

CHRONIC WASTING DISEASE SURVIELLANCE NEBRASKA - 2003

INTRODUCTION

The first wild deer to test positive for chronic wasting disease (CWD) in Nebraska was harvested in the Upper Platte Unit southwest of Kimball during the 2000 November Firearm Deer Season. Nebraska Game and Parks Commission (NGPC) biologists believe the disease was carried in to the state from Colorado or Wyoming. Since that time, additional wild deer have been confirmed with CWD in the Panhandle region, one each in Cheyenne and Scotts Bluff Counties, six in Kimball County, three in Morrill County sixteen in Sioux County. Positive animals from Nebraska now total 27 animals, all from the Panhandle region. Additionally, over 1,500 deer from other parts of the state were tested in 2002 with no positives being found.

Information documenting the occurrence and distribution of CWD in wild cervid populations is essential for developing management plans that impede the spread of the disease and facilitate possible disease eradication programs. The primary objectives of this effort are: 1) to determine occurrence of CWD in free ranging mule deer and white-tailed deer in all Nebraska counties; and 2) to make recommendations for monitoring CWD and managing cervid populations of Nebraska.

METHODS

Heads from harvested cervids will be collected statewide during Nebraska's Firearm Deer Season from November 15 through November 23, 2003. They will also be collected in the Pine Ridge and Upper Platte South Control Areas from September 15, 2003 through January 11, 2004.

The "focus area" of this study is comprised of the following deer management units: Pine Ridge, Plains, Upper Platte, west 1/2 of Platte and northwest 1/4 of Frenchman. The focus area was selected due to its proximity to the known endemic areas in Colorado, Wyoming, South Dakota and Nebraska. As many heads as possible will be collected from the focus area including both male and female adults and fawns.

Collections will also be made outside of the focus area to establish a database to document the occurrence of CWD on a statewide basis. A minimum of 100 adult heads (1 1/2 years or older) will be collected from deer harvested within each deer management unit outside of the focus area at the direction of Wildlife Division, Management Section district managers. Attempts should be made to collect the 100 heads during opening weekend of deer season so samples can be delivered to laboratories on the following Monday. Check station locations for collecting heads will be determined after review of "gaps" in collection efforts from previous years. NGPC staff operating deer-check stations outside the focus area should realize some deer will be coming from within the focus area, and effort should be made to collect these heads.

Heads will be collected on a voluntary basis and only at deer-check stations staffed with NGPC personnel. NGPC Wildlife Division, Management Section will contact taxidermists and meat processors in an attempt to collect brain stems from cervids that were harvested within the focus area but were unable to be removed at deer-check stations. It is important to note that testing for CWD in hunter-harvested animals is a disease surveillance tool, rather than carcass quality assurance.

To increase awareness of our efforts a news release will be made prior to the firearm deer season. Solicitation of heads will be aided and encouraged by NGPC staff at deer-check stations. Brochures with information about CWD will be available at deer-check stations. Information will be available for hunters who would like to have deer that were harvested outside of the collection dates, tested for CWD at their expense.

NGPC Wildlife Division, Management Section will purchase and distribute required supplies to all deer-check stations. District Managers will insure that the reciprocating saws to be used for head removal at deer-check stations are in proper operating condition and sharp saw blades are available. The District Manager for District One will insure that an adequate supply of orange-colored metal seals (to be attached to lower mandibles and labeled with NGPC and a CWD identification number) are available to all check stations collecting heads. Data sheets developed in 2002 will be used to record CWD seal number and harvest location from nearest town.

Cervid heads will be collected from check stations by NGPC Wildlife Division, Management Section in a timely manner to assure sample integrity and delivered to university laboratories, as determined prior to the season. NGPC Wildlife Division, Research and Inventory Section will organize

equipment and tissue extraction at these laboratories. Retropharyngeal lymph nodes will be collected and stored on ice from transportation to the University of Nebraska Veterinary Services Laboratory in Lincoln. Samples will be tested utilizing the ELISA test for CWD detection. Any positive ELISA test will be confirmed through an IHC test, either at the UNL lab or at the National Veterinary Services Laboratory in Ames, Iowa.