

C. p. quinquefasciatus (Patterson *et al.*, 1970), but they may be less attractive to the other species. Thus the other species may have been present in greater numbers than was indicated by the collections. Also, the winter of 1971-1972 was unseasonably warm for this area of Florida, and *C. p. quinquefasciatus* was probably able to breed throughout the year without a prolonged diapause.

Literature Cited

- Lowe, R. E., Ford, H. R., Smittle, B. J. and Weidhaas, D. E. 1973. Reproductive behavior of *Culex pipiens quinquefasciatus* released into a natural population. Mosq. News 33(2):221-227.
- Patterson, R. S., Ford, H. R., Lofgren, C. S. and Weidhaas, D. E. 1970. Sterile males: Their effect on an isolated population of mosquitoes. Mosq. News 30(1):23-27.
- Smittle, B. J., Lowe, R. E., Ford, H. R. and Weidhaas, D. E. 1973. Techniques for ³²P labeling and assay of egg rafts from field-collected *Culex pipiens quinquefasciatus* Say. Mosq. News 33(2):215-220.

THE OCCURRENCE OF *PSOROPHORA SIGNIPENNIS* COQUILLETT IN NEVADA

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Collections of biting *Psorophora signipennis* Coquillett females have been made by the author at two different locations near Las Vegas, Clark County, Nevada. On August 15, 1969 and August 22, 1972, collections were made at a transient dry lake pool 30 miles north of Searchlight on Highway 95, 25 miles southeast of Las Vegas. The landing count rate was 6 per minute. Collections were also made at the Valley of Fire exit, junction of Interstate 15 and Highway 40, 34 miles northeast of Las Vegas at a rain catch basin on July 26 and September 20, 1972. The landing rate was estimated at 50 per minute.

These 2 collection sites are dry most of the year. The adults appeared within a week after rainfall.

A larval collection of *P. signipennis* was made at the Moapa Indian Reservation, Moapa, Clark County, Nevada on August 11, 1972. The larvae were taken in irrigation runoff water.

This represents a new state record and brings the total number of mosquito species recorded for Nevada to 32 (Chapman, 1966; Chapman and Bechtel, 1969).

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References

- Chapman, H. C. 1966. The mosquitoes of Nevada. U. S. Dept. Agric. and Univ. Nevada Bull. T-2:1-43.
- Chapman, H. C. and Bechtel, R. C. 1969. Occurrence of *Culex pipiens quinquefasciatus* Say in Nevada. Mosq. News 29(1):137.

A SIMPLE METHOD FOR ARTIFICIALLY FEEDING MOSQUITOES

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Artificial feeding methods have varied from sophisticated apparatus such as that designed by Gerberg and Kara (1971), Greenberg (1949), and Tarshis (1958) to simpler methods such as those described by Tarshis (1959), and the rat-tail method used by D. K. Lvov and described to W. D. Sudia (1971).

The rat-tail method using the skin of the tail as the blood holding membrane has been used successfully by this laboratory to feed *Anopheles stephensi*, but in recent experiments it was found that *Culex pipiens quinquefasciatus* could not, or would not, probe the skin of the tail to feed on human blood.

A new and simple method of artificial feeding has been developed by this laboratory using the Baudruche membrane as a feeding surface for the mosquito. Whole human or animal blood, approximately 2-3 ml, was placed in 12 x 100 mm test tubes, each covered with approximately 2 in.² of the membrane that was stretched over the tube opening and secured with a rubber band. The tubes, while still in a vertical position, were placed into a holding-rack constructed of ½ in. hardware-cloth (Figure 1) that was temporarily tilted back 90° to hold the tubes upright. The rack containing the tubes was then placed into a warming oven or shallow water bath to bring the temperature of the blood up to 98-100° F. The tubes were maintained in a vertical position while warming the blood in order that expanding air could escape through the membrane.

The rack containing the test tubes was then placed in the normal position (Figure 1) in order that the tubes would be tilted at a 45° angle and