



# West Nile Virus Surveillance



BC Centre for Disease Control

## West Nile Virus Surveillance Summary #7 Thursday, September 15, 2011

### WNV Activity in BC

(Data as of September 14, 2011)

**No WNV activity has been identified in BC to date.**

From June 1, 2011	Human samples*	Corvids submitted	Corvids sighted	Mosquito pools
# Tested	337	36	252	2094
# Positive	0	0		0

\*includes routine screening of CSF, organ and stem cell donations in addition to physician test requests

The BCCDC webpage including maps and graphs of BC surveillance data can be found at:  
[http://www.bccdc.ca/dis-cond/a-z/\\_w/WestNileVirus/Surveillance/WNV2011Surveillance.htm](http://www.bccdc.ca/dis-cond/a-z/_w/WestNileVirus/Surveillance/WNV2011Surveillance.htm)

### Canadian Blood Services Data

CBS performs year-round WNV nucleic acid testing and this information is provided as aggregate, regional updates throughout the WNV season to BCCDC. This reporting provides geographic and timely human WNV surveillance data.

In the previous two weeks (August 31-September 13, 2011) there have been 4,836 collections of blood in BC. Between June 1 and September 13, 2011 there were 34,637 collections. There were no positive WNV screening test results in BC.

Health Service Delivery Area	Number of collections (August 31-September 13, 2011)	Number of collections (June 1-September 13, 2011)
Fraser East	225	1870
Fraser South	737	5071
Fraser North	477	3474
Okanagan	435	3202
Thompson Cariboo Shuswap	67	574
Vancouver	1099	7699
Richmond	176	975
North Shore/Coast Garibaldi	159	1106
South Vancouver Island	714	4957
Central Vancouver Island	494	2439
North Vancouver Island	0	1370
Northern Interior	253	1900
<b>British Columbia</b>	<b>4836</b>	<b>34637</b>



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## Past temperature and future climate predictions for BC

Warmer temperatures favour greater mosquito abundance, biting activity and WNV amplification. Accumulated degree days (i.e. heat units) are calculated to forecast mosquito development. Degree days calculations beyond August 31st are not calculated as newly hatched mosquitoes have entered diapause by this time (a state where they do not seek a blood meal); therefore, the effect of temperature on mosquito development and viral replication after this time does not contribute to WNV risk.

### Accumulated base 14.3 °C growing degree days comparison for select BC communities

Up to August 31st	2011	Average 2003-2010	Maximum 2003-2010	Minimum 2003-2010
Cranbrook	401	492	598	399
Creston	523	650	770	515
Osoyoos	681	874	983	761
Kamloops	606	783	872	687
Abbotsford	340	466	581	386
Vancouver	283	380	480	312
Victoria	250	342	422	277
Prince George	165	290	360	237

In 2011 almost every community in BC experienced fewer accumulated degree days this year compared to the previous 8 years. The start of spring and summer was delayed by several weeks, and it was not until August that warm temperatures were finally experienced in southern BC. Furthermore, southern BC experienced near record high temperatures during the first 2 weeks of September.

## WNV Activity in Canada

(Data as of September 14, 2011)

- Activity has been reported in ON, SK and QC
- Positive mosquito pools: 265 from ON, 4 from SK, 4 from QC
- Positive horses: 4 from ON, 2 from QC
- Positive humans: 19 from ON including 1 travel-related case, and 4 confirmed and 7 probable from QC.
- Positive birds (from Canadian Co-operative Wildlife Health Centre): 16 from ON, 5 from QC and 1 from SK

## WNV Activity in the US

(Data as of September 14, 2011)

- Washington:
  - There have been 2 positive mosquito samples reported in Washington; one from Yakima county (reported on August 19), and one from Grant county (reported on September 8). Both Counties are located in the south-central part of the State.
- Oregon:
  - One positive veterinary case and 2 positive mosquito pools have been reported. All were from Malheur County, located in the SE part of the State.
- Idaho:
  - One human neuroinvasive case in Caribou County (south eastern Idaho)
  - Two positive mosquito pools in Gem County (western Idaho)
- California:
  - 29 counties are reporting WN activity; most are in the central or southern parts of California.
  - There have been 37 human cases reported.
  - Positive indicators: 398 dead birds, 1479 mosquito samples, 5 horses, 1 squirrel and 135 sentinel chickens.

