

PROGRAM ACTIVITY REPORT (PAR)



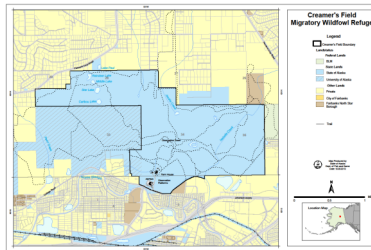
H5N2 Highly Pathogenic Avian Influenza Detection in Alaska

Wild migratory waterfowl are a natural reservoir for influenza A viruses. Typically, viruses isolated from these birds are of low pathogenicity for poultry including H5 and H7 subtypes; however, one specific H5 lineage (originating with a goose virus detected in Guangdong Province, China in 1996) can be carried by wild migratory waterfowl in a form that is highly pathogenic for poultry.

An H5N8 virus of this lineage (H5 2.3.4.4) originating from Eurasia spread rapidly in the U.S. during 2014. Introduction of this virus has allowed mixing with North American origin viruses and generated new combinations with genes from both Eurasian and North American origin (or “reassortant” viruses). This group of Eurasian H5 lineage viruses is highly pathogenic in poultry. To date, no humans or other mammals have shown signs of disease from these highly pathogenic viruses in North America; but field personnel should take appropriate precautions including wearing protective clothing when handling potentially diseased wildlife, sick wildlife, or carcasses.

On 12 August 2016, Alaska Fish and Game biologists live-captured an adult

female mallard at Creamer’s Field Migratory Waterfowl Refuge in Fairbanks. The mallard was sampled for



avian influenza as part of the ongoing national early detection and surveillance system. The sample was sent to the Washington Animal Disease Diagnostic Laboratory at Washington State University where it screened positive for an H5 influenza virus. Subsequently, the sample was shipped to the National Veterinary Services Laboratories for further characterization where, on 24 August, it tested positive for a highly pathogenic H5 virus. Partial sequencing on 25 August confirmed the presence of Eurasian-North American H5N2 2.3.4.4 highly pathogenic avian influenza. The sequencing analysis indicated that the virus was >99% similar to the first Eurasian origin highly pathogenic virus detected in a northern pintail duck from Whatcom County, WA on 8 December 2014. This represents the first

confirmed detection of a Eurasian lineage H5 highly pathogenic virus since June 2015.

The USGS Alaska Science Center, Alaska Department of Fish and Game, and the NWDP continue to conduct wild bird surveillance in Alaska. Between 26 August and 6 September, 101 environmental fecal samples, and 592 hunter-harvested samples have been collected. Fecal samples are being screened at the National Wildlife Research Center in Fort Collins, CO, while hunter-harvested samples are being screened at the USGS National Wildlife Health Center in Madison, WI, and the Washington Animal Disease Diagnostic Laboratory, in Pullman, WA. To date, no additional samples have tested positive for highly pathogenic avian influenza.



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The original artwork on this page was created by the National Wildlife Disease Program's Erika Kampe and Sarah Goff