



National Wildlife Health Center
Wildlife Health Bulletin 2018-02

Avian Cholera Mortality Events in the Mississippi and Pacific Flyways During 2018

To: Natural Resource/Conservation Managers
From: Dr. Jonathan Sleeman, Center Director, USGS National Wildlife Health Center
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Avian cholera has been confirmed as the cause of waterfowl mortality in Arkansas, Illinois, Indiana, Kentucky, Missouri, and Tennessee in the Mississippi Flyway, and Utah and California in the Pacific Flyway. Mortality in the recent events has ranged from dozens of waterfowl to an estimated 50,000 eared grebes in Utah. Following standard procedures for all waterfowl received at the USGS National Wildlife Health Center (NWHC) all specimens were tested for highly pathogenic avian influenza virus, and all results have been negative, thus far.

Similar to other wildlife mortality events, wildlife agencies are encouraged to continue monitoring these mortality events and provide periodic updates to the NWHC Epidemiology Team at NWHC-EPI@USGS.GOV or calling (608)270-2480 as further investigative considerations may be warranted. Wildlife management agencies that investigate any morbidity and mortality events independently or in collaboration with other diagnostic laboratories are strongly encouraged to report these events to the NWHC using our [reporting form](#). To increase situational awareness of wildlife disease events occurring on the national landscape, NWHC will display this information on [WHISPers, a Wildlife Health Information Sharing Partnership website](#).

Avian cholera, caused by the bacteria *Pasteurella multocida*, is a common, contagious disease that has been documented in over 100 species of wild birds. Large outbreaks generally occur in the fall and winter and primarily involve wild waterfowl. Acute mortality is typical in avian cholera outbreaks, and common clinical signs displayed by infected birds include lethargy, convulsions, swimming in circles, and erratic flight. Birds may also exhibit mucous discharge from the mouth and nose, and soiling of the feathers around the vent, eyes and bill. The disease often spreads to other waterfowl and shorebirds, although many additional avian species are susceptible. Avian scavengers such as eagles, hawks and owls are known to become infected by consuming infected waterfowl. Therefore, mortalities in these species should also be investigated.

Disease Control and Biosecurity: Collection and incineration or deep burial of carcasses is recommended to reduce bacterial contamination of the environment and to avoid secondary infection of scavenger species. To minimize highly infectious fluid discharge to the environment during collection efforts, carcasses should be picked up head first. Dispersing live birds at an outbreak site is generally not recommended. Wear boots, gloves, and outer clothing that can be bagged, cleaned and disinfected, or bagged and thrown away. Equipment, vehicles, and boats should be washed to remove organic material and mud, then disinfected with 10% bleach solution or other disinfectant such as Virkon, as soon as possible after use.

Domestic Animal Significance: Although transmission of *P. multocida* from wild birds to poultry is possible, the serotype of the bacterium that most commonly causes avian cholera in wild birds differs from the serotype that is generally associated with the disease in poultry. Strains of *P. multocida* isolated from wild birds do not typically cause infections in mammals. Nevertheless, as a routine precaution dog owners should prevent contact between their pets and sick or dead birds.

Human Health Considerations: Strains of *P. multocida* isolated from birds are considered low risk to humans. However, as a routine precaution when handling any sick or dead birds, personal protective equipment, including gloves, rubber boots, disposable or cloth coveralls, and thorough hand washing are recommended.

General safety guidelines for hunters:

Waterfowl hunters in affected areas should consider cleaning and disinfecting gear, such as waders and decoys, to help minimize potential further spread of infectious diseases. Refer to disease control guidance above.

- Do not handle or eat sick game. As a precaution we recommend not consuming the meat from birds in which white spots are seen on the liver.
- Field dress and prepare game outdoors or in a well-ventilated area.
- Wear rubber or disposable latex gloves while handling and cleaning game.
- When done handling game, wash hands thoroughly with soap or disinfectant, and clean knives, equipment and surfaces that came 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.

For additional information on avian cholera please visit:

https://www.nwhc.usgs.gov/publications/field_manual/chapter_7.pdf

https://www.nwhc.usgs.gov/publications/fact_sheets/pdfs/cholera091102.PDF

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

Wildlife Mortality Reporting and Diagnostic Services Request Worksheet

If you have any questions or concerns regarding the scientific and technical services we provide, please do not hesitate to contact NWHC Director Jonathan Sleeman at 608-270-2401, 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 e-mail: nwhcoutreachdb@usgs.gov.