

BASICS

Sphaeridiotrema globulus is an intestinal parasite (trematode or fluke) less than 1 millimeter in length that can cause severe disease in some **WATERFOWL**, especially in diving ducks, swans, and, occasionally coots.

The intermediate host for the parasite is the invasive faucet snail, *Bithynia tentaculata*.

CLINICAL SIGNS occur in less than 24 hours after consumption of the parasite. Hemorrhagic diarrhea is the common clinical syndrome in affected birds and there is high morbidity and mortality.

Birds become **INFECTED** by eating invasive faucet snails (*Bithynia tentaculata*) that are infected with the parasite. Parasite eggs are then shed in the feces and are picked up by the snails.

Fecal analysis and floats should be performed to **IDENTIFY** the characteristic parasitic eggs.

TREATMENT includes anti-helminthic medication; Fenbendazole, Praziquantel, and Ivermectin used in combination.



**80-100%
MORTALITY IN
WATERFOWL**

INGESTION

**DUCKS &
SWANS**

DETAILS

Sphaeridiotrema globulus has caused **MORTALITY** in waterfowl in New York since 1982, most notably along the Hudson River area (Saratoga, Washington, Greene, Columbia Counties), but also Lake Ontario, Cayuga Lake, Lewiston Reservoir (Niagara Co.) and Long Island. Demographically, cases have been reported in the United States, most commonly in the Northeast and North Central States, with a few reports from Western States.

Outbreaks along the Mississippi River have resulted in deaths of tens of thousands of various species of waterfowl. This trematode damages the intestinal lining, leading to **SEVERE BLOOD LOSS AND ANEMIA**.

CLINICAL SIGNS *S. globulus* has high morbidity and mortality in waterfowl (80 to 100%), depending

on the species, health of the animals, previous exposure and immunity as well as the number of parasites consumed.

Attachment to the intestinal lumen causes **DAMAGE** to the intestinal lining, inflammation, ulceration, and mucous secretion. Additionally, the worms feed on blood meals from the intestinal vasculature causing anemia and hemorrhage into the intestinal tract. Intestinal bacteria can become systemic resulting in **SEPSIS**.

DIAGNOSIS Water and soil samples can be analyzed for the presence of *S. globulus* as well as the snail population. In birds, the parasite can be identified in the intestine and eggs can be detected in feces.

TREATMENT In addition to anti-parasitic medications, fluids and electrolytes should be used to address the shock from diarrhea and hemorrhage.



Intestinal hemorrhage due to *Sphaeridiotrema*

