

According to Dr. Rutherford, the fly was first recorded as a serious pest in Ontario about twenty years ago, from whence it spread to other parts of the Dominion.

In reading Austen's *British Blood-sucking Flies*, 1906, I note the following: "In the British Isles this (*L. irritans* = *H. serrata*) seems to be an uncommon pest" (Lieut.-Colonel Yerbury). This statement appears to me to be significant, and I am convinced that it is worthy of further investigation.

In the course of the summer two other flies were found infested with mites, one a Sand Fly, *Ceratopogon* sp.?, the other I cannot name; it annoys cattle, however, by sucking up the serum which exudes from the wounds made by other flies. The Sand Fly has been scarce this summer, but as in the case of the Horn Fly, further evidence is needed to see if other influences rather than the mites were not the cause of their diminution in numbers.

I am indebted to Dr. J. G. Rutherford, C.M.G., Veterinary Director-General, for permission to publish this note.

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EXPLANATION OF FIGURES ILLUSTRATING DR. HADWEN'S PAPER.

Figs. i, ii and iii.—*Pigmeophorus americanus* Banks.

Fig. iv.—Tyroglyphid Hypopus.

Fig. v.—*P. americanus* on *H. serrata*.

(Original photographs by S. H.)

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*Note on Dr. Seymour Hadwen's Paper.*—The Horn Fly, *Hematobia serrata* Rob. Desv., was first recorded in Canada in the summer of 1892, when it caused considerable alarm in Ontario and Quebec. The species of mite infesting *H. serrata* has been kindly identified by Dr. Nathan Banks as *Pigmeophorus americanus* Banks. He informs me that this mite, which belongs to the family Tarsonemidæ, has been previously found in the Western U. S. on a fly of the family Platypezidæ. This species is illustrated in the accompanying figures i, ii and iii. Fig. iv, which was occasionally found, is the Hypopal stage of a Tyroglyphid mite, which is using the fly as a means of transportation. The relation of these mites to the flies upon which they are found is not always that of a parasite; sometimes they may feed, and in other instances the fly is merely acting as a disseminating agent. I have occasionally found certain Gamasisid mites, truly parasitic, on dipterous insects.—C. GORDON HEWITT.