

U.S. Fish & Wildlife Service

Avian Influenza

Be on the Lookout





About Highly Pathogenic Avian Influenza H5N1

Avian influenza (AI), or “bird flu,” is caused by a variety of viruses commonly found in some species of water birds. AI viruses are called highly or lowly pathogenic depending on the response of poultry to infection. A highly pathogenic avian influenza of the H5N1 type (HPAI H5N1) was detected in Southeast Asia in 1996 and has since spread across Asia into Europe and Africa. HPAI H5N1 has not been found in North America.

HPAI H5N1 is primarily an avian virus, but on occasion, human infections have occurred. Most people have been infected through very close contact with infected birds, usually poultry. Limited transmission between infected people and other persons has been rare. Over the last 5 years, only 382 human infections have been documented, but most infected people have died. This unprecedented behavior of an avian virus in humans has raised world wide concern that the virus could undergo changes that would permit easy human-to-human transmission and initiate a pandemic influenza.



There are several potential introduction routes of HPAI H5N1 into North America.

Detection in Wild Birds

The role of migratory birds in the spread of HPAI H5N1 is still under investigation. However, detection of the virus in new areas has often been in dead wild birds. Most countries first found HPAI through testing wild bird carcasses. Although HPAI H5N1 may only cause a small number of wild bird mortalities in any one area, looking for and testing carcasses of wild birds is one effective way to detect HPAI H5N1 if it first shows up in wildlife. Looking for mortality in the right species further enhances detection of HPAI H5N1.

Data from Europe and Asia, as well as results from laboratory experiments, suggests that some species of wild birds are more likely to develop disease and die from HPAI H5N1 than other species. These “sensitive species” make ideal candidates for surveillance for HPAI H5N1 detection. Other North American species were added to the surveillance list because of their distribution and unique feeding patterns (e.g. Northern shovelers), historical linkage to the only other known HPAI in wild birds (e.g. terns), or species that are the closest North American relative to known sensitive Asian species (e.g. greater white-fronted geese). This is an evolving list that will change as more information about HPAI in wild birds becomes known but presently includes:

- All swans
- Diving duck species, especially members of the subfamily Aythyinae
- Wood ducks
- Northern shovelers
- Gulls, especially relatives of the laughing, and black-headed and brown-headed gulls
- Greater white-fronted geese
- Terns and other Charadriiformes

Canvasback drakes



- Grebes
- American wigeon

Birds infected with HPAI H5N1 may exhibit any number of signs of illness and usually are just found dead. Clinical signs of HPAI H5N1 most consistently displayed in wild birds are associated with infection in the central nervous system and include: swimming in circles, head tilt, and lack of coordination. If these signs are observed in wild birds, they should be reported to the State wildlife agency

or an appropriate contact listed on the back of this brochure. All of these signs can be produced by many diseases other than HPAI H5N1. Only a diagnostic laboratory can confirm the actual cause of disease or death.

Trumpeter swans



How long HPAI H5N1 survives in bird carcasses is unknown. In most cases, testing of fresh carcasses yields better results. Special efforts should be made to collect the freshest carcasses to ensure the best possible chance of detecting the virus. This means that it is essential to report findings of dead birds as quickly as possible so they can be collected and sent to a laboratory for testing.

Signs of Outbreak

There are several characteristics of HPAI H5N1 outbreaks that can help us identify those outbreaks more likely to be due to HPAI H5N1 than some other cause. Characteristics of an HPAI H5N1 outbreak may include mortality affecting birds from the surveillance list, mortality with small numbers of birds affected distributed more broadly on a wetland, and sick birds showing signs of central nervous system disease.

Your Help is Needed

Surveillance is being conducted by the U.S. Fish and Wildlife Service and the U.S. Department of Agriculture in conjunction with State wildlife agencies. By looking out for sick and dead wild birds, you can help in the early detection of HPAI H5N1 should it arrive in North America. Federal and State agencies can then take the appropriate steps to minimize its spread and prevent transmission to poultry and people. If you come across any wild birds exhibiting the characteristics outlined above, contact your state wildlife agency or the appropriate flyway contact from the list below. For more information, please contact one of the following in your area.

Contacts

USFWS Pacific Flyway Representative

Robert Trost
503 / 231 6162
robert_trost@fws.gov

USFWS HPAI Coordinator

Brad Bortner
503 / 231 6164
brad_bortner@fws.gov

USFWS Central Flyway HPAI Coordinator

Thomas Roffe
406 / 994 5789
troffe@montana.edu
thomas_roffe@fws.gov

USFWS Central Flyway Representative

Dave Sharp
303 / 275 2386
dave_sharp@fws.gov

USFWS Mississippi Flyway Representative and HPAI Coordinator

Jim Kelley
612 / 713 5409
james_r_kelley@fws.gov

**USFWS Atlantic Flyway
Representative and HPAI Coordinator**
Paul Padding
301 / 497 5851
paul_padding@fws.gov

USFWS Avian Disease Coordinator
Samantha E. J. Gibbs
703 / 358 2686
samantha_gibbs@fws.gov

**USDA-APHIS WS
USDA-APHIS WS State Director**
[http://www.aphis.usda.gov/wildlife_ damage/us_states_maps.shtml](http://www.aphis.usda.gov/wildlife_damage/us_states_maps.shtml)

Laughing gull



USFWS

**U.S. Fish and Wildlife Service
Region 6, Wildlife Health
1400 South 19th Avenue
Bozeman, MT 59718**

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