

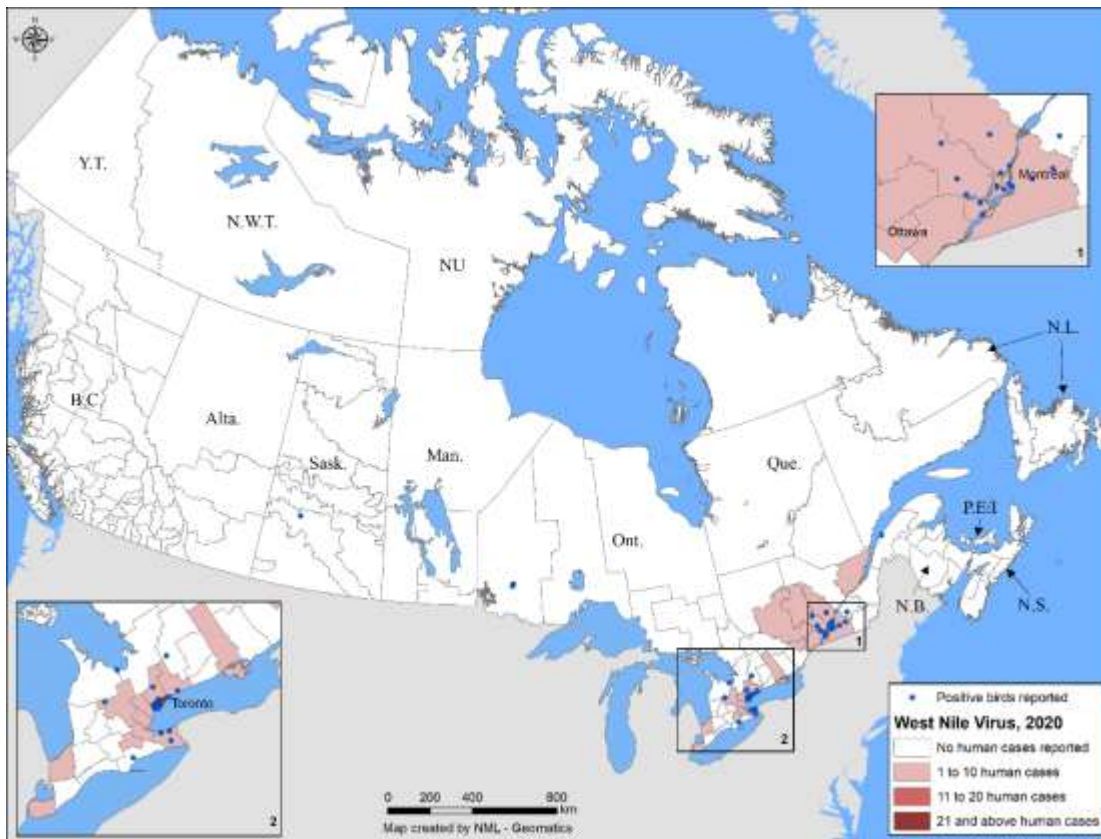
# MOSQUITO-BORNE DISEASE SURVEILLANCE REPORT

SEPTEMBER 24 to OCTOBER 24, 2020 (WEEK 40, 41, 42 AND 43)

## Year-to-Date Snapshot



Figure 1. Geographic distribution of WNV human (clinical cases and asymptomatic infections) and positive birds reported in Canada, 2020



## West Nile

### Human Epidemiology

As of surveillance week 43, ending on October 24, 2020, 86 human cases of West Nile virus (WNV) have been reported to the Public Health Agency of Canada (PHAC) (**Table 1**).

**Table 1. West Nile virus human cases, by disease classification and province (January 1- October 24, 2020)**

Province	Clinical Cases			Total Clinical Cases <sup>1</sup>	Asymptomatic Infections <sup>2</sup>	YTD Grand Total	Rate <sup>3</sup> (per 100,000)
	Neurological	Non-neurological	Unclassified				
Ontario	9	27	26	62	1	63	0.43
Québec	6	0	13	19	4	23	0.27
<b>Total</b>	<b>15</b>	<b>27</b>	<b>39</b>	<b>81</b>	<b>5</b>	<b>86</b>	<b>0.23</b>

<sup>1</sup> Clinical cases are the sum of confirmed and probable: WNV neurological and non-neurological syndromes, along with any unclassified. <sup>2</sup> Satisfies WNV diagnostic test criteria in the absence of clinical criteria (i.e., asymptomatic blood donors whose blood is screened by blood operators, Canadian Blood Services or Héma-Québec. <sup>3</sup> Calculated with grand total of clinical and asymptomatic cases, using Statistics Canada 2020 Q1 population estimates.

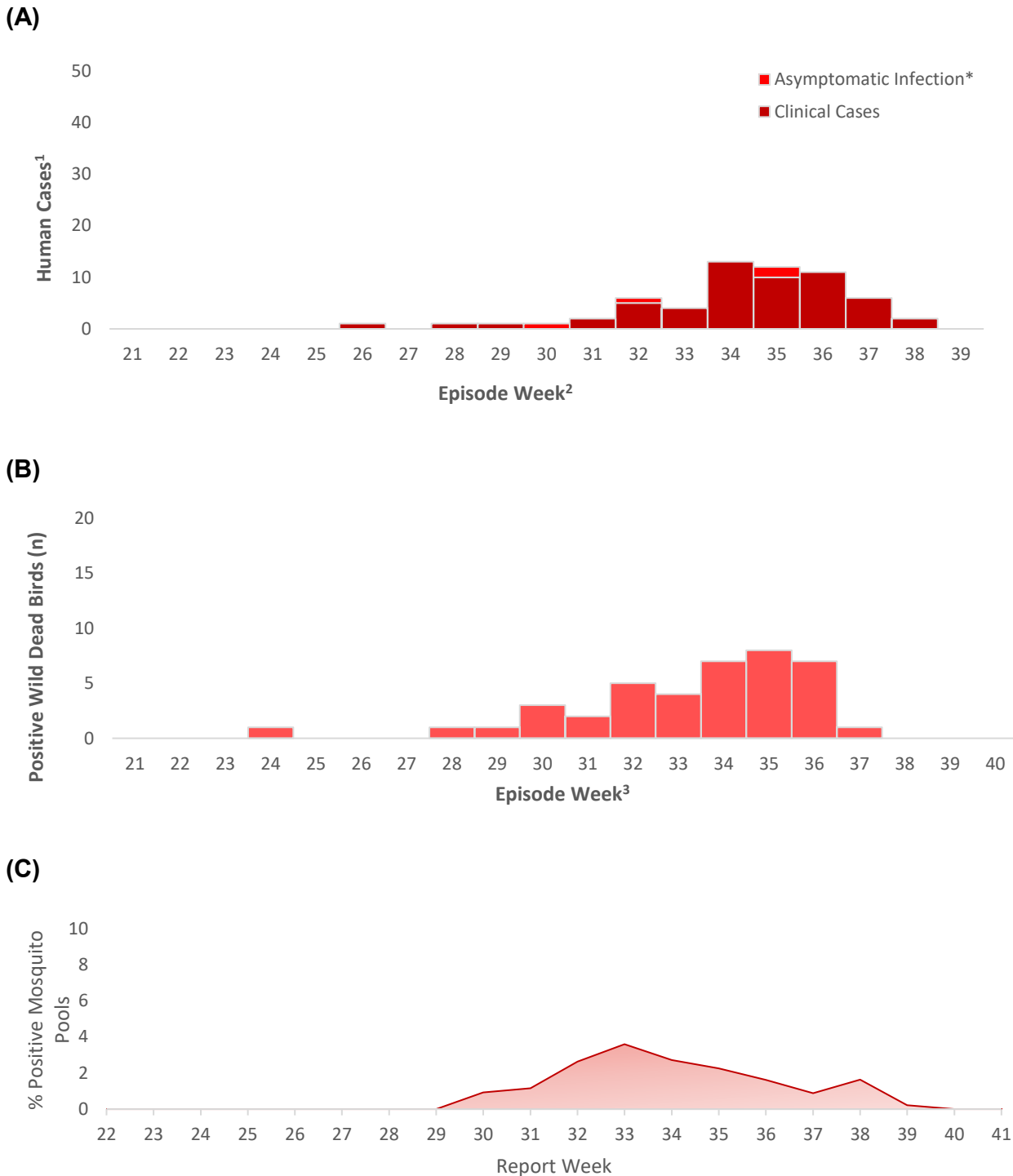
### Mosquito, Wild Bird & Equine Epidemiology

As of week 40, 41, 42 and 43, PHAC has been notified of 15, 945 mosquito pools tested for WNV in Canada. Of these, there have been five WNV-positive mosquito pools identified in Manitoba, 171 in Ontario and twenty-two in Québec (**Table 2**).

Forty dead wild birds have tested positive for WNV, by the [Canadian Wildlife Health Cooperative \(CWHC\)](#) one in Saskatchewan, twenty-two in Ontario and seventeen in Québec (**Table 3**).

Since the start of this season, the [Canadian Food Inspection Agency \(CFIA\)](#) has identified six equine cases that tested positive for WNV, one in Alberta, two in Saskatchewan, one in Ontario, one in Quebec and one in Manitoba (**Table 3**).

**Figure 2. (A) West Nile virus human clinical cases and asymptomatic infections, (B) positive West Nile virus birds, and (C) percent positive mosquito pools by episode/report week, 2020**



<sup>1</sup> Human cases includes clinical cases and asymptomatic infection. <sup>2</sup> Episode week is based on symptom onset or best available date including: diagnosis, lab sample or date reported. <sup>3</sup> Episode week is based off date of death or best available date including: date found, submitted, or received.

**Table 2. Year-to-Date WNV positive pools and percent positive by province and nationally (January 1- October 24, 2020)**

Province <sup>1</sup>	Positive Pools	Total Pools Tested	Percent Positive
Saskatchewan	0	71	0.00%
Manitoba	5*	1264	0.40%
Ontario	171	13179	1.30%
Québec	22	1431	1.54%
<b>Total</b>	<b>198</b>	<b>15945</b>	<b>1.24%</b>

<sup>1</sup> Mosquito surveillance data is reported by the following four provinces: Saskatchewan, Manitoba Ontario and Quebec.

\*No WNV infected mosquito pools have been found as part of Manitoba Health’s West Nile virus surveillance program, which submits information to PHAC, however two (2) positive mosquito pools were detected by another surveillance program in the Prairie Mountain Health Region.

**Table 3. Number of WNV positive equine and birds by province and nationally (January 1- October 24, 2020)**

Province	Wild Birds <sup>1</sup>	Equine
British Columbia	0	0
Alberta	0	1
Saskatchewan	1	2
Manitoba	0	1
Ontario	22	1
Québec	17	1
Maritime Provinces	0	0
Territories	0	0
<b>Total</b>	<b>40</b>	<b>6</b>

<sup>1</sup> Not all provinces conduct dead wild bird surveillance as part of their respective WNV surveillance program. However, WNV positive dead wild birds may be identified through the National Wildlife Disease Surveillance Program, CWHC or by specific provinces.

## California Serogroup

As of October 24, 2020, no human exposures or cases of California serogroup virus have been reported by the [National Microbiology Laboratory](#).

## Eastern Equine Encephalitis

No human cases of EEEV have been reported to PHAC since the beginning of the 2020 transmission season.

The CFIA has reported eight horses testing positive for Eastern Equine Encephalitis virus (EEEV) in Ontario.

## Provincial/Territorial & International Surveillance Links

Data reported to PHAC is subject to change and may differ from provincial webpages due to reporting timelines. To obtain the latest arbovirus surveillance data, please refer to the following jurisdictional/regional webpages:

### *Provincial*

[Alberta - West Nile virus](#)

[Saskatchewan - West Nile virus](#)

[Manitoba - West Nile virus](#)

[Ontario - West Nile virus](#)

[Québec - Virus du Nil occidental](#)

### *International*

[U.S. Centers for Disease Control - West Nile virus](#)

[European Centre Disease Control - Mosquito-borne disease](#)

*Thank you to all our partners for participating in the National WNV/MBD surveillance program.*

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