Larvae of *Symphoromyia* sp. A–B ate other diptera larvae and new pupae. They did not eat *Symphoromyia* larvae, and on two occasions other predacious diptera larvae killed and drained the sp. A–B larvae. It is interesting to note that even though these *Symphoromyia* larvae are slower and more sluggish than the other predacious diptera larvae, the snipe flies usually killed their opponents.

RECOVERING EXUVIAE. When rearing Symphoromyia larvae to adults for identification, the larval exuviae can usually be found near the tail of the pupa, but occasionally the pupa squirms about and then much time is spent searching through the soil (only about a tablespoon) for the exuviae. After the pupa has been removed the exuviae can be quickly recovered simply by dumping the dirt into a petri dish, rinsing the shell vial with water, and dumping it into the petri dish, and stirring the muddy water until there are no lumps. The exuviae float to the top where they can often be seen with the naked eve.

## Reference Cited

SOMMERMAN, K. M. 1962. Alaskan snipe fly immatures and their habitat (Rhagionidae: Symphoromyia). Mosq. News 22(2):116-123.

FEEDING OF MANSONIA TITILLANS (WALKER)
ON OTHER MOSQUITOES

George J. Burton 1

An unusual phenomenon of *Mansonia titillans* (Walker) sucking up the stomach contents of other mosquitoes was observed repeatedly in caged specimens. This species is a minor vector of filariasis due to *Wuchereria bancrofti* in British Guiana.

Numerous bush collections were made in Mocha Village, 2 miles east of the East Bank road along the Demerara River, about 5 miles south of Georgetown in British Guiana. The species caged together were females of Mansonia (Mansonia) titilluns (Walker), Aedes (Ochlerotatus) servatus (Theobald), Aedes (Ochlerotatus) angustivittatus Dyar and Knab, and Psorophora (Janthinosoma) jerox (Humboldt).

As often happens, females of *P. ferox, A. ser-*ratus, and *A. angusticitatus* fell to the bottom
of the mosquito-netting cage and lay there, apparently dying. Some of them had had a recent
human or animal blood meal, and others had
probably fed on juices of plant origin.

No sooner were the weakened or dying mosquitoes lying on their side or back, when they were immediately attacked by one or more M. titillans females. As many as four of the latter were seen attacking a downed mosquito. In a

few cases, when a female *M. tirillans* also lay dying, it was attacked also; this did not occur often because of the hardiness of this species.

The attacker inserted or forced its proboscis into either the anterodorsal aspect (Figure 1) or the

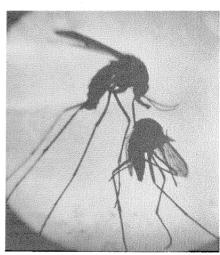


Fig. 1 .- M. titillans attacking dying Aedes serratus.

lateral aspect of the victim, and sucked up the blood or other liquid contents of its stomach. Victims which had had a recent blood meal readily attracted more than one attacker. The attacking mosquitoes did not seem to get in each other's way. Penetration of the exoskeleton was effected more readily through the intersegmental membranes or the membranous pleural region. The victim's abdominal turgidity made insertion of the proboscis easier.

In no case was a female P. ferox, A. serratus, or A. ungustivittatus seen to attack any of the dying mosquitoes. Also, no M. titillans was seen to attack any active, healthy mosquitoes; only weakened or dying mosquitoes were victimized.

SUMMARY. In British Guiana bush-caught Mansonia titillans females attacked and sucked up stomach contents of weakened or dying Psorophora ferox, Aedes angustivitatus, and Aedes serratus when all four were confined in the same cage. The proboscis was forced into the abdomen of the victim, generally through intersegmental membranes or the membranous pleural region. Dying mosquitoes which had had a recent blood meal were especially attacked, thus transferring blood with or without parasites to the attacking M. titillans. A photomicrograph shows a M. titillans female attacking a dying A. serratus female.

<sup>&</sup>lt;sup>1</sup> Vector-Borne Disease Specialist (Entomologist-Filariasis), U. S. Agency for International Development, % American Consulate General, Georgetown, British Guiana.