



Multistate CWD Strategic Planning Initiative

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Since its discovery in Colorado in 1967, chronic wasting disease (CWD) has spread to at least 26 U.S. states, three Canadian provinces, South Korea, Norway, and Sweden. The first detection in Michigan occurred at a captive deer facility in 2008. Chronic wasting disease has since emerged in the free-ranging deer population when a deer in Meridian Township with advanced CWD infection was discovered in 2015. Subsequently, additional free-ranging and farmed deer have tested positive in an ever-expanding region of the Southern Lower Peninsula, and one free-ranging deer has tested positive in the Upper Peninsula along the border of Wisconsin. Evidence of primate and livestock susceptibility, environmental contamination, and the ability of plants to take up the disease agent points to a potential risk for both humans and livestock. The disease also challenges wildlife conservation as it threatens the financial cornerstone of fisheries and wildlife programs because sales of deer hunting licenses represent a large proportion of annual revenue for these programs.

These challenges raise particular concern in Midwest agricultural regions. They support a deer population that is highly valued by the public and a critical component of Midwest culture. The key to addressing the challenges of CWD is recognizing that because this agricultural landscape creates such a productive environment for white-tailed deer, and because deer are a dominant element in the culture and economy of the region, disease management solutions need to be tailored with great care. We believe the most effective way to be successful in containing the spread of CWD is to coordinate a collective approach across the region and bring together national expertise to advance the science around CWD in all regions that are challenged with managing the disease. Specifically, we have convened a group of researchers from universities and government agencies together with wildlife veterinarians and managers from state and federal conservation agencies for the purpose of casting a common strategic agenda. This consortium employs a comprehensive approach to developing rigorous research questions that are grounded in a practical context for wildlife disease management.

Thanks to funding provided by the Michigan state legislature through PA207 of 2018, the Department of Natural Resources, the Fisheries and Wildlife Department at Michigan State University, and the University of Wisconsin at Madison have initiated a new approach to address these and other deficiencies. MSU faculty member Dr. Sonja Christensen has assembled a consortium of over 14 universities, multiple state and federal agencies, and Canadian provinces. Five thematic research areas were prioritized and further developed over the course of the meeting. These were:

- (1) Develop an amplification assay using improved sourcing for substrate and implementation of RT QuIC, or Real-time quaking-induced conversion (a diagnostic test for CWD).

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- (2) Develop a multistate adaptive management approach for CWD to evaluate management strategies.
- (3) Establish and support human dimensions research to better understand values, attitudes, and motivations regarding CWD management.
- (4) Establish a national CWD tissue database and repository for transmission and pathogenesis research.
- (5) Conduct controlled CWD research using depopulated cervid facilities where CWD has been detected.

This consortium, made up of over 80 participants, has advanced CWD research collaboration through the establishment of a governance structure and shared research priorities that will help inform disease management. Subsequently, the consortium has leveraged the support of the Multistate Research Projects program at land grant institutions to establish a formalized CWD Multistate Research Consortium. The Consortium's updates and current activities can be found at www.cwd-research.com.