



West Nile Virus Surveillance



BC Centre for Disease Control

West Nile Virus Surveillance Summary #7 Thursday, September 2, 2010

WNV Activity in BC

(Data as of September 1, 2010)

Three birds have tested positive for WNV in BC. All birds were collected in the Central Okanagan. No other positive indicators have been reported.

The number of human samples and corvids tested are higher while the number of mosquito pools tested and corvids sighted are lower compared to the same time period in 2009.

From Jun 1 st , 2010	Human samples*	Corvids tested	Corvids sighted	Mosquito pools
# Tested	221	191	309	1,766
# Positive	0	3		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>

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.

Between May 31-August 29, 2010 there were 29,050 collections of blood in BC. There were no positive WNV screening test results. Between August 16 and August 29, 2010 there were 4603 collections in BC.

Health Service Delivery Area	Number of collections (August 16-August 29, 2010)
Fraser East	257
Fraser South	718
Fraser North	469
Okanagan	366
Thompson Cariboo Shuswap	248
Vancouver	857
North Shore/Coast Garibaldi	154
South Vancouver Island	823
Central Vancouver Island	196
North Vancouver Island	228
Northern Interior	287
BC	4,603

No collections were reported in East Kootenay, Kootenay Boundary, Richmond, Northwest or Northeast in this two week period.

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.

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

August 31	2010	2009	2008	2007	2006	2005	2004	2003
Cranbrook	399	478	475	561	542	410	479	598
Creston	515	661	552	757	700	581	668	770
Osoyoos	761	919	811	859	851	850	993	962
Kamloops	688	860	729	738	821	738	879	820
Abbotsford	392	518	387	417	470	481	586	485



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August 31	2010	2009	2008	2007	2006	2005	2004	2003
Vancouver	322	422	312	344	366	386	485	408
Victoria	277	365	282	311	346	357	425	375
Prince George	285	343	265	273	237	275	361	283

Cooler temperatures and periodic precipitation are forecasted for the upcoming week for most areas of southern BC.

WNV Activity in Canada

(Data as of September 1, 2010)

Nationally there have been a total of 58 positive mosquito pools (9 in SK, 29 in ON and 20 in MB). Eight positive birds have been reported (1 in SK, 3 in BC and 4 in ON). No human cases have been reported. The activity reported in Canada remains low.

WNV Activity in the US

(Data as of September 1, 2010)

- Washington:
 - One hundred and four positive mosquito pools have been reported; 93 in Grant County, 5 in Yakima County and 6 in Benton County. All counties are located in the southern region of WA State.
 - The 2010 activity is lower than what was reported for the same time period in 2009
- Oregon:
 - Three positive mosquito pools have been reported; 2 in Morrow County and 1 in Malheur County. Morrow County is located in the northern region, Malheur County is in the south-east region of the State.
- Idaho:
 - One positive horse has been reported in Franklin County
- California:
 - 30 counties are reporting WNV activity.
 - There have been 34 human cases reported from 10 counties
 - Positive indicators: 285 dead birds, 919 mosquito pools, 11 horses, 93 chickens and 13 squirrels.
 - The number of human cases and positive mosquito pools are higher than for the same time period in 2009

Other US states reporting WNV activity:

(Data as of August 31; Sources: USGS survey and CDC)

As of August 31, 177 human cases of WNV have been reported from 26 States. Ninety-six cases (54%) were reported as neuroinvasive. Three deaths have been reported in Arizona. Positive blood donors have been reported in 10 States. The activity reported in the US is similar to the same time period in 2009.

West Nile virus (WNV) activity reported to ArboNET, by state, United States, 2010
as of August 31, 2010

