



West Nile virus and Other Mosquito-borne Diseases National Surveillance Report

English Edition
Final Report for 2013

Canada

Humans:

During the 2013 season, six provinces reported West Nile virus (WNV) infections in people, birds, mosquitoes or horses. A total of 115 human clinical cases and three (3) asymptomatic infections were reported to the Public Health Agency of Canada (the Agency). Of the 115 clinical cases, 46 (40%) were diagnosed as WNV neurological syndrome; 52 (45%) as WNV non-neurological syndrome; and 17 (15%) as unclassified. Five (5) fatalities (4.3%) associated with West Nile virus were reported.

Mosquitoes:

A total of 13,459 mosquito pools were tested for WNV in Canada: Québec (2,530); Ontario (8,642); Manitoba (1,088); Saskatchewan (909); and British Columbia (290). Of these, 318 (2.4%) positive mosquito pools were reported: Québec (60); Ontario (198); Saskatchewan (40); Manitoba (19); and British Columbia (1).

Dead Birds:

A total of 201 dead birds were tested for WNV by the Canadian Cooperative Wildlife Health Centre (CCWHC) and provinces. Of these, 89 positives were reported: Québec (38); Ontario (36); Manitoba (2); Saskatchewan (11); Alberta (1); and British Columbia (1). In addition, two birds were reported from an Ontario zoo and one domestic Ross goose was reported from MAPAQ (Ministère de l'Agriculture, des pêcheries et de l'Alimentation du Québec).

Domestic Animals:

West Nile virus:

A total of fifty-seven animals positive for WNV were reported by the Canadian Food Inspection Agency and provinces: Québec (8); Ontario (15); Manitoba (3); Saskatchewan (17); Alberta (13); and British Columbia (1).

Eastern Equine Encephalitis:

A total of two horses were tested positive for Eastern Equine Encephalitis in 2013: one in Québec and one in Ontario.

National WNV surveillance data and maps can be found on the PHAC website at: <http://www.phac-aspc.gc.ca/wnv-vwn/index.html>

United States

As of January 7, 2014, 2,374 human cases of WNV had been reported for 2013 by the Centers for Disease Control and Prevention in the United States. Of these, 1,205 (51%) were diagnosed as neuroinvasive disease, and 1,169 (49%) as non-neuroinvasive. One hundred and fourteen fatal cases (4.8%) were reported. Four hundred and twenty cases of presumptive viremic blood donors were reported.

http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount12_detailed.html

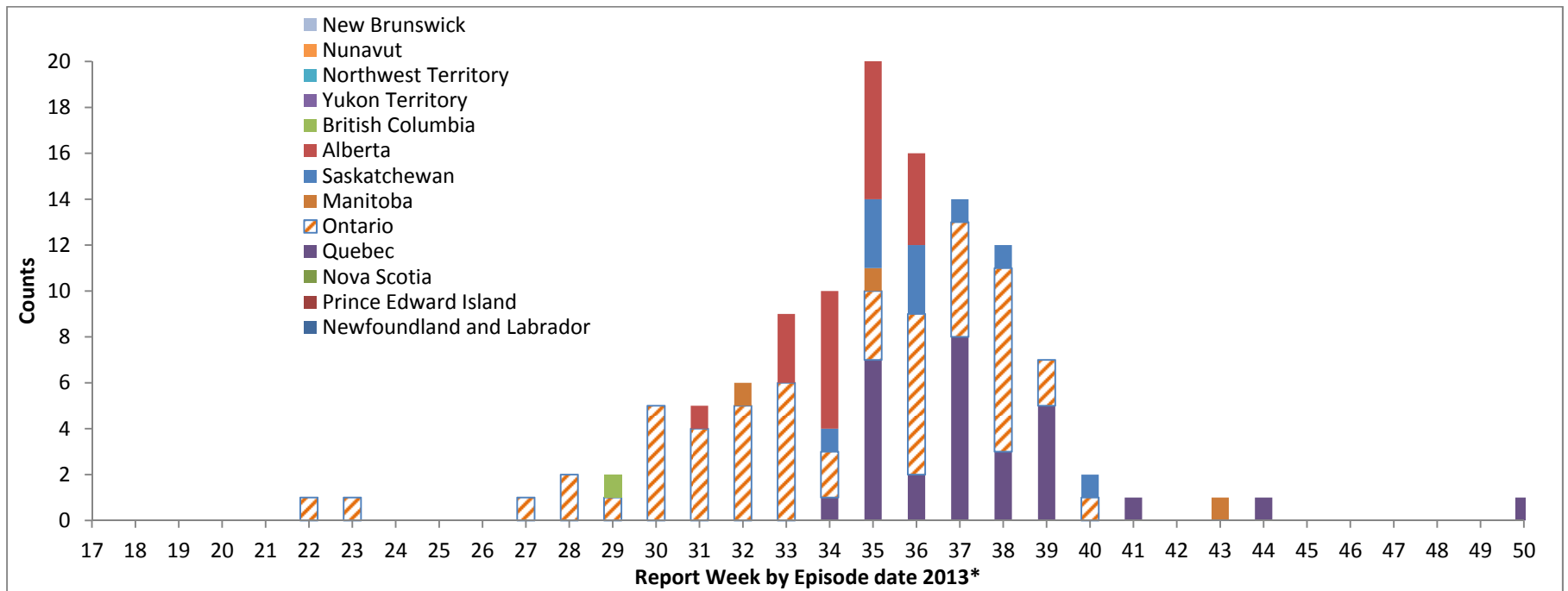
Europe and Neighbouring countries

A total of 783 human cases of WNV have been reported by the European Centre for Disease Prevention and Control. Of these, two hundred and twenty-six human cases have been reported in the European Union and the European Economic Area: Croatia (16); Greece (86); Hungary (31); Italy (69); and Romania (24). Five hundred and fifty-seven human cases have been reported in neighbouring countries: Bosnia and Herzegovina (3); the Former Yugoslav Republic of Macedonia one (1); Montenegro (4); Serbia (302); the Russian Federation (177); Ukraine (1); Israel (63); and Tunisia (6).

http://ecdc.europa.eu/en/healthtopics/west_nile_fever/West-Nile-fever-maps/Pages/index.aspx

Figure 1

WNV clinical cases and asymptomatic infections, by Province / Territory and by report week, 2013 season



* Episode date could include one of the following: onset date, diagnosis date, lab sample date, or reporting date.

Link Figure 1 to the following table 1 below

Table 1

	Report Weeks of 2013																																				
	1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4	2 5	2 6	2 7	2 8	2 9	3 0	3 1	3 2	3 3	3 4	3 5	3 6	3 7	3 8	3 9	4 0	4 1	4 2	4 3	4 4	4 5	4 6	4 7	4 8	4 9	5 0			
Newfoundland and Labrador	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	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	0	0	0	0	1	7	2	8	3	5	0	1	0	0	1	0	0	0	0	0	0	0	0	1	
Ontario	0	0	0	0	0	1	1	0	0	0	1	2	1	5	4	5	6	2	3	7	5	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
Manitoba	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
Saskatchewan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	3	1	1	0	1	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	1	0	3	6	7	4	0	0	0	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	1	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	0	1	2	2	5	5	6	9	1	2	1	6	1	4	2	7	2	1	0	1	1	0	0	0	0	0	0	1

Table 2

West Nile virus human clinical cases and asymptomatic infections by Province / Territory for the current Report Week and year to date, 2013 Season

	Year to date: From January 1 to December 31, 2013					
	Neurological Syndrome	Non-Neurological Syndrome	Unclassified/Unspecified	Total	Travel related	Asymptomatic
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	22	6	0	28	2	1
Ontario	12	24	17	53	1	1
Manitoba	1	2	0	3	0	0
Saskatchewan	7	2	0	9	0	1
Alberta	4	17	0	21	0	0
British Columbia	0	1	0	1	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	46	52	17	115	3	3

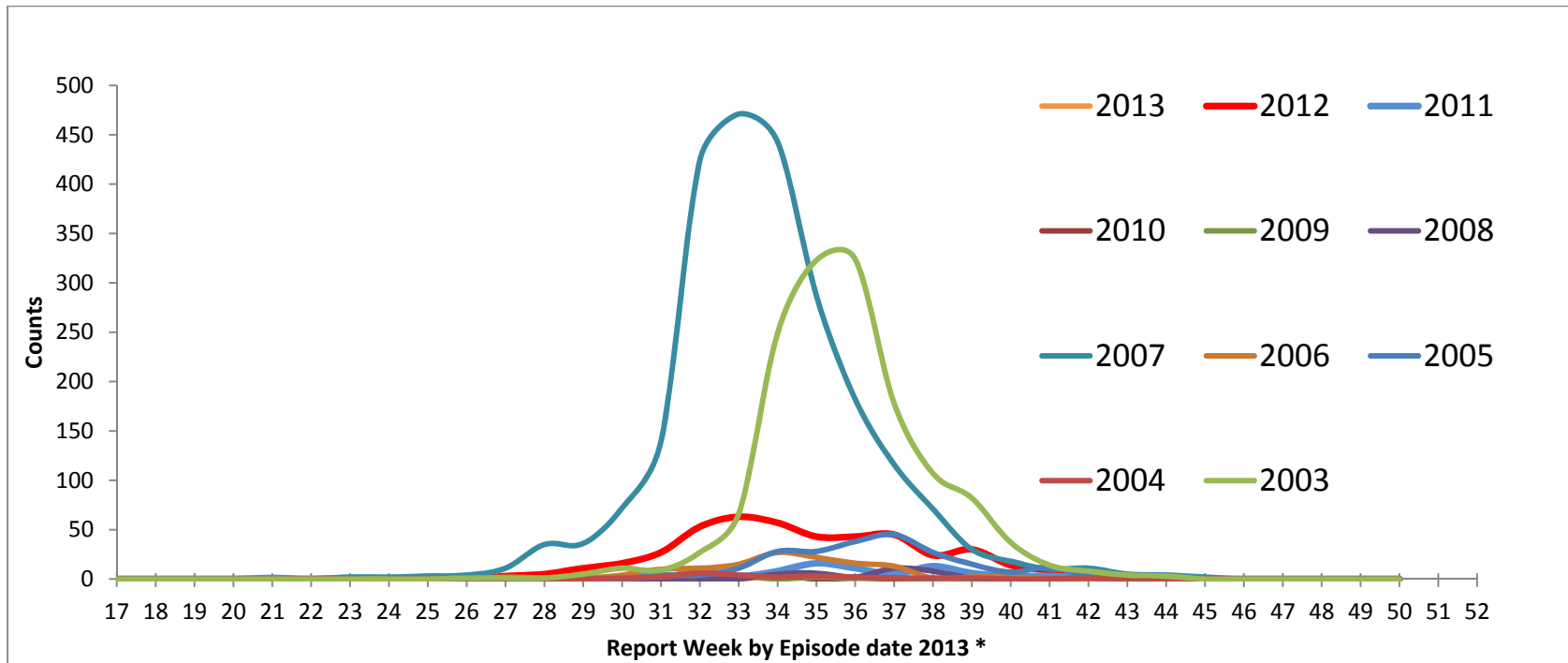
¹ Total clinical cases is the sum of both probable and confirmed: West Nile virus neurological and non-neurological syndromes, along with any unclassified or unspecified cases.

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 (NAT), by blood operators (i.e. Canadian Blood Services or Hema-Québec) and is subsequently brought to the attention of public health officials. Blood operators in Canada perform a supplementary West Nile virus specific NAT following any positive donor screen test result.

Figure 2

WNV clinical cases and asymptomatic infections by report week, 2013 season compared to previous seasons



* Episode date could include one of the following: onset date, diagnosis date, lab sample date, or reporting date

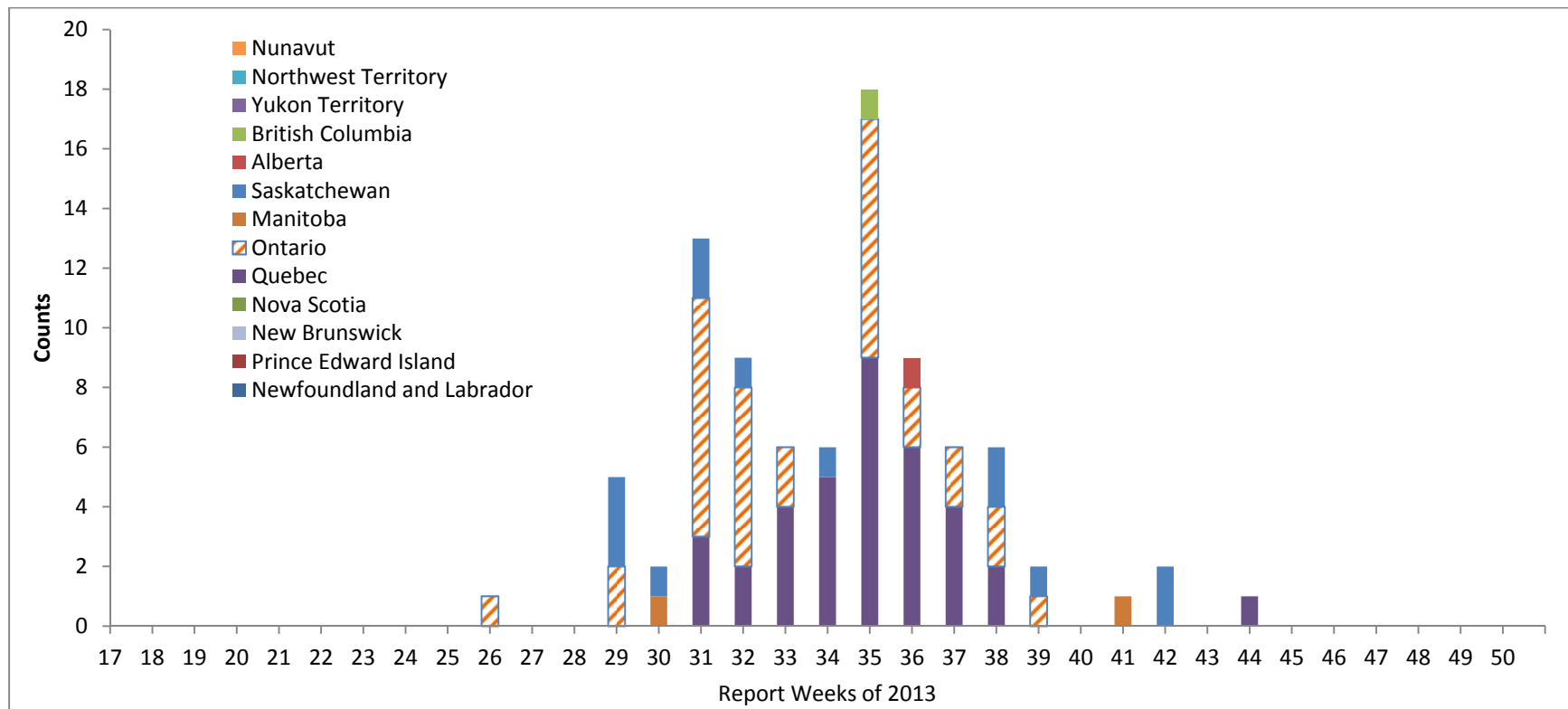
Link Figure 2 to the following table 3 below

Table 3

	Report Weeks of 2013																																		
	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	48	49	50	
2013	0	0	0	0	0	1	1	0	0	0	1	2	2	5	5	6	9	10	21	16	14	12	7	2	1	0	1	1	0	0	0	0	0	0	1
2012	0	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	0	0	
2011	0	0	0	0	1	0	1	0	2	0	0	0	0	0	1	8	3	8	16	11	5	13	6	3	3	2	0	0	0	0	0	0	0	0	
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	2	1	1	0	0	2	0	0	1	0	0	0	0	0	0	0	
2008	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	5	6	2	11	8	1	1	0	1	0	0	0	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	51	44	20	0	0	0	0	0	
2006	0	0	0	0	0	0	0	0	0	0	2	1	1	4	10	11	15	27	22	16	13	1	2	2	0	0	0	0	0	0	0	0	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	0	0	
2004	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	6	4	2	3	2	1	1	1	0	0	1	0	0	0	0	0	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	0	0	

Figure 3

Reported number of dead birds testing positive for WNV by Province / Territory and by report week, 2013 season*

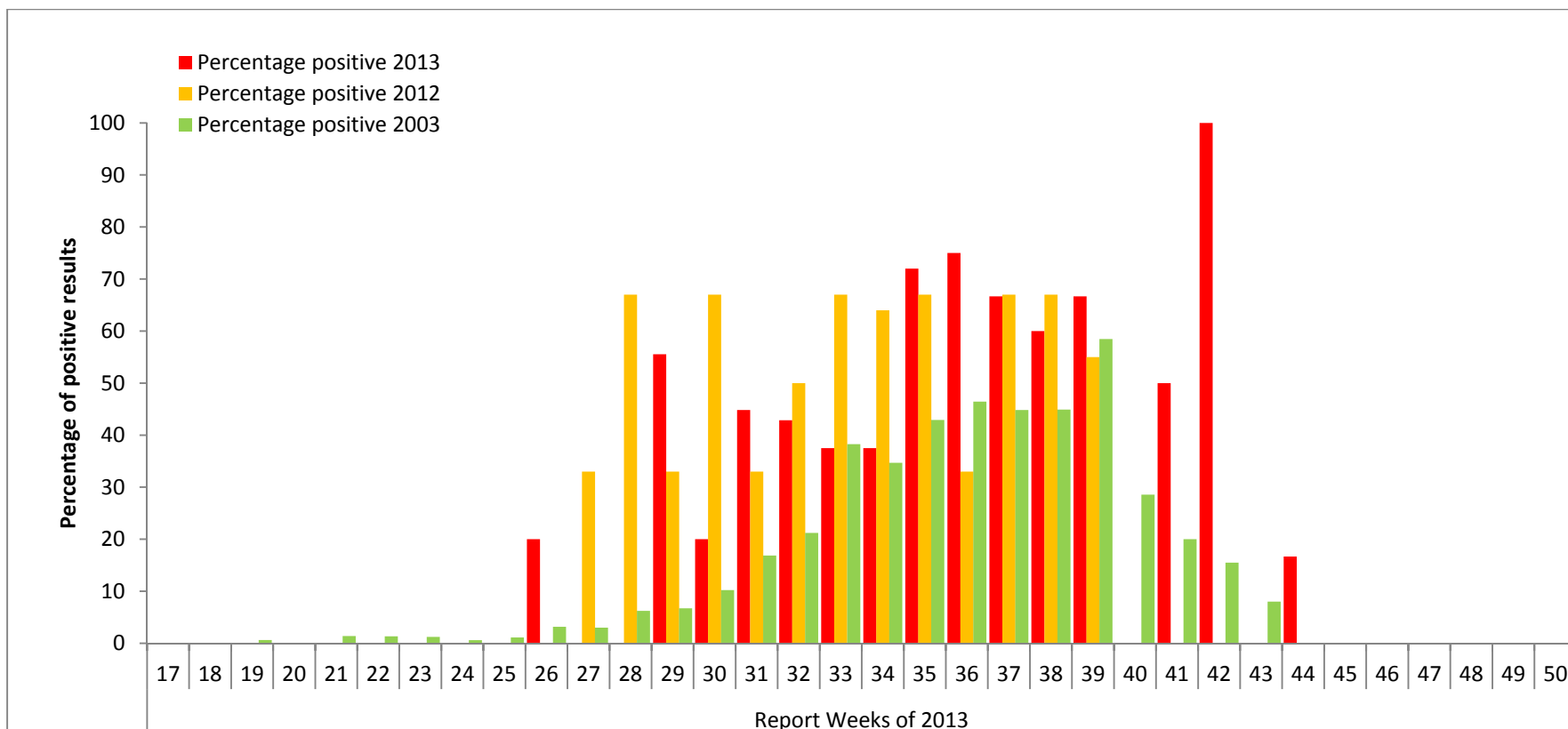


*data is from the Canadian Cooperative Wildlife Health Centre

* data is from the Canadian Cooperative Wildlife Health Centre

Figure 4

Percentage of dead birds testing positive for WNV in the 2013 season by report week, as compared to the 2003 and 2012 seasons



Link figure 4 to the following table 7 below

Table 7

		Report Weeks of 2013																																		
		1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4	2 5	2 6	2 7	2 8	2 9	3 0	3 1	3 2	3 3	3 4	3 5	3 6	3 7	3 8	3 9	4 0	4 1	42	4 3	4 4	4 5	4 6	4 7	4 8	4 9	5 0	
Numbers positive	2013	0	0	0	0	0	0	0	0	0	1	0	0	5	2	1 3	9	6	6	1 8	9	6	6	2	0	1	2	0	1	0	0	0	0	0	0	0
Numbers tested	2013	0	0	0	1	0	0	0	3	2	5	8	5	9	1 0	2 9	2 1	1 6	1 6	2 5	1 2	9	1 0	3	3	2	2	0	6	2	0	1	0	0	0	
Percentage positive	2013	0	0	0	0	0	0	0	0	0	2 0	0	0	5 6	2 0	4 5	4 3	3 8	3 8	7 2	7 5	6 7	6 0	6 7	0	5 0	10 0	0	1 7	0	0	0	0	0	0	
Percentage positive	2012	0	0	0	0	0	0	0	0	0	3 3	6 7	3 3	6 7	3 3	5 0	6 7	6 4	6 7	3 3	6 7	6 7	5 5	0	0	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	1 0	1 7	2 1	3 8	3 5	4 3	4 6	4 5	4 5	5 8	2 9	2 0	15	8	0	0	0	0	0	0		