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DOMESTIC HABITS OF TWO FLIES

DAVID T. JONES

Recent observations indicate that, on two occasions at least, two species of wild flies came into houses and acted like species we regard as house flies. The two species are: *Cochliomyia americana* Cushing and Patton and *Ceratoxys latiuscula* (Loew), which will be discussed in the order above.

Cochliomyia americana, the screw-worm fly, a Calliphorid, is usually a wild elusive, swift-flying, out-of-door creature, occasionally attacking man, but more frequently ovipositing in the wounds of domestic animals. In Utah the closest they were found to a dwelling was when two were captured feeding on a fresh deer head in a garbage can near a back door. In all my Iowa collecting, except at Adair, I have found this species out-of-doors and wild.

In the summer of 1943, I caught a single specimen at Muscatine, feeding on refuse and debris along the river. In the summer of 1944, several specimens were taken on meat scraps in the city dump along the river at Sioux City. Two days later several were taken in a vacant lot at Atlantic, Iowa, hovering over fresh cow-manure. This vacant lot was near the Rock Island Railway Station, some distance from the business section of town.

The same day I came on to Adair. The Rock Island depot at the edge of town yielded the expected collection of Anthomyiids and prairie insects. Collecting in the alleys, from refuse and rubbish heaps, yielded several species of blue-bottles and green bottles, but no screw-worm flies. When I came downtown, however, there were the screw-worm flies indoors and out-of-doors on the main street. I caught over twenty specimens in the vicinity of the bus station and restaurant. Everything was clean, no meat was exposed, yet they were indoors, not around the tables and lunch counter but bumbling in the windows like house flies. The ones outside were as swift and wary as usual. At first I was inclined to explain their presence indoors as due to the terrific storm that swept all western Iowa while I was at Sioux City, but why did not that drive them indoors at Atlantic and Sioux City? I made extensive indoor collections at both points after the storm.

I shall appreciate publication of others of indoor records of the screw-worm fly during its summer invasions of Iowa. Those interested in its medical importance are referred to Marshall and Jones (1944); in its veterinarian importance, to Drake and Decker (1943). Specimens from the Iowa localities mentioned above are deposited in the collection of Iowa State College.

Ceratoxys latiuscula (Loew) is an Otitid (formerly Ortalid) fly of the wide open spaces. It was first described as *Anacampta latiuscula* by Loew (1873, p. 130, also plate 8, fig. 19) from California. Vander Wulp (1888-1903, p. 392) lists it also from Mexico City. Dr. G. F.

Knowlton kindly permitted me to check the specimens in the Utah State Agricultural College collection at Logan. This collection has several specimens of *latiuscula* from Utah, and also a goodly representation of three similar species: *Melieria occidentalis* Coq., which has at least three color bands on the wing extending completely across (more confluent than *latiuscula*); *Melieria canis* (Loew), in which the color bands are reduced to spots; and *Melieria similis* (Loew), in which the color bands tend less to cross the mid-length of the wing than in *latiuscula*. These similar species appear to be distinct, i.e. there are no intermediate specimens, hence apparently no hybridization. For Utah locality records of the above, see Knowlton, Harmston, and Stains (1939). Utah specimens of *Ceratoxys latiuscula* answer well to the original Californian description, i.e. the Utah specimens appear identical to, not as a subspecies of, the Californian form.

From 1940 to 1945, I have watched this spotted-winged fly hibernate in the Biology Building at the University of Utah, Salt Lake City, Utah. It comes in and hibernates, and emerges from hibernation, right along with *Pollenia rudis* (Fab.), the winter-house-fly, but it does not cluster in swarms as does that species. It comes in singly and emerges singly, though I have found as many as three, in different rooms, which have emerged the same day. They emerge throughout the winter at intervals.

When I reported my findings to Dr. G. F. Knowlton, he expressed surprise, as he had never seen this species in houses at Logan, Utah. His colleague, Lieut. F. C. Harmston, is with us this school-year (1944-45) at the University of Utah. He, likewise, has never seen the species indoors at Logan, but he tells me they are even more common indoors at Roosevelt, Utah, than I am reporting them here at Salt Lake City. Is the species behaving differently in different portions of its range? Roosevelt is south and east of Salt Lake City, whereas Logan is north. Only extended observations will explain. It is of interest, however, to note that, at least in some localities, there are two winter-house-flies, the Sarcophagid *Pollenia rudis*, and the Otitid *Ceratoxys latiuscula*.

One series of specimens of *Ceratoxys latiuscula* is deposited in the collections of Iowa State College; the other, in the collections of the University of Utah.

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