

be definitely settled at the moment. The habit, however, provides an instance of how the males of this moth might be destroyed in large numbers were they ever to become a pest. Unfortunately the females are not attracted in this way, and it is on them after all that the perpetuation of the species depends most.

My brothers and I have since attempted to lure other insects by similar methods, but our efforts for a long time were without avail; indeed, so far as one could judge, most insects had a decided objection to the smoke. Later, however, we found that we had been actually associated with another insect that came persistently though doubtless from a very different motive from the *Hemileuca*. An account of this is given under the next heading.

Musca domestica Linn.

The common house-fly needs no introduction and it has been dealt with so frequently, both scientifically and popularly, that one can hardly expect to add much to what has already been written.

Our first experience with the house-fly as attracted to camp-fires was many years ago. We thought then that it was the savoury smell of a roasting grouse that induced the gathering, and I am not prepared to say even now that this was not, in part, the case. Later, however, we discovered that the flies came almost, if not quite, as readily when no cooking was in progress. But the climax was reached when we attempted to drive the pest from a building by smoking it out and after being forced out ourselves and permitting the smudge to modify, found to our astonishment that the flies were thicker than ever inside as if waiting a promised feast. It seemed to matter little where the fire was started, be it in the wilds far removed from habitations or close around the farm yard, the smoke no sooner had time to spread than along came a house-fly and soon a small procession was seen rapidly beating "up wind." Unlike the moth described above the flies did not fly directly into the fire, but instead seemed to use the smoke merely as a guide that led to other objects more attractive. Further observations convinced us that smoke constituted an invariable attractant for these insects. We also noted that a frequent method of entering a house, namely, by means of a chimney was only utilized when a fire provided the necessary smoke, and not to any noticeable extent when heat alone issued forth. Thus the contention that the attraction was in reality heat and not smoke, does not seem to be warranted from this evidence, and while the gathering of flies around screen doors and windows is doubtless, in part, due to warmth it may also be largely influenced by the smells from within, including smoke. Our experiments in the field, in which we provided a maximum quantity of smoke with a minimum amount of heat, in every way confirmed our previous observations as to smoke being the true cause of the attraction. It might be asked why should flies be drawn to smoke and follow it to its source. What does smoke usually foretell? A habitation or camp fire and these in their turn, man and food. Is it not possible that this reasoning acquired from long association with mankind, has become part of the fly's instinctive nature? It seems so to me, but I am content to let others judge. In any case, there are opportunities for some interesting experiments along the lines of this study which would seem well worth while.