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A report on the Iowa Species of Tachinidae * (Diptera) in the Iowa Insect Survey Collection

By H. E. Jaques

The family Tachinidae * is one of the most important families of flies. Well over 1500 species are known for our continent and more than 5000 species have been named for the entire world. Their chief value to man lies in their parasitic habits. Many of the species are highly destructive to injurious insects, especially the caterpillars of the Lepidoptera. Their usual procedure is to search out a prospective host and attach one or more eggs to the surface, often in some place which the victim cannot reach with its jaws. The maggot upon hatching immediately enters its host and lives in the open blood sinuses where the nutriment is rich but no vital parts of the host are injured. The maggots may leave their host when they have completed their growth and pupate in the ground or other protected place, but in the case of many species remain within the host to pupate and later emerge as an adult. The host caterpillar frequently pupates before the maggot has completed its growth. That makes but little difference to the tachinid larva which then feeds upon the contents of the pupa and in turn pupates within it. Presently, then, instead of a moth or butterfly emerging from the pupal case one or more tachinid flies appear.

There is considerable diversity in the life histories of the many members of this family. Some tachinids hurry matters by depositing living larvae instead of eggs usually inserting them through the skin of the host. Some species produce as few as 50 eggs while other tachinids may produce 5000 eggs or larvae.

The adults of some species measure only two or three millimeters in length, but most of the species are fairly bulky, medium to large size flies, some attaining a length of nearly 20mm. The abdomen, especially the apical end, is usually covered with heavy bristles. One soon comes to recognize or suspect members of the family by the presence of such bristles.

The many students and others who through the years have collected the specimens now in the Iowa Insect Survey collection have taken tachinids in only an incidental way along with their other catches. None has specialized in the group. The list which follows gives the names of 82 known Iowa species. This number

* This family is now, possibly more correctly, known as the Larvaeoridae.

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could doubtless be greatly enlarged by specialized collecting and study. It is hoped that some one may give this group the further attention it merits.

The number preceding the name in each case is a catalog number used for arranging and locating the specimens in the collection. Determinations have been made or checked by various specialists.

256-61 Cistogaster immaculata Macq.
256-71 Gymnocydia occidua (Walk.)
257-2 Rhodogyne fuliginosa (Desv.) (Gymnosoma)
257-3 Rhodogyne occidentalis Cur. (Gymnosoma)
258-12 Trichopoda pennipes Fab.
258-31 Myiophilus metallica Towns.
259-12 Celatoria diabroticae Shim.
260-71 Xenorhyncha degeerioides Coq.
260-81 Admontia pergandei Coq.
261-22 Lixophaga plumbea Ald.
261-52 Oedematocera gilvipes Coq.
262-51 Eucelatoria armigera Coq.
262-61 Blepharigena cinerea Coq.
264-81 Voria ruralis Fall.
265-41 Belvosia bifasciata Fab.
265-71 Aphrinnia ocytcris Towns.
266-91 Paradidyma singularis Towns.
266-101 Bonnetia comta Fall.
266-51 Pyraustomyia penitalis Coq.
266-61 Mericia ampelus Walk. (Ernestia)
266-71 Amedoria luctuosa Mg.
267-22 Gymnochaeta ruficornis Will.
267-31 Lydina arcos Walk.
267-53 Nomorilla floralis Fall.
267-71 Carcelia amplexa Coq. (Zenilia)
268-1 Apomysca caesar Ald. (Zenillia)
268-5 Apomyia confinis Fall. (Zenillia)
268-8 Zenillia futilis O. S.
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274-53 Peleteria iterans Walk.
274-55 Peleteria apicalis Walk.
274-72 Archytas aterrima Desv.
274-74 Archytas lateralis Macq.
274-75 Archytas apicifera Walk.
274-76 Archytas metallica Desv.
275-71 Microphthalma disjuncta Wied.
275-72 Microphthalma michiganensis Towns.
276-71 Zelia vertebrata Say
276-91 Copecrypta nitens Wied.
277-21 Paradexodes aurifrons Towns.
277-31 Euclytia flava Towns.
278-1 Thelaira americana Brooks
278-62 Spathidexia dunningi Coq.
278-82 Dinera cinera Towns.

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