



Avian Health and Disease Program

Division of Migratory Bird Management



Bulletin

In order to maintain vigilance in detecting new, emerging, and introduced diseases and to maintain long term surveillance of domestic disease problems affecting wild birds, it is very important that avian morbidity and mortality events (i.e. sick or dying birds) are reported and investigated. **Below are the details of several ongoing avian disease events:**

West Nile virus outbreaks

- West Nile virus (WNV) is currently causing human, equine, and wild bird mortalities across the nation. The hardest hit areas include Texas, Oklahoma, North Dakota, South Dakota, and Mississippi. Centers for Disease Control officials believe this year's outbreak is the largest and most serious to date, with 2,963 human cases so far.
- The drought may be influencing this season's West Nile virus cases by increasing the density of bird populations visiting dwindling water supplies where mosquito species that transmit the virus are breeding. At the same time, higher temperatures are increasing the speed of mosquito reproduction.
- Hatch year birds, and birds that have not been exposed to WNV in the past, are susceptible to infection and possible clinical disease or death as a result. Crows and jays are particularly susceptible to WNV. Large-scale surveillance of WNV is no longer conducted in wild birds; as a result it is difficult to determine the impact the WNV outbreak is having on wild birds.

Virulent Newcastle disease virus outbreaks

- Virulent Newcastle disease virus (which can cause high mortality in domestic poultry) has been detected in wild double-crested cormorants in several locations this summer including Waubay NWR in South Dakota, Audubon NWR complex in North Dakota, and Minnesota and Pigeon Lakes in Minnesota. The outbreaks have killed hundreds of birds and caused the closure of affected areas to hunters in Minnesota.
- Virtually all species of birds are considered susceptible to infection with Newcastle disease virus. Clinical signs reported in double-crested cormorants, white pelicans, and ring-billed gulls include dehydration, emaciation, weakness, diarrhea, respiratory distress, paralysis of wings or legs, incoordination, and twisted or drooping necks.
- The best defense against spread of Newcastle disease virus is the implementation of strict biosecurity measures (please see biosecurity section below).

Botulism outbreaks

- Botulism toxin, produced by the bacterium *Clostridium botulinum*, has caused mortalities in thousands of birds around the country including waterfowl and shorebirds at National Wildlife Refuges in the Chesapeake Bay and Klamath Falls areas.
- Avian botulism causes paralysis in affected birds. Decomposing vegetation and invertebrates combined with warm temperatures can provide ideal conditions for the botulism bacteria to activate and produce toxin. Botulism epidemics typically occur in late summer or autumn and often recur at the same locations year after year.
- Prompt removal and proper disposal of carcasses by burial or burning can be effective in removing toxin and maggot sources from the environment. If possible, avoid altering water depth by flooding or drawing down water levels during hot weather as this may increase invertebrate and fish die-offs, a protein source for the bacteria.

Reporting, collecting, and submitting dead birds

There are a few ways to report dead or sick birds in your area. The laboratory may request that you submit the carcasses for testing, and will give you instructions on how to collect and ship the specimens to the laboratory.

1. Contact your US Fish and Wildlife Service Regional Avian Health and Disease Program Coordinator to alert them to the event so that they can develop a strategy for investigation. Please see the website below for coordinator contact information:
(<http://www.fws.gov/migratorybirds/CurrentBirdIssues/AvianHealth/contact.html>)
2. Contact the USGS National Wildlife Health Center to arrange for dead bird submission to the laboratory and event investigation.
(http://www.nwhc.usgs.gov/mortality_events/reporting.jsp)
3. Contact the Southeastern Cooperative Wildlife Disease Study to arrange for dead bird submission to the laboratory and event investigation.
(www.scwds.org)

Biosecurity

- Do not handle sick birds or carcasses without wearing personal protective equipment (at a minimum wear gloves, protective eyewear, and a change of clothes or coveralls).
- Items used while handling birds that become soiled with avian fecal material (such as holding crates, the interior of boats, truck beds, boots, etc.) should be cleaned using soap and warm water, Virkon disinfectant, Lysol, or a 10% bleach solution to avoid spreading the disease to other areas.
- Carcasses should be buried or burned on-site to limit spread of the disease. Coolers used for shipment of carcasses to diagnostic labs should be disinfected thoroughly on the outside when removed from the field site.

If you have any further questions or concerns regarding health risks, avian diseases, or submission of dead birds, please contact the USFWS National Avian Disease Coordinator, Samantha Gibbs, at Samantha_Gibbs@fws.gov or 571-216-5776 (cell).