

The fungus gnat, *Bradysia coprophila* (Lint.), was found in several population cages which had been in operation for eight months. Adults were observed flying about and resting on the paper towels in the pans. The moist paper towelling supported an abundant growth of fungus; eggs, larvae, and pupae of the gnats were found in the fungus. In addition, many larvae were in the water and some of these were observed to feed on small larvae of *Aedes aegypti*.

Mature larvae of the fungus gnat were about the size of second instar mosquito larvae. The large, heavily sclerotized head capsule and the strong jaws of the sciarids made them formidable predators on first and second instar mosquitoes, although the older instars were ignored. The slow-moving sciarids did not actively pursue their prey. They waited until a mosquito was close, then seized it, generally on the anterior abdominal segments, and shook the mosquito vigorously from side to side. When the mosquito stopped struggling, it would be ingested, with the air tube and then the head capsule being the last parts to go. The entire process required about two minutes.

Sciarid larvae usually feed on fungi; larvae of some species occasionally become pests in mushroom cellars. This is believed to be the first record of predation on mosquitoes for this family. The phenomenon may be limited to the highly specialized conditions of the laboratory population cage. However, it is significant to note that sciarid eggs are sometimes found along with eggs of *Aedes* when the latter are separated from soil samples by flotation.

The authors are indebted to Dr. Alan Stone of the U. S. Department of Agriculture for identification of the sciarid species.

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GYNANDROMORPH OF *Culex tarsalis* COQUILLET FROM COLORADO

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The term "gynandromorph" is used to describe individual insects that display both male and female characters. In the literature there are descriptions of mosquito gynandromorphs for various species in the genera *Aedes*, *Culex*, *Culiseta*, and *Orthopodomyia* (Roth, 1948), and *Haemagogus* (Bates, 1954).

Two previously published references to gynandromorphs of *Culex tarsalis* Coq. have been noted by the writer. The first specimen, from California, was described by Keh in 1955; the second, from Arizona, was described in 1964 by Rigby and Blakeslee. In both of these gynandromorphs the genitalia are described as typical male and the antennae and palpi typical female.

The present gynandromorph of *C. tarsalis* was collected by Dr. Richard P. Dow on June 26, 1960, in a CO₂ trap that was hung at a height of 16 feet in the foliage of a cottonwood tree near the St. Vrain River at Platteville, Colorado. This specimen has typical male genitalia (fig. 1); left

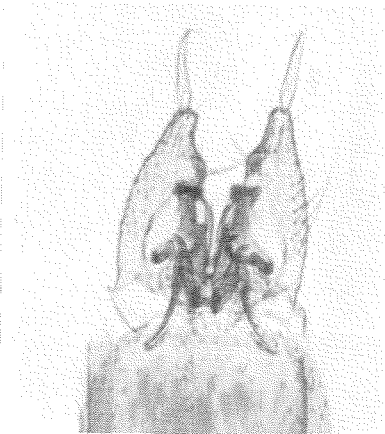


FIG. 1



FIG. 2

FIGS. 1-2.—Gynandromorph of *Culex tarsalis* Coquillett from Colorado.

palp, female, normal; right palp, male, abnormal, the first and second segments normal, last three segments deformed, compressed into a rather loose knob, all segments bearing long hairs (fig. 2); antennae, female, normal, only the torus and first 5 segments still intact; proboscis, female,

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normal; tarsi, male, normal, the claws on fore and middle legs elongate and toothed, the claws on hind tarsi plain. The gynandromorph apparently was enough of a female to be attracted into a bait trap (in which males are almost unknown).

The specimen has been cleared, mounted on a slide, and is in the collection of the Disease Ecology Section, Communicable Disease Center, Public Health Service, Greeley, Colorado.

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Culex territans WALKER BITING MAN IN NATURE

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Culex territans (*C. saxatilis* Grossbeck, *C. frickii* Ludlow, *C. apicalis* Adams, *C. pyrenaicus* Brolemann; see Stone, Knight, and Starcke 1959) is thought to feed primarily on cold-blooded vertebrates (Barr 1958, Carpenter & La Casse 1955). It has been reported feeding on frogs (Horsfall 1955, Matheson 1944, Shannon 1915, Stage, Gjullin, and Yates 1952, Steward and McWade 1961) and snakes (Dyar 1928). Smith (1904) stated that he thought previous reports of *territans* biting man had actually been *C. pipiens*. Although it has been shown to feed on beef blood (Edman and Downe 1964) and has been reported biting man in Ontario (West and Hudson 1960), mammals are not normal hosts for this mosquito.

On August 9, 1965, while making a routine collection of mosquitoes to be tested for the presence of arboviruses,¹ I observed what appeared to be a *territans* land on my arm. It immediately inserted its proboscis and began ingesting blood. After less than a minute the mosquito had become partially engorged. I removed it with an aspirator and deposited it in a container separate from the rest of the mosquitoes. The collecting site was a cement culvert, about 5 feet in diameter and about 25 feet long, located in Massena, N. Y. A brook passing through the

culvert was about 6 inches deep and produced numerous *Culex pipiens*, *territans* and *restuans* as well as *Anopheles punctipennis* and *carlei*. The alleged *territans* was positively identified as such under microscopic examination in the laboratory. It was then sent, along with the rest of the day's collection, for arbovirus testing.

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THE *Culex pipiens* COMPLEX IN SOUTHERN INDIANA

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During an investigation of the recent outbreak of St. Louis encephalitis in southwestern Indiana, male specimens of *Culex* spp. associated with females in resting sites were collected, cleared, and

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