

observed tucking in their wings with the aid of the long flexible abdomen, but I do not remember ever seeing the larger species doing so.

The female earwig is remarkable for the care with which she watches over her eggs and young, sitting upon them like a brooding hen, a fact vouched for by Kirby and other eminent entomologists.

During the day, earwigs generally hide in holes and crevices, often concealing themselves among the petals of flowers, the long spur of the nasturtium being a favourite place of refuge. A few of the smaller species are active during the day, flying about in the sunshine. Earwigs feed on vegetable matter, and in Europe, where they are numerous, often do much damage by eating the blossoms of carnations, dahlias, etc. In this country they appear to be rare insects, only one species being recorded from Canada, the *Labia minor* of Linnæus, common to both Europe and America.

So far as known to me, none of the Orthoptera occurring in Canada are double-brooded, with perhaps the exception of *Gryllus*, and of course, those species which infest houses. Of *Gryllus*, some individuals at least, go through their transformations in spring, appearing as larvæ in April, and being in full song by the end of May. The species of *Tragocephala*, which go through their transformations at the same time, are all dead by the end of July, and during this month the crickets if not dead are nearly, if not altogether silent, but in August appear again, and in much greater numbers, while *Tragocephala* is not seen until the return of spring.

With regard to the species found in houses, winter is unknown to them, the result being a constant succession of broods, which accounts for the short time required for stocking a kitchen with cockroaches.

## PRELIMINARY LIST OF CANADIAN ORTHOPTERA.

### GRYLLIDÆ.

*Gryllotalpa borealis*, Burm.—Very rare. A pair taken in Essex County, Ont.—Brodie.

*Gryllus luctuosus*, Serv.—Rare. Two females in August; Montreal.—Caulfield.

*Gryllus neglectus*, Scudder.—Province of Quebec, very common—Provancher; Montreal, abundant—Caulfield; Toronto, very abundant—Brodie.

*Gryllus domesticus*, Oliv.—Quebec, common—Provancher; Montreal, common—Caulfield; Ottawa, rare—Fletcher; Toronto, rare—Brodie.

*Nemobius vittatus*, Harris.—Quebec, common—Provancher; Montreal, common—Caulfield; Ottawa—Fletcher; Toronto, common—Brodie.

*Nemobius fasciatus*, De Geer.—Quebec, Provancher; Montreal, not common—Caulfield; Ottawa—Fletcher; Toronto—Brodie.

*Nemobius (Anexipha) septentrionalis*, Scudder.—Quebec, one specimen—Provancher; Rat Portage—Brodie.

*Ecanthus niveus*, Serv.—West Farnham, P.Q.—Provancher; St. Hyacinthe, P.Q.—Provancher; Montreal, abundant—Caulfield; Ottawa—Harrington; Toronto—Brodie; London—Saunders. Ent. Reports.

### LOCUSTIDÆ.

*Ceuthophilus maculatus*, Harris.—Anticosti—Verrill; Quebec, common—Provancher; Montreal, common—Caulfield; Ottawa, common—Fletcher; Ontario, generally to north of Lake Superior—Brodie.

*Udeopsylla nigra*, Scudder.—Common in Manitoba—Scudder and Brodie.

*Phaneroptera curvicauda*, De Geer.—Province of Quebec, common in August and September—Provancher; Montreal, common—Caulfield; Ottawa, common—Fletcher; Toronto, common in Ontario generally, to north of Lake Superior—Brodie; Red River