Mosquito Surveillance Report: Week of August 16th

Highlights & Average Trap Counts

A total of 500 mosquitoes were caught throughout Western Manitoba during the week of August 16th with an overall average of 33 mosquitoes per trap per night. Trap counts have remained low this week. In 2020, an average of 69 mosquitoes were caught per trap per night for the same week (Table 1).

This week, Manitoba Health announced an additional 24 *Culex tarsalis* pools that tested positive for West Nile virus throughout the province. According to the province the risk of West Nile virus exposure remains **high**. So far in 2021, no human or veterinary West Nile virus cases have been recorded. The province recommends that Manitobans take precautions to reduce exposure risks by wearing repellents and long, light-colored loose-fitting clothing, reducing time spent outdoors between dusk and dawn and eliminating sources of standing water that *Culex tarsalis* can lay eggs in.

Table 1. The average number of mosquitoes trapped per trap per night in each community for the week of **August 16th, 2021.** The 2020 average trap counts for the same week have also been included. N.D. = no data.

Community	2021 Average Trap Count	2020 Average Trap Count
Boissevain	36	49
Brandon	65	131
Carberry	13	22
Cypress River	42	8
Killarney	N.D.	46
Shoal Lake	44	338
Souris	10	17
Virden	42	15

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Mosquito Species

A total of 456 mosquitoes representing 6 mosquito species that are capable of transmitting pathogens to humans were identified from the mosquitoes collected this week (Table 2).

The most numerous mosquito species caught was *Culex tarsalis,* representing 67% of mosquito species identified this week up from 65% last week. The overall average number of *Cx. tarsalis* per trap was 20.9, a slight increase from an average of 13.9 last week. The average number of *Cx. tarsalis* collected from each community can be found in table 3. *Culex tarsalis* is the primary vector for West Nile virus in Manitoba and is also involved in the transmission of Western equine encephalitis and California serogroup viruses.

Aedes vexans, the inland floodwater mosquito, represented 23% of identified mosquitoes. This mosquito plays a role in the transmission of California serogroup viruses to humans and is a major nuisance mosquito in Manitoba.

Followed behind *Aedes vexans* was *Coquillettidia perturbans*, representing 5% of identified mosquitoes. The majority of these were trapped in Cypress River. This mosquito plays a minor role in the transmission of California serogroup, West Nile, and Eastern Equine encephalitis viruses.

One (1) *Aedes triseriatus*, the Eastern tree hole mosquito, was identified from a trap in Virden this week. *Ae. triseriatus* are native to the east coast and were first identified in Manitoba in 2020. *Ae. triseriatus* are the main vector for La Crosse virus, a California serogroup virus that mostly affects children.

The other mosquito species caught includes a variety of *Aedes*, *Culex* and *Anopheles* mosquitoes, all of which can act as vectors for California serogroup viruses and/or West Nile virus (Table 2).

Table 2. The numbers of 6 mosquito species caught throughout Manitoba during the week of **August 16th, 2021**.

Species	Boissevain	Brandon	Carberry	Cypress River	Shoal Lake	Souris	Virden	Total
Ae. dorsalis	0	3	0	0	7	0	0	10
Ae. triseriatus	0	0	0	0	0	0	1	1
Ae. vexans	12	10	0	0	38	2	41	103
An. earlei	1	0	0	1	4	1	0	7
Cq. perturbans	0	0	0	17	0	0	5	22
Cx. tarsalis	51	107	26	59	32	16	22	313
Total	64	120	26	77	81	19	69	456

Table 3. The average number of *Culex tarsalis* identified per trap for each community during the week of **August 16th, 2021**. N.D. = no data.

Location	Average Number of *Cx. tarsalis*
Boissevain	26
Brandon	54
Carberry	13
Cypress River	30
Killarney	N.D.
Shoal Lake	16
Souris	8
Virden	11

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