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HISTOMONIASIS IN WILD TURKEYS IN MISSISSIPPI

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Abstract: Blackhead (histomoniasis, enterohepatitis) was diagnosed as the cause of death for three wild turkeys *(Meleagris gallopavo silvestris)* found in widely separated areas in Mississippi. The turkeys came from areas with high turkey population densities and supplemental feeding programs. Finding three sick and/or dead wild turkeys in a year's period suggests that the disease is more prevalent than generally believed. Recommendations for management programs are presented.

INTRODUCTION

The eastern wild turkey *(Meleagris gallopavo silvestris)* has increased greatly throughout its range in the last several decades. The wild turkey numbered about 4,500 in 1943 in Mississippi, and now there are about 250,000 in the state.[1] Active turkey management programs have been installed in most states in the turkey range. These programs often include trapping wild turkeys from high density populations for release in uninhabited or low density areas. Also food plots or supplemental feeding sites are created, thus concentrating the flocks. These programs increase the chances for the spread or prevalence of disease and/or parasitism in turkeys.

METHOD

Personnel of the Mississippi Department of Wildlife Conservation, particularly Edsel Cliburn and Benny Herring and managers of Wildlife Management Areas (WMA), and custodians of private hunting clubs were asked to bring sick and/or dead turkeys to the nearest diagnostic laboratory. The State Veterinary Diagnostic Laboratory in Jackson, and the Diagnostic Laboratory Services, College of Veterinary Medicine at Mississippi State University, performed the necropsies on the birds and rendered the diagnoses.

RESULTS

Three adult wild turkeys with blackhead (histomoniasis, enterohepatitis) were found. Two were captured by hand and died shortly thereafter. The third was found shortly after death. The necropsies reported multifocal hepatic necrosis, with fibrous areas on the liver and extending into the parenchyma. Numerous foci of inflammatory cells and giant cells were present. Large caseous cecal cores were present and a fibrinonecrotic cecitis condition existed.

The cases came from three widely separated parts of the state. The first case, in February, 1978, was from Clarke County in eastcentral Mississippi on the Alabama border. The bird was found near the state managed Bucatunna WMA. Pen-raised turkeys had been released in this county in 1977. The second turkey was found in February, 1979 on the Marion County WMA, in southcentral Mississippi, on the Louisiana border. The third turkey was found in July, 1979 on a privately owned wildlife area in Tunica County which is in the extreme northwest part of the state in the Mississippi Delta. Also in July, 1979, two very sick wild turkeys were observed (but not captured) by Wildlife Conservation officers in Coahoma County which is adjacent to the southern border of Tunica County.

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DISCUSSION

Dead and/or sick wild turkeys are seldom found in their native range. Finding three wild turkeys that died of blackhead in a one-year period, and in widely separated parts of the state, suggests that the disease is widespread. Blackhead had been previously reported only in Bolivar County, Mississippi.[3,5]

The dead or sick turkeys were found on or near areas with high turkey populations. These areas were managed for turkeys, including food plots on the WMA's and artificial feeding sites (piles of corn) on the private area. These management practices concentrate the turkeys on small areas and increase the chances of epizootics. Some pen-raised turkeys were released near one WMA. This practice is very dangerous in that the pen-raised birds carry diseases and parasites to the native birds. All areas have spring, gobbler-only turkey hunting.

The following management practices are recommended to reduce the threat of epizootics of blackhead: pen-raised galliforms should not be released into the wild, the location of food plots should be rotated annually and the old sites burned and plowed, supplemental feeding sites (piles of food) should be moved frequently, predator control should not be undertaken, turkeys trapped in the wild should be treated for intestinal parasites (*Heterakis* sp., etc.) prior to their release, and either-sex, fall hunting as well as spring gobbler-only hunting should be allowed in areas with high turkey densities.[2,4]

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