

I have numerous specimens of this species from the same host taken in Ontario. These specimens are uniformly paler and stouter and the clypeal front more broadly truncate than the expedition specimens. The latter approach more nearly to the descriptions and dimensions given by European writers, especially Pinget, than do my southern specimens. It is doubtful, however, if the two can be separated.

Phlopterus cursor Nitzsch.

In Börmeister Handbuch II, 1838, p. 126.

Mature male and female and numerous immature specimens of both sexes from Short-eared Owl, *Asio flammeus* (Pontoppidan), *A. accipitrinus* (Pall.), taken at Barter island, Alaska, and Demarcation point, Alaska, in May, 1914.

Recorded by Kellogg from the same host taken at point Barrow, Alaska.

Phlopterus dentatus Scopoli.

Ent. Carn. 1763, p. 383.

One female from a Hutchin's Goose, *Branta canadensis hutchinsi* (Richardson), taken at Bernard harbour, Northwest Territories, in June, 1915.

Recorded by European and American writers (*P. icterodes*) from various species of ducks and geese; by Kellogg from *Merganser serrator* Linn., taken at Kodiak island, Alaska.

Philoaterus pustulosus Nitzsch.

In Giebel, Zeit. f. ges. Nat., XXVIII, 1866, p. 363.

Two mature males and one female and numerous immature specimens of both sexes from a Parasitic Jaeger, *Stercorarius (Lestris) parasiticus* (Linn.), taken at Camden bay, Alaska, in June, 1914.

Recorded by various European writers from the same host.

Philoaterus subflavescens Geoffroy.

Hist. Abr. Ins., II, 1762, p. 599.

Numerous specimens, males and females, from Snow Bunting, *Plectrophenax (Emberiza) nivalis* (Linn.), taken at Demarcation point, Alaska, in May, 1914, and at Bernard harbour, Northwest Territories, in June, 1916; from Lapland Longspur, *Calcarius lapponicus* (Linn.), taken at Demarcation point, Alaska, in May, 1914; and from Gambel's Sparrow, *Zonotrichia leucophrys gambeli* (Nuttall), taken at Demarcation point, Alaska in May 1914. The latter form is somewhat smaller than those from the other two hosts.

Recorded by European and American writers (*P. communis*) from many species of passerine birds.

Philoaterus sp.

One immature female from Baird's Sandpiper, *Pisobia (Actodromas) bairdi* (Coues), taken at Bernard Harbour, Northwest Territories, in June 1916.

The above specimen is too immature for final specific identification. It may be *Philoaterus fusiformis* Denny, recorded by different writers from various sandpipers.

Philoaterus sp.

One specimen too immature for specific identification, from a Horned Lark, *Otocoris alpestris* (Linn.), taken at Bernard harbour, Northwest Territories, in June, 1915.

Genus **Degeeriella**.**Degeeriella complexiva** Kell & Chap.,

New Mallophaga III, 1899, p. 75, Pl. VI, f. 3.

Two mature males and one immature specimen from Baird's Sandpiper, *Pisobia (Actodromas) bairdi* (Coues), taken at Bernard harbour, Northwest Territories, in June, 1916.

Recorded by Kellogg and Kuwana from *Tringa canutus*, from Alaska and by Kellogg and Chapman from *Tringa (Arquatella) couesi* from Alaska.

Degeeriella vulgata Kellogg.

New Mallophaga II, 1896, p. 496, Pl. LXVII, f. 3.

One female of this common parasite of Passeres taken from a Gambel's Sparrow, *Zonotrichia leucophrys gambeli* (Nuttall), at Demarcation point, Alaska, in May, 1914.

Genus **Ornithobius**.**Ornithobius goniopleurus** Denny,

Anoplur. Brit. 1842, p. 184, Pl. XXIII, f. 2.

Two females from Hutchin's Goose, *Branta canadensis hutchinsi* (Richardson), taken at Bernard harbour, Northwest Territories, in June, 1915.

Recorded by several writers from *Branta canadensis* and other species of geese and swans.

Genus **Esthiopterum**.**Esthiopterum anseris** Linné,

Syst. Nat. 1758, p. 612.

One female from a Hutchin's Goose, *Branta canadensis hutchinsi* (Richardson), taken at Bernard harbour, Northwest Territories, in June, 1915.

Recorded by European and American writers (*E. jejunum* N.) from various species of geese, including *Branta canadensis*.

LIST OF HOSTS WITH PARASITES.

BIRDS—

- Stercorarius parasiticus* (Linn.).
Philopterus pustulosus Nitzsch.
Dafila acuta (Linn.).
Trinoton querquedulae Linné.
Branta canadensis hutchinsi (Richardson).
Trinoton anserinum Fabricius.
Philopterus dentatus Scopoli.
Ornithobius goniopleurus Denny.
Esthiopterum anseris Linné.
Pisobia bairdi (Cones).
Philopterus sp.
Degeeriella complexiva Kell & Chap.
Lagopus lagopus (Linn.).
Menopon striatum Kell.
Goniodes mammillatus Rudow.
Lipeurus proterrus Kell.
Lagopus rupestris (Linn.).
Menopon striatum Kell.
Goniodes mammillatus Rudow.
Lipeurus proterrus Kell.
Asio flammeus (Pontoppidan).
Philopterus cursor Nitzsch.
Nyctea nyctea (Linn.).
Philopterus eblebrachys Nitzsch.
Otocoris alpestris (Linn.).
Menopon sp.
Ricinus clypeatus Mjoberg.
Philopterus sp.
Corvus corax principalis (Ridgway).
Myrsidea brunnea Nitzsch.
Plectrophenax nivalis (Linn.).
Philopterus subflavescens Geoffroy.

Calcarius lapponicus (Linn.),
Lipeurus proterrus Kell.
Philopterus subflavescens Geoffroy.
Zonotrichia leucophrys gambeli (Nuttall).
Philopterus subflavescens Geoffroy.
Degeeriella vulgata Kell.

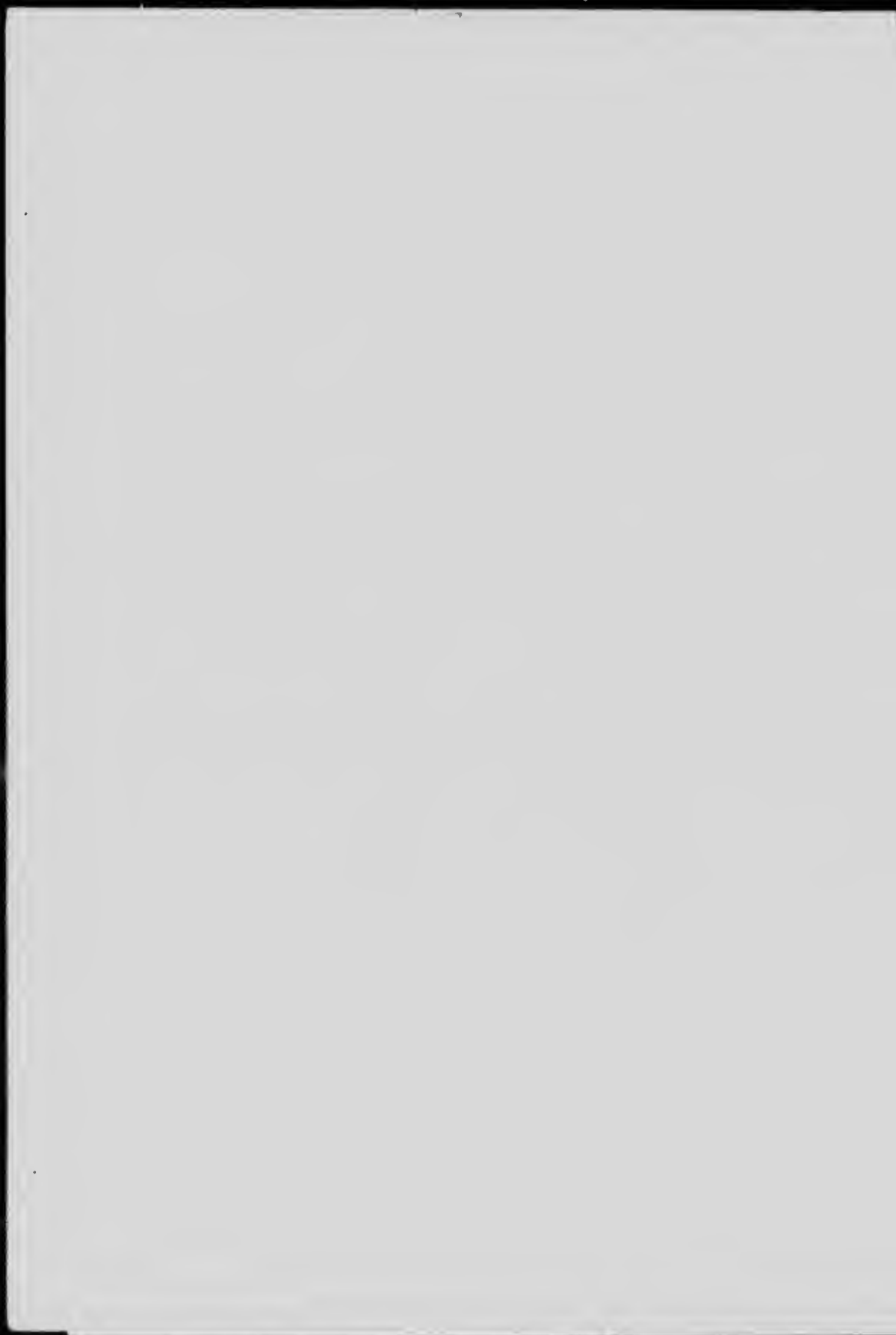
MAMMALS—

Vulpes alascensis (Merriam.)
Trichodectes (?) sp.



EXPLANATION OF PLATE.

- Fig. 1. *Myrsidea brunnea* Nitzsch.
- Fig. 2. *Philopterus pusillolus* Nitzsch.
- Fig. 3. *Ricinus clypeatus* Moberg.
- Fig. 4. *Ornithobius gonioleucus* Denny.



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Anoplura of the Canadian Arctic Expedition, 1913-18.

G. F. FERRIS, *Stanford University, California.*

The material submitted to me for examination contains two species, in addition to specimens of the human louse *Pediculus humanus capitis* which have been examined by Prof. G. H. F. Nuttall and are recorded in this report. The species are as follows:—

***Linognathus setesus* (Olfers).**

Great numbers taken from a white fox, *Alopex lagopus innuitus* (Merriam), Cross island, north coast of Alaska, January 18, 1918, by A. Castel.

This is the first published record of the occurrence of this species from fox, as it had previously been recorded only from the domestic dog but I have at hand specimens from a captive fox in Massachusetts. The specimens from foxes differ not at all from those taken from the dog. The species ordinarily passes under the name of *Linognathus piliferus* (Burm.).

***Echinophthirius horridus* (Olfers).**

Specimens from *Phoca hispida*, Schreber. Collected by F. Johansen, Beaufort sea Alaska, April, 1914.

These specimens are quite inseparable from others from *Phoca vitulina* Linneus, Shetland islands, and *Phoca richardii geronimensis* Allen, coast of California. The species was ordinarily passed under the name of *Echinophthirius phoca* (Lucas).

REPORT ON *Pediculus* COLLECTED FROM ESKIMOS.

On the 22nd of November, 1917, I received six specimens of lice from Dr. C. Gordon Hewitt, Dominion Entomologist, Department of Agriculture, Ottawa, the same bearing a label stating that they had been collected from the head hairs of Copper Eskimos, Dolphin and Union straits, Coronation Gulf region, by F. Johansen, of the Canadian Arctic Expedition during the winter of 1915-16.

On examination they proved to be 3 males and 3 females *Pediculus humanus capitis*, typical specimens and fairly dark in respect to pigmentation. So far it has been impossible to detect any difference between these and other head lice from different parts of the world.

G. H. F. NUTTALL,

Quick Professor of Biology, Cambridge, England.

November 30, 1917.

¹Specimens of *Pediculus* were also collected on Copper Eskimo by Mr. D. Jenness, ethnologist, of the expedition.

FLEAS.

A small collection of fleas, of great interest on account of the meagre character of our knowledge of the fleas of the Canadian Arctic, was sent to Hon. N. Charles Rothschild, London, England, for identification and report. Unfortunately, however, they have been lost, and consequently no report on this group has been prepared. They were collected from the following hosts:

Continental Arctic Fox, *Alop x lagopus inuitus* (Merriam).

Parry's Ground Squirrel, *Citellus parryi* (Richardson).

Keewatin Arctic Hare, *Lepus arcticus canis* Preble.

C. GORDON HEWITT,

Dominion Entomologist.







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