

# Dr. Deer's PRESCRIPTION

## RIGHT (AGAIN) UNFORTUNATELY!

By Dr. James C. Kroll, Ph.D.

As I write this column, hundreds of thousands of deer are falling dead around the country. No, not from bullets or arrows, but from a far more deadly foe. It is an enemy invisible to the naked eye, one carried from deer to deer by one of the most insignificant, yet irritating creatures, the common gnat. The disease is being reported in areas not traditionally associated with this mysterious disease, including New Jersey, Montana, Ohio, Pennsylvania, North Carolina, Kentucky, Indiana, Illinois, Virginia, West Virginia, Arkansas, South Carolina, New York, and elsewhere.

Actually, the disease is really two culprits: one is epizootic hemorrhagic disease, or EHD, the other, blue tongue (BT). Both EHD and BT are similar in effect to the dreaded Ebola virus of Africa. (Note: EHD and BT are *not* health hazards to humans. In fact, only one human ever has contracted EHD, and that was under laboratory conditions.) In all there are seven identified serotypes for the two diseases; four for BT (serotypes two, 10, 11 and 13) and three for EHD (serotypes one, two, and 17).

Approximately 10 to 14 days after being bitten by a virus-carrying gnat, the first symptom arises as an acute elevation of body temperature (106 to 107 degrees Fahrenheit), and can last as long as two weeks. About 24 hours after the high body temperature occurs there may be foaming of the mouth, followed by intense swelling of the tongue (hence the name "blue tongue" for one form). The deer will appear dazed and disoriented, probably from the high body temperature. These symptoms may be followed by horrible

erosion of the mouth cavity and tongue surface. Then the really bad stuff begins to happen. The rumen lining erodes and lesions form in the small intestines. When examined, the small intestines appear to be "melting" into a bloody mess. The animal dies a horrible death. Generally you find deer that have succumbed adjacent to water, where they've gone to try to cool off.

We have known about these diseases in deer since at least the 1950s. Still, how many times have you heard about them? Yet, I bet you've heard of chronic wasting disease (CWD). Fact is, probably less than 1,000 deer and elk have died from CWD (and most of those from euthanasia) since 1970. In the same time period, probably a million deer have succumbed to EHD/BT. So if EHD/BT is such a monster, why have you not heard of it?

Most diseases are what we refer to as "density-dependent," meaning the net impact is related directly to the density of animals in any one area. For some time now, whitetail populations throughout the U.S. have been on a rapid increase due to a host of reasons, including climate change, land use changes, and over-protection.

Although Texas Parks & Wildlife essentially has stopped reporting estimates of deer population densities, I am comfortable saying we have as many or more deer than in many years. This especially is true for East Texas, where "doe days" have not served deer management well. In the late 1980s, we saw a massive die-off in this region resulting from over-population. Today we are right back where we started. Yet Texas is doing a better job of controlling its populations than most states—

at least we have the MLDP and LAMPS programs. Other states still are playing the old "hunter opportunity" game, in which private management is discouraged.

When CWD appeared on the scene, it was viewed as a hammer to suppress private deer management. Its presence was "clear evidence" intensive deer management was going to destroy hunting in North America. When the disease appeared in Wisconsin, the entire wildlife profession rallied behind eradication efforts to prevent the Wisconsin deer herd "from going extinct." I've previously documented the foolhardiness of this program. After spending \$32 million, the Wisconsin legislature ordered the DNR to abandon the program. Yet when EHD/BT showed up in Wisconsin deer this year there was hardly a murmur from the DNR. In fact, the response of the Wisconsin and various other state agencies was fascinating.

In Virginia, a stronghold of anti-private deer management, the reported death of eight deer in Henry County and 50 in Allegheny County, followed by many other reports, elicited a ho-hum response from the state. The *Martinsville Bulletin* (October 4, 2007) reported that Jim Bowman, a wildlife biologist with the Virginia Department of Game & Inland Fisheries (VDGIF), played down the significance of the disease. He asserted that the disease, "... can be locally important in terms ... of its impact on the deer herd," but further noted there will be "... little if any impact on the deer herd."

When the disease showed up in New Jersey (which, by the way, is the type location from the 1950s), the reaction was pretty much the same. And in

Pennsylvania, where deer biologist Gary Alt lost his job over encouraging size limits on bucks and liberal doe harvests, deer now are dropping like flies from EHD/BT. Although the Keystone State was the first to really manage deer, in my opinion they have lost their way over political expediency; the state has been over-populated with whitetails for decades.

There is no relationship between EHD/BT and CWD. Dr. Walter Cottrell, Pennsylvania Game & Fish Commission veterinarian, recently noted, "Because these diseases can look alike in some ways, all of the deer that are submitted [carcasses found by the public] are being tested for CWD." But Dr. Cottrell just could not help inject a jab. "It also is worth noting that EHD is one of those diseases that can be amplified by anything that serves to congregate deer, such as supplemental feeding. Therefore, such activities should be discontinued immediately."

Give me a break! First, there is no scientific evidence I am aware of that

feeding deer increases EHD transmission. Second, which has greater impact, feeding deer or giving in to political pressures to hold deer populations abnormally high? These folks will use

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every opportunity to promote an anti-management agenda, and the results are flurries of articles, TV pieces, and the pontifications on the blogosphere about supplemental feeding causing EHD.

When the disease showed up in West Virginia, the DNR was quoted on the Buckmaster's website as saying, "Although Epizootic Hemorrhagic Disease usually does not have a major impact on deer populations, WVDNR is currently surveying the extent of the disease outbreak in the state. EHDV-2 may cause local reductions in the deer herd of usually 20 percent or less." Yet,

when a road-killed deer tested positive for CWD in 2005, followed by three more from 121 tested in the same area, the WVDNR warned, "The discovery of CWD in Hampshire County, West

Virginia, represents a significant threat to the state's whitetail deer. The disease does not cause an immediate, wide-spread die-off of deer, but if allowed to spread will cause long-term damage to the herd. Those who have tried to predict the outcome of the disease on a deer population have described the disease as a 30- to 50-year epidemic. Due to the uncertain ramifications that CWD may have on the whitetail deer resource in West Virginia, the WVDNR is taking immediate action to gather more information on the prevalence

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and distribution of the disease in the area surrounding the known infected deer.”

EHD/BT also showed up in Michigan this year. Sara Schaefer, supervisor for the Michigan DNR's Wildlife Division's Southwest Management Unit, was quoted as saying, “In the past three weeks, the DNR has received reports of approximately 50 dead deer in the area encompassing the Kalamazoo River, Rabbit River, and the Potawatomi Marsh. Staff in this area have received numerous calls about dead deer, and we were able to retrieve some fresh carcasses to be tested.” Bill Moritz, chief of the Michigan DNR's Wildlife Division, added, “Although EHD is considered the most important viral disease affecting white-tail deer in the U.S., it rarely occurs in Michigan. While it may impact the deer population in a localized area, it is not a threat to the deer herd statewide.”

A short while ago, I predicted on national TV there might be an outbreak of EHD/BT as early as 2007 in areas not traditionally having the disease. I pointed out that the causal factors were over-population, mismanagement, and climate change. Unfortunately, once again I was right! The incidence of disease will continue to rise unless we truly manage our deer populations. And like it or not, private landowners will be the most critical element. Irrespective of whether you think climate change is human-caused or not, it now appears we are in a warming cycle and will remain in one for perhaps years to come. And along with this warming trend will come increased over-winter survival of deer, increased habitat productivity, and higher deer densities. When you couple all this with declining hunter numbers and agenda-driven deer management, the importance of recreational hunting as a population control mechanism becomes suspect.

*Note: Photos appearing in the November/December 2007 column entitled “Can I Eat It?” were courtesy of Southeastern Wildlife Disease Study, College of Veterinary Medicine, University of Georgia, Athens.*