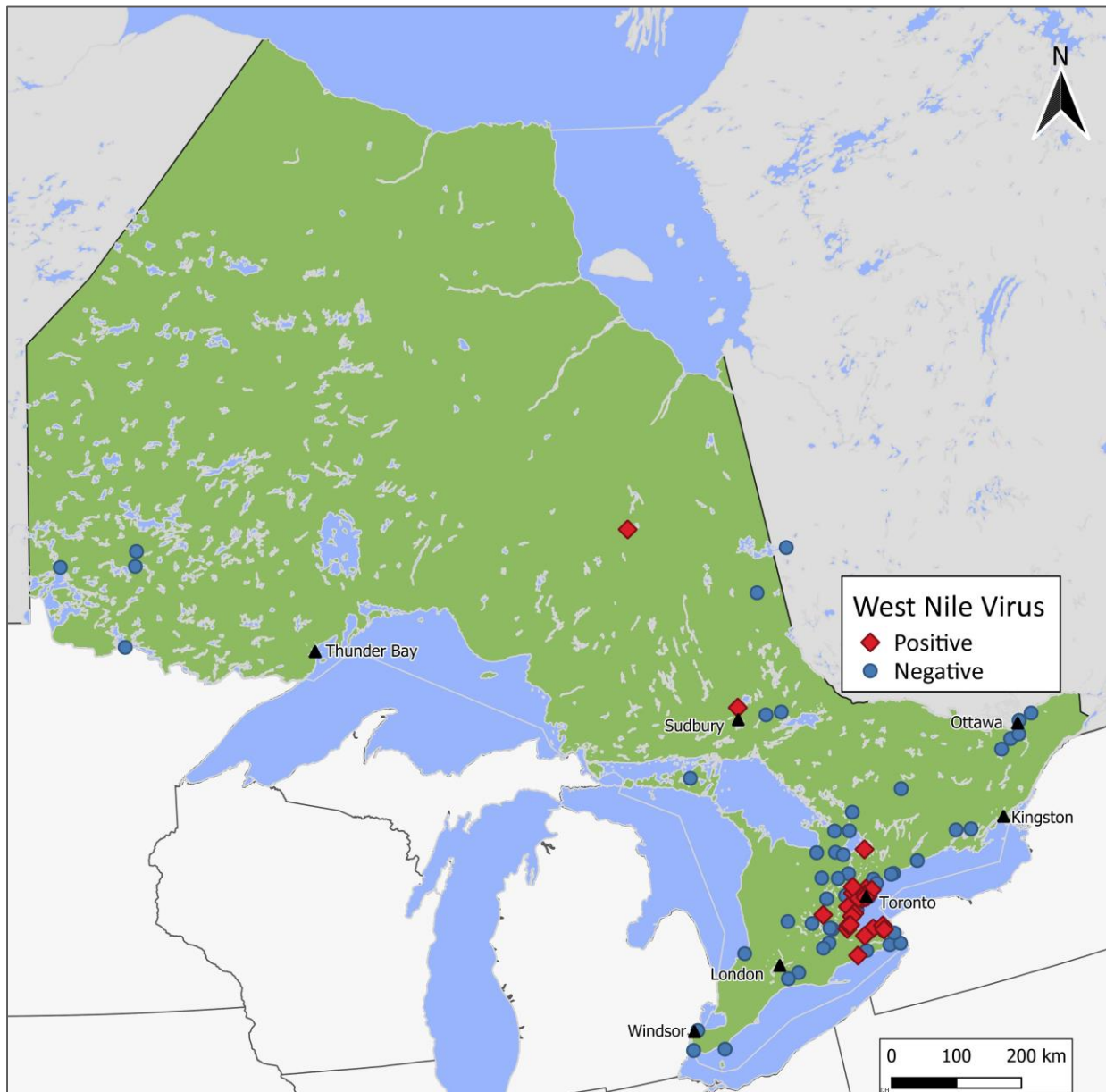




## CWHC Ontario/Nunavut Dead Bird West Nile Virus Testing Summary for 2019

The CWHC Ontario/Nunavut Region has tested 115 birds for the presence of West Nile Virus (WNV) in 2019. All corvids and raptors submitted to the CWHC during the season were tested along with any other birds with known susceptibility, exhibiting neurological signs, or showing lesions consistent with WNV. Of the 115 tested, 30 were confirmed positive for the virus by real-time RT-PCR.



**Figure 1.** Location of birds tested for West Nile Virus in Ontario in 2019.  
Red locations tested positive, blue tested negative.



With corvid species accounting for only 9 of the 30 birds which tested positive for West Nile virus, a widening range of additional species have also tested positive in 2019. The earliest detection in 2019 was a Cooper’s Hawk found dead in St. Catharines, Ontario on June 21st, 2019. Since then, the CWHC has confirmed West Nile virus in unlikely species including a Herring Gull, Double-crested Cormorants, and in American Robins (Table 1). Waterfowl/shorebirds are continuing to test positive for West Nile virus despite the decrease in cases this year. Due to this recent change in apparent susceptible hosts, multiple species of waterfowl/shorebirds exhibiting either neurological symptoms or suspicious microscopic changes are being tested to determine the prevalence in these species. Interestingly, one of the West Nile virus positive double-crested cormorants also tested positive for Newcastle disease virus (avian avulavirus [paramyxovirus] serotype 1). This combined viral infection is something we will monitor for in future years to determine if this was an outlier case or the beginning of a new trend for this species.

**Table 1.** Species breakdown for birds testing positive for West Nile virus in 2019.

Species	Tested	Positive
<b>Corvids</b>		
American Crow	21	7
Blue Jay	8	2
Common Raven	6	0
<b>Raptors</b>		
American Kestrel	2	0
Bald Eagle	1	0
Barred Owl	3	0
Broad-Winged Hawk	1	0
Cooper's Hawk	3	2
Great Horned Owl	5	2
Merlin	4	0
Northern Saw-Whet Owl	1	0
Osprey	2	0
Peregrine Falcon	1	0
Red-tailed Hawk	17	11
Sharp-Shinned Hawk	1	0
Short-Eared Owl	1	0
<b>Song Birds</b>		
American Robin	4	2
Loggerhead Shrike	7	0
<b>Waterfowl and Waterbirds</b>		
Double-crested Cormorant	10	3



Species	Tested	Positive
Canada Goose	1	0
Herring Gull	2	1
Mute Swan	1	0
Ring-Billed Gull	3	0
Other		
American Black Bear	1	0
Common Grackle	5	0
Common Nighthawk	2	0
Sandhill Crane	1	0
Wild Turkey	1	0
<b>Totals</b>	<b>115</b>	<b>30</b>

**Table 2.** Species, date, and locations for dead birds tested by PCR for West Nile virus in 2019.

Common Name	Date of Death	City	WNV Diagnosis
Common Raven	2019-04-28	Wilberforce	Negative
Loggerhead Shrike	2019-05-13	Hamilton	Negative
Blue Jay	2019-05-14	Milverton	Negative
Red-Tailed Hawk	2019-05-17	Toronto	Negative
Bald Eagle	2019-05-18	Oxdrift	Negative
Common Grackle	2019-05-31	Tyendinaga	Negative
Common Raven	2019-06-07	Dryden	Negative
American Crow	2019-06-07	Guelph	Negative
Loggerhead Shrike	2019-06-10	Hamilton	Negative
Common Raven	2019-06-10	Kenora	Negative
American Crow	2019-06-11	Markstay-Warren	Negative
Blue Jay	2019-06-13	Toronto	Negative
Common Grackle	2019-06-15	Stayner	Negative
Common Grackle	2019-06-18	Toronto	Negative
American Crow	2019-06-20	Brantford	Negative
Blue Jay	2019-06-21	Springfield	Negative
Common Grackle	2019-06-22	Toronto	Negative
Cooper's Hawk	2019-06-22	St. Catharines	<b>Positive</b>
Loggerhead Shrike	2019-06-25	Cambridge	Negative
American Crow	2019-06-25	Port Hope	Negative
American Crow	2019-06-25	Carleton Place	Negative



Common Name	Date of Death	City	WNV Diagnosis
Common Grackle	2019-06-28	Toronto	Negative
Red-Tailed Hawk	2019-07-01	Toronto	Negative
American Crow	2019-07-03	Stayner	Negative
Common Nighthawk	2019-07-04	Grand Bend	Negative
Peregrine Falcon	2019-07-05	Toronto	Negative
American Crow	2019-07-08	Toronto	<b>Positive</b>
Common Raven	2019-07-10	Kirkland	Negative
American Crow	2019-07-14	Toronto	Negative
American Crow	2019-07-14	Greater Sudbury	<b>Positive</b>
American Crow	2019-07-14	Greater Sudbury	<b>Positive</b>
Mute Swan	2019-07-15	Toronto	Negative
Common Raven	2019-07-16	Mono	Negative
American Robin	2019-07-17	Guelph	Negative
Blue Jay	2019-07-17	Windsor	Negative
American Crow	2019-07-21	foxboro	Negative
American Crow	2019-07-23	Greater Sudbury	Negative
American Crow	2019-07-24	Toronto	Negative
Red-Tailed Hawk	2019-07-24	Beamsville	<b>Positive</b>
Blue Jay	2019-07-25	Guelph	<b>Positive</b>
Great Horned Owl	2019-07-25	Pickering	Negative
Great Horned Owl	2019-07-25	Toronto	<b>Positive</b>
Barred Owl	2019-07-25	Verner	Negative
American Crow	2019-07-26	M'Chigeeng	Negative
Common Raven	2019-07-26	Moonstone	Negative
Barred Owl	2019-07-26	Kettleby	Negative
Sharp-Shinned Hawk	2019-07-26	Barrie	Negative
Northern Saw-Whet Owl	2019-07-27	Ottawa	Negative
Osprey	2019-07-29	Innisfil	Negative
Merlin	2019-07-29	Mississauga	Negative
Double-Crested Cormorant	2019-07-31	Toronto	<b>Positive</b>
Ring-Billed Gull	2019-08-01	Oshawa	Negative
Red-Tailed Hawk	2019-08-01	Toronto	<b>Positive</b>
Red-Tailed Hawk	2019-08-02	Orillia	Negative
Blue Jay	2019-08-02	Dunnville	Negative
Broad-Winged Hawk	2019-08-05	Gravenhurst	Negative
American Kestrel	2019-08-05	tottenham	Negative
Red-Tailed Hawk	2019-08-05	Toronto	Negative



Common Name	Date of Death	City	WNV Diagnosis
Loggerhead Shrike	2019-08-06	Cambridge	Negative
American Crow	2019-08-08	Pefferlaw	<b>Positive</b>
Red-Tailed Hawk	2019-08-08	Toronto	<b>Positive</b>
Red-Tailed Hawk	2019-08-09	Toronto	<b>Positive</b>
American Kestrel	2019-08-09	Mississauga	Negative
Red-Tailed Hawk	2019-08-10	Toronto	<b>Positive</b>
Canada Goose	2019-08-12	Toronto	Negative
Double-Crested Cormorant	2019-08-12	Mississauga	Negative
Merlin	2019-08-12	Brampton	Negative
American Crow	2019-08-13	St. Catharines	<b>Positive</b>
Red-Tailed Hawk	2019-08-13	Toronto	Negative
American Crow	2019-08-14	Toronto	Negative
Herring Gull	2019-08-18	Hamilton	<b>Positive</b>
Double-Crested Cormorant	2019-08-21	Toronto	<b>Positive</b>
Double-Crested Cormorant	2019-08-21	Toronto	Negative
Double-Crested Cormorant	2019-08-21	Toronto	Negative
American Robin	2019-08-22	Mississauga	<b>Positive</b>
American Robin	2019-08-22	Mississauga	<b>Positive</b>
Cooper's Hawk	2019-08-22	Toronto	Negative
Barred Owl	2019-08-22	Ottawa	Negative
American Crow	2019-08-23	St. Catharines	<b>Positive</b>
Osprey	2019-08-23	Toronto	Negative
American Crow	2019-08-24	Erin	Negative
American Crow	2019-08-25	Toronto	<b>Positive</b>
Double-Crested Cormorant	2019-08-27	Oakville	<b>Positive</b>
American Robin	2019-08-27	Kitchener	Negative
Double-Crested Cormorant	2019-08-28	Toronto	Negative
Blue Jay	2019-08-29	Oakville	<b>Positive</b>
Wild Turkey	2019-08-29	Leamington	Negative
Merlin	2019-08-29	Toronto	Negative
Merlin	2019-09-01	Mississauga	Negative
Double-Crested Cormorant	2019-09-03	Burford	Negative
Red-Tailed Hawk	2019-09-03	Vaughan	<b>Positive</b>
Red-Tailed Hawk	2019-09-05	Cayuga	<b>Positive</b>
Ring-Billed Gull	2019-09-06	Toronto	Negative
Red-Tailed Hawk	2019-09-06	Toronto	<b>Positive</b>
Herring Gull	2019-09-09	Ottawa	Negative



Common Name	Date of Death	City	WNV Diagnosis
Double-Crested Cormorant	2019-09-12	Oshawa	Negative
Sandhill Crane	2019-09-14	Taschereau	Negative
Double-Crested Cormorant	2019-09-16	Cambridge	Negative
Blue Jay	2019-09-16	Ottawa	Negative
Cooper's Hawk	2019-09-16	Burlington	<b>Positive</b>
Common Nighthawk	2019-09-17	St. Thomas	Negative
Loggerhead Shrike	2019-09-19	Cambridge	Negative
Red-Tailed Hawk	2019-09-19	Smithville	<b>Positive</b>
Great Horned Owl	2019-09-25	Rockton	Negative
Ring-Billed Gull	2019-09-27	Toronto	Negative
American Black Bear	2019-10-02	Rainy Lake	Negative
Red-Tailed Hawk	2019-10-02	Port Colborne	Negative
Red-Tailed Hawk	2019-10-06	Burlington	<b>Positive</b>
Red-Tailed Hawk	2019-10-07	Toronto	<b>Positive</b>
Loggerhead Shrike	2019-10-08	Cambridge	Negative
Short-Eared Owl	2019-10-10	Fort Erie	Negative
Great Horned Owl	2019-10-11	Kapuskasing	<b>Positive</b>
Great Horned Owl	2019-10-16	Niagara Falls	Negative
Loggerhead Shrike	2019-10-22	Hamilton	Negative
American Crow	2019-10-22	Amherstburg	Negative

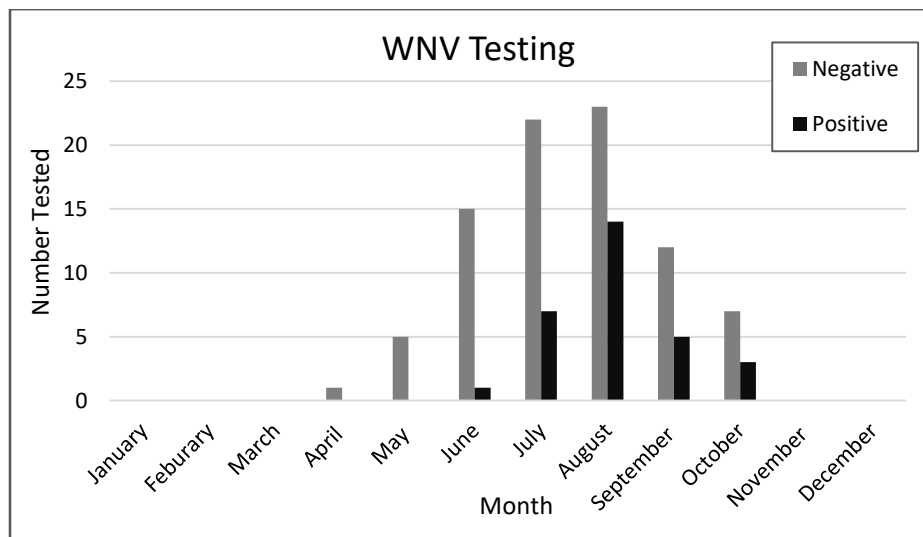


Figure 2. WNV testing completed by month in 2019.

Note: This report is only accurate to date of publishing and only accounts for mortalities that occurred in 2019. Any cases submitted during 2019 that died during a previous year have been removed.