Aedes vexans AND *Culex salinarius* LIGHT TRAP COLLECTIONS AT FIVE ELEVATIONS.—A study was conducted for two seasons in a wooded area at the U. S. Army Chemical Center, Maryland, to determine if the numbers of mosquitoes collected in light traps varied significantly between 5-foot levels within a 20-foot elevation. MacCreary (1941) had studied the difference in mosquito collections taken in light traps operated at 4 to 5 feet and at 80 and 103 feet aboveground.

Five New Jersey mosquito light traps, each equipped with a 40-watt frosted light bulb, were operated between 6 p.m. and 6 a.m. from May through November during 1957 and from June to August during 1958. The traps, suspended from a metal pipe that extended between two trees, were operated with their opening at 1.5, 5, 10, 15 and 20 feet aboveground. To minimize any errors that might be introduced by trap position and individual trap efficiency, a daily schedule of changing trap elevations was followed. Each trap was operated for one night at each of the elevations during each 5-day period, and only one trap was operated at each elevation on any given night.

A total of 17,691 mosquitoes, representing 22 species, were collected. However only *Aedes vexans* and *Culex salinarius* were collected in significant numbers during either year. The average number of both male and female *Aedes vexans* collected per trap night was approximately the same each year. However, the average number of both male and female *Culex salinarius* taken per trap night in 1958 was approximately 8 times greater than the average number taken in 1957.

During both years, more *Culex salinarius* males and females were taken at the 20-foot level than at any of the lower levels. In the males this difference was significant to the one-tenth-percent level during both years. In the females this difference was significant to the one-percent level in 1957 and to the one-tenth-percent level in 1958. *Aedes vexans* males were also taken in the greatest numbers at 20 feet during both years. This difference was significant to the five-percent level in 1957 and to the one-tenth-percent level in 1958. *Aedes vexans* females were taken in the greatest numbers at 1.5 feet in 1957 and at 20 feet in 1958. In each year's collection this difference was significant to the one-tenth-percent level.

The authors express their appreciation to Major Hilton H. Earle, Jr., U. S. Army Environmental Health Laboratory, Army Chemical Center, Maryland, for the statistical analysis of the data contained in this paper.

References Cited

MACCREARY, D., 1941. Comparative density of mosquitoes at ground level and at an elevation of approximately one hundred feet. J. Econ. Ent., 34:174–179.

TECHNOLOGY BRANCH; COMMUNICABLE DISEASE CENTER; PUBLIC HEALTH SERVICE; DEPARTMENT OF HEALTH, EDUCATION AND WELFARE. 1956. Summary of Investigations No. 10, p. 193. —Theodore E. Blakeslee, Richard Axtell and Laurence Johnston, Entomology Division, U. S. Army Environmental Health Laboratory, Army Chemical Center, Maryland.

TABLE 1.—Summary of total trap captures by elevation

Year	Species	Sex	Elevation (Feet) 1.5	5	10	15	20	Least significant difference*
1957	*Aedes vexans*	Female	1339	469	306	379	643	92
1958	*Aedes vexans*	Female	322	249	187	246	538	63
1957	*Aedes vexans*	Male	60	91	92	103	204	27
1958	*Aedes vexans*	Male	25	12	24	36	69	10
1957	*Culex salinarius*	Female	143	218	209	205	302	23
1958	*Culex salinarius*	Female	266	529	756	1018	1636	155
1957	*Culex salinarius*	Male	18	36	39	31	82	8
1958	*Culex salinarius*	Male	29	34	99	207	397	34

* $P = .01$.