



AVIAN SALMONELLOSIS

Other names: *Salmonella typhimurium*



CAUSE

Salmonellosis is a disease of birds caused by infection with *Salmonella typhimurium* (also known as *S. enterica* subspecies *enterica* serovar Typhimurium).

SIGNIFICANCE

Salmonellosis is a widespread disease affecting many species. In passerine birds, it causes outbreaks primarily in the winter and spring, some of which have been documented to occur simultaneously over extensive geographical areas of North America.

RISK TO HUMAN AND DOMESTIC ANIMAL HEALTH

Salmonella bacteria are common pathogens of humans, such infections commonly cause “food poisoning” characterized by acute abdominal pain and diarrhea. Many animals infected with *Salmonella* may not get sick, however, in those that do become ill, common symptoms include diarrhea (sometimes containing mucous or blood), vomiting, and/or fever. People handling sick or dead birds and/or potentially contaminated equipment (e.g. bird feeders) should be sure to take extra care with personal hygiene by ensuring they thoroughly wash their hands and forearms with hot water and soap afterwards.

TRANSMISSION

Salmonellosis is transmitted by the accidental ingestion of *Salmonella* bacteria in contaminated food or water, and/or exposure to contaminated equipment (e.g. bird feeders).

CLINICAL SIGNS IN BIRDS

Salmonella can occur in several species of passerine birds frequenting bird feeders including common redpoll (*Acanthis flammea*), pine siskin (*Spinus pinus*), purple finch (*Haemorhous purpureus*), American goldfinch (*Spinus tristis*) and evening grosbeak (*Coccothraustes vespertinus*). Similar to trichomonosis, salmonellosis often causes severe inflammation and death the esophagus and crop tissues affecting the ability of the sick birds to eat and drink, resulting in starvation and death due to a combination of emaciation and dehydration. *S. typhimurium* can invade blood vessels and gain access to the bloodstream (i.e., sepsis), causing lesions in many tissues throughout the body. Death in such cases can be very rapid. Other commonly reported signs of salmonellosis include rapid, laboured breathing, shivering, incoordination, lethargy, fluffed up feathers, droopiness, diarrhea and convulsions. Birds with salmonellosis may also regurgitate food and water and/or drool saliva.



MANAGEMENT AND PREVENTION

Bird feeders are a potential site of salmonellosis 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 salmonellosis, remove bird feeders and baths until warmer spring weather to reduce the likelihood of transmission.
- Clean your bird feeders and bath two times a month with hot soapy water followed by a 3 minute soak in a 10% solution of domestic bleach (1 part sodium hypochlorite in 9 parts water) for disinfection. Feeders should be rinsed with clean cold water and dried before re-use.
- 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.
- No treatment is recommended for infected wild birds because it requires the use of antibiotics, which could cause some birds to become asymptomatic carriers of the disease and/or antimicrobial resistant *Salmonella* bacteria, and either of which increases the possibility of salmonellosis spreading in the bird population.
- Avoid using tube feeders that require birds to stick their head inside openings to feed as infected birds may leave discharge containing *Salmonella* bacteria on the sides of these openings, which could easily be transferred to healthy individuals and cause them to become sick with salmonellosis.
- Report any sick or dead birds to the Canadian Wildlife Health Cooperative. Find your closest regional centre at: <http://www.cwhc-rcsf.ca/>

SUGGESTED READING

- [USGS Field Manual of Wildlife Diseases - Chapter 9 Salmonellosis](#)
- [Alberta Fish & Wildlife Avian Salmonellosis Fact Sheet](#)
- [Salmonellosis in Wild Birds](#)



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