# WEST NILE VIRUS AND OTHER MOSQUITO-BORNE DISEASE NATIONAL SURVEILLANCE REPORT

JULY 19 TO JULY 25, 2015 - REPORT WEEK 29

## CANADA

### **HUMANS**

During surveillance week 29 (July 19 to July 25, 2015), no human cases of West Nile virus were reported to the Public Health Agency of Canada.

As of surveillance week 29, there is one human case reported in Ontario.

### **MOSQUITOES**

As of surveillance week 29, there are 3 mosquito pools tested positive for West Nile virus in Canada: Ontario (1), Manitoba (1) and Saskatchewan (1).

### **DEAD BIRDS**

During surveillance week 28 (July 19 to July 25, 2015), three dead birds have been tested positive.

As of surveillance week 29, the <u>Canadian Wildlife</u>
<u>Health Cooperative</u> tested 6 dead bird positive for West
Nile virus in Canada: Ontario (5) and Quebec (1).

### DOMESTIC ANIMALS

As of surveillance week 29, the <u>Canadian Food</u> <u>Inspection Agency</u> reported no horses that have tested positive for West Nile virus in Canada.

# UNITED STATES

As of July 21, 2015, the <u>Centers for Disease Control</u> and <u>Prevention (CDC)</u> reported 23 human cases of West Nile virus:

Arizona (1), Colorado (1), Delaware (1), Kansas (2), Louisiana (2), Mississippi (1), Montana (1), Nebraska (1), New Mexico (1), Oklahoma (5), South Dakota (2), Texas (3), Washington (1) and Wyoming (1).

Of these, 9 (39.1%) were diagnosed as neuroinvasive disease cases, 14 (60.9%) as non-neuroinvasive disease cases. No fatal cases were reported. Fifteen (15) presumptive viremic blood donors have been identified.

# EUROPEAN UNION, EUROPEAN ECONOMIC AREA AND NEIGHBOURING COUNTRIES

During surveillance week 29, the <u>European Centre for Disease Prevention and Control (ECDC)</u> no human cases of West Nile fever were reported.

Since surveillance week 26 one human case of West Nile fever in Bulgaria was reported. As of July 23, 2015 two human cases in neighbouring countries were reported.

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West Nile Virus clinical cases and asymptomatic infections, by Province/Territory and by report week, 2015 season FIGURE 1:

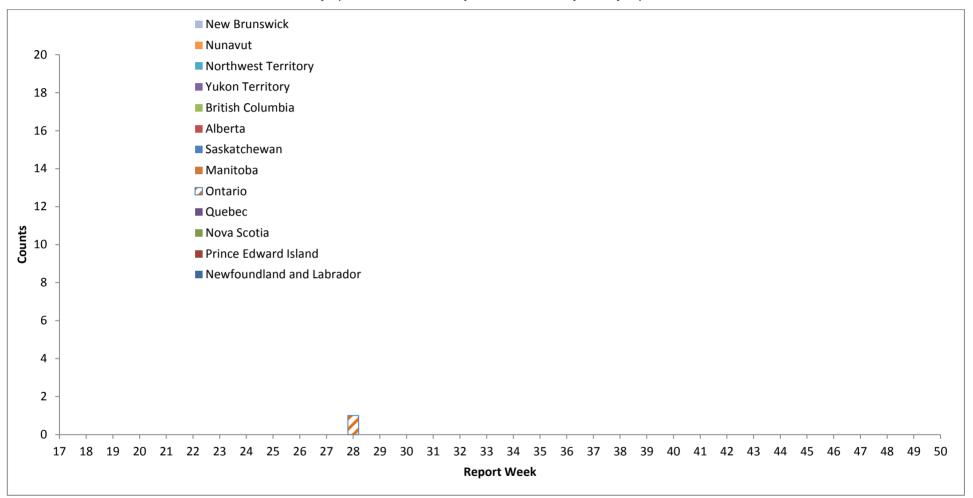


TABLE 1: West Nile Virus clinical cases and asymptomatic infections, by Province/Territory and by report week, 2015 season

														Re	eport	week	of 20	15													
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Newfoundland and Labrador	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Prince Edward Island	0	0	0	0	0	0	0	0	0	0	0	0	0																		
New Brunswick	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Nova Scotia	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Quebec	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Ontario	0	0	0	0	0	0	0	0	0	0	0	1 <sup>1</sup>	0																		
Manitoba	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Saskatchewan	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Alberta	0	0	0	0	0	0	0	0	0	0	0	0	0																		
British Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Yukon Territory	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Northwest Territory	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Nunavut	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Total	0	0	0	0	0	0	0	0	0	0	0	1 <sup>1</sup>	0																		

<sup>&</sup>lt;sup>1</sup> Unclassified/unspecified case.

West Nile Virus human clinical cases and asymptomatic infections by Province/Territory for the current report week and year to date, 2015 season TABLE 2:

			Week 29: July 19	to July 25, 2015		
	West Nile virus neurological syndrome	West Nile virus non- neurological syndrome	Unclassified/unspecified	Total clinical cases <sup>1</sup>	Number of travel-related cases <sup>2</sup>	West Nile virus asymptomatic infection <sup>3</sup>
Newfoundland and Labrador	0	0	0	0	0	0
Prince Edward Island	0	0	0	0	0	0
Nova Scotia	0	0	0	0	0	0
New Brunswick	0	0	0	0	0	0
Quebec	0	0	0	0	0	0
Ontario	0	0	1	1	0	0
Manitoba	0	0	0	0	0	0
Saskatchewan	0	0	0	0	0	0
Alberta	0	0	0	0	0	0
British Columbia	0	0	0	0	0	0
Yukon Territory	0	0	0	0	0	0
Northwest Territory	0	0	0	0	0	0
Nunavut	0	0	0	0	0	0
Total	0	0	1	1	0	0

			Year to date: Januar	ry 1 to July 25, 2015		
	West Nile virus neurological syndrome	West Nile virus non- neurological syndrome	Unclassified/unspecified	Total clinical cases <sup>1</sup>	Number of travel-related cases <sup>2</sup>	West Nile virus asymptomatic infection <sup>3</sup>
Newfoundland and Labrador	0	0	0	0	0	0
Prince Edward Island	0	0	0	0	0	0
Nova Scotia	0	0	0	0	0	0
New Brunswick	0	0	0	0	0	0
Quebec	0	0	0	0	0	0
Ontario	0	0	1	1	0	0
Manitoba	0	0	0	0	0	0
Saskatchewan	0	0	0	0	0	0
Alberta	0	0	0	0	0	0
British Columbia	0	0	0	0	0	0
Yukon Territory	0	0	0	0	0	0
Northwest Territory	0	0	0	0	0	0
Nunavut	0	0	0	0	0	0
Total	0	0	1	1	0	0

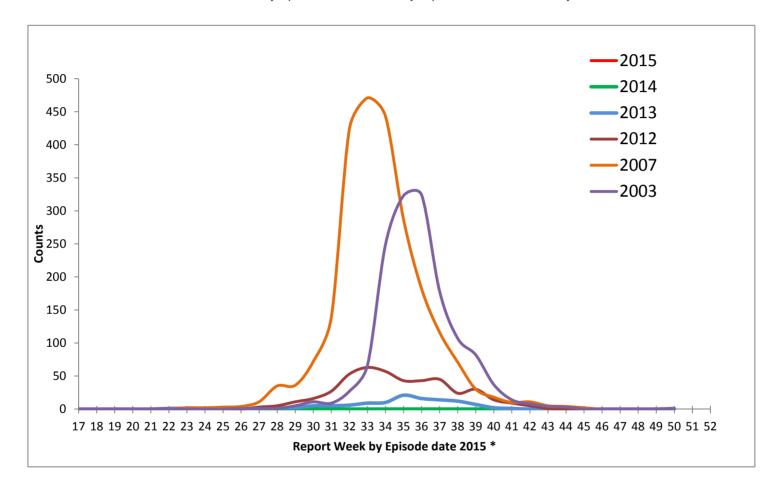
Total clinical cases is the sum of both probable and confirmed: West Nile virus neurological and non-neurological syndromes, along with any unclassified or unspecified cases.

Likely related to travel outside the Province/Territory. These cases are included in either the total clinical cases or West Nile virus asymptomatic infections.

Satisfies West Nile virus diagnostic test criteria in the absence of clinical criteria. This category could include asymptomatic blood donors whose blood is screened using a nucleic acid amplification test, by blood operators (i.e. Canadian Blood Services or Hema-Quebec) and is subsequently brought to the attention of public health officials. Blood operators in Canada perform a supplementary West Nile virus specific nucleic acid amplification test following any positive donor screen test result.

FIGURE 2:

West Nile Virus clinic al cases and asymptomatic infections by report week for selected years



West Nile virus clinical cases and asymptomatic infections are grouped by report week, based on episode date. Episode date could include one of the following: onset date, diagnosis date, lab sample date or reporting date.

West Nile Virus clinical cases and asymptomatic infections by report week for selected years TABLE 3:

															Rep	oort we	eek														
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
2015	0	0	0	0	0	0	0	0	0	0	0	1	0																		
2014	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4*	3	5	6	1	1	0	0	1	0	0	0	0	0	0
2013	1	0	0	0	0	1	1	0	0	0	1	2	1	5	5	8	17	11	13	13	11	9	1	6	1	0	4	1	0	1	0
2012	1	0	0	0	0	0	0	0	0	0	3	5	11	16	27	53	63	57	43	43	45	24	30	14	9	5	1	0	0	0	0
2007	0	0	0	0	0	0	2	2	3	4	11	35	36	72	139	424	471	443	287	182	116	71	30	18	10	11	5	4	2	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	11	28	28	38	45	27	15	7	12	3	3	1	0	0	0
2003	0	0	0	0	0	0	0	0	0	1	1	1	5	11	9	27	66	249	323	324	178	107	82	37	14	8	4	3	0	0	0

One of these cases was likely exposed prior to the 2014 West Nile virus season.

TABLE 4.1: Number of West Nile Virus mosquito pools tested weekly by Province/Territory - 2015 season<sup>1</sup>

														Rep	ort we	ek of	2015														
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Newfoundland and Labrador	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Prince Edward Island	0	0	0	0	0	0	0	0	0	0	0	0	0																		
New Brunswick	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Nova Scotia	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Quebec	0	0	0	0	0	0	0	0	0	120	115	100	154																		
Ontario	0	0	0	0	0	0	0	1 <sup>2</sup>	0	0	0	1 <sup>2</sup>	3 <sup>2</sup>																		
Manitoba	0	0	0	0	12	4	87	82	44	75	73	132	139																		
Saskatchewan	0	0	0	0	2	0	3	3	10	13	15	40	47																		
Alberta	0	0	0	0	0	0	0	0	0	0	0	0	0																		
British Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Yukon Territory	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Northwest Territory	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Nunavut	0	0	0	0	0	0	0	0	0	0	0	0	0																		
Total	0	0	0	0	14	4	90	86	54	208	203	273	343																		

<sup>&</sup>lt;sup>1</sup> Detailed West Nile virus mosquito surveillance data can be accessed through <u>Provincial/Territorial websites</u>.

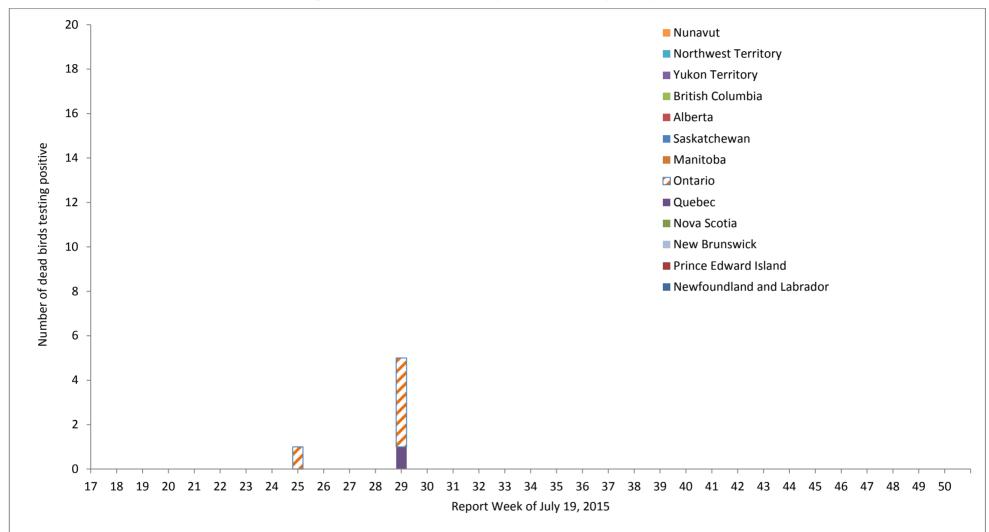
<sup>&</sup>lt;sup>2</sup> Exact number of tested mosquito pools to be determined.

TABLE 4.2: Number of mosquito pools tested and number of positive mosquito pools by Province/Territory, 2015 season

		Year to date: January 1 to July 25, 2015	
	Number of positive mosquito pools	Number of mosquito pools tested	Percentage of positive mosquito pools (%)
Quebec	0	501	0
Ontario	5	N/A <sup>1</sup>	N/A <sup>1</sup>
Manitoba	1	648	0.15
Saskatchewan	1	134	1.01
Total	7	1283	0.55

The number of tested mosquito pools to be determined.

FIGURE 3: Reported number of dead birds testing positive for West Nile Virus by Province/Territory and by report week, 2015 season\*



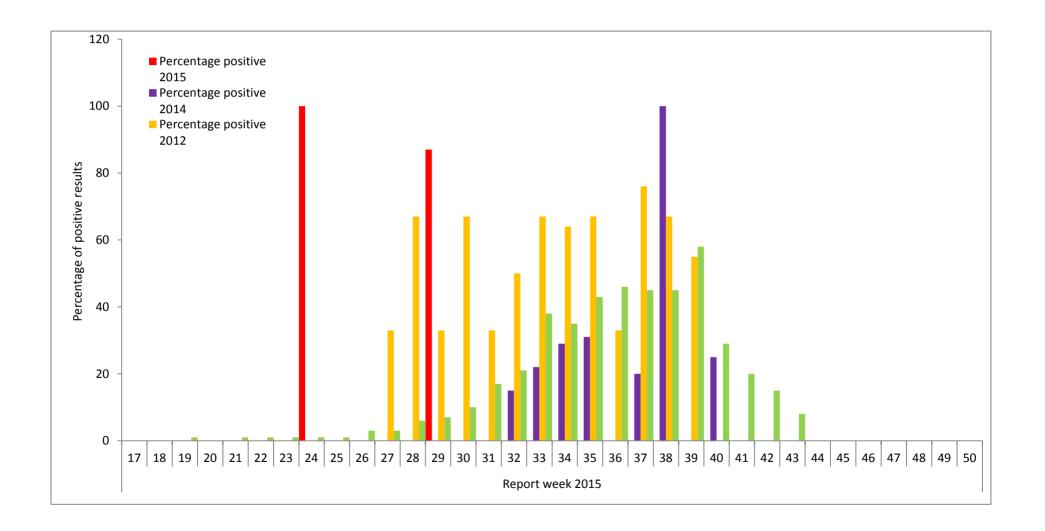
<sup>\*</sup> Data from the Canadian Wildlife Health Cooperative.

TABLE 5: Reported number of dead birds testing positive for West Nile Virus by Province/Territory and by report week, 2015 season\*

															Re	port v	veek o	of 201	5													
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	Total
Newfoundland and Labrador	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Prince Edward Island	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
New Brunswick	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Nova Scotia	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Quebec	0	0	0	0	0	0	0	0	0	0	0	0	1																			1
Ontario	0	0	0	0	0	0	0	1	0	0	0	0	4																			5
Manitoba	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Saskatchewan	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Alberta	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
British Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Yukon Territory	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Northwest Territory	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Nunavut	0	0	0	0	0	0	0	0	0	0	0	0	0																			0
Total	0	0	0	0	0	0	0	1	0	0	0	0	5																			6

<sup>\*</sup> Data from the Canadian Wildlife Health Cooperative.

FIGURE 4: Percentage of dead birds testing positive for West Nile Virus in the 2015 season by report week, as compared to the 2003, 2012 and 2014 seasons



**TABLE 6:** Percentage of dead birds testing positive for West Nile Virus in the 2015 season by report week, as compared to the 2003, 2012 and 2014 seasons

																Rep	ort w	eek														
		17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Numbers positive	2015	0	0	0	0	0	0	0	0	1	0	0	0	6																		
Numbers tested	2015	0	0	0	0	0	0	0	0	1	0	1	0	7																		
Percentage positive	2015	0	0	0	0	0	0	0	0	100	0	0	0	86																		
Numbers positive	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	4	0	2	3	0	1	0	0	0	0	0	0	0
Numbers tested	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	41*	10	13	9	7	13	6	10	3	1	4	2	1	0	0	0	0	0
Percentage positive	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	22	29	31	0	20	100	0	25	0	0	0	0	0	0	0
Percentage positive	2012	0	0	0	0	0	0	0	0	0	0	33	67	33	67	33	50	67	64	67	33	67	67	55	0	0	0	0	0	0	0	0
Percentage positive	2003	0	0	1	0	1	1	1	1	1	3	3	6	7	10	17	21	38	35	43	46	45	45	58	29	20	15	8	0	0	0	0

<sup>\*</sup> Data became available during Week 30; this is a cumulative number of dead birds tested from Week 1 to Week 30.