



Introduction

Sphaeridiotrema globulus is an intestinal parasite that affects waterfowl. Specifically, swans and diving ducks. It has been known to cause large mortality events in waterfowl.

Species Affected

Sphaeridiotrema globulus can affect waterfowl including diving ducks, scaup, and coots but most notably affects swans.

Clinical Signs

Clinical signs occur within 24 hours of ingesting *Sphaeridiotrema globulus*. This parasite most commonly causes hemorrhagic diarrhea due to the worms feeding on the intestinal vasculature causing blood loss and anemia. Lethargy and a blood-stained vent can also be present. It is also possible for intestinal bacteria to leave the digestive tract and become systemic, causing sepsis. Younger birds are more susceptible than adults.

Transmission

Sphaeridiotrema globulus is transmitted via an intermediate host. The intermediate host is the invasive faucet snail (*Bithynia tentaculata*). Waterfowl become infected by eating faucet snails that are carrying the *Sphaeridiotrema globulus* parasite. The transmission cycle continues when eggs of this parasite are shed in feces, which are then eaten by the faucet snail.

Diagnosis

Fecal testing is needed to observe and identify the parasitic eggs in feces. Intestinal content can also be analyzed. Intestinal walls can be examined histologically to identify parasitic eggs (*Figures 1 & 2*). *Sphaeridiotrema globulus* can also be found in the environment via water and soil. The population of invasive faucet snails can be examined for *Sphaeridiotrema globulus* as well.

Epidemiology

Outbreaks occur in freshwater environments where the invasive faucet snail is present. Typically, mortality events happen in northeastern and north central states of the US. Mortality rates in waterfowl are between

80 and 100%. If detected early, this parasite infection can be treated with a combination of antiparasitic medications.

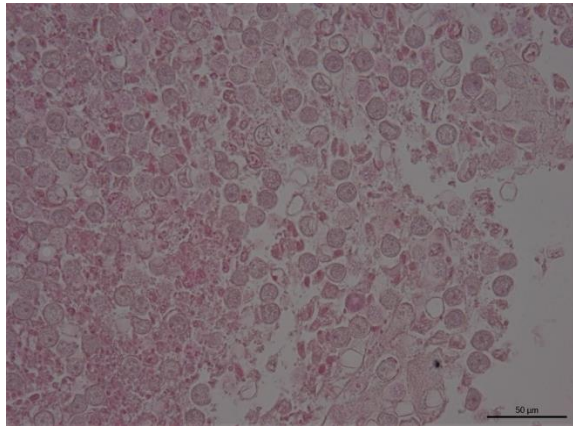


Figure 1. *Sphaeridiotrema globulus* positive. Lumen of intestine of a Mute Swan. Taken by Dr. Nicole Lewis, Wildlife Veterinarian, NJ DEP Fish and Wildlife.

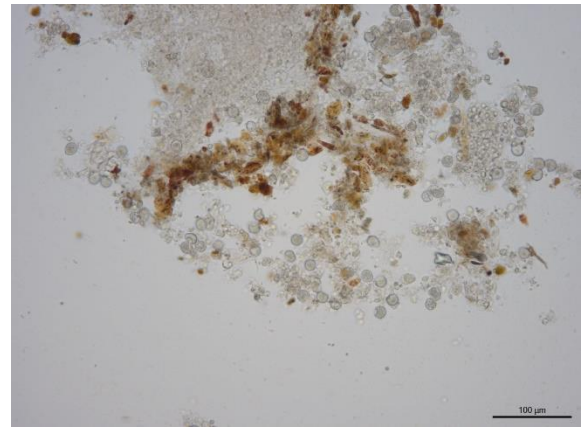


Figure 1. *Sphaeridiotrema globulus* positive fecal float of a Mute Swan. Taken by Dr. Nicole Lewis, Wildlife Veterinarian, NJ DEP Fish and Wildlife.

Additional Information

[Sphaeridiotrema | Cornell Wildlife Health Lab](#)

[Pathology Case of the Month - Mallard Ducks | U.S. Geological Survey \(usgs.gov\)](#)

Cover Image: Mark Calzaretta