

Wildlife Health Bulletin 2021-04

National Wildlife Health Center
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Detection of Highly Pathogenic Avian Influenza H5N1 in an Exhibition Farm in Newfoundland and Labrador, Canada

Summary

- On December 20, 2021, the Canadian Food Inspection Agency announced detection of highly pathogenic avian influenza (HPAI) H5N1 in the Avalon Peninsula of Newfoundland and Labrador.
- Ongoing surveillance in the U.S. has not detected HPAI H5 since 2015, but increased vigilance is warranted.
- There is an interagency call for increased surveillance for morbidity/mortality in waterfowl, raptors, and avian scavengers (e.g., ravens, crows, gulls).

On December 20, 2021, the [Canadian Food Inspection Agency \(CFIA\)](#) confirmed the presence of [HPAI subtype H5N1](#) at a multi-species exhibition farm in the Avalon Peninsula of Newfoundland and Labrador, Canada (Figure 1). Phylogenetic analysis indicates this virus corresponds to the Eurasian lineage circulating in 2021. Since the exhibition farm does not produce birds for sale and no other cases resembling avian influenza have been reported in the vicinity of the farm, Canada maintains its status as “free from avian influenza” according to World Organisation for Animal Health (OIE) guidance and these findings should not affect trade.

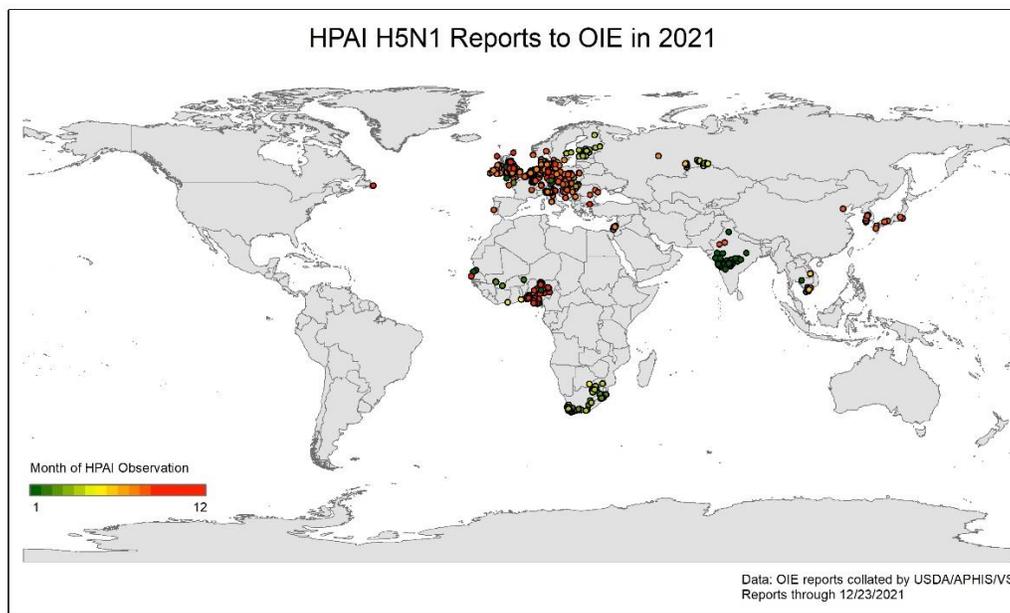


Figure 1. Reports of HPAI H5N1 to the OIE during calendar 2021, by month of outbreak. Collated OIE reports provided courtesy of USDA – APHIS – Veterinary Services.

Despite ongoing monitoring for this pathogen, this is the first detection of HPAI H5 in North America since the summer of 2015. Most recently, the U.S. Department of Agriculture – Animal and Plant Health Inspection Service – Wildlife Services (WS), in partnership with state and tribal natural resource management agencies and the National Animal Health Laboratory Network, completed fall waterfowl sampling in the U.S. called for in the [Implementation Plan for Avian Influenza Surveillance in Waterfowl in the United States](#)¹, and HPAI was not detected in the nearly 6,000 samples collected.

Nevertheless, the recent detection in Canada warrants increased vigilance for HPAI in the United States. Natural resource professionals are encouraged to remain vigilant for morbidity/mortality in waterfowl, and also in raptors and avian scavengers (e.g., ravens, crows, gulls) that may indicate infection with HPAI. In coordination with the U.S. Interagency Steering Committee for Highly Pathogenic Avian Influenza, the U.S. Geological Survey's National Wildlife Health Center (NWHC) will increase surveillance of wild birds in the United States via enhanced sampling of avian morbidity/mortality events that meet the criteria described below. This work is being conducted in close coordination with WS, the U.S. Fish and Wildlife Service, and state and tribal wildlife management agencies. Although NWHC typically pursues full cause of death determination for submissions without an obvious cause of death (e.g., electrocution), if caseloads increase beyond current capacity some samples may only be screened for HPAI.

Expanded NWHC submission criteria for HPAI diagnostics:

For 2021, the NWHC issued [expanded submission criteria for HPAI](#). These criteria will be carried into 2022. Highlights include:

- Mortality involving five or more waterfowl (ducks, geese, or swans) or other water birds (loons, grebes, coots, shorebirds, or wading birds such as egrets, herons, or cranes)
- Mortality involving any number of raptors or avian scavengers (e.g., ravens, crows, gulls)
- Morbidity involving raptors, waterfowl, or avian scavengers (e.g., ravens, crows, gulls) observed with clinical signs consistent with neurological impairment
- Mortality events involving any species of birds that exceeds 500 animals

Field biologists should consider these minimum precautions when handling sick or dead birds associated with a mortality event:

- Wear protective clothing including aprons, coveralls, rubber boots, gloves (rubber, latex, or nitrile), eye protection, and face shields that can be disinfected or discarded to prevent skin and mucous membrane contact with biological materials and movement of biological materials among sites.
- Work in well-ventilated areas or upwind of animals to decrease the risk of inhaling airborne particulate matter such as dust, feathers, or dander.
- Wash hands often and thoroughly for at least 30 seconds with soap or alcohol-based hand sanitizer.
- Do not eat, drink, or smoke while handling animals.
- Decontaminate work areas and properly dispose of potentially infectious material including carcasses. The primary goal of carcass disposal (e.g., incineration, composting, certified landfilling) is to prevent the spread of infectious agent.
- Your agency may also have policies regarding the use of particulate respirators (N-95) while handling sick and

dead wildlife.

Disease Investigation Services

To request diagnostic services or report wildlife mortality, please contact the USGS National Wildlife Health Center at 608-270-2480, by email at NWHC-epi@usgs.gov, or through the Wildlife Health Information Sharing Partnership – event reporting system ([WHISPers](#)) interface 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.

Further information about our services can be found at <https://www.usgs.gov/centers/nwhc/science/disease-investigation-services>. To learn more about submitting samples and reporting events, go to <https://www.usgs.gov/centers/nwhc/science/report-mortality-events-and-submit-specimens>. The [WHISPers](#) system can also be used to enter event information, request diagnostic services, and to view and search summary information on wildlife morbidity/mortality events. If you have questions or concerns regarding the scientific and technical services we provide, please do not hesitate to contact NWHC Director Jonathan Sleeman at jsleeman@usgs.gov.

References

1. U.S. Interagency Steering Committee for Surveillance for Highly Pathogenic Avian Influenza in Wild Birds. 2021. Implementation Plan for Avian Influenza Surveillance in Waterfowl in the United States: Summer FY 2021 – Winter FY 2022. https://www.aphis.usda.gov/animal_health/downloads/animal_diseases/ai/2021-22-wild-bird-ai-surveillance-implementation-plan.pdf.

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