

Mosquito Surveillance Report: Week of June 21st

Summary

Mosquito trapping occurs twice per week on Monday and Tuesday nights. Due to trap counts varying considerably day-to-day, the average trap count is reported for the week for each location. Note that this week trapping only occurred on one night in Cypress River due to a trap malfunction. Due to an increase in mosquito trap counts in Brandon, trapping occurred on four nights this week in Brandon.

Average Trap Counts

A total of 5,365 mosquitoes were caught across Western Manitoba during the week of June 21st with an average of 315 mosquitoes per trap night. The highest number of mosquitoes collected in a single trap was 2,140 mosquitoes collected in Brandon on June 24. In 2020, an average of 371 mosquitoes were caught per trap night for the same week (Table 1).

Table 1. The average number of mosquitoes trapped per trap night in each community for the week of **June 21st, 2021**. The 2020 average trap counts for the same week have also been included.

Community	2021 Average Trap Count	2020 Average Trap Count
Boissevain	48	58
Brandon	574	117
Carberry	1	29
Cypress River	1,512	2,030
Killarney	2	53
Shoal Lake	45	250
Souris	10	55
Virden	99	23

Mosquito Species

A total of 4,511 mosquitoes representing 11 mosquito species that are capable of transmitting pathogens to humans were identified from the mosquitoes collected this week (Table 3).

The most numerous mosquito species caught was *Aedes vexans*, the inland floodwater mosquito, representing 61% of identified mosquitoes and was present in all traps except in Killarney. The majority of *Aedes vexans* were collected in Brandon. *Aedes vexans* is known to transmit California serogroup viruses to humans.

Followed behind *Aedes vexans* was *Coquillettidia perturbans*, the cattail mosquito, representing 27% 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 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 3).

Satellite Trapping

Satellite traps are portable one-off traps that use dry ice to attract mosquitoes. Two satellite traps were deployed this week in Northwest and Downtown Brandon. These traps caught a total of 1,091 mosquitoes, the majority of which were *Aedes vexans*.

Table 2. The trap counts for satellite traps deployed during the week of June 21st, 2020.

Location	Trap Count
NW Brandon	657
Downtown Brandon	434

Virus Screening

A total of 3,132 mosquitoes caught between June 14th to June 23rd were screened for the presence of a California serogroup virus by PCR. No virus detections were made.

Table 3. The numbers of 10 mosquito species caught throughout Manitoba during the week of June 21st, 2021.

Location	Boissevain	Brandon	Cypress River	Killarney	Shoal Lake	Souris	Virden	Total
<i>Aedes canadensis</i>	0	12	0	0	0	0	2	14
<i>Aedes dorsalis</i>	22	222	0	3	2	6	3	258
<i>Aedes excrucians</i>	0	0	0	0		0	1	1
<i>Aedes flavescens</i>	0	1	4	0	29	0		34
<i>Aedes punctor/asberratus</i>	0	0	0	0	0	0	127	127
<i>Aedes spencerii</i>	0	0	0	0	0	1	0	1
<i>Aedes trivittatus</i>	0	3	0	0	1	0	8	12
<i>Aedes vexans</i>	46	2572	96	0	10	9	24	2757
<i>Anopheles earlei</i>	2	0		0	39	1	8	50
<i>Coquillettidia perturbans</i>	0	31	1176	0	0	0	3	1210
<i>Culex tarsalis</i>	12	33	0	0	0	2	0	47
Total	82	2874	1276	3	81	19	176	4511