Mosquito Surveillance Report: Week of July 12th

Summary & Average Trap Counts

A total of 16,298 mosquitoes were caught throughout Western Manitoba during the week of July 12th with an overall average of 1,162 mosquitoes per trap per night. The highest number of mosquitoes collected in a single trap was 6,409 mosquitoes collected in Cypress River on July 14th. In 2020, an average of 683 mosquitoes were caught per trap per night for the same week (Table 1).

Table 1. The average number of mosquitoes trapped per trap per night in each community for the week of **July 12th, 2021.** The 2020 average trap counts for the same week have also been included.

Community	2021 Average Trap Count	2020 Average Trap Count
Boissevain	717	683
Brandon	575	1,484
Carberry	27	543
Cypress River	7,917	282
Killarney	102	182
Shoal Lake	403	802
Souris	547	406
Virden	1,810	1,915

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Mosquito Species

A total of 14,004 mosquitoes representing 9 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 *Coquillettidia perturbans,* the cattail mosquito, representing 60% of identified mosquitoes. The majority of *Coquillettidia perturbans* were caught in Cypress River and Virden. This mosquito plays a minor role in the transmission of California serogroup, West Nile, and Eastern Equine encephalitis viruses.

Followed behind *Coquillettidia perturbans* was *Aedes vexans*, the inland floodwater mosquito, representing 33% of identified mosquitoes. *Aedes vexans* was present throughout all the traps. This mosquito plays a role in the transmission of California serogroup viruses to humans and is a major nuisance mosquito in Manitoba.

While caught in low numbers compared to *Coquillettidia perturbans* and *Aedes vexans,* the average number of *Culex tarsalis* mosquitoes per trap increased considerably with an overall average of 23 per trap per trap night in Western Manitoba. The increase observed is consistent with data published by Manitoba Health wherein an increase of *Culex tarsalis* mosquitoes was observed relative to recent weeks. *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.

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 9 mosquito species caught throughout Manitoba during the week of July 12th, 2021.

Species	Boissevain	Brandon	Carberry	Cypress River	Killarney	Shoal Lake	Souris	Virden	Total
Ae. canadensis	0	8	0	0	0	0	0	0	8
Ae. dorsalis	239	9	0	40	9	3	15	0	315
Ae. flavescens	61	1	0		3	2		0	67
Ae. trivittatus	1	0	0	24	0	0	0	0	25
Ae. vexans	1339	809	7	48	60	348	1007	1045	4663
An. earlei		1	2		3	4	0	3	13
Cq. perturbans	2	3	12	6420	55	0	1	2100	8593
Cx. restuans		9	0		0	0	0	0	9
Cx. tarsalis	72	118	3	40	32	27	19	0	311
Total	1714	958	24	6572	162	384	1042	3148	14004