Highly

Pathogenic Avian Influenza Virus Found in the Central

United States

To: Natural

Resource/Conservation Managers

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In response to recent detections of highly pathogenic avian

influenza (HPAI) viruses in wild birds and poultry in the western United

States

and Canada, the USGS National Wildlife Health Center (NWHC) continues to work

closely with the U.S. Department of Agriculture APHIS Wildlife Services, U.S.

Fish and Wildlife Service, and state wildlife agencies to implement enhanced

mortality investigations and surveillance in wild birds (for background, see

NWHC bulletins on Detection

of Highly Pathogenic Avian Influenza Viruses H5N2 and H5N8 in Wild Birds

of the

United States and Detection

of Novel Highly Pathogenic Avian Influenza Viruses in Wild Birds).

In early March 2015, HPAI H5N2 virus was confirmed at a commercial

turkey facility in Minnesota, followed about

one week later by detections of the same virus in turkey facilities in

Missouri and Arkansas.

HPAI H5N2 virus was subsequently confirmed in a mixed backyard poultry

flock in

Kansas. A

multi-agency epidemiological investigation to characterize the spread of HPAI

viruses across the United

States is ongoing.

It is important to note that although North American wild ducks have

not been reported to exhibit signs of disease when infected with HPAI, a

Canada

goose confirmed infected with HPAI exhibited neurologic signs. In addition,

raptors also appear to be highly vulnerable to HPAI virus infection. For

example, several captive falcons that were apparently fed meat from

HPAI-infected game became ill and died rapidly. Various other raptor species

have also died following infection with HPAI, including two red-tailed

hawks, a

bald eagle, peregrine falcon, and Cooper’s hawk. Testing of various

tissues from these raptors has identified HPAI infection as causing or

contributing to their deaths.

State and federal authorities with regulatory oversight of wildlife

rehabilitators, wildlife exhibitors, and falconers may wish to consider

contacting permit holders to caution them against feeding wild game,

especially

wild waterfowl, to their raptors and other captive wildlife. Authorities may

also wish to encourage implementation of biosecurity practices to eliminate

contact between captive and wild birds and to be alert for raptors and other

avian species showing neurologic signs of disease, as this may indicate

potential infection with HPAI. Birds showing neurological signs or acute

changes in behavior should be immediately isolated from other birds. In

addition, wildlife biologists and agency staff should exercise careful field

hygiene (e.g., hand washing and disinfection of equipment and clothing) after

visiting wetlands or when handling waterfowl or their tissues or parts.

For an up-to-date summary of results from combined federal and state

agency HPAI virus surveillance in wild birds, view this multiple agency

table: Wild

bird HPAI cases in the U.S. For surveillance results for HPAI in poultry

and captive wild birds, view this USDA APHIS table: Update

on Avian Influenza Findings.

The NWHC is continuing to monitor for HPAI viruses by testing sick and

dead birds. In an effort to maximize early detection of HPAI and to

understand

the spatial extent and species involvement of HPAI in North America, wildlife

managers should remain vigilant for wild bird morbidity and mortality events

and continue to contact us to discuss submission and testing of carcasses

from

events that meet the criteria described below. Avian

influenza testing may be performed in cases that fall outside these

criteria if

warranted based on field history or necropsy findings. Note that the

following

is not an all-inclusive list of cases accepted by NWHC (see NWHC

Submission Guidelines).

Submission criteria for HPAI

diagnostics:

1) Mortality events involving 5+

waterfowl (ducks, geese, or swans) or other water birds (loons, grebes,

coots,

shorebirds, or wading birds such as egrets, herons, or cranes).

2) Mortality events involving

raptors or other avian scavengers (ravens, crows, or gulls), particularly

those

observed near locations with on-going water bird mortality.

3) Mortality events involving

gallinaceous birds such as wild turkeys, quail, and sage grouse.

4) Mortality events involving wild

bird species in close proximity to facilities harboring domestic birds in

which

HPAI has been detected.

5) Any mortality events involving

wild bird species where estimated dead exceeds 500 birds.

6) Wild raptors with

neurologic/respiratory signs that die or are euthanized within 72 hours of

admission to a rehabilitation facility. Please also provide treatment

records.

7) Raptors held in captivity (i.e.,

falconer birds, rehabilitation facility) with sudden, unexplained

morbidity/mortality after exposure to wild waterfowl or a known/suspect

case of

HPAI H5.

General safety guidelines for handling wildlife:

Hunters and biologists should follow these routine precautions when

handling game and their tissues or parts:

Do

not handle or eat sick game.

Prepare

game in a well-ventilated area.

Wear

rubber or disposable latex gloves while handling and cleaning game.

Wash

hands thoroughly with soap or disinfectant, clean knives, equipment, and

surfaces that come in contact with game.

Do

not eat, drink, or smoke while handling animals.

All

game should be thoroughly cooked to an internal temperature of 165

degrees

F.

Additional

guidance for hunters: Guidance

for Hunters – Protect Yourself and Your Birds from Avian Influenza

Field biologists should follow these precautions when

handling sick or dead birds

associated with a mortality event:

Wear

protective clothing including coveralls, rubber boots, and rubber or

latex

gloves that can be disinfected or discarded.

Minimize

exposure to mucosal membranes by wearing protective eyewear and a

particulate respirator (NIOSH N95 respirator/mask

or better is recommended).

Wash

hands often with soap and disinfect work surfaces and equipment between

sites.

Do

not eat, drink, or smoke while handling animals.

Decontaminate

work areas and properly dispose of potentially infectious material

including carcasses.

Field

Biologists working with wild birds in areas where H5 HPAIs have

been detected should monitor their health for any signs of fever

and respiratory symptoms for one week following exposure to live or

dead wild

birds. If symptoms develop please contact your health care provider.

Disease Investigation Services:

To request diagnostic services or report wildlife mortality, please

contact the NWHC at 608-270-2480 or by email at [NWHC-epi@usgs.gov](mailto:NWHC-epi@usgs.gov), and a

field

epidemiologist will be available to discuss the case. To report wildlife

mortality events in Hawaii or Pacific Island territories, please contact the

Honolulu Field Station at 808-792-9520 or email Thierry Work at

[thierry\_work@usgs.gov](mailto:thierry_work@usgs.gov). Further

information can be found at <http://www.nwhc.usgs.gov/services/>.

Wildlife

Mortality Reporting and Diagnostic Submission Request Form

If you have any questions or concerns regarding the scientific and

technical services the NWHC provides, please do not hesitate to contact NWHC

Director Jonathan Sleeman at 608-270-2401, [jsleeman@usgs.gov](mailto:jsleeman@usgs.gov).

To see past Wildlife Health Bulletins, click here. WILDLIFE HEALTH

BULLETINS are distributed to natural resource/conservation agencies to

provide and promote information exchange about significant wildlife health

threats. If you would like to be added to or removed from the mailing list

for these bulletins, please contact Gail Mode Rogall at 608-270-2438 or

e-mail: [nwhc-outreach@usgs.gov](mailto:nwhc-outreach@usgs.gov).