



National Wildlife Health Center  
Wildlife Health Bulletin 2012-03

NWHC Plan for Avian Influenza Surveillance of Wild Birds

**To: Natural Resource/Conservation Managers**  
**From: Dr. Jonathan Sleeman, Center Director, USGS National Wildlife Health Center**  
**Date: May 9, 2012**

H5N1 highly pathogenic avian influenza (HPAI) continues to be reported in poultry, wild birds, and humans in Asia and Africa. In September 2011, the [United Nations' Food and Agriculture Organization](#) (FAO), the [World Organization for Animal Health](#) (OIE), and the World Health Organization (WHO) jointly issued a [Technical Update](#) titled "Current evolution of avian influenza H5N1 viruses" that serves as a reminder of the importance of monitoring wild bird populations for early detection of highly pathogenic avian influenza.

A Federal, State and Tribal partnership was formed in 2006 to develop and implement the [National Interagency Early Detection System for Highly Pathogenic H5N1 Avian Influenza in Wild Migratory Birds](#). Surveillance was conducted for HPAI under this partnership for five years. This was a tremendous undertaking by the wildlife community and we want to extend our appreciation to everyone who participated. Without the extensive involvement of the field biologists, this program could not have been successful.

Over 450,000 migratory birds representing 284 species were tested during the surveillance program; all were negative for H5N1 highly pathogenic avian influenza. Birds were tested from all 50 states and 6 freely-associated states, tribal lands and territories; surveillance focused on waterfowl, shorebirds, gulls, and terns. A summary of the results, based on molecular screening, reported to the Highly Pathogenic Avian Influenza Early Detection Data System (HEDDS) included: 14,318 positive test results for avian influenza; 1,091 H5 positive test results, and at least 14 samples were reported as positive for low pathogenic North American lineage H5N1.

With the exception of a few targeted efforts, the majority of the live bird and hunter harvested AI surveillance programs were discontinued in 2010. The National Wildlife Health Center (NWHC) is continuing surveillance for H5N1 highly pathogenic avian influenza by focusing on testing sick and dead migratory birds, particularly ducks, geese and swans. We believe that the systematic investigation of morbidity and mortality events in wild birds offers a cost-effective method for detection of H5N1 highly pathogenic avian influenza, as well as other emerging wild bird diseases, should they occur in migratory birds in the United States.

In an effort to maximize early detection of H5N1 HPAI, wildlife managers should be alert for wild bird morbidity and mortality events that meet any of the following criteria:

- 1) Mortality events of any size involving waterfowl (ducks, geese and swans). North American waterfowl species known to be particularly susceptible to H5N1 HPAI include the wood duck, gadwall and swan species.
- 2) Mortality events involving other North American species known to be susceptible to H5N1 HPAI, including eared grebes, dunlin, laughing and black-headed gulls and raptor groups such as falcons (kestrels and peregrine falcons).
- 3) Mortality events involving bird species where it is estimated that the mortality exceeds 500 birds.
- 4) Wild bird mortality events in close proximity to poultry operations, or mortality events associated with birds that have been imported from countries where H5N1 HPAI is known to occur, are other examples of events that would warrant investigation.

NWHC will also test for H5N1 HPAI in other species when the circumstances of disease outbreaks, including rapid mortality progression and pathologic findings, suggest that avian influenza may be a factor.

NWHC will continue submitting samples to the USDA National Veterinary Services Laboratories for mortality events exceeding 500 birds, and results will be reported through the HEDDS Web site (a link to [HEDDS](#) can also be found on the [avian influenza page](#) on the NWHC Web site).

A comprehensive list of USGS avian influenza publications resulting from national and international avian influenza research studies conducted at the Patuxent Wildlife Research Center, Alaska Science Center, Western Ecological Research Center, and the National Wildlife Health Center is available at [http://www.nwhc.usgs.gov/disease\\_information/avian\\_influenza/ai\\_publications\\_list.jsp](http://www.nwhc.usgs.gov/disease_information/avian_influenza/ai_publications_list.jsp)

### **Contacting the NWHC**

Please continue to report wild bird mortality to one of the NWHC Field Investigations Team (FIT) members listed below. FIT members will provide additional criteria for reporting wild bird mortality, determine if carcasses should be submitted to NWHC for necropsy evaluation and testing, and, if requested, assist in developing mortality management plans and on-site field investigations. FIT personnel will also provide information about avian influenza and guidance for handling wild bird carcasses.

To report or request assistance for wildlife mortality events or health issues, visit [http://www.nwhc.usgs.gov/mortality\\_events/reporting.jsp](http://www.nwhc.usgs.gov/mortality_events/reporting.jsp) or contact Dr. Anne Ballmann, 608-270-2445, [aballmann@usgs.gov](mailto:aballmann@usgs.gov); Dr. LeAnn White, 608-270-2491, [clwhite@usgs.gov](mailto:clwhite@usgs.gov); Barb Bodenstein, 608-270-2447, [bbodenstein@usgs.gov](mailto:bbodenstein@usgs.gov); Dr. Thierry Work, 808-792-9520, [thierry\\_work@usgs.gov](mailto:thierry_work@usgs.gov) (Hawaii and Pacific Islands); or Jennifer (Bradsby) Buckner, 608-270-2443, [jbradsby@usgs.gov](mailto:jbradsby@usgs.gov) (single-animal mortality events nationwide). Call 608-270-2400 to leave a message outside NWHC business hours (8 a.m. – 4:30 p.m. CST).

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