

ALBERTA West Nile virus bird surveillance program: to May 31, 2004

Summary: The 2004 west nile virus bird surveillance program in Alberta began on May 1. Since then, staff received 37 birds, out of which 30 were suitable for testing using the *VecTest* kit. All 30 birds were *negative* for the WNV. The birds tested were 16 crows, 7 magpies, 6 ravens, and 1 blue jay.

The 2004 West Nile virus (WNV) bird surveillance program was developed by the Provincial West Nile Steering Committee. Bird surveillance is tailored to support identification of potential human health risk as well as potential wildlife management concerns posed by WNV in Alberta. The program focuses on fresh dead corvids (members of the crow family). Crows and magpies are uniquely susceptible to fatal infection, are widespread throughout the province, and are easily recognized by many people. Fatal infections also occur in blue jays. The natural susceptibility of ravens is unknown currently. Equally important for making corvids an excellent choice for surveillance is the availability of a reliable rapid diagnostic test for detecting WNV infection in dead corvids (that does not work in other species). Once a dead corvid reaches the lab, we can determine quickly whether or not it is infected. Evidence of WNV can then be provided in a timely manner to the public, to health practitioners, to veterinarians, and to horse owners.

As in 2003, the program for 2004 focuses primarily on fresh dead crows and magpies, and to a lesser extent blue jays and ravens. We are also interested in identifying clusters of mortality in other species as possible indicators of WNV presence in Alberta. Fresh dead corvids found by the public can be submitted to Fish and Wildlife offices, but as with all species, you should not touch found-dead wildlife directly with your bare hands. Carcasses that are rotten or dried or young birds that have not fledged from the nest cannot be tested. Usable carcasses will be tested with VecTest (a wicking antigen capture assay) at the Fish and Wildlife Diagnostic Lab in Edmonton.

Note that no "found-dead" wildlife should be handled directly. Gloves should always be worn, a bag inverted over the hand, or the animal moved with a stick or some other means whereby the person does not actually touch the dead animal.

The surveillance program is set up to sample birds from the six natural regions in the province (grassland, parkland, foothills, mountains, boreal forest, Canadian shield). Each natural region has a similar makeup of plants, animals, and weather and thus we can assume the risks posed by WNV are similar across each region. Although we have not yet seen any evidence of WNV in Alberta in 2004, it is expected to return to the area where it appeared last year, that is an area roughly bounded by the Highway 16 and Highway 2 corridors east and south of Edmonton, respectively. **Testing within the two main regions where the virus was detected in 2003 (grassland, parkland regions) will be discontinued once six (6) positive birds are confirmed in each region in 2004.** We will continue to monitor birds from northern and western areas throughout the summer.

In addition, the Fish and Wildlife Division is working with the University of Alberta and Alberta Environment to reduce potential West Nile virus risks to sage-grouse.