

October 1984

Field Evidence Against Rodent Burrow Entering by *Aedes Triseriatus* (Diptera: Culicidae)

Edward D. Walker
University of Notre Dame

Follow this and additional works at: <https://scholar.valpo.edu/tgle>



Part of the [Entomology Commons](#)

Recommended Citation

Walker, Edward D. 1984. "Field Evidence Against Rodent Burrow Entering by *Aedes Triseriatus* (Diptera: Culicidae)," *The Great Lakes Entomologist*, vol 17 (3)
Available at: <https://scholar.valpo.edu/tgle/vol17/iss3/12>

This Peer-Review Article is brought to you for free and open access by the Department of Biology at ValpoScholar. It has been accepted for inclusion in *The Great Lakes Entomologist* by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at scholar@valpo.edu.

**FIELD EVIDENCE AGAINST RODENT BURROW ENTERING BY
Aedes triseriatus (DIPTERA: CULICIDAE)**Edward D. Walker¹

The tree-hole developing mosquito *Aedes triseriatus* (Say) is the major vector of La Crosse encephalitis virus in the upper mid-western United States (Calisher and Thompson 1983). This virus overwinters in the eggs of this mosquito, and in the summer infects chipmunks and squirrels which have been bitten by infected mosquitoes (*op. cit.*). Non-infected mosquitoes may become infected when they blood-feed on viremic sciurid rodents (Pantuwatana et al. 1972). That *A. triseriatus* does bite chipmunks and squirrels has been established by blood-meal identifications of wild-caught *A. triseriatus* in Wisconsin (Burkot and DeFoliart 1982) and Indiana (Nasci 1982). However, there are no documented field sightings of *A. triseriatus* attempting to feed on these active rodents, so it is not known how the mosquito gains access to them. One possibility is that *A. triseriatus* enters burrows or nests of rodents to feed. This note reports two field sightings of *A. triseriatus* attempting to feed on eastern chipmunks (*Tamias striatus* (L.)), and gives evidence against chipmunk burrow-entering behavior by this mosquito.

While walking in a woods in Pittsfield State Forest (Berkshire County, Massachusetts) in the afternoon of 31 August 1982, I disturbed a foraging chipmunk which ran a short distance to its burrow entrance. The chipmunk entered the burrow but did not descend deeply; I could see its head in the burrow and hear it chipping. A mosquito, which I later collected and identified as an *A. triseriatus* female, was hovering above the burrow entrance at a distance of about 8 cm. The mosquito had probably been attempting to feed on the chipmunk when I disturbed it. Notably, this mosquito did not descend into the burrow during the app. 5 min that I watched, but the mosquito was obviously attracted to the chipmunk. Later that afternoon I disturbed another chipmunk which ran into a hole, probably its burrow entrance, at the base of a fallen tree. Again I saw an *A. triseriatus* female hovering close to and above the burrow entrance. The mosquito did not enter the hole during the app. 10 min that I watched. If *A. triseriatus* normally enters chipmunk burrows to gain access to these rodents to blood-feed, then the mosquitoes I saw should have done so. These observations suggest that *A. triseriatus* does not enter burrows. *A. triseriatus* probably feeds on chipmunks when the rodents are foraging on the forest floor.

The behavior of these two *A. triseriatus* contrasted with flies of the family Heleomyzidae (species not determined) that I saw clustered around and actively diving into the burrow entrances. These flies were probably ovipositing.

I thank Dr. John D. Edman, Department of Entomology, University of Massachusetts, for logistic support through National Institutes of Health grant AI 13981-02.

LITERATURE CITED

- Burkot, T. R. and G. R. DeFoliart. 1982. Bloodmeal sources of *Aedes triseriatus* and *Aedes vexans* in a southern Wisconsin forest endemic for La Crosse encephalitis virus. *Amer. J. Trop. Med. Hyg.* 31:376-381.
- Calisher, C. H. and W. H. Thompson (eds.). 1983. California serogroup viruses. A. R. Liss, New York. 399 p.
- Nasci, R. S. 1982. Differences in host choice between the sibling species of treehole mosquitoes *Aedes triseriatus* and *Aedes hendersoni*. *Amer. J. Trop. Med. Hyg.* 31:411-415.

¹Vector Biology Laboratory, Department of Biology, University of Notre Dame, Notre Dame, IN 46556.

Pantuwatana, S., W. H. Thompson, D. M. Watts, and R. P. Hanson. 1972. Experimental infection of chipmunks and squirrels with La Crosse and trivittatus viruses and biological transmission of La Crosse virus by *Aedes triseriatus*. *Amer. J. Trop. Med. Hyg.* 21:476-481.