

SOUTH EAST ASIA MOSQUITO PROJECT
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NOTES ON ALASKAN MOSQUITO RECORDS

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Until now the Palearctic species of mosquito, *Aedes vexans* (Meigen), has not been reported from Alaska. Two females were taken on the author, one September 6, and the other September 19, 1967, while collecting along the communications line paralleling the Richardson Highway at milepost 354, nine and one-half miles southeast of Fairbanks. This segment of the communications line penetrates a spruce-tamarack stand and appears to be a moose through-way, judging from the concentration of tracks.

At this same place, on seven visits between the above-mentioned dates, twenty females and two males of *Aedes canadensis* (Theobald) were also taken. In addition three females and two males were individually reared from early instar larvae collected there on June 5, 1967, from small pot-holes, some of which may have been old moose tracks.

The September specimens of *A. vexans*, *canadensis*, and also many *Aedes cinereus* Meigen, collected at the same time, were in excellent condition suggesting recent emergence. Collecting had not been done there between August 1 and

September 5 because of heavy rainfall early in August and the resulting flood waters that covered forty to fifty thousand square miles of interior Alaska for several days at mid-August, forming a shallow "lake" about equal to the area of Alabama or North Carolina. The high water, followed by unseasonably warm weather, may explain the apparent late-emerging population of these species, if, as mentioned by Carpenter and LaCasse (1955) and others, some eggs do not hatch during the spring flooding, but do hatch at subsequent floodings.

In this respect it is interesting to note that the precipitation recorded at Fairbanks International Airport by the Weather Bureau for May, June, and July of 1955 totaled 7.7 inches—almost twice the normal amount. Craig and Pienkowski (1955) first reported *A. canadensis* in Alaska, and also stated it to be the dominant pest species at milepost 337 on the Richardson Highway in late July that same year. Rainfall for the summer of 1954 was also above average, with that of July almost twice the normal amount. These conditions may have contributed to the "large" population in 1955.

A review of the precipitation records as far back as 1947 shows that the only other years when the totals for May, June, and July were about twice normal were 1948, 1949 and 1962. The 1948 Alaska Insect Control Project did not report *A. canadensis* from Alaska (Gjullin *et al.*, 1961). However, last year three pinned specimens were found in some previously unidentified material that had been taken by members of the AICP. Two biting females had been collected at Station 524, one on July 5, and one July 12. The other female had been taken at Station 507 and was labeled "reared, June 14, 1948." Station 524 was located at milepost 355.7, and Station 507 at milepost 353.25, both on the Richardson Highway, in the same area where specimens of *A. canadensis* were collected in June and September of 1967. If repeated flooding does increase the hatch of *A. canadensis* eggs, this may help to explain the vagary of Alaskan *A. canadensis* mentioned by Hopla (1964-65).

L. C. Curtis (1967) has kindly brought to my attention that *Anopheles walkeri* Theobald was erroneously recorded from British Columbia, the material from Esquimalt being instead, *A. freeborni* Aitken. Therefore *A. walkeri* is not known to occur in territory contiguous to Alaska and should not have been included in the key by Sommerman (1966).

References

- CARPENTER, S. J., and LACASSE, W. J. 1955. Mosquitoes of North America. University of California Press, Berkeley.
- CRAIG, G. B., JR., and PIENKOWSKI, R. L. 1955. The Occurrence of *Aedes canadensis* (Theobald) in Alaska. Proc. Ent. Soc. Wash. 57(6):268.
- CURTIS, L. C. 1967. (Correspondence, March 3)
- GJULLIN, C. M. *et al.* 1961. The Mosquitoes of Alaska. Agriculture Handbook No. 182, USDA, Washington, D.C.
- HOPLA, C. E. 1964-65. The Feeding Habits of Alaskan Mosquitoes. Bull. Brooklyn Ent. Soc. 59 & 60:88-127.
- SOMMERMAN, K. M. 1966. True-False Key to Species of Alaskan Biting Mosquitoes, Mosquito News. 26(4):540-543.
- U. S. Environmental Science Services Administration. 1947-1967. Climatological Data.