

Hemorrhagic disease in Tennessee

A major outbreak of hemorrhagic disease (HD) has occurred among white-tailed deer this year (2007) throughout Tennessee (and other areas of the whitetails range). There have been many calls asking about the significance and impact of the outbreak. Hopefully, the information below can help address some of the questions you may be receiving.

Hemorrhagic disease is caused by either epizootic hemorrhagic disease (EHD) viruses or bluetongue (BT) viruses. To my knowledge, all of the animals tested in Tennessee this year have died from EHD viruses. Nonetheless, transmission of the viruses occurs through biting midges in the genus *Culicoides*. The disease typically occurs in late summer/early fall and coincides with maturation of the biting midges, which undergo larval stages through early- to mid-summer. Occurrence of HD is halted with cool weather, specifically frosts, which kill the midges. This year, we are not only suffering from drought, but also prolonged warm temperatures. This has prolonged the occurrence of HD.

The disease progresses differently among individual deer, but infected animals often suffer fever (thus they are found near water), respiratory distress, and swelling of the head, neck, tongue, and membranes around the eyes. Some deer die relatively quickly after contracting the disease, while others live longer and may develop various lesions and exhibit reduced activity. These animals may have hemorrhages or congestion in the heart, rumen, or intestines. There may also be ulcerations on the dental pad, tongue, palate, and various chambers in the stomach. Some animals experience growth interruptions on the hooves and/or sloughing of the hoof walls. Some may be disabled for weeks by lameness and emaciation.

Fawns are typically provided immunity from the disease usually for 4 – 5 months after birth as a result of maternal antibodies. Thus, sighting fawns feeding in fields without does may be relatively common in some areas this year. Among adult deer, previous infection results in immunity to that virus, but the deer may still be susceptible to other HD viruses. Although cattle are susceptible to both EHD and BT viruses, cattle seldom exhibit clinical signs, and those signs are usually very mild.

It is my personal opinion, based on field observations and several landowner reports, that the HD outbreak in TN has reduced the deer herd considerably in some localized areas. Hunters may see fewer deer than normal this season. This is not necessarily a bad thing. In many areas, the deer population needs to be lowered. It is important to realize, however, HD is not density dependent. That is, it may occur even when and where there are few deer. We see more affected and dead deer when the disease hits hard where there are a lot of deer—they are simply more visible when there are more of them.

Neither EHD or BT viruses are infectious for humans. However, animals that develop secondary bacterial infections following hemorrhaging or ulcerations may not be suitable for consumption.

I hope this information helps you answer questions coming your way.

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Associate Professor

Source:

Davidson, W.R. 2006. Field manual of wildlife diseases in the southeastern United States. Third edition. Southeastern Cooperative Wildlife Disease Study. Athens, GA 30602; (706) 542-1741; www.scwds.org