

# Mallophaga from Svalbard

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Previously unpublished material from six collections of Mallophaga from Svalbard is presented. 35 species of Mallophaga were recorded from 21 species of birds.

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## INTRODUCTION

The first records of Mallophaga from Svalbard were published by Giebel (1874), Mjoeberg (1910) and Waterston (1922). Zunker (1932) reviewed these collections without providing any new information. Thor (1930) made references only to Waterston (1922). A new species for the islands were published by Timmermann (1957). A relative comprehensive material of Mallophaga were collected by Finnish expeditions in 1964, 1965 and 1968, and published by Hackman & Nyholm (1968).

In this paper an unpublished material from six Norwegian collections and a revised list of the Mallophaga recorded from Svalbard are presented.

## MATERIAL

The total material of Mallophaga contains 458 specimens (21 species) from 52 birds (18 species). Ectoparasites from live birds were collected by Bang in 1962 and from shot birds by Kjos-Hanssen and Lie in 1980. Three collections are from the Zoological Museum in Oslo (ZMO) and were made in 1923, 1925 and 1926. One collection made in 1954 is from the Zoological Museum in Bergen (ZMB). The collecting data are as follows:

1. 162 Mallophaga from 9 birds, Kap Bruun, Nord-austlandet, July 1923, (leg. E. Hanssen, ZMO).
2. 8 Mallophaga from 4 birds, Dunøyene near Hornsund, Spitsbergen, 12 July 1925, (leg. M/K «Tovik», ZMO., probably also leg. E. Hanssen).
3. 2 Mallophaga from 1 bird, Tempelfjellet, Spitsbergen, 20 May 1926. (ZMO).
4. 1 Mallophaga from 1 bird, Widjefjorden, August 1954, (leg. T. Serck-Hansen, ZMB).

5. 215 Mallophaga from 18 birds, several localities around Hornsund, Spitsbergen, July and August 1962, (leg. Chr. Bang).
6. 70 Mallophaga from 19 birds, Sassen, van Mijenfjorden and Isfjorden, Spitsbergen, May 1980, (leg. Kjos-Hanssen & Lie).

## RESULTS AND DISCUSSION

In the study by Hackman & Nyholm (1968) 44 species of Mallophaga were reported. We have reduced this number to 22 species and one subspecies by omitting specimens identified to genus level only and species with an uncertain identity, for reasons given below. We identified 21 species of Mallophaga (from 18 species of birds) in our material. 13 species were new to the islands, which gives a total of 35 species and one subspecies of Mallophaga recorded from Svalbard.

Mallophaga of the following genera from the named birds were identified to the genus level by Hackman & Nyholm (1968):

*Austromenopon* from *Plautus alle*, *Menacanthus* from *Plectrophenax nivalis*, *Ricinus* from *Plectrophenax nivalis* and *Oenanthe oenanthe*, *Philoaterus* from *Oenanthe oenanthe*, *Emberiza schoeniclus* and *Eremophila alpestris*.

*Perineus* from *Sterna paradisaea*, *Quadriceps* from *Calidris canutus*, *Saemundssonina* from *Fulmarus glacialis* and *Crocethia alba*.

The following species are omitted because important systematic revisions have resulted in their identifications being uncertain. (Clay 1962, Zlotorzycza 1967, 1970, Timmermann 1954, 1974, Martens 1974):

*Actornithophilus bicolor* (Piaget) from *Arenaria interpres*, *Actornithophilus umbrinus* (Burmeister) from *Calidris alpina*, *Menacanthus mu-*

Table 1. Mallophaga collected from birds on Spitsbergen in 1980.

Host species	No. of birds examined	No. of birds with lice	No. of lice
<i>Plautus alle</i>	10	8	24
<i>Uria lomvia</i>	6	5	28
<i>Fulmarus glacialis</i>	10	4	15
<i>Somateria mollissima</i>	9	2	3
<i>Larus hyperboreus</i>	3	0	0
Total	38	19	70

*tabilis* (Blagoveshtchensky) from *Sturnus vulgaris*, *Anatoecus brevimaclatus* (Giebel) from *Anser brachyrhynchus*, *Anatoecus mollissimae* Keler from *Somateria mollissima*, *Lunaceps actophilus* (Kellogg & Chapman) from *Charadrius hiaticula*, *Philoater hamatus* Packard from *Plectrophenax nivalis*, *Quadriceps conformis* Blagoveshtchensky) from *Tringa totanus*.

Five of these species were nymphs and one species was represented by a single female. Three species of *Saemundssonina* mentioned by Hackman & Nyholm (1968) from gulls, *Larus* spp., are regarded as one species. A note on *Lunaceps actophilus* is given under *Lunaceps neireis* in the list of species.

Hackman & Nyholm (1968) mentioned the locality of *Trinoton querquedulae* (L.) as probably Spitsbergen and referred to Zunker (1932) who in turn referred to Mjoeberg (1910) who did not give any locality for this species, but gave the names of the collectors. It is impossible from the work of Mjoeberg to trace the locality back to Spitsbergen from the names of the collectors. They have all been collectors of Mallophaga from many places in the Arctic. The species are therefore removed from the list.

The prevalence of Mallophaga on the birds examined in 1980 is shown in Table 1. This small material indicates high prevalence of Mallophaga on the auks *Plautus alle* and *Uria lomvia*, medium on the fulmar *Fulmarus glacialis*, and low prevalence on the eider *Somateria mollissima*. Featherlice were not recorded on the glaucous gull *Larus hyperboreus*. However, one specimen of the flea *Ceratophyllus vagabundus* (Boheman, 1866) was found on this gull.

Timmermann (1971) discussed the geographic distribution of the *Cummingsiella*-species living on gulls of the sub-family Larinae. He concluded that *C. punctatus* is parasitic on

*Larus* spp. having a tropical and sub-tropical distribution. *C. ornatus* living on *Larus* spp. and *Rissa* having an arctic distribution, and both species of Mallophaga live together on the same species of gulls in the intermediate zone. We recorded only *C. ornatus* on *Larus hyperboreus*, thus conforming to the pattern of Timmermann (1971).

## LIST OF SPECIES

### Amblycera

- Ancistrona vagelli* (J.C. Fabricius, 1787)  
New records: 2 nymphs, Hornsund 22 August 1962 from *Fulmarus glacialis*.
- Austromenopon brevifimbriatum* (Piaget, 1880)  
New records: 1 ♀, Hornsund 22 August 1962 from *Fulmarus glacialis*.
- Austromenopon corporosum* (Kellogg & Kuwana, 1901)  
New records: 1 ♂ 1 nymph Dunøyene 13 July 1925 from *Phalaropus fulicarius*.
- Austromenopon fuscofasciatum* (Piaget, 1880)  
Recorded from Spitsbergen from *Stercorarius parasiticus* by Mjoeberg (1910, as *Menopon*) and by Hackman & Nyholm (1968) from the same host and from *Stercorarius longicaudus*.
- Austromenopon lutescens* (Burmeister, 1838)  
Recorded from Spitsbergen from *Calidris maritima* by Waterston (1922, as *Menopon*).
- Austromenopon merguli* Timmermann, 1954.  
New records: 1 ♂, Van Mijenfjorden 8 May 1980 from *Plautus alle*. 1 ♀ of *Austromenopon nigropleurum*-group, Hornsund July 1962 from *Plautus alle* probably belongs to the same species.
- Austromenopon uriae* Timmermann, 1954.  
New records: 1 ♂ 1 ♀, Van Mijenfjorden 8 May 1980 from *Uria lomvia*.
- Trinoton anserinum* (Fabricius, 1805)  
Recorded from Spitsbergen from *Anser brachyrhynchus*, *Branta leucopsis* and *Phalaropus fulicaria* by Waterston (1922) and from Bjørnøya from *Anser brachyrhynchus* by Hackman & Nyholm (1968).

### Ischnocera

- Anaticola anseris* (L., 1758).  
Recorded from Spitsbergen from *Branta leucopsis* and from Bjørnøya from *Anser brachyrhynchus* by Hackman & Nyholm (1968).
- Anaticola rubromaculatus* (Rudow, 1869).  
New records: 29 ♂♂ 20 ♀♀ 19 nymphs, Kap Bruun 21 July 1923, 3 ♀, Dunøyene 13 July 1925 and 3 nymphs of *Anaticola* sp., Isfjorden May 1980, all from *Somateria mollissima*.
- Carduiceps meinertzhageni* Timmermann, 1954.  
Waterston (1922) recorded *Degeeriella zonaria* (Nitzsch/Giebel, 1866) from *Calidris maritima* from Bjørnøya and Spitsbergen. It was also recorded as *Carduiceps zonarius* (Nitzsch) from the

- same host and the same islands by Hackman & Nyholm (1968). These specimens almost certainly belong to the species *Carduiceps meinertzhageni* which is the only *Carduiceps* regularly found on *Calidris maritima*. It also parasitises *Calidris alpinum* and *Calidris pilocnemis* (Timmermann 1954, 1957).
12. *Carduiceps zonarius* (Nitzsch, 1866).  
*Carduiceps complexivus* (Kellog & Chapman) was recorded from *Crocethia alba* from Bjørnøya by Hackman & Nyholm (1968). Timmermann (1954, 1957) regarded the *Carduiceps* population on *Crocethia alba* a part of the species *Carduiceps zonarius*. It is marked out by very small differences which would perhaps permit one to regard it a subspecies of *Carduiceps zonarius*.
  13. *Cummingsiella aetherea klatti* (Timmermann, 1954).  
Recorded from Spitsbergen from *Plautus alle* by Hackman & Nyholm (1968).  
New records: 8♂♂ 5♀♀ 4 nymphs, Hornsund July—August 1962, and 11♂♂ 4♀♀, van Mijenfjorden 8 May 1980, all from *Plautus alle*.
  14. *Cummingsiella hiaticulae* (Fabricius, 1780).  
Recorded from Spitsbergen and Bjørnøya from *Charadrius hiaticula* by Hackman & Nyholm (1968).
  15. *Cummingsiella normifer* (Grube, 1851).  
Recorded from Spitsbergen from *Stercorarius parasiticus* and *Stercorarius longicaudus* by Hackman & Nyholm (1968).
  16. *Cummingsiella obliqua aquilonis* Timmermann, 1974.  
New records: 4♂♂ 5♀♀. Van Mijenfjorden 8 May 1980 from *Uria lomvia*.
  17. *Cummingsiella ornatus* (Grube, 1851).  
New records: 1♀, Hornsund 2 August 1962 from *Larus hyperboreus*.
  18. *Cummingsiella phalaropi* (Denny, 1842).  
Recorded from Spitsbergen from *Phalaropus fulicarius* by Hackman & Nyholm (1968).  
New records: 1♀, Dunøyene 13 July 1925 from *Phalaropus fulicarius*.
  19. *Cummingsiella strepsilaris* (Denny, 1842).  
Recorded from Bjørnøya from *Arenaria interpres* by Hackman & Nyholm (1968).
  20. *Goniodes lagopi* (L., 1758).  
New records: 1♂, Tempelfjellet, Spitsbergen 20 May 1926 from *Lagopus mutus*.
  21. *Lagopoecus affinis* (Children, 1836).  
Recorded from Spitsbergen from *Lagopus mutus* By Mjøberg (1910) under the name *Nirmus quadrulatus* N. This record were cited by Zunker (1932) under the name *Lagopoecus cameratus* (Nitzsch/Lyonet, 1829) and mentioned by Hackman & Nyholm (1968) as probably *Lagopoecus affinis*.
  22. *Lunaceps nereis* Timmermann, 1954.  
*Deegeriella actophilus* (Kellogg & Chapman, 1899) were recorded from Spitsbergen and Bjørnøya by Waterston (1922). Most probably, his specimens belong to *Lunaceps nereis* that regularly parasitises *Calidris maritima*: This record were not reported from *Charadrius hiaticula* by Zunker (1932) as stated in Hackman & Nyholm (1968), but from *Calidris maritima*.  
Hackman & Nyholm (1968) recorded «*Lunaceps actophilus*» from Spitsbergen from *Charadrius hiaticula*. This bird does not have its own population of *Lunaceps* according to Timmermann (1957), but species belonging to other hosts have been found and are regarded as straglers.  
New records: 15♂♂ 17♀♀ 8 nymphs, Kap Bruun 1923 and 3♀, Hornsund 22 August 1962 all from *Calidris maritima*.
  23. *Lunaceps phaeopi* (Denny, 1842).  
Recorded from Spitsbergen from *Numenius phaeopus* by Hackman & Nyholm (1968).
  24. *Ornithobius hexophthalmus* (Nitzsch, 1871).  
Recorded from Spitsbergen from *Branta leucopsis* by Hackman & Nyholm (1968).
  25. *Perineus nigrolimbatus* (Giebel, 1874).  
Recorded from Bjørnøya (Waterston 1922) and Spitsbergen (Hackman & Nyholm 1968) from *Fulmarus glacialis*.  
New records: 2♀♀ 9 nymphs, Kap Bruun 21 July 1923. 35♂♂ 24♀♀ 60 nymphs, Hornsund August 1962, from five fulmars. 2♂♂ 4♀♀ 9 nymphs from Sassen May 1980. All records are from *Fulmarus glacialis*.
  26. *Saemundssonina calva* (Kellogg, 1896).  
New records: 6♂♂ 8♀♀ 3 nymphs, Van Mijenfjorden 8 May 1980 from *Uria lomvia*.
  27. *Saemundssonina cephalus* (Denny, 1842).  
Recorded from Spitsbergen from *Stercorarius parasiticus* by Hackman & Nyholm (1968).  
New records: 2♂♂ 3♀♀, Kap Bruun 22 July 1923 from *Stercorarius parasiticus*.
  28. *Saemundssonina grylle* Fabricius, 1780).  
Recorded from Spitsbergen from *Cephus grylle mandtii* by Hackman & Nyholm (1968).  
New records: 1♂, Dunøyene 12 July 1925 and 1♂, Widjefjorden August 1954, both from *Cephus grylle*.
  29. *Saemundssonina inexpectata* Timmermann, 1951.  
Recorded from Spitsbergen from *Stercorarius longicauda* by Timmermann (1957 p. 44).
  30. *Saemundssonina lari* (O. Fabricius, 1780).  
Giebel (1874) recorded this species under the name *Docophorus gonothorax* (Giebel, 1871) from North Spitsbergen collected by von Heuglin from *Rissa tridactyla* and «*Larus mandtii*» (= ? *Cephus grylle mandtii*). Zunker (1932) mentioned this record under the genus *Philopterus*. Hackman & Nyholm (1968) mentioned three other species of *Saemundssonina* from gulls in their material. The specimens were collected from *Larus fuscus* and *Larus hyperboreus* on Spitsbergen and from *Rissa tridactyla* on Edgeøya. Timmermann (1951, 1957) regarded the populations of *Saemundssonina* from all gulls to belong to a single species.  
New records: 1♂, Kap Bruun 1923 from

- Larus* sp. 8♂♂ 6♀♀ 1 nymph, Hornsund August 1962 from five *Larus hyperboreus*.
31. *Saemundssonina lockleyi* Clay, 1949.  
*Saemundssonina sterna* (L.) recorded from Spitsbergen from *Sterna paradisae* by Hackman & Nyholm (1968) is most likely *Saemundssonina lockleyi* collected from its typehost.  
 New records: 7♂♂ 9♀♀, Kap Bruun 22 July 1923 from *Sterna* sp. 1♂, Dunøyene 12 July 1925 from *Sterna* sp.
32. *Saemundssonina merguli* (Denny, 1842).  
 Recorded from Spitsbergen and Bjørnøya from *Plautus alle* by Hackman & Nyholm (1968).  
 New records: 4♂♂ 1♀ 2 nymphs, Kap Bruun 1923 (sample no. 29). 6♂♂ 6♀♀ 1 nymph, Hornsund July–August 1962 from five *Plautus alle*. 4♂♂ 5♀♀, Van Mijenfjorden 8 May 1980 from *Plautus alle*.
33. *Saemundssonina occidentalis* (Kellogg, 1896).  
 New records: 18♂♂ 3♀♀ 5 nymphs, Hornsund August 1962 from five *Fulmarus glacialis*.
34. *Saemundssonina scolopacisphaeopodis* (Schränk, 1803).  
 Recorded from Spitsbergen from *Numenius phaeopus* by Hackman & Nyholm (1968).
- 35a. *Saemundssonina tringae tringae* (Fabricius, 1780).  
 Recorded from Bjørnøya and Spitsbergen from *Calidris maritima* by Waterston (1922) under the name *Philopecterus fusiformis* (Denny, 1842), and by Hackman & Nyholm (1968) from the same host and the same islands.  
 New records: 1♂ 1♀ 1 nymph, Hornsund 22 August 1962 from *Calidris maritima*.
- 35 b. *Saemundssonina tringae variabilis* (Denny, 1842).  
 Recorded from Spitsbergen from *Calidris alpina* and *Phalaropus lobatus* by Hackman & Nyholm (1968). The specimens from *Phalaropus lobatus* probably belong to the subspecies *Saemundssonina tringae lobata* Martens, 1974.

## HOST LIST OF THE MALLOPHAGA RECORDED FROM SVALBARD

Loevenskiold (1964) listed 81 species of birds from Svalbard. He classified them into three main groups: 21 common breeders, 9 more or less regular breeders in small numbers, and 51 more or less regular visitors. The species of Mallophaga classified in the present study were from 18 species of breeding birds and 3 species of visitors. The visitors are marked with (v) on the host list.

### Procellariiformes

- Fulmarus glacialis* (L., 1761)  
*Ancistrona vagelli*, *Austromenopon brevifimbriatum*, *Perineus nigrolimbatus*, *Saemundssonina occidentalis*.

### Anseriformes

- Branta leucopsis* (Bechstein, 1803)  
*Trinoton anserinum*, *Anaticola anseris*, *Ornithobius hexophthalmus*.  
*Anser brachyrhynchus* (Baillon, 1833)  
*Trinoton anserinum*, *Anaticola anseris*.  
*Somateria mollissima* (L., 1758)  
*Anaticola rubromaculatus*.

### Galliformes

- Lagopus mutus* (Montin, 1776)  
*Goniodes lagopi*, *Lagopoecus affinis*.

### Charadriiformes

- Charadrius hiaticula* (L., 1758)  
*Cummingsiella hiaticulae*.  
*Arenaria interpres* (L., 1758)  
*Cummingsiella strepsilaris*.  
*Calidris maritima* (Brünnich, 1764)  
*Austromenopon lutescens*, *Carduiceps meinertzhageni*, *Lunaceps nereis*, *Saemundssonina t. tringae*.  
*Calidris alpina* (L., 1758) (v)  
*Saemundssonina tringae variabilis*.  
*Crocethia alba* (Pallas, 1764)  
*Carduiceps zonarius*.  
*Numenius phaeopus* (L., 1758) (v)  
*Lunaceps phaeopi*, *Saemundssonina scolopacisphaeopodis*.  
*Phalaropus fulicarius* (L., 1758)  
*Austromenopon corporosum*, *Cummingsiella phalaropi*.  
*Stercorarius parasiticus* (L., 1758)  
*Austromenopon fuscifasciatum*, *Cummingsiella normifer*, *Saemundssonina cephalus*.  
*Stercorarius longicaudus* (Vieillot, 1819)  
*Austromenopon fuscifasciatum*, *Cummingsiella normifer*, *Saemundssonina inexpectata*.  
*Larus hyperboreus* (Gunnerus, 1767)  
*Cummingsiella ornatus*, *Saemundssonina lari*.  
*Larus fuscus* (L., 1758) (v)  
*Saemundssonina lari*.  
*Rissa tridactyla* (L., 1758)  
*Saemundssonina lari*.  
*Sterna paradisaea* (Pontoppidan, 1763)  
*Saemundssonina lockleyi*.  
*Plautus alle* (L., 1758)  
*Austromenopon merguli*, *Cummingsiella aetherea klatti*, *Saemundssonina merguli*.  
*Uria lomvia* (L., 1758)  
*Austromenopon uriae*, *Cummingsiella obliqua aquilonis*, *Saemundssonina calva*.  
*Cephus grylle* (L., 1758)  
*Saemundssonina grylle*.

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