

SURVEILLANCE FOR HIGHLY PATHOGENIC AVIAN INFLUENZA VIRUS IN WILD TURKEYS (*MELEAGRIS GALLOPAVO*) OF MINNESOTA, USA DURING 2015 OUTBREAKS IN DOMESTIC POULTRY¹

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ABSTRACT

An outbreak of a novel reassortant of highly pathogenic avian influenza A (H5N2) virus (HPAIV) decimated domestic turkeys (*Meleagris gallopavo*) from March through mid-June, 2015 in the state of Minnesota, USA. In response, as part of broader surveillance efforts in wild birds, we designed a pilot effort to sample and test hunter-harvested wild turkeys (*Meleagris gallopavo*) for HPAIV in Minnesota counties with known infected poultry facilities. We also collected opportunistic samples from dead Wild Turkeys or live wild turkeys showing neurologic signs (morbidity and mortality samples) reported by the public or state agency personnel. Cloacal and tracheal samples were collected from each bird and screened for avian influenza virus (AIV) RNA by real-time reverse transcription PCR. From 15 April to 28 May 2015, we sampled 84 hunter-harvested male wild turkeys in 11 Minnesota counties. From 7 April 2015 through 11 April 2016, we sampled an additional 23 wild turkeys in 17 Minnesota counties. We did not detect type A influenza or HPAIV from any samples, and concluded, at the 95% confidence level, that apparent shedding prevalence in male wild turkeys in central Minnesota was between 0 and 2.9% over the sampling period. The susceptibility of wild turkeys to HPAIV is unclear, but regular harvest seasons make this wild gallinaceous bird readily available for future AIV testing.

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