

A HIPPOBOSCID FLY RECORD FOR SASKATCHEWAN

by **Spencer G. Sealy**, Department of Zoology, U.B.C., Vancouver

Members of the family Hippoboscidae are small flies, usually with wings, that are parasitic upon birds and mammals. They are probably descended from ancestors belonging to the Muscidae which underwent modification in structure as a consequence of a parasitic mode of life (Edwards, *et al*, 1939:118). Their strong and flattened bodies possess spider-like legs with well developed claws which enable them to cling to the feathers or hair of the host and to move quickly about on the host's skin. They are viviparous, the egg hatching within the female's body and the larva being retained within her body and nourished there till it is fully developed. Only one larva is carried at a time and when it is eventually extruded it pupates at once (Edwards, *et al*, *op. cit.*)

On May 31, 1965 a specimen of *Ornithoctona erythrocephala* (Leach) was taken from an adult male Broad-winged Hawk, *Buteo platypterus* (Vieillot), four miles south of Kenosee Lake, Moose Mountain Provincial Park, in southeastern Saskatchewan. The fly, now preserved in the G. J. Spencer Entomological museum at the University of British Columbia, was found in the upper tail coverts of the hawk.

The spatial distribution of integral ectoparasites, such as the Hippoboscidae, is irrevocably tied up with the presence or absence of appropriate hosts (Bequaert, 1954:27). Thus, one would not expect to find a given species of hippoboscid in an area which is devoid of a suitable host (one on which the parasite can maintain itself through successive generations). However, according to Bequaert (*op. cit.*:28) the distributions of host and parasite do not always coincide, hence one must be careful when discussing

the probable distribution of such parasites. *O. erythrocephala* has previously been recorded from the Broad-wing in Alberta (Strickland, 1938) and Manitoba (Bequaert, *op. cit.*:190), provinces adjacent to Saskatchewan, as well as from four other Canadian provinces. Its occurrence in Saskatchewan has not previously been reported (Bequaert, *op. cit.*:190; 1957:527); in fact, only one hippoboscid species, namely, *Ornithomyia fringilina* (Curtis) (McAtee, 1922) has been recorded here. Since the Broad-wing ranges throughout the wooded portion of Saskatchewan and since this hippoboscid has been recorded from both Alberta and Manitoba from this host, it comes as no surprise that it was found in Saskatchewan.

This observation was made while M. R. Lein, R. Sanderson and I were assisting Dr. R. W. Nero in ornithological studies in the Moose Mountain Provincial Park in May and early June, 1965. I wish to thank Dr. G. G. E. Scudder for identifying this specimen for me and Dr. R. W. Nero for critically reading the manuscript.

LITERATURE CITED

- Bequaert, J. C. 1954. The hippoboscidae or louse-flies (Diptera) of mammals and birds. Part 11. Taxonomy, evolution and revision of American genera and species. *Ent. Am.*, 34:1-232.
- Bequaert, J. C. 1957. The hippoboscidae or louse-flies (Diptera) of mammals and birds. Part 11. Taxonomy, evolution and revision of American genera and species. *Ent. Am.*, 36:417-611.
- Edwards, F. W., H. Oldroyd, and J. Smart. 1939. British blood-sucking flies. Order of the Trustees of the British Museum, London. vii + 156 pp.
- McAtee, W. L. 1922. Bird lice (Mallophaga) attaching themselves to bird flies (Dip., Hippoboscidae). *Ent. News*, 33:90.
- Strickland, E. H. 1938. An annotated list of the diptera (flies) of Alberta. *Can. J. Res.*, Sect. D, 16:175-219.