

**From:** [Jason Holm](#)  
**To:** [Anna Harris](#); [Amanda Fortin](#); [Brent Lawrence](#); [Megan Nagel](#); [Jane Chorazy](#); [Nathan Dexter](#)  
**Subject:** Fwd: DOI Avian Influenza Leadership Team Notification: Avian Influenza Detected  
**Date:** Monday, December 15, 2014 7:59:58 PM  
**Attachments:** [Information Document\\_HPAI\\_H5N8\\_Detection\\_in\\_Washington\\_State\\_final\\_final.docx](#)

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This may develop into a "drop everything else". FYI

Sent from my iPhone

Begin forwarded message:

**From:** Richard Hannan <[richard\\_hannan@fws.gov](mailto:richard_hannan@fws.gov)>  
**Date:** December 15, 2014 at 7:34:44 PM PST  
**To:** Robyn Thorson <[robyn\\_thorson@fws.gov](mailto:robyn_thorson@fws.gov)>, Jason Holm <[jason\\_holm@fws.gov](mailto:jason_holm@fws.gov)>, Nanette Seto <[Nanette\\_Seto@fws.gov](mailto:Nanette_Seto@fws.gov)>  
**Cc:** Vicki Finn <[Vicki\\_Finn@fws.gov](mailto:Vicki_Finn@fws.gov)>, Shirley Gillum <[shirley\\_gillum@fws.gov](mailto:shirley_gillum@fws.gov)>, Kim Trust <[kim\\_trust@fws.gov](mailto:kim_trust@fws.gov)>  
**Subject:** Fwd: DOI Avian Influenza Leadership Team Notification: Avian Influenza Detected

We need to have Jason and his team engaged in this tomorrow. We may want to consider start organizing our own incident command team. This could get crazy real fast. I know WDFW has been notified, we may consider giving IDFG a and ODFW a courtesy call so they do not hear about it from the media. Kim Trust was heavily involved in this up in AK when I was there as we prepared for AI back when the threat was first identified. Hopefully, this will not spin up but on the heels of (and current) the Ebola epidemic, it could get considerable interest. Rich

Richard Hannan

Sent from my iPad

Begin forwarded message:

**From:** Robyn Thorson <[robyn\\_thorson@fws.gov](mailto:robyn_thorson@fws.gov)>  
**Date:** December 15, 2014 at 5:33:06 PM PST  
**To:** Phil Anderson <[philip.anderson@dfw.wa.gov](mailto:philip.anderson@dfw.wa.gov)>  
**Cc:** Richard Hannan <[Richard\\_Hannan@fws.gov](mailto:Richard_Hannan@fws.gov)>, Nanette Seto <[nanette\\_seto@fws.gov](mailto:nanette_seto@fws.gov)>, Tom McDowell <[Tom\\_McDowell@fws.gov](mailto:Tom_McDowell@fws.gov)>  
**Subject:** Fwd: DOI Avian Influenza Leadership Team Notification: Avian Influenza Detected

Phil:

We will work closely with WDFW on this matter. Nanette (FWSRegional Migratory Bird Chief) is our initial POC.

Sent from my iPhone

Begin forwarded message:

**From:** Dan Ashe <[d\\_m\\_ashe@fws.gov](mailto:d_m_ashe@fws.gov)>  
**Date:** December 15, 2014 at 5:01:58 PM PST  
**To:** Robyn Thorson <[robyn\\_thorson@fws.gov](mailto:robyn_thorson@fws.gov)>, Richard Hannan <[Richard\\_Hannan@fws.gov](mailto:Richard_Hannan@fws.gov)>  
**Cc:** Stephen Guertin <[Stephen\\_Guertin@fws.gov](mailto:Stephen_Guertin@fws.gov)>, Rowan Gould <[r\\_w\\_gould@fws.gov](mailto:r_w_gould@fws.gov)>, Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>, Gary Frazer <[gary\\_frazer@fws.gov](mailto:gary_frazer@fws.gov)>, Jerome Ford <[Jerome\\_Ford@fws.gov](mailto:Jerome_Ford@fws.gov)>, Jim Kurth <[jim\\_kurth@fws.gov](mailto:jim_kurth@fws.gov)>, Betsy Hildebrandt <[Betsy\\_Hildebrandt@fws.gov](mailto:Betsy_Hildebrandt@fws.gov)>  
**Subject:** Fwd: DOI Avian Influenza Leadership Team Notification: Avian Influenza Detected

More.

Dan Ashe  
Director, U.S. Fish and Wildlife Service

Begin forwarded message:

**From:** "Kinsinger, Anne" <[akinsinger@usgs.gov](mailto:akinsinger@usgs.gov)>  
**Date:** December 15, 2014 at 5:11:45 PM EST  
**To:** Michael Bean <[michael\\_bean@ios.doi.gov](mailto:michael_bean@ios.doi.gov)>, Kimberly Thorsen <[kim\\_thorsen@ios.doi.gov](mailto:kim_thorsen@ios.doi.gov)>, Dan Ashe <[d\\_m\\_ashe@fws.gov](mailto:d_m_ashe@fws.gov)>, Barbara Wainman <[bwainman@usgs.gov](mailto:bwainman@usgs.gov)>, Timothy West <[twest@usgs.gov](mailto:twest@usgs.gov)>, Suzette M Kimball <[suzette\\_kimball@usgs.gov](mailto:suzette_kimball@usgs.gov)>, Samantha Gibbs <[samantha\\_gibbs@fws.gov](mailto:samantha_gibbs@fws.gov)>, Jennifer Gimbel <[Jennifer\\_Gimbel@ios.doi.gov](mailto:Jennifer_Gimbel@ios.doi.gov)>  
**Cc:** Jess D Weaver <[jdweaver@usgs.gov](mailto:jdweaver@usgs.gov)>, Jonathan Sleeman <[jsleeman@usgs.gov](mailto:jsleeman@usgs.gov)>,<

Stephen Hammond  
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Lukas <[wlukas@usgs.gov](mailto:wlukas@usgs.gov)>

**Subject: DOI Avian Influenza Leadership  
Team Notification: Avian Influenza  
Detected**

Dear DOI Avian Influenza Leadership  
Team Colleagues:

I am sending this message on behalf of Jennifer Gimbel. USGS and its partners have detected a form of highly pathogenic avian influenza in wild birds in Washington State. This virus has not infected any people to our knowledge. It is likely that this virus, H5N8, was carried into North America via migratory birds from East Asia. Per established protocol, notifications have been made to the State of Washington; USDA is notifying involved USG organizations, including the White House, HHS, DOS, and the poultry industry and other major stakeholders. In addition, the detection of highly pathogenic avian influenza in wild birds will be reported to the OIE (World Organization of Animal Health). This could have international trade implications and negatively impact the U.S. poultry industry. Wildlife management agencies will be concerned regarding implications for waterfowl hunting. The potential of this virus to affect human health will need to be assessed.

Per the protocols of the DOI Pandemic Influenza Plan  
(<http://www.doi.gov/emergency/pandemicflu/index.cfm>)  
Avian Influenza Communications Strategy  
(Appendix  
K: <http://www.doi.gov/emergency/pandemicflu/appendix-k.cfm>), we are notifying the DOI Avian Influenza Leadership Team. At this time, Jennifer does not think it is necessary to convene the team because there is thus far no indication of risk to human health, but she asks that you remain on alert should that need arise.

Attached is a more detailed briefing paper on this topic.

Regards,

Anne

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Associate Director for Ecosystems  
US Geological Survey  
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Reston, VA 20192  
703-648-4050  
Cell: 571-212-6898

## **INFORMATIONAL DOCUMENT**

### **DETECTION OF HIGHLY PATHOGENIC AVIAN INFLUENZA H5N8 IN WILD BIRDS IN WASHINGTON STATE**

#### **US GEOLOGICAL SURVEY**

**15 December 2014**

#### **SUMMARY**

USGS and its partners have detected a form of highly pathogenic avian influenza in wild birds in Washington State. This virus has not infected any people to our knowledge. It is likely that this virus, H5N8, was carried into North America via migratory birds from East Asia. The detection of highly pathogenic avian influenza in wild birds will need to be reported to the OIE (World Organization of Animal Health). This could have trade implications and negatively impact the poultry industry. In addition, wildlife management agencies will be concerned regarding implications for waterfowl hunting. The potential of this virus to affect human health will also need to be assessed.

#### **BACKGROUND**

In collaboration with Washington State Fish and Wildlife Department, the USGS National Wildlife Health Center (NWHC) has been investigating an avian mortality event at Wiser Lake, Whatcom County since December 1, 2014. The event involved approximately 100 wild birds of various species including mallards, northern pintail, widgeon, trumpeter swan and northern shoveler. Carcasses were sent to the Washington State Agriculture Diagnostic Laboratory and to the NWHC. The NWHC received 8 carcasses, including one of each species, for diagnostic evaluation. Initial gross necropsy findings indicated acute aspergillosis as the cause of death; samples were also submitted for with avian influenza testing using PCR.

In summary, one sample, a tracheal swab from the northern pintail, tested positive for H5 avian influenza and this was confirmed by the U.S. Department of Agriculture (USDA) National Veterinary Services Laboratories (NVSL). In addition, three mallards tested by Washington State have also been confirmed H5 positive. Subsequently, USGS sent 9 samples to the NVSL including swabs from tissues from three of these birds. The remaining samples were tissues from a captive gyrfalcon that was hunting in an area 5 miles west of the mortality event. A total of three gyrfalcons from the same owner had hunted in this area on 5<sup>th</sup> December, 2014, and a mallard caught by one of the falcons was fed to additional falcons. Two of the captive falcons had died and one of these birds was submitted to the NWHC for further analyses. Preliminary PCR results indicate that multiple tissues from the falcon were PCR positive for H5 avian influenza. NVSL subsequently confirmed the samples were positive for a H5 avian influenza virus and genetic sequencing identified this virus as a H5N8 highly pathogenic avian influenza

virus with 99% homology with the H5N8 avian influenza that has been found in East Asia and more recently in Europe.

This mortality event is approximately 20 miles south of Fraser Valley, British Columbia, Canada where highly pathogenic H5N2 avian influenza has been detected in 8 poultry farms. Canadian officials have confirmed that the new H5N2 virus detected contains gene segments from highly pathogenic Eurasian H5N8 virus including the H5 gene and segments from typical North American viruses including the N2 gene (wild bird origin).

## **ASSESSMENT**

USGS detected a highly pathogenic H5N8 avian influenza in wild birds from Washington State. It is likely that this virus was carried into North America via migratory birds from East Asia. The virus has been in North America for sufficient time for it to reassort (combine and mix) with North American viruses.

## **IMPACT**

The detection of highly pathogenic avian influenza in wild birds will need to be reported to the OIE (World Organization of Animal Health). This could have trade implications and negatively impact the poultry industry. In addition, wildlife management agencies will be concerned regarding implications for waterfowl hunting. According to the World Health Organization, there have been no reported human cases of H5N8. The potential for the virus to be transmitted from animals to people needs to be assessed.

## **NOTIFICATIONS**

USGS has been in communication with USDA and Washington Departments of Agriculture and Fish and Wildlife. The Department of Homeland Security's Office of Health Affairs National Biosurveillance Integration Center has also been informed. The National Interagency Steering Committee for Surveillance of Highly Pathogenic Avian Influenza in Wild Bird was convened on Dec 15, to discuss potential interagency actions to monitor and respond to future detections. The Committee was originally formed in 2006 to develop national surveillance and response plans for highly pathogenic H5N1 in wild birds. Membership includes representatives from USGS, USFWS, state wildlife agencies (National Flyway Council) USDA, and CDC.

## **NEXT STEPS FOR USGS**

USGS will continue with the diagnostic evaluation including additional genetic sequencing.

USGS in collaboration with the USDA, Washington state agencies and others are holding discussions regarding next steps. These include assessing plans for enhanced surveillance in wild birds to identify the types of H5 avian influenza viruses present, determine the prevalence and

distribution of any highly pathogenic avian influenza viruses, the potential role of wild birds in the movement of these viruses, and potential risks to poultry, wildlife, and human health.

USGS chairs the National Interagency Steering Committee for Surveillance of Highly Pathogenic Avian Influenza in Wild Birds. The Committee was formed in 2006 to develop national surveillance and response plans for highly pathogenic H5N1 in wild birds. USGS will work in close collaboration with the Committee members to facilitate communication across agencies and to determine appropriate interagency protocols and processes for monitoring and responding to the disease.

Further discussions are necessary regarding communication to the White House, DHS, DHSS and the State Department. The USDA is the lead on these communications.

## **KEY CONTACTS**

Anne Kinsinger, USGS Associate Director for Ecosystems: [akinsinger@usgs.gov](mailto:akinsinger@usgs.gov); 703-648-4050

Patti Bright, USGS Biological and Chemical Threats Coordinator: [pbright@usgs.gov](mailto:pbright@usgs.gov); 703-648-4058

Jonathan Sleeman, Center Director, USGS National Wildlife Health Center: [jsleeman@usgs.gov](mailto:jsleeman@usgs.gov); 608-280-1135

## **BACKGROUND TO BIRD FLU**

Avian influenza (AI)--the bird flu--is a virus that infects wild birds (such as ducks, gulls, and shorebirds) and domestic poultry (such as chickens, turkeys, ducks, and geese). There is a flu for birds just as there is for humans and, as with people, some forms of the flu are worse than others.

AI viruses are classified by a combination of two groups of proteins: the hemagglutinin or H proteins, of which there are 16 (H1-H16), and neuraminidase or N proteins, of which there are 9 (N1-N9). AI strains also are divided into two groups based upon the ability of the virus to produce disease in poultry: low pathogenic avian influenza (LPAI) and highly pathogenic avian influenza (HPAI).

LPAI, or “low path” avian influenza, naturally occurs in wild birds and can spread to domestic birds. In most cases it causes no signs of infection or only minor symptoms in birds. These strains of the virus pose little threat to human health. LPAI H5 and H7 strains have the potential to mutate into HPAI and are therefore closely monitored.

HPAI, or “high path” avian influenza, is often fatal in chickens and turkeys. HPAI spreads more rapidly than LPAI and has a higher death rate in birds. HPAI H5N1 is the type rapidly spreading in some parts of the world.