

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

JULY 12 TO JULY 18, 2015 – REPORT WEEK 28

CANADA

HUMANS

During surveillance week 28 (July 12 to July 18, 2015), Ontario reported one human case of West Nile virus in Waterloo Region. The case is unclassified. Up to week 28, there has been one human case reported to the Public Health Agency of Canada.

MOSQUITOES

As of surveillance week 28, there are four mosquito pools tested positive for West Nile virus in Canada: Ontario (2), Manitoba (1) and Saskatchewan (1).

DEAD BIRDS

As of surveillance week 28, the [Canadian Wildlife Health Cooperative](#) tested 1 dead bird positive for West Nile virus in Canada: Ontario (1).

DOMESTIC ANIMALS

As of surveillance week 28, the [Canadian Food Inspection Agency](#) reported no horses that have tested positive for West Nile virus in Canada.

UNITED STATES

As of July 14, 2015, the [Centers for Disease Control and Prevention \(CDC\)](#) reported 17 human cases of West Nile virus:

Arizona (1), Colorado (1), Delaware (1), Kansas (2), Montana (1), Nebraska (1), New Mexico (1), Oklahoma

(3), South Dakota (1), Texas (3), Washington (1) and Wyoming (1).

Of these, 6 (35,3%) were diagnosed as neuroinvasive disease cases, 11 (64,7%) as non-neuroinvasive disease cases. No fatal cases were reported. Seven presumptive viremic blood donors have been identified.

EUROPEAN UNION, EUROPEAN ECONOMIC AREA AND NEIGHBOURING COUNTRIES

During surveillance week 28, the [European Centre for Disease Prevention and Control \(ECDC\)](#) no human cases of West Nile fever were reported.

Since surveillance week 26 one human case of West Nile fever in Bulgaria was reported. In the neighbouring countries, no cases were reported.

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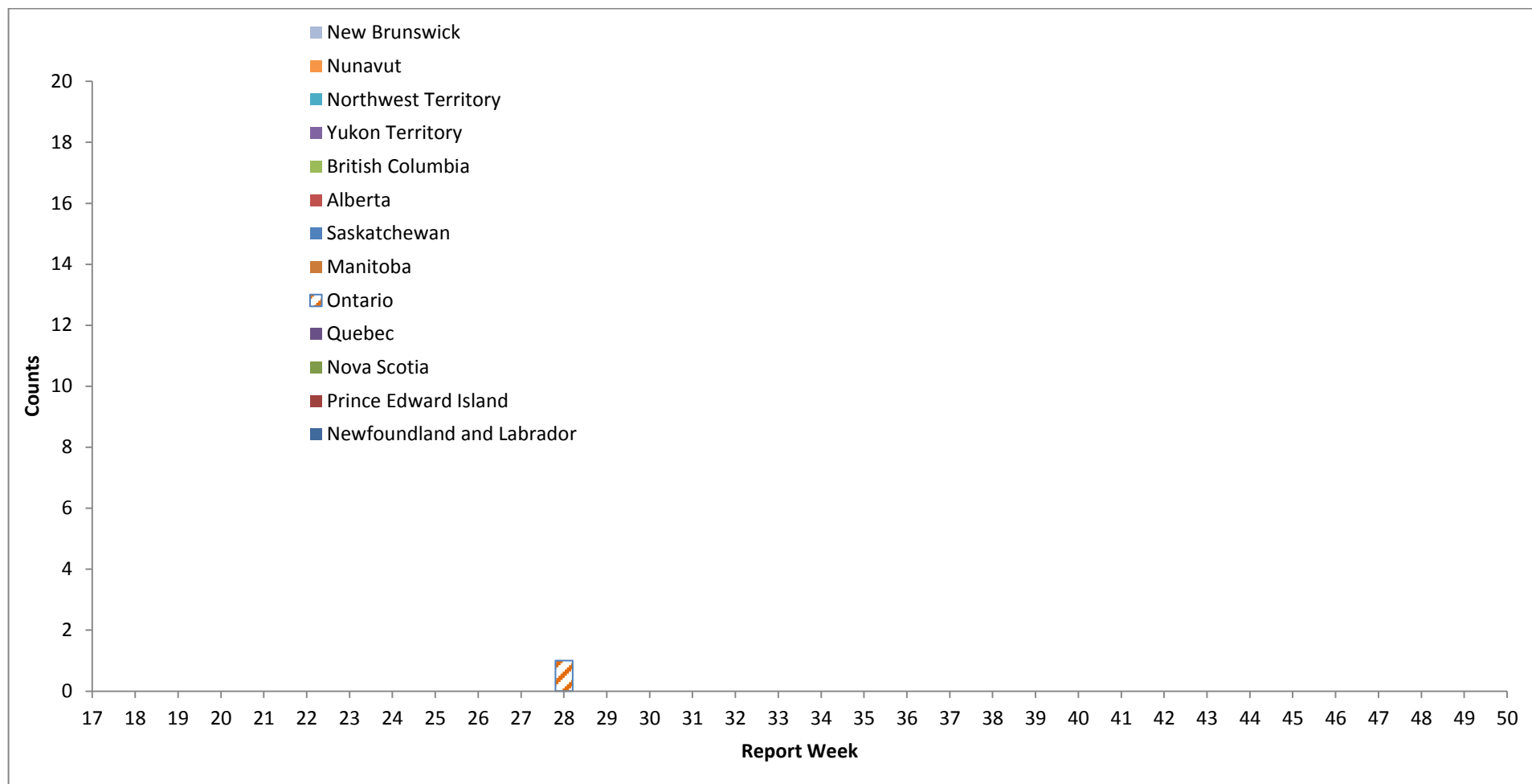


TABLE 1: West Nile Virus clinical cases and asymptomatic infections, by Province/Territory and by report week, 2015 season

	Report week 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																																			
Prince Edward Island	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																																			
Nova Scotia	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																																			
Ontario	0	0	0	0	0	0	0	0	0	0	0	1 ¹																																			
Manitoba	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																																			
Alberta	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																																			
Yukon Territory	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																																			
Nunavut	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 ¹																																			

¹ Unclassified/unspecified case.

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

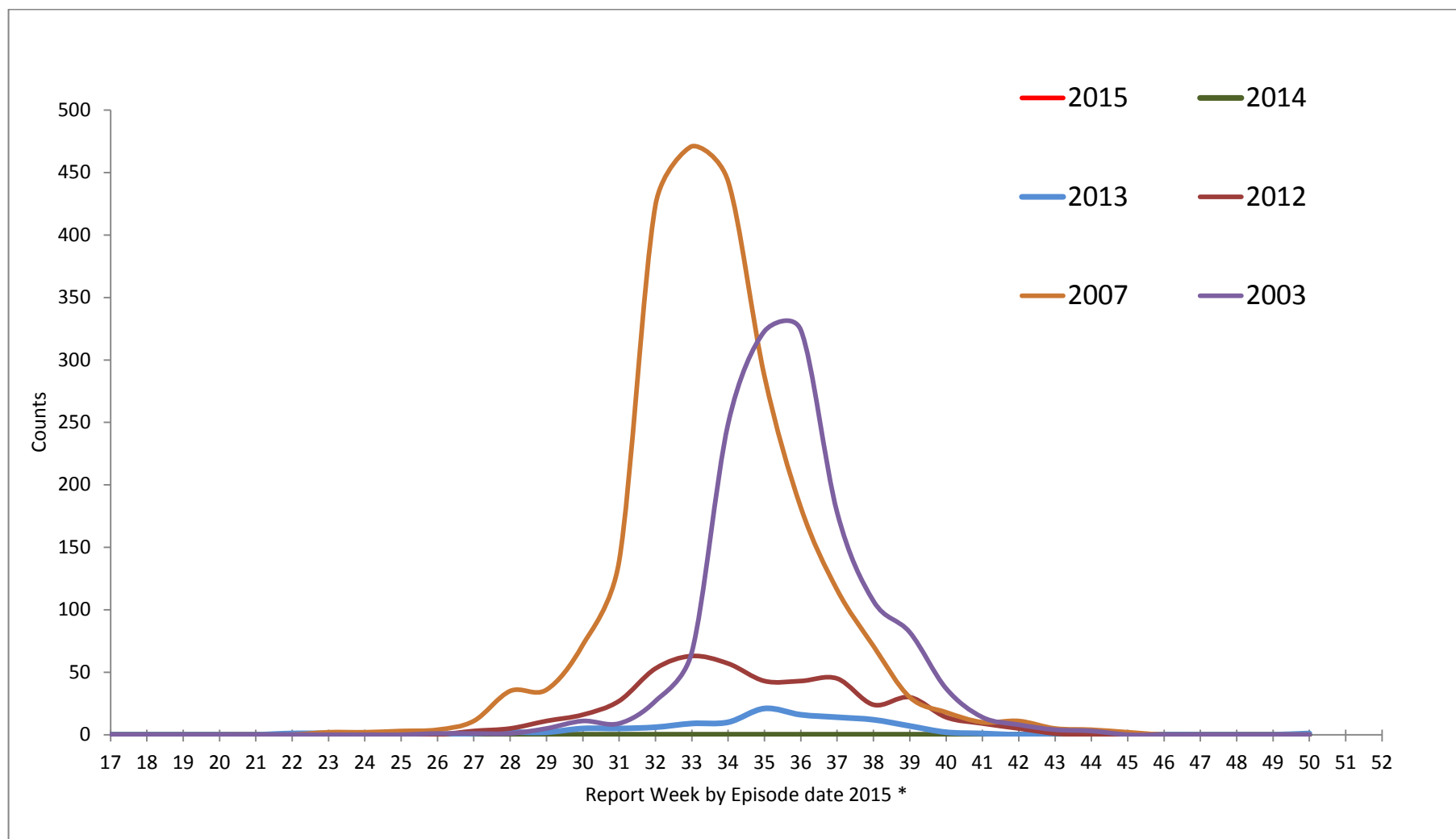
	Week 28: July 12 to July 18, 2015					
	West Nile virus neurological syndrome	West Nile virus non-neurological syndrome	Unclassified/unspecified	Total clinical cases ¹	Number of travel-related cases ²	West Nile virus asymptomatic infection ³
Newfoundland and Labrador	0	0	0	0	0	0
Prince Edward Island	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: January 1 to July 18, 2015					
	West Nile virus neurological syndrome	West Nile virus non-neurological syndrome	Unclassified/unspecified	Total clinical cases ¹	Number of travel-related cases ²	West Nile virus asymptomatic infection ³
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

¹ Total clinical cases are the sum of both probable and confirmed: West Nile virus neurological and non-neurological syndromes, along with any unclassified or unspecified cases.

² Likely related to travel outside the Province/Territory. These cases are included in either the total clinical cases or West Nile virus asymptomatic infections.

³ 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 clinical 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.

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

	Report week																																														
	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																																			
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	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	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	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	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	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	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 season¹

	Report week 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																					
Prince Edward Island	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																					
Nova Scotia	0	0	0	0	0	0	0	0	0	0	0	0																					
Quebec	0	0	0	0	0	0	0	0	0	120	115	0																					
Ontario	0	0	0	0	0	0	0	1 ²	0	0	0	1 ²																					
Manitoba	0	0	0	0	12	4	87	82	44	75	73	132																					
Saskatchewan	0	0	0	0	2	0	3	3	10	13	15	38																					
Alberta	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																					
Yukon Territory	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																					
Nunavut	0	0	0	0	0	0	0	0	0	0	0	0																					
Total	0	0	0	0	14	4	90	86	54	208	203	171																					

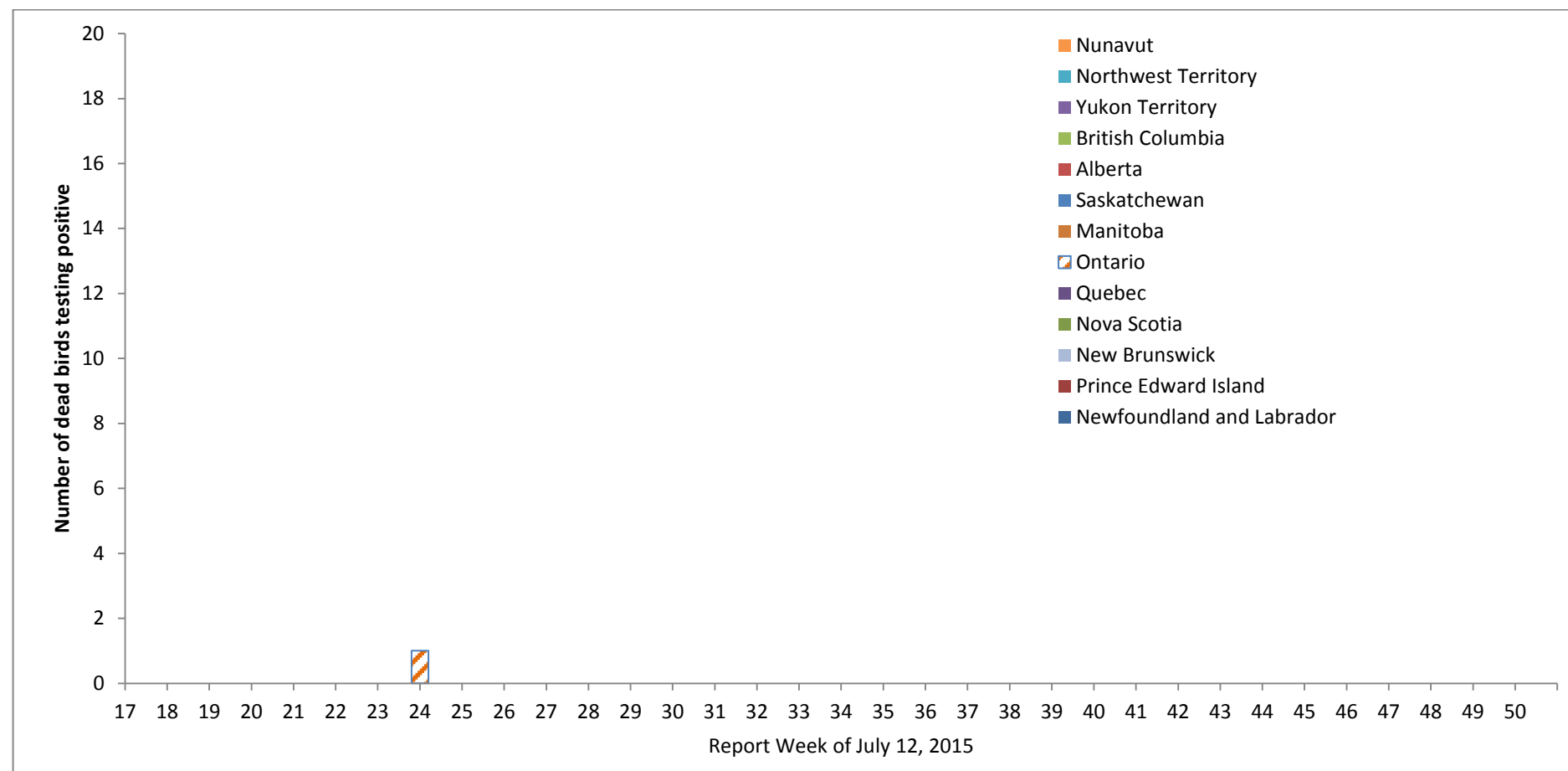
¹ Detailed West Nile virus mosquito surveillance data can be accessed through [Provincial/Territorial websites](#).² Exact number of tested mosquito pools to be determined.

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 18, 2015		
	Number of positive mosquito pools	Number of mosquito pools tested	Percentage of positive mosquito pools (%)
Quebec	0	235	0
Ontario	2	N/A ¹	N/A ¹
Manitoba	1	509	0.20
Saskatchewan	1	84	1.19
Total	4	828	0.48

¹ 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*



Number of Provinces/Territories are no longer conducting dead bird surveillance as part of their West Nile Virus (WNV) program.

As part of their national network to monitor the health of wildlife in Canada, the Canadian Wildlife Health Cooperative (CWHC) receives dead bird submissions for analysis. As part of this work, and if appropriate, the CWHC will test some of these dead birds for infection with WNV. Results from this program are recorded in the table above, and are also available on the CWHC web site at: http://www.cwhc-rcsf.ca/data_products_wnv.php

* Data from the [Canadian Wildlife Health Cooperative](#). You may also access historical dead bird surveillance test results via this link.

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

	Report week 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	Total
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	1	0	0	0	0																				1
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	1	0	0	0	0																				1

* Data from the [Canadian Wildlife Health Cooperative](#). You may also access historical dead bird surveillance test results via this link.

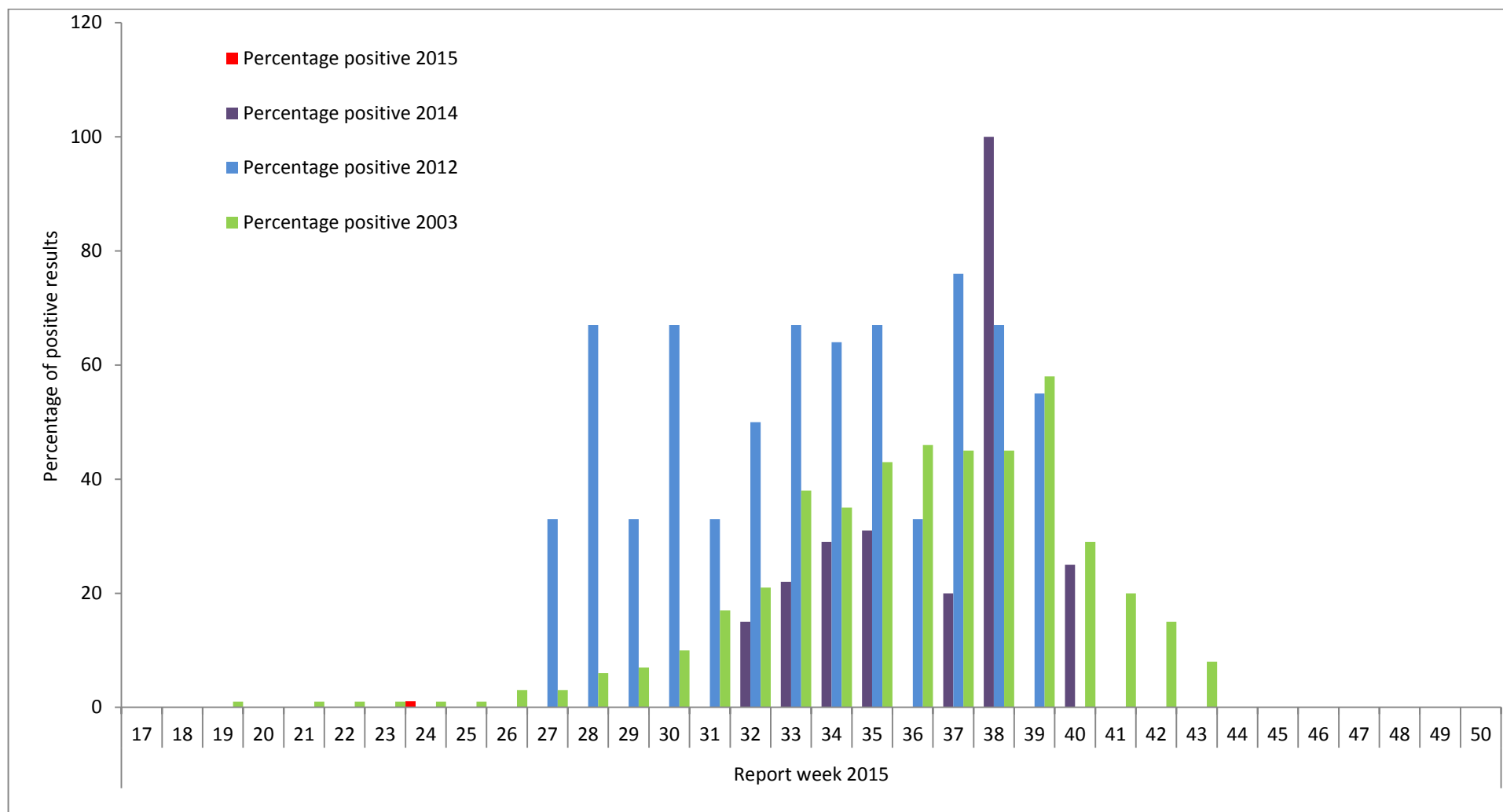
FIGURE 4: Percentage of dead birds testing positive for West Nile Virus in the 2015 season by report week, as compared to the 2003, 2012 and 2014 seasons

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

		Report week																																
		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																					
Numbers tested	2015	0	0	0	0	0	0	0	0	1	0	1	0																					
Percentage positive	2015	0	0	0	0	0	0	0	0	1	0	0	0																					
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	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	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	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	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		

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