

specimens was somewhat broader. The finding of this species in Louisiana was not surprising since the locality of our collections was only about 50 air miles east of the most easterly collection reported from Texas (Kountze) by Breland (1960).

The latest information on the mosquito fauna of Louisiana was compiled by Johnson (1959) in which he reported 52 species, with all but one (*Aedes zoosophus* Dyar and Knab) known to breed in the State.

A search of the literature indicates that two additional species were reported from the State prior to 1959. Dyar (1922) reported *Aedes dorsalis* (Meigen) from Delta, Louisiana. Specimens of *Aedes cinereus* Meigen were reported (as *Aedes juscus* O.S.) from Baton Rouge and New Orleans, although King *et al.* (1944) expressed some doubt as to the validity of the identifications. Carpenter and LaCasse (1955) did not list *A. cinereus* from Louisiana. That this species does occur in the State, was verified by several of our larval collections from Sugartown and Dry Creek (Beauregard Parish) in September, 1966 and April, 1968. The sites were flooded woodland pools and associated species were *Aedes vexans* (Meigen), *A. fulvus pallens* Ross, *Psoorophora ferox* (Humboldt), and *P. horrida* Dyar and Knab.

With the addition of *A. hendersoni*, the confirmation of *A. cinereus*, and the omitted record of *A. dorsalis*, the mosquito fauna of Louisiana now numbers 55 species.

Acknowledgment is made to F. E. Glenn, Jr., O. R. Willis, R. V. Cloud, and V. Smith, of this laboratory for some of the field collections.

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Aedes melanimon IN SASKATCHEWAN¹

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Aedes melanimon was first described by Dyar (1924) from specimens collected at Bakersfield, California. Some taxonomists (Freeborn, 1926; Matheson, 1944) considered it to be a variety of *Aedes dorsalis* Meigen. Barr (1955), after studying specimens from Minnesota and California, restored *A. melanimon* to species status on the basis of the male genitalia. Richards (1956) reviewed the known distribution of *A. melanimon* and listed it as found in: California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Utah, Washington and Wyoming. In Montana, one record was from Chinook, in Blaine County (Carpenter and LaCasse, 1955), about 30 miles south of the Canada-U.S. border. Burgess (1957) found *A. melanimon* at Brooks in southwestern Alberta, about 82 miles west of the Saskatchewan-Alberta boundary. Richards (1956) also pointed out that at least some isolations of western encephalitis virus originally attributed to *A. dorsalis* were actually from *A. melanimon*.

Thus, when mosquito survey collections were started in 1962 in connection with a study of western encephalitis in Saskatchewan (McLintock and Rempel, 1963), it was expected that *A. melanimon* would be among the species present, but it was not found until 1965. On July 29, 1965, one male was taken in a routine light trap catch on the Canada Agriculture Research Station grounds at Swift Current (southwestern Saskatchewan); another male was taken in the same trap on August 2. These were the only specimens taken in 1965.

In 1966, between July 13 and August 5, 8 males and about 500 females were taken in the Swift Current trap. On August 17 and 18, 33 females were collected by aspirator at the Prairie Farm Rehabilitation Administration (P.F.R.A.) Station at Maple Creek (about 80 miles southwest of Swift Current).

¹Part of an investigation supported by the Defense Research Board (Ottawa) (Grant No. 6801-30), the Department of National Health and Welfare (Project No. 607-7-59), the U. S. Department of Health, Education, and Welfare Public Health Service Grant 5 RO1 A107314-02 and Canada Department of Agriculture E.M.R. 159.

In 1967 the mosquito population at Swift Current was only about one-tenth that of 1966 (unpublished data). The *A. melanimon* taken in the Swift Current trap were: one male on July 19, one female on August 22, one female on August 24 and one male on August 28. A total of 70 females were collected by two Communicable Disease Center light traps (set up with dry ice) and by hand aspirator from the P.F.R.A. Station at Maple Creek on August 24. On the same day, six resting females were aspirated from two highway culverts about 9 miles northeast of Swift Current. Hence, in spite of generally low mosquito population levels in 1967, *A. melanimon* was still present in southwestern Saskatchewan.

The location of the Saskatchewan collection sites, in relation to those in Montana and Alberta, are indicated in Figure 1.

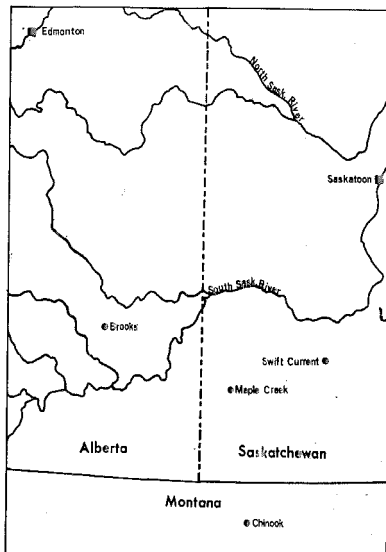


FIG. 1.—Locality records (circular dots) for *Aedes melanimon* in Alberta, Saskatchewan and northern Montana.

During the summers of 1962–1967, light trap and miscellaneous collections of adult mosquitoes were made throughout the agricultural area of Saskatchewan, but *A. melanimon* was found only in the southwest corner of the province and between mid-July and the end of August. Although *A. melanimon* was not found in Saskatchewan until 1965, the species might have been present but at too low a population level to be sampled by the routine light trap at Swift Current. In 1966 the mosquito population at Swift Current was the largest recorded in five years and that of 1965 the second largest; on the other hand, the population

of 1967 was the smallest (unpublished data). Further collections should tell more about *A. melanimon* with respect to its range, relative abundance and whether it is a permanent or sporadic resident of this province.

ACKNOWLEDGMENTS. This paper has been prepared with the generous help and cooperation of Dr. J. McLintock, Dr. J. Rempel and the staff of the western encephalitis project. We also thank Mr. D. Baillie and Mr. W. R. Hedstrom of the Swift Current Research Station for operating the light trap.

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- COITUS BY *Aedes aegypti* MALES WITH UNROTATED AND PARTIALLY ROTATED TERMINALIA¹
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It is currently believed that, if the terminalium of an adult male of *Aedes aegypti* either fails to undergo any rotation or rotates less than the normal 180°, the male is unable to copulate when his genitalia are placed in contact with those of the female at an appropriate angle with the forced copulation technique of McDaniel and Horsfall (1957), in spite of the fact that such

¹ Supported by N.I.H. Grant GM 6021. Scientific Article Number A 1441, contribution number 4068 of the Maryland Agricultural Experiment Station.

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