NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
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Commissioner

2021 Veterinary Advisory # 6: Epizootic Hemorrhagic Disease Virus Detected in White-Tailed Deer in New York City

- Specimens collected from three white-tailed deer found dead on Staten Island tested positive for the virus that causes epizootic hemorrhagic disease (EHD). Specimens are also being collected from a deer found dead due to suspected EHD in the Bronx.
- EHD is an often-fatal illness which primarily affects white-tailed deer; it does not affect people or traditional pets including dogs and cats.
- Report sightings of sick or dying deer online to the NYS Department of Environmental Conservation.

Please share with your colleagues in Veterinary Medicine and your staff

October 8, 2021

Dear Veterinary Colleagues,

On September 30, the New York State Department of Environmental Conservation (DEC) reported that specimens collected from three white-tailed deer found dead on Staten Island tested positive for the virus that causes epizootic hemorrhagic disease (EHD). In addition, a report of a dead deer in the Bronx is being investigated, and specimens will be collected to test for EHD virus. EHD is an often-fatal illness which primarily affects white-tailed deer. It is caused by EHD virus and is closely related to bluetongue virus. There are seven recognized serotypes of EHD virus; serotype 2 has been identified as the cause of illness among deer on Long Island and upstate New York, and serotype 6 among deer in the Hudson Valley. Other cervids can develop EHD including mule deer, pronghorn and elk. Disease and subclinical infection have been reported in cattle, and a small number of individual case reports describe EHD in yaks, American bison, bighorn sheep, sheep and alpacas. EHS does not affect people or traditional pets including dogs and cats.

The virus is transmitted by biting *Culicoides* midges, often called no-see-ums. It is not transmitted from deer-to-deer. Cases are most commonly reported in the late summer and early fall when midges are abundant. Wet weather can lead to an increase in breeding sites for these insects. However, outbreaks among deer may also occur during droughts when animals and vectors concentrate around limited water supplies. New cases usually end with the onset of freezing weather resulting in the death of the midge vector.

White-tailed deer develop signs of illness about 7 days after exposure. Onset is very sudden and often leads to death within 36 hours. Illness may include fever, anorexia, weakness, hypersalivation and nasal

discharge (which may be blood-tinged), edema of the head and neck, tachycardia and respiratory distress. Deer may seek out bodies of water to lie in to reduce their body temperature. Some deer are found dead with few or no clinical signs. There is no treatment for EHD.

According to the DEC, EHDV was first confirmed among deer in New York in 2007. Small outbreaks were reported in Albany, Rensselaer, and Niagara counties, and in Rockland County in 2011 and in 2020, a large EHD outbreak occurred in the lower Hudson Valley. This year, EHDV has also been found on Long Island and Staten Island in New York City. For the most recent data visit https://cwhl.vet.cornell.edu/article/epizootic-hemorrhagic-disease-white-tailed-deer-updated

For more information visit the DEC webpage https://www.dec.ny.gov/animals/123773.html and the Cornell Wildlife Health Lab webpage on EHD https://cwhl.vet.cornell.edu/disease/epizootic-hemorrhagic-disease

Reports are used to improve surveillance and monitor the movement of this virus among deer in New York. Encourage the submission of reports and photos of sick or dead deer suspected of having EHD using the Online EHD Reporting Form. For carcass removal, residents can call 311 to make arrangements with the NYC Department of Sanitation.

Additional References:

1. https://www.michigan.gov/emergingdiseases/0,4579,7-186-76711_80928---,00.html
2. https://www.cfsph.iastate.edu/Factsheets/pdfs/epizootic_hemorrhagic_disease.pdf