



# West Nile virus

## National Surveillance Report

September 16 to September 22, 2012  
(Report Week 38)

### Canada

#### **Humans:**

During surveillance week 38, ending on September 22, 2012, twenty (20) clinical cases [Ontario (1), Quebec (15), Manitoba (1), and Saskatchewan (3)] of West Nile virus have been reported to Public Health Agency of Canada (PHAC), for a year to date total of 338 clinical cases. Of these cases, 88 (26%) were classified as West Nile virus Neurological Syndrome, 187 (56%) as West Nile virus Non-Neurological Syndrome and 63 (18%) as unclassified. To date, 15 asymptomatic infections have been reported [Quebec (5), and Ontario (10)] to PHAC.

#### **Mosquitoes:**

To date, a total of 603 positive mosquito pools have been reported in Canada: 462 in Ontario [Central East (233), Central West (97), Eastern (61), North East (2), South West (62), First Nations Community (7)]; 116 in Manitoba [Interlake-Eastern (13), Southern (48), Western (35), Winnipeg (20)]; six (6) in Saskatchewan [Sun Country (3), and Saskatoon (1), Five Hills (1), Cypress (1)] and 19 in Quebec [Laval (3), Bois-des-Filion (3), Gatineau (1), Sainte-Anne-des-Plaines (3), Terrebonne (5), Boisbriand (1), Rosemere (1), and Trois-Rivieres (2)].

Note: Quebec public health authorities have not done mosquito surveillance since 2006, however, entomological surveillance is conducted in some municipalities of the province.

#### **Dead Birds:**

A total of 82 dead birds have been tested for West Nile virus by the Canadian Cooperative Wildlife Health Centre (CCWHC) in Canada. Of them, 46 were positive for West Nile virus, [22/33 in Ontario, 23/37 in Quebec and 1/8 in Saskatchewan].

#### **Domestic Animals:**

As of week 38, the Canadian Food Inspection Agency (CFIA) has reported 37 horses testing positive for West Nile virus: [Alberta (5); Manitoba (6); Ontario (6); Quebec (13); and Saskatchewan (7)].

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 September 25, 2012 there have been 3,545 human cases of West Nile virus infection reported to the Centers for Disease Control and Prevention in the United States, of which 1,816 (51%) were neuroinvasive and 1,729 (49%) were non-neuroinvasive. 147 deaths have been reported. In addition, 464 West Nile virus presumptive viremic blood donors have been reported.

Source: [http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount12\\_detailed.htm](http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount12_detailed.htm)

### Europe and Neighbouring countries

As of September 20, 2012 there have been 614 confirmed human cases of West Nile virus infection reported in Europe and Neighbouring countries [Greece (142), Hungary (4), Italy (24), Romania (14), Croatia (4), Israel (37), Kosovo (1), Occupied Palestinian territory (2), Russian Federation (352), Serbia (30), Tunisia (4)].

Source: [http://ecdc.europa.eu/en/healthtopics/west\\_nile\\_fever/West-Nile-fever-maps/Pages/index.aspx](http://ecdc.europa.eu/en/healthtopics/west_nile_fever/West-Nile-fever-maps/Pages/index.aspx)



Table 2

## West Nile virus human clinical cases and asymptomatic infections by Province / Territory for the current Report Week and year to date, 2012 Season

| September 16 to September 22, 2012 (Week 38)       |   |   |                                  |   |  |  |
|--|---|---|----------------------------------|---|--|--|
|  | West Nile virus<br>Neurological<br>syndrome | West Nile virus<br>Non-Neurological<br>syndrome | Unclassified<br>/<br>Unspecified | Total<br>clinical<br>cases <sup>1</sup> | # of travel<br>related<br>cases <sup>2</sup> | West Nile virus<br>asymptomatic<br>infections <sup>3</sup> |
|  | # cases                                     | # cases   |                                  |   |  |  |
| Newfoundland                                       | 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   | 4   | 2   | 9                                | 15                                      | 0  | 0  |
| Ontario  | 1   | 0   | 0                                | 1                                       | 0  | 1  |
| Manitoba   | 0   | 0   | 1                                | 1                                       | 0  | 0  |
| Saskatchewan                                       | 0   | 3   | 0                                | 3                                       | 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  |
| <b>Total</b>                                       | <b>5</b>                                    | <b>5</b>  | <b>10</b>                        | <b>20</b>                               | <b>0</b>                                     | <b>1</b>   |
| Year to date: From January 1 to September 22, 2012 |   |   |                                  |   |  |  |
| Newfoundland                                       | 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   | 29  | 16  | 29                               | 74                                      | 0  | 5  |
| Ontario  | 50  | 129   | 31                               | 210                                     | 11   | 10   |
| Manitoba   | 6   | 28  | 3                                | 37                                      | 2  | 0  |
| Saskatchewan                                       | 0   | 9   | 0                                | 9                                       | 2  | 0  |
| Alberta  | 3   | 5   | 0                                | 8                                       | 2  | 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  |
| <b>Total</b>                                       | <b>88</b>                                   | <b>187</b>                                      | <b>63</b>                        | <b>338</b>                              | <b>17</b>                                    | <b>15</b>  |

<sup>1</sup> 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.

<sup>2</sup> Likely related to travel outside the province/territory. These cases are included in either the total clinical cases or West Nile virus asymptomatic infections.

<sup>3</sup> 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-Quebec) 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.



Table 4

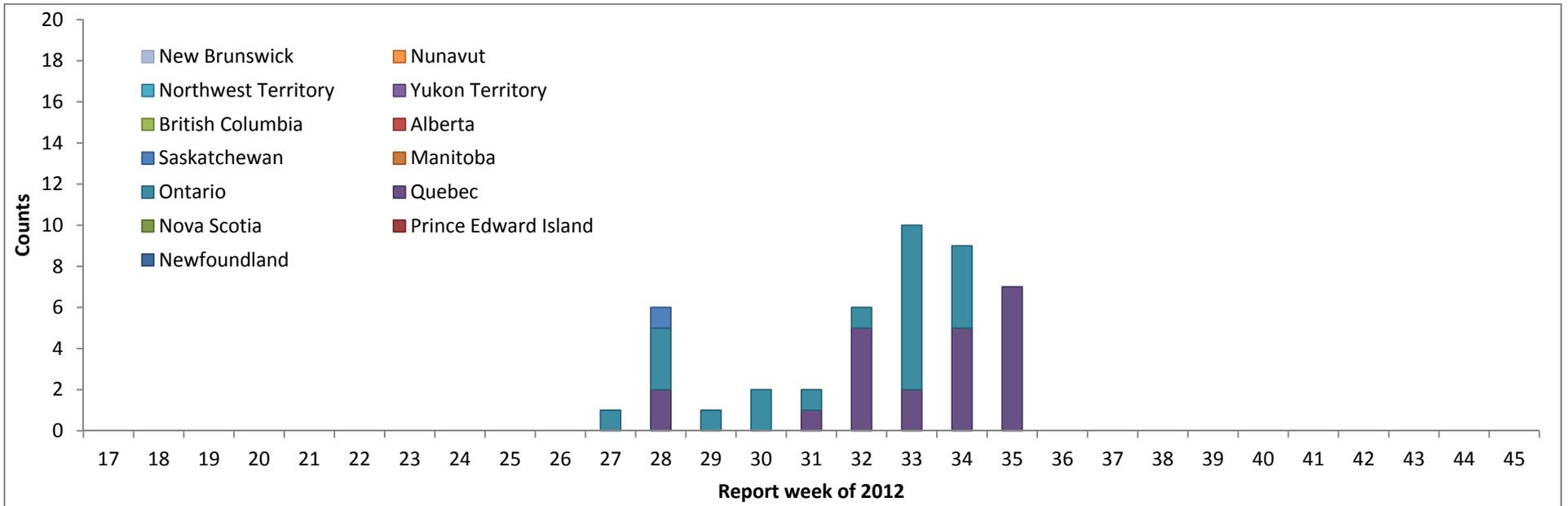
Reported cumulative number of West Nile virus positive mosquito pools by Province/Territory and by report week, 2012 season\*

|                      | Report weeks of 2012 |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |
|----------------------|----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
|                      | 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 |
| Newfoundland         | 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   |    |    |    |    |    |    |    |
| Nova Scotia**        | 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   |    |    |    |    |    |    |    |
| Quebec**             | 0                    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 5   | 8   | 19  | 19  | 19  | 19  | 19  | 19  |    |    |    |    |    |    |    |
| Ontario              | 0                    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 6  | 10 | 19 | 30 | 89 | 162 | 249 | 312 | 375 | 409 | 434 | 454 | 462 |    |    |    |    |    |    |    |
| Manitoba             | 0                    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 20 | 48 | 62  | 98  | 108 | 111 | 116 | 116 | 116 |     |    |    |    |    |    |    |    |
| Saskatchewan         | 0                    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 3   | 4   | 6   | 6   | 6   | 6   | 6   |     |    |    |    |    |    |    |    |
| Alberta**            | 0                    | 0  | 0  | 0  | 0  | 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  | 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   |    |    |    |    |    |    |    |
| Northwest Territory  | 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   |    |    |    |    |    |    |    |

\* Detailed West Nile virus mosquito surveillance data can be accessed through Provincial/ territorial websites

\*\* These Provinces/Territories are not conducting mosquito surveillance as part of their West Nile virus surveillance program at provincial level in 2012

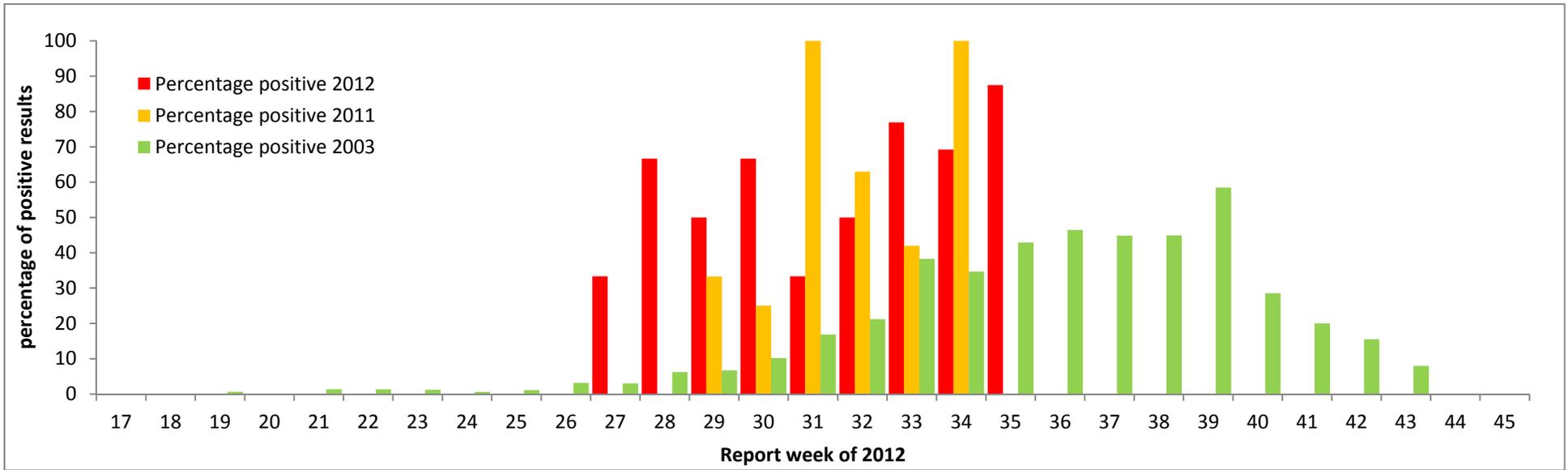
Reported number of dead birds testing positive for WNV by Province / Territory and by report week, 2012 season



Link figure 3 to the following table 5 below

|                      | Report Weeks of 2012 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |     |     |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                      | 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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Newfoundland         | 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 | 0/0 | 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 | 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 | 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 | 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 | 0/0 | 0/0 | 0/0 | 2/4 | 0/0 | 0/1 | 1/3 | 5/5 | 2/3  | 5/6 | 7/8 | 0/1 | 0/5 | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ontario              | 0/0                  | 0/0 | 0/0 | 0/0 | 0/1 | 0/1 | 0/0 | 0/3 | 0/1 | 0/0 | 1/1 | 3/3 | 1/2 | 2/2 | 1/2 | 1/6 | 8/10 | 4/5 | 0/0 | 0/0 | 0/0 | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Manitoba             | 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 | 0/0 | 0/0 | 0/0 | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Saskatchewan         | 0/0                  | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/1 | 1/2 | 0/0 | 0/0 | 0/1 | 0/1 | 0/0  | 2/0 | 0/0 | 0/1 | 0/0 | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alberta              | 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 | 0/0 | 0/0 | 0/0 | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| British Columbia     | 0/0                  | 0/0 | 0/0 | 0/0 | 0/0 | 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 |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 | 0/0 | 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 | 0/0 | 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 | 0/0 | 0/0 | 0/0 | 0/0 |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Percentage of dead birds testing positive for WNV in the 2012 season by report week as compared to the 2003 and 2011 seasons



Link figure 4 to the following table 6 below

|                     |      | Weeks of 2012 |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |     |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------------|------|---------------|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|
|                     |      | 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 |
| Numbers tested      | 2012 | 0             | 0  | 0  | 0  | 1  | 1  | 0  | 3  | 1  | 0  | 3  | 9  | 2  | 3   | 6  | 12 | 13  | 13 | 8  | 2  | 5  | 0  |    |    |    |    |    |    |    |
| Numbers positive    |      | 0             | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 6  | 1  | 2   | 2  | 6  | 10  | 9  | 7  | 0  | 0  | 0  |    |    |    |    |    |    |    |
| Percentage positive |      | 0             | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 33 | 67 | 50 | 67  | 33 | 50 | 77  | 69 | 88 | 0  | 0  | 0  |    |    |    |    |    |    |    |
| Percentage positive | 2011 | 0             | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 33 | 25 | 100 | 63 | 42 | 100 | 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  | 10  | 17 | 21 | 38  | 35 | 43 | 46 | 45 | 45 | 58 | 29 | 20 | 15 | 8  | 0  |    |