OPERATIONAL AND SCIENTIFIC NOTES

NEW PENNSLYVANIA RECORD FOR *Orthopodomyia alba* BAKER

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Orthopodomyia alba Baker is reported as far north as New York (Baker 1936, Barnes et al. 1950), and New Jersey (Lake 1953). On September 10, 1969, larval collections were taken from a tree hole located at the Perry County Y.M.C.A., approximately three miles west of Duncannon, Pennsylvania. Collections have been taken from this area periodically throughout each year since 1962. This is the first appearance of *O. alba* in the State. Other species collected from the same tree hole include *Orthopodomyia signifera, Aedes triseriatus, Toxorhynchites rutilus,* and *Anopheles barberi. O. alba* represented only about 5 percent of the collection which was mainly *O. signifera* and *An. barberi.*

Wills and McElhattan 1968, indicated 45 species of mosquitoes reported from Pennsylvania. The addition of *O. alba* brings the list of Pennsylvania species to 46.

References

BAKER, F. C. 1936. A new species of *Orthopodomyia, O. alba* sp. n. Proc. Ent. Soc. Wash. 38:1–7.

BARNES, R. C., H. L. FELTON and C. A. WILSON. 1950. An annotated list of the mosquitoes of New York. Mosq. News. 10:69–84.

LAKE, R. W. 1953. New mosquito distribution records for New Jersey. N. J. Mosq. Exterm. Assn. Proc. 40:152–155.

WILLS, W. and V. MCELHATTAN. 1968. Additions to the list of *Aedes* sp. in Pennsylvania. Mosq. News. 28(1):1968.

THE PRESENCE OF *Aedes fitchii* (FELT & YOUNG) IN NEW MEXICO

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This note reports the collection of a mosquito species believed not reported previously from New Mexico.

On May 19, 1970 the author, accompanied by Sandoval County Sanitarian, Daniel Reed, visited the Rancho de Chaparral Girl Scout Camp in the Jemez Mountains in order to investigate breeding at the camp.

The camp is located in the Jemez Mountains in the Cañon of the Rio de Las Vacas in northern Sandoval County. A shallow, grassy pond along the entrance to the camp was checked and fully developed *Aedes fitchii* larvae and pupae were collected at about 2/dip. The elevation at the place where the larvae were collected is approximately 7,800 feet. The camp is located in a ponderosa pine forest.

Because of New Mexico's highly diversified ecology it can be expected that additional distribution records will be reported from time to time, particularly in areas where limited collecting has been carried out, such as mountain habitats and tree holes.

The author wishes to thank Mr. Fred Harmston, USPHS, Greeley Field Station, Greeley, Colorado, for confirmation of identification.

References

CARPENTER, STANLEY J. and LACASSE, WALTER J. 1955. Mosquitoes of North America. Berkeley and Los Angeles, University of California Press. Pp. 181–183.

HILL, SAMUEL O., SMITTLE, BURRELL J. and PHILIPS, FLOUROY M. 1958. Distribution of mosquitoes in the Fourth U. S. Army Area. Fourth U. S. Army Medical Laboratory. Fort Sam Houston, Texas. 155 Pp.

FERGUSON, F. F. and MCNEEL, T. E. 1954. The mosquitoes of New Mexico. Mosquito News 14(1):30–31.

[1] New Mexico Health and Social Services Department.

A CANOPY TRAP FOR COLLECTING TABANIDAE [1]

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The trap described here is an attempt to combine features of the Malaise trap (Townes, 1962), the DeFoliart-Morris trap (1967) and the Manitoba trap (Thornsteinson, 1958) into an inexpensive portable device used primarily for collecting tabanids. These features include the attractiveness to tabanids of a dark shiny target, an open canopy and the trapping principle of a window. In addition, portability, ease of installation and low cost of manufacture were sought.

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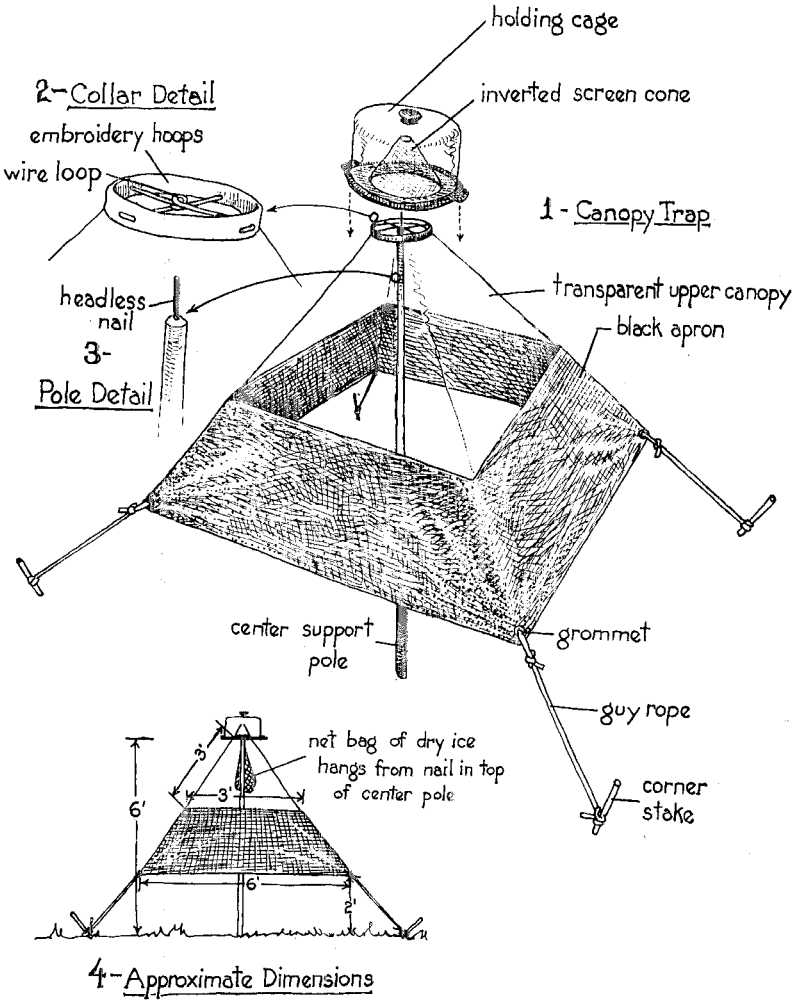
TRAP CONSTRUCTION. The trap consists of a pyramidal canopy supported by a central pole and guy ropes staked at each corner, and a holding cage placed on the open top of the canopy (Figure 1).

The holding cage can be of various designs or sizes having an entrance funnel for a floor. The tandem funnel arrangement of DeFoliart and Morris (1967) also is suitable. The support pole is 6 feet long and about 1" in diameter. A



FIGS. 1–4.—Details of tabanid canopy trap.

peeled sapling, rough cut stakes, a piece of bamboo or an adjustable metal tent pole—each will serve well.

The principal element of the trap, the canopy, is made of 4 mil polyethylene plastic cut as 4 equilateral triangles and machine-sewed at the sides to form a large open-topped pyramid (Fig. 1). An apron of black polyethylene plastic is sewed over the lower portion of this pyramid. The open top of the pyramid is supported by a wooden or metal ring made from an embroidery hoop (2 telescoping hoops with about 7" diameters) taped or sewed in place to form an upper collar for the canopy (Fig. 2). Two wire support rods, made from coat hangers, are bent and attached to the hoop to form a tight central loop (Fig. 2). A headless nail driven part way into the upper end of the support pole holds the hoop and the attached canopy in position (Fig. 3). Grommets were fixed at each corner of the canopy and a 4' guy rope attached to each. Approximate trap dimensions are given in Figure 4.

The total cost of the material involved is about $5 and sewing the canopy and attaching the collar, grommets and guy ropes takes about one hour. Canopy, cage and pole weigh less than 5 pounds allowing one person to carry four traps easily over rough terrain.

TRAP EFFECTIVENESS. These canopy traps have been used with dramatic success in collecting tabanids over two seasons in Delaware. Dry ice-baited traps captured as many as 1000 tabanids per hour during peak seasons. The dry ice (3–5 lbs.) was hung in a net bag from the top of the support pole. Unbaited traps captured about 300 flies per hour during the same peak periods of activity.

Mosquitoes, punkies, snipeflies, blackflies and stable flies also were captured in large numbers in such canopy traps.

References Cited

DEFOLIART, G. R. and C. D. MORRIS. 1967. A dry ice-baited trap for the collection and field storage of hematophagous Diptera. J. Med. Entomol. 4:360–362.

THORSTEINSON, A. J. 1958. The orientation of horseflies and deerflies (Tabanidae:Diptera). I. the attractance of heat to tabanids. Entomol. Exp. Appl. 1:191–196.

TOWNES, H. K. 1962. Design for a Malaise trap. Proc. Entomol. Soc. Wash. 64:253–262.

A METHOD FOR PROVIDING PERSONAL PROTECTION AGAINST SIMULIIDS

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While working at Steen River in northern Alberta during July and August, 1961, the author found that a thin film of fuel oil smeared over the outer surface of an unpainted, aluminum hard hat reduced to almost zero the number of simuliids attacking and biting the wearer. The blackflies appeared to be secondarily attracted to the shiny, silver color of an aluminum hard hat. As soon as their wings or bodies touched the fuel oil film, they were immediately trapped and killed. A cloth soaked in fuel oil and wiped over the hard hat left a sufficient film to trap the simuliids. Depending upon the density of blackflies it was sometimes necessary to use the same cloth to wipe off the layer of accumulated flies while at the same time applying a new coat of fuel oil.

Comparisons (no quantitative measurements) were made of the relative attractiveness to simuliids of 1) unpainted aluminum, 2) white fibreglas and 3) green fibreglas hard hats (all fuel oil smeared) which were worn separately by three different persons. Although approximately the same number of flies were attracted to each person, the aluminum hard hat caught the greatest number of blackflies with only a few on the white and almost none on the green.

This method of protection was not effective against the culicids in the area.

A COMPARISON OF LIGHT TRAPS AND LARVAL SURVEYS TO MEASURE MOSQUITO ABUNDANCE

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Aedes vexans (Meigen) invaded Salt Lake City from areas south of the city in 1938 (Rees 1939) and it was an abundant species in Salt Lake County when the first comprehensive study of mosquitoes in Utah was made (Rees 1943). Urbanization of areas containing *A. vexans* habitats proceeded rapidly after World War II and by 1958 it was reported to be declining (Graham, Rees and Nielsen, 1958). Larval populations in the South Salt Lake County Mosquito Abatement District from 1956 through 1962 were low and no nuisances of any consequence were reported.

Populations, as measured by larval surveys, began to increase in 1963 and continued to increase through 1968, a period of 6 years. In 1969 there was a slight reduction from 1968 but this is now thought to be a leveling of the population. These increases were reported by Minson and Graham (1967, 1968). All the available evidence indicated that the species was increasing by changing its larval habitat from the shaded stream-side sites to open pastures. Neilsen (personal comm.) reports that *A. vexans* had been

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