Mosquito Surveillance Report: Week of June 28th

Average Trap Counts

A total of 40,988 mosquitoes were caught across Western Manitoba during the week of June 28th with an overall average of 2,919 mosquitoes per trap night. The highest number of mosquitoes collected in a single trap was approximately 12,920 mosquitoes collected in Cypress River on June 29th. In 2020, an average of 187 mosquitoes were caught per trap night for the same week (Table 1). The significant increase in trap counts can be explained by the consistent extreme heat Manitoba has been experiencing, which speeds up the mosquito life cycle.

Table 1. The average number of mosquitoes trapped per trap night in each community for the week of **June 28th, 2021.** The 2020 average trap counts for the same week have also been included. Due to the volume of specimen collected, numbers have been extrapolated from sub-samples.

Community	2021 Average Trap Count	2020 Average Trap Count
Boissevain	572	45
Brandon	3,980	72
Carberry	306	54
Cypress River	8,948	842
Killarney	550	116
Shoal Lake	1,640	88
Souris	2,352	22
Virden	1,500	42

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Mosquito Species

A total of 36,652 mosquitoes representing 8 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 *Aedes vexans,* the inland floodwater mosquito, representing 50% of identified mosquitoes and was present in all traps in high numbers. *Aedes vexans* is known to transmit California serogroup viruses to humans. *Aedes vexans* mosquitoes are also very aggressive biters and are a major nuisance mosquito in Manitoba.

Followed behind *Aedes vexans* was *Coquillettidia perturbans,* the cattail mosquito, representing 48% of identified mosquitoes. This mosquito plays a minor role in the transmission of California serogroup, West Nile, and Eastern Equine encephalitis viruses. The majority of *Coquillettidia perturbans* were collected in Cypress River.

The remaining 2% of mosquito species identified 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 8 mosquito species caught throughout Manitoba during the week of June 28th, 2021. Due to the volume of specimen collected, numbers have been extrapolated from sub-samples.

Location	Boissevain	Brandon	Carberry	Cypress River	Killarney	Shoal Lake	Souris	Virden	Total
Aedes canadensis	0	24	0	0	0	0	0	0	24
Aedes dorsalis	54	236	155	0	16	96	100	8	665
Aedes flavescens	0	0	0	0	0	8	0	0	8
Aedes trivittatus	0	228	0	0	0	0	0	24	252
Aedes vexans	490	10520	390	64	354	1408	4388	1792	19406
Anopheles earlei	0	0	0	0	0	8	0	0	8
Coquillettidia perturbans	0	28	4	17680	136	0	4	328	18180
Culex tarsalis	3	72	6	0	12	0	16	0	109
Total	547	11108	555	17744	518	1520	4508	2152	38652