

Feather Lice -- Mallophaga

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4.10 Ectoparasite collections (Graham Wilson and Prof R.L.C. Pilgrim)

During the 1977-78 and 1978-79 seasons ectoparasites were collected at Cape Bird from Adelie and emperor penguins, McCormick skuas and a snow petrel. Ectoparasites were collected in two ways: either by dusting the feathers of live birds with Dri-die, a commercial insecticide that does not harm the host, or by dissolving feathers collected from birds found dead by simmering them in 20% KOH.

All lice have been identified and are now in Prof. Pilgrim's collection. They will eventually be embodied in the New Zealand National Parasite Collection. Details of the collections are shown below.

Emperor Penguin (*Aptenodytes forsteri*)

One immature bird was treated with Dri-die on 9 January 1978 and 3 m, 5 f and 3 nymphs of the louse *Austrogoniodes mawsoni* were collected.

Adelie penguin (*Pygoscelis adeliae*)

In 1977-78 36 adults were treated with Dri-die and one adult and 11 chicks with KOH. Lice were only collected from seven of the Dri-die treated birds.

During the 1978-79 season four adults and one year-old bird were treated with Dri-die, and three adults and one chick with KOH. Lice were only collected from one of the adults and the year-old penguin. Details of the collections made are shown below.

Bird No.	Date	Treatment	Lice collected
No. 6	20 Nov 77	Dri-die	<i>Austrogoniodes antarcticus</i> , 1f
No. 8	21 Nov 77	Dri-die	<i>A. antarcticus</i> , 3f
No. 9	21 Nov 77	Dri-die	<i>A. antarcticus</i> , 8m, 9f, 3 nymphs
No. 18	16 Dec 77	Dri-die	<i>A. antarcticus</i> , 1f
No. 24	19 Dec 77	Dri-die	<i>A. antarcticus</i> , 1f
No. 31	13 Jan 78	Dri-die	<i>A. (antarcticus?)</i> , 1 nymph
No. 36	14 Jan 78	Dri-die	<i>A. antarcticus</i> , 1f
No. 49	20 Nov 78	Dri-die followed by KOH (dead bird)	<i>A. antarcticus</i> , 2m, 6f
No. 53	22 Jan 79	Dri-die	<i>A. antarcticus</i> , 1f

Snow petrel (*Pagodroma nivea*)

The feathers from a pair of snow petrel wings, found washed up on the beach on 15 January 1978, were dissolved in KOH. One male and four nymphs of the louse *Pseudonirmus charcoti* were found.

McCormick skua (*Catharacta maccormicki*)

During the 1977-78 season the feathers from one adult were dissolved in KOH. In 1978-79 eight adult skuas were treated with Dri-die and two with KOH. Lice were collected from three birds treated with Dri-die and one treated with KOH.

Bird No.	Date	Treatment	Lice collected
No. 1	11 Jan 78	KOH	<i>Haffneria grandis</i> , 1m, 1f, some fragments
No. 3	25 Nov 78	Dri-die	<i>H.(grandis?)</i> , 2 nymphs
No. 6	4 Dec 78	Dri-die	<i>H. grandis</i> , 6m, 4f <i>Saemundssonina stresemanni</i> , 5m, 5f
No. 9	10 Dec 78	Dri-die	<i>Haffneria grandis</i> , 2m, 2f <i>Halipeurus</i> sp., 1f <i>Saemundssonina stresemanni</i> , 2m, 2f

With the exception of *Halipeurus* sp. all these species of lice have previously been recorded on these hosts. *Halipeurus* is a genus of louse not usually found on skuas, and once identification to species level has been made, we may be able to suggest the prey which had been eaten by that skua.

The penguin lice are particularly valuable. Few specimens had previously been collected and few, if any, of these were in New Zealand collections. Other species of lice existed in previous New Zealand collections, but only in small numbers.

Note added August 1980: The specimen of *Halipeurus* taken from *Catharacta maccormicki* No. 9 has been identified by R.L. Palma (National Museum, Wellington) as *Halipeurus (H.) procellariae*; it is morphologically more similar to *procellariae* specimens taken from *Pterodroma lessoni* (white-headed petrel) than to populations of this louse species from other *Pterodroma* spp.

The curious fact remains that likely hosts of *H.procellariae* do not normally occur within the breeding range of *C.maccormicki* (= *Stercorarius skua maccormicki*). The breeding grounds of *Pt.lessoni* on Macquarie I. are the nearest locality to Antarctica.