

Michigan CWD-APR Research Study

Background

The Natural Resources Commission (NRC) has developed a resolution requesting the Department of Natural Resources (DNR) to develop and conduct a research project to evaluate if mandatory antler point restriction (APR) regulations can be a useful tool in responding to the emergence of chronic wasting disease (CWD) in Michigan deer. Mandatory APRs could cause changes in deer demographics and presently little is known about how changes in deer abundance and sex/age composition may influence prevalence and spread of CWD. Under the NRC resolution, the 5-county core CWD management area (Kent, Newaygo, Mecosta, Montcalm, and Ionia counties) will be set up as the assessment area and the NRC is considering a mandatory APR regulation for part of the area beginning in the 2019 hunting season. The DNR Wildlife Division is collaborating with the Boone and Crockett Quantitative Wildlife Center (QWC) at Michigan State University to address the research question in the assessment area.

Frequently Asked Questions

- **What is chronic wasting disease (CWD)?**
 - Chronic wasting disease or CWD is a fatal central nervous system disease found in cervids (deer, elk, and moose). It is caused by small proteinaceous particles called prions that attack the brain of infected animals, creating small lesions in the brain, which results in death.
 - More information about CWD can be found at www.michigan.gov/cwd.
- **What are antler point restrictions (APRs)?**
 - Mandatory antler point restrictions (APRs) are harvest regulations that prohibit hunters from harvesting bucks that have fewer than some minimum number of antler points.
- **What is the process for implementing APRs in the study area?**
 - The NRC will vote on the APR regulations in Mecosta, Montcalm, and Ionia counties on July 9, 2019. Proposed regulations will have a mandatory 4 point per side restriction on all bucks taken in this county.
 - If the NRC votes to approve APRs, the APRs will take effect as of the 2019 deer seasons. Data collection will be conducted during Summer 2019 and for 3 summers following the implementation of APRs (through Summer 2022).
 - If the NRC votes to not approve the APRs, data collection will take place during Summer 2019 to provide baseline data for CWD computer-based models and for any future deer population assessment that may be conducted in future years in the core CWD area.

- **Why do we have to split the 5-county core CWD area into APR and non-APR regulations?**
 - To evaluate potential effects of APRs on deer abundance and sex/age composition we need a control area that remains under current (non-APR) deer regulations.
 - The study and control areas need to be located as close as possible geographically to match habitat/landscape characteristics and deer ecology.
- **Why can't the entire 5-county core CWD area have APRs and have the non-APR control area outside of the core area?**
 - The study and control areas need to be located as close as possible geographically to match habitat/landscape characteristics and deer ecology.
 - Counties adjacent to the 5-county core CWD area presently have deer harvest regulations that differ from the core area. The study design requires that all harvest regulations, except the APRs, be the same throughout the study area to evaluate the influence of APRs.
 - Additionally, the different regulations may have already influenced hunter selection, deer abundance, and sex/age distribution.
- **Why do we have to split the 5-county core CWD area into eastern and western zones?**
 - An East-West split makes the most sense geographically so that habitat, landscape, and land ownership can be matched in paired townships.
- **Will the split change during the study?**
 - No, the study design requires 4 consecutive field seasons of data collection (2019-2022).
- **How will you collect data?**
 - We have selected 4 pairs of townships (8 total) in the study area. Within each selected township, we will distribute motion-activated cameras. We will use the images to record data on the sex and age of deer in the selected townships.
- **Why are you proposing to sample at the township level instead of the county level?**
 - Counties would be difficult to match for habitat and landscape characteristics and are too large to apply the camera sampling design in a cost-effective manner.
 - Townships are large enough to see potential effects of regulations, but small enough to adequately sample.
- **How were townships selected for the study?**
 - We selected pairs of townships, one within the APR zone and one in the non-APR zone. Townships within each pair have similar landcover composition (agriculture, forested, developed, etc.), similar availability of public land (state/federal), and similar major geographic features (such as rivers).

- We selected townships with similar features to minimize the effects of factors other than APRs on the deer population.
- **How were camera sites selected?**
 - Cameras will be distributed throughout each selected township based on a random sampling design and the permission of landowners to access their land.
 - We will place cameras in a variety of habitats so that the data we collect provides an adequate representation of the entire township.
- **If conditions or management objectives change, could the project and/or APR regulations be discontinued before the end of the study timeframe?**
 - Discontinuing the study or changing harvest regulations in the study area before the study is completed will be the decision of the Natural Resource Commission in consultation with the Director of the DNR.
- **What will happen to APR regulations after the study?**
 - DNR will evaluate results of the study and provide any proposed regulations changes to the NRC.