MALLOPHAGA OF ALBERTA: A LIST OF SPECIES WITH HOSTS

BY J. H. BROWN AND A. L. WILK,
University of Alberta, Edmonton

Very little attention has been paid to the occurrence of Mallophaga in western Canada, particularly in Alberta. The reason for this is two-fold. First, the difficulty of obtaining keys to species and, second, the extreme difficulty of collecting specimens. This paper reports the occurrence of thirty-eight species in the province.

All of the species, with the exception of one, reported in the present paper were collected by Mr. A. L. Wilk during a period extending from April, 1941, to early in 1942, while collecting ornithological and mammalogical material for various museums. A total of 250 birds and mammals, representing over sixty species, were examined. Of these, more than half carried Mallophaga. Most of the material was collected during the summer months, and it is a point of interest that few Mallophaga were present on the birds and mammals taken during July.

It was found that host lists, though helpful, were not wholly reliable for species determination. In some instances it was found that a bird with a wide distribution carried several species of Mallophaga, the species varying with the geographical distribution of the host. In other instances several species of Mallophaga, listed as from different birds, were taken from a single host. This suggests that these ectoparasites are frequently exchanged by association.

Various methods for the preparation of study slides were tried and the one chosen is outlined below. This method was suggested by Dr. R. B. Millar of the Department of Zoology.

1. Place the specimen in 10% KOH and leave overnight.
2. Heat the KOH until it simmers. Keep hot for about three minutes but do not boil. (This step may be omitted for all but the most difficult specimens.)
3. Wash in tap-water for not less than one-half hour, changing the water at least once.
4. Place specimen in glacial acetic acid for three minutes.
5. Transfer to glacial acetic acid to which a few drops of 5% aqueous acid fuchsin have been added (approximately four parts acetic to one part stain). Leave for three minutes.
6. Transfer to clear glacial acetic acid to remove excess stain. Leave for one minute.
7. Clear in clove oil for about three minutes.
8. Mount in Clarite.

This method was very simple and allowed for rapid handling of the specimens.

We wish to express our appreciation for assistance received from E. W. Stafford of Mississippi State College in making some determinations and in verifying others. We wish also to extend our thanks to Robert Lister, technician of the Department of Zoology, University of Alberta, for advice and assistance in the preparation of slides.

LIST OF SPECIES WITH HOSTS

Family Menoponidae

Family Ricinidae

Family Trichodectidae

Family Philopteridae
29. Penenirmus sp. Host: Downy Woodpecker.
34. Quadraticeps interrupta Piaget. Host: Solitary Sandpiper.
35. Quadraticeps rava Kellogg. Host: Dowitcher.
38. Saemundssonia sp. Host: Mallard (Probably from Plover).

LIST OF HOSTS WITH SPECIES

The numbers following the host name refer to the species index.

Avocet (Recurvirostra americana) 3, 36, 37
American Crow (Corvus brachyrhynchos) 16, 31.
American Sparrow Hawk (Falco sparverius) 5.
American Widgeon (Mareca americana) 21.
Baird Sandpiper (Fisobia bairdi) 19.
Chicken (Gallus domesticus) 8, 26.
Clay-colored Sparrow (Spizella pallida) 15.
Common Shrike (Lanius ludovicianus) 33.
Domestic Cattle (Bos taurus) 13.
Dowitcher (Limnodromus griseus) 1, 19, 35.
Downy Woodpecker (Dryobates pubescens) 29.
Horned Lark (Otocoris alpestris) 33.
House Wren (Trogodytes aedon) 7, 17, 33.
Maggie (Pica pica) 9, 32.
Mallard (Anas platyrhynchos) 10, 14, 38.

*Reported by Strickland.
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