



Vector-Borne Diseases in Durham Region Summary Report Week of September 1, 2019



West Nile Virus (WNV) Surveillance	Week of September 1, 2019	Year To Date
# of WNV-positive Mosquito Pools	1	1
# of Confirmed Human Cases of WNV	0	0
# of Probable Human Cases *of WNV	0	0

* Probable human cases – confirmatory laboratory testing pending

Surveillance

Larval Mosquitoes: The Durham Region Health Department (DRHD) conducts routine surveillance of long-term standing surface water sites, including storm water management ponds (SWMPs), ditches, natural field pools, etc. annually from early May until mid-September. If a standing water site is found to contain high numbers of mosquito larvae (identified as > 30 larvae per 10 dips) DRHD's regionally- contracted pest control operator is immediately notified and the site is treated, within 24 hours, with an environmentally-friendly biological pesticide. The site is then monitored and treated by the contractor until no further larval development is observed, whereupon the responsibility for ongoing site surveillance is transferred back to DRHD.

To date, **1928** total standing surface water site visits have been completed resulting in **156*** larvicide treatments by our licensed pest control contractor.

** Note: some standing water sites require multiple larvicide treatments to eliminate larval mosquito development.*

Adult Mosquitoes (trapping): The adult mosquito surveillance program started the week of June 09, 2019. Adult mosquitoes will be collected from **14** fixed trap sites located across Durham Region weekly until late September. To date **380** batches of mosquitoes have been tested and **1** batch has tested positive for WNV.

Human Cases: West Nile virus (WNV) is a reportable disease in Ontario. This means that physicians are required to report all suspect cases of WNV to the Ontario Ministry of Health.

As of **January 1, 2019**, there are no confirmed human cases of WNV reported in Durham Region.

Standing Water Complaints: DRHD received **0** reports of standing water from residents last week. A total of **51** reports have been received to date in 2019.

Larvicide Treatments

Mosquito Reduction: Since 2003, DRHD has conducted monitoring and larviciding of all municipally- owned, road-side catch basins as well as catch basins located on select regionally-owned properties. Each year a sample of **65** catch basins are monitored by our contractor across Durham Region beginning in early May. Once high numbers of WNV vector mosquitoes begin to emerge in the monitored catch basins, larvicide treatments of all catch basins are commenced. The program includes **3** full rounds of roadside catch basin larviciding conducted in June, July and August and larviciding of regional sites occurred concurrently with the first round of catch basin larviciding which started on **Monday June 10, 2019** and was completed on **Tuesday June 18, 2019**. The second round started on **Monday July 1, 2019** and was completed by **Tuesday July 9, 2019**. The third round started on **Tuesday July 22, 2019** and was completed by **Tuesday July 30, 2019**.



Lyme Disease (LD) Surveillance	Week of September 1, 2019	Year To Date
# of Ticks Submitted for Testing	0	188
# of Confirmed Blacklegged Ticks	1	116
# of Ticks Positive for LD	0	13
# of Confirmed Human Cases of LD	3	32
# of Probable Human Cases of LD	0	6

Surveillance

Passive Tick Surveillance (tick submissions): To date **188** ticks removed from people were submitted to DRHD for identification and potential testing in 2019. The number of ticks submitted annually to DRHD has steadily increased since 2010.

Active Tick Surveillance (tick dragging): Active tick surveillance for blacklegged ticks (“tick dragging”) has been conducted by DRHD staff in suitable tick habitats in Durham Region since 2010. For the first time in the fall of 2014, blacklegged ticks, positive for the bacteria, *Borrelia burgdorferi*, which causes LD, were found during active surveillance activities.

To date active tick surveillance has taken place at **3** sites in Durham Region during 2019. This active surveillance has resulted in the identification of **8** blacklegged ticks and 0 of those ticks have been confirmed to be carrying *Borrelia burgdorferi* at this time.

Human Cases: Lyme disease (LD) is a reportable disease in Ontario. As of **January 1, 2019, 32** confirmed cases of LD have been reported in Durham Region.

While the risk of contracting LD within Durham Region is currently low, the potential for infection is likely to increase subject to deer, small rodent and bird migration patterns across the north shore of Lake Ontario. In addition, changing climate conditions may contribute to an expansion of the distribution of ticks that carry LD.

Lyme disease is a serious illness which can spread to humans through the bite of an infected blacklegged tick. To protect yourself:

- Wear light coloured pants and long-sleeved shirts so you can easily spot ticks. Tuck your pants into your socks
- Apply insect repellent containing DEET, following label directions
- Walk in the centre of park trails and avoid high grass and brush at the edge of trails
- Shower as soon as you get home. Check yourself, your family and your pets and carefully remove any attached ticks as soon as possible

For more information about Lyme disease or West Nile virus call 1-888-777-9613 or visit durham.ca.