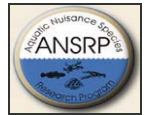




“Avian Vacuolar Myelinopathy (AVM) is the most significant unknown cause of eagle mortality in the history of the United States”

US Army Corps of Engineers Aquatic Nuisance Species Research Program



Overview



What is AVM?

Avian Vacuolar Myelinopathy (AVM) is a neurological disease primarily affecting bald eagles (*Haliaeetus leucocephalus*) and American coots (*Fulica americana*) in the Southeastern United States. This is an ongoing issue for eagles and waterbirds on our southeastern US reservoirs. This website is designed to bring research conducted by various federal and state agencies and universities into one location to update states already impacted by AVM bird deaths and encourage lake managers in other locations to observe their reservoirs for disease potential

Why AVM is harmful to birds?

The disease was first documented in the winter of 1994-1995 at DeGray Lake, Arkansas (Thomas et al. 1998) and has since been confirmed in four additional states: Texas, Georgia, North Carolina, and South Carolina (Rocke et al. 2002; Augspurger et al. 2003; Fischer et al. 2006). AVM is responsible for the death of over 100 bald eagles and thousands of coots (Rocke et al. 2002). Research implicates plant-associated (epiphytic) cyanobacteria, also known as "blue-green algae" as the source of the neurotoxin causing the disease. In the reservoirs where AVM birds deaths have occurred, there is very little algae growing in the water, but invasive aquatic plants are abundant. A new species of cyanobacteria within the order Stigonematales covered 20-90% of the leaf and stem surface of the aquatic plants (primarily hydrilla) in the disease sites (Wilde, et al. 2005).

AVM links with cyanobacteria

The working hypothesis is that the suspect Stigonematales species is producing a novel neurotoxin. The AVM-suspect cyanobacteria grows densely on invasive aquatic plant species (primarily hydrilla) and these aggressive invaders are the dominant vegetation at all lakes with a high incidence of the AVM disease. Coots, mallards, geese and other plant eating waterbirds consume the vegetation and become sick or die from ingesting the toxin. The eagles die when they consume the sick or dead waterbirds which now have toxin in their bodies.

