



**National Wildlife Health Center
Wildlife Health Bulletin 2000-01**

To: Natural Resource/Conservation Managers
From: Director, USGS National Wildlife Health Center (Bob McLean)
Title: Update on West Nile Virus (Issued March, 2000)

This is a follow up to the October 1999, USGS Wildlife Health Alert (WHA 99-02b) updating state and federal natural resource agencies of the emergence of the West Nile virus in birds in the New York City area. The West Nile virus (WNV) is an arthropod-borne virus that had never been reported in the Western Hemisphere until the fall of 1999. Birds are the natural hosts for this virus. WNV can be transmitted from birds to other birds and animals, including humans, through the bite of mosquitoes. During the 1999 outbreak the virus caused encephalitis in 61 people in the New York City, seven of whom died.

American crows still appear to be the most susceptible native bird species to this disease. To date the virus has been isolated from 18 native bird species. The specific cause of mortality was not determined for all birds. Except for American crows, most species are represented by few specimens. The species include:

Crane, Sandhill*	Gull, Herring	Kestrel, American
Crow, American	Gull, Laughing*	Kingfisher, Belted
Crow, Fish	Hawk, Broad-winged	Mallard*
Robin, American	Hawk, Cooper's	Merlin***
Dove, Rock	Hawk, Red-tailed	Night-heron, Black-crowned *
Eagle, Bald*	Jay, Blue	Phoebe, Eastern***

* Captive Species ***New Species

WNV has been diagnosed in birds from New York, New Jersey and Connecticut. Geographically the virus has been detected in birds from central New York (a single crow in Saratoga County), western New Jersey (Hunterdon & Warren Counties), south-central New Jersey (Burlington County), and east to Suffolk County on Long Island and the East Haven area of Connecticut.

At this time it is difficult to assess the magnitude of the mortality. While there have been reports of high bird mortality (1000's) in some of the affected areas, mostly American crows, a number of the birds have died from other causes. Of the 255 specimens tested by CDC only about 55% have tested positive for WNV. The earliest confirmed isolate was from a specimen collected on August 9, 1999 in Nassau County, NY.

The USGS National Wildlife Health Center, along with CDC and state and federal agencies, are continuing to carry out a national surveillance effort to document bird mortality. We are particularly interested in receiving reports of sick or dead birds with neurological symptoms from states along the Atlantic seaboard. Specimens collected during this surveillance will be examined by USGS at the National Wildlife Health Center and tested for the presence of WNV. Concurrently, USGS, along with several state and federal natural resource and public health agencies, and other interested groups, are continuing to conduct field investigations in the area of the outbreak. The investigation will continue to focus on collecting information and samples that will help determine the extent of wildlife species involved, the geographic and temporal distribution of the virus in bird populations, and if the range of the virus is expanding beyond the currently reported sites.

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