



AVIAN MYCOPLASMOSIS

Other names: *Mycoplasma gallisepticum*, House Finch Eye Disease



CAUSE

Mycoplasmosis is a disease of birds caused by infection of *Mycoplasma* bacteria. There are multiple species of *Mycoplasma* capable of causing disease in domestic and wild birds, however, *Mycoplasma gallisepticum* poses the greatest risk to the health of wild birds.

SIGNIFICANCE

Prior to 1993, *Mycoplasma* was primarily known to cause chronic respiratory disease in domestic poultry, upland game birds, and waterfowl. However, during the winter of 1993-94 incidents of house finches with severe conjunctivitis were reported in Virginia and Maryland, and *Mycoplasma gallisepticum* was identified as the cause. Mycoplasmosis has since been identified across Canada and the United States in multiple species of passerines including American goldfinches, evening grosbeaks, purple finches, and it is capable of infecting corvids. The CWHC has recorded incidents of avian mycoplasmosis in PEI, Ontario, Saskatchewan, and BC. This disease causes significant declines in bird populations often occurring within 2-3 years of the start of an epidemic. These declines can reduce populations to 40% of their prior abundance. Mycoplasmosis has also been increasing in virulence since it was first observed in house finches.

RISK TO HUMAN AND DOMESTIC ANIMAL HEALTH

Mycoplasma gallisepticum does not pose a health risk of humans, however, it does represent a significant health hazard in domestic poultry where it causes chronic respiratory disease. Transmission of *M. gallisepticum* from wild birds to domestic birds is possible, however, prolonged exposure appears necessary to do so.

TRANSMISSION

Mycoplasmosis is considered a highly transmissible disease that is spread among birds through exchange ocular or nasal discharge. *Mycoplasma* cannot survive outside of the body of a host for long periods of time and requires exchange of recently expelled fluid discharge from an infected individual. For this reason, sites where birds come into close contact, such as bird feeders and roosting sites are the primary sites of infection.

CLINICAL SIGNS

Mycoplasmosis causes conjunctivitis and rhinitis in wild bird species. Symptoms include red, potentially extremely swollen eye lids and conjunctival tissue with a clear ocular discharge. A crust may form along the eyelid margins potentially resulting in damage to the cornea, ocular

discharge, and loss of sight. Infection can cause inflammation of the sinuses resulting in flowing nasal discharge. Birds may have wet, matted feathers around the face, fluffed up body feathers. Infected birds may also exhibit a lack of activity, reduced feeding, and weight loss. Death usually results from starvation, exposure to inclement conditions, or predation.

MANAGEMENT AND PREVENTION

Bird feeders are a potential site of disease transmission. The following precautions are recommended to avoid spread of the infection and help preserve the health of wild birds:

- During a known outbreak of mycoplasmosis, temporarily remove bird feeders and baths to reduce the likelihood of transmission.
- Clean your bird feeders and bath regularly. A weak solution of domestic bleach (10% sodium hypochlorite) should be used to disinfect feeders and baths. Feeders should be rinsed and dried before re-use.
- No treatment is recommended for infected wild birds because use of antibiotics could result in the development of an asymptomatic carrier state of the bacteria, antimicrobial resistant bacteria, and could result in an overall increase in the spread of the disease.
- Avoid using tube feeders that require birds to stick their head inside as infected birds may leave discharge on the sides of the opening, which could easily be transferred to healthy individuals.
- Report any sick or dead birds to the Canadian Wildlife Health Cooperative. Find your closest regional centre at: <http://www.cwhc-rclf.ca/>

Birds can carry other diseases transmissible to humans and pets (for example *Salmonella*, *Campylobacter* and *E.coli* bacteria. Routine cleaning and disinfection will reduce the risk of any infections being passed on to people or pets.

- Brushes and equipment used to clean bird feeders and baths should not be used for any other purpose. Keep them outside and away from food preparation areas.
- Wear rubber gloves when cleaning feeders and thoroughly wash hands and forearms afterwards with soap and water, especially before eating and drinking. Avoid handling sick or dead birds directly.

SUGGESTED READING

- [Michigan Department of Natural Resources Wildlife Disease Manual Chapter](#)
- [The Cornell Lab of Ornithology House Finch Eye Disease Article](#)
- [Project Feeder Watch House Finch Eye Disease Article](#)



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