



MICHIGAN DEPARTMENT OF NATURAL RESOURCES
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ANTLER POINT RESTRICTIONS SURVEY IN THE DEER MANAGEMENT UNITS OF THE THUMB AREA

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ABSTRACT

A survey was completed to determine whether hunters supported proposed mandatory Antler Point Restrictions (APRs) in five counties in the Thumb Area in Michigan. A key feature of the proposed mandatory APRs was changing the definition of a buck to a deer with four or more points on one antler. The Michigan Department of Natural Resources (DNR) supports the voluntary implementation of APRs on private land in Michigan. Mandatory APRs are implemented by regulation only when a clear majority (>66%) of hunters support implementation. Questionnaires were sent to a random sample of hunters; 79% of hunters returned their questionnaire. About 55% of the people hunting deer in the 5-county Thumb Area supported the proposed mandatory APRs. Support from hunters was insufficient to recommend implementation of mandatory APRs in the 5-county Thumb Area.

INTRODUCTION

A proposal was submitted to the Michigan Department of Natural Resources (DNR) by the Thumb Hunters for Antler Point Restrictions (APRs) to modify deer regulations regarding the harvest of bucks in Huron, Lapeer, St. Clair, Sanilac, and Tuscola counties (Figure 1). The proposal requested that the Natural Resources Commission (NRC) implement regulations that would require all bucks taken in the area have at least four points on one antler. People that were currently exempt from APRs (for example, hunters in the Liberty and Independence hunts and people hunting under a Mentored Youth license) would continue to be exempt from the proposed APRs if implemented. The proposed APRs aimed to protect most 1½-year-old males by allowing the harvest of only those antlered deer that have four or more antler points on one side, each point one or more inches in length.



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Division of Federal Assistance, U.S. Fish & Wildlife Service, 4401 North Fairfax Drive, Mail Stop MBSP-4020, Arlington, VA 22203.

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The MDNR supports the voluntary implementation of APRs on private land. MDNR supports mandatory APRs only if at least 66% of hunters in the affected area support these regulations. The DNR developed guidelines for considering and implementing APRs with the assistance of private conservation groups and resource agencies (Quality Deer Management Working Group 2013). According to these guidelines, the DNR would determine whether hunters supported the proposed APRs.

The DNR has the authority and responsibility to protect and manage deer in Michigan while the NRC has the authority to regulate the taking of game (Natural Resources and Environmental Protection Act, Public Act 451 of 1994). Opinion surveys are a management tool used by the Wildlife Division to accomplish its statutory responsibility. The main objective of this opinion survey was to determine whether hunters supported implementing the proposed APRs (i.e., four points on a side) in the 5-county Thumb Area.

METHODS

This survey was done in accordance with guidelines developed for evaluating proposed mandatory APR regulations in Michigan (Quality Deer Management Working Group 2013). A questionnaire was sent to 2,100 randomly selected hunters from the 5-county Thumb Area.

Prior surveys done to estimate support for proposed APR regulations have sampled landowners in addition to hunters. However, estimates of support have varied little between landowners and hunters in previous surveys (e.g., Frawley 2002, 2003a, 2003b). Thus, landowners were not sampled separately for the current survey.

The estimate of hunter support was calculated using a stratified random sampling design that included two strata (Cochran 1977). A random sample of hunters was obtained from a list of people that indicated they had hunted in the Thumb Area during either 2016 or 2017 (first stratum). This list represented randomly selected people included in the annual deer harvest survey that was conducted by the Wildlife Division (Frawley 2017, 2018). In addition, a second random sample was selected from the list of hunters from the Thumb Area that had voluntarily reported information about their deer hunting activity via the internet prior to the initiation of the annual deer harvest survey (second stratum). The final random sample consisted of 2,000 people from the first stratum and 100 people from the second stratum. The stratified sampling design accounted for the varying probabilities of being selected from the strata so estimates could be reliably extrapolated from the sample to all license buyers.

People receiving the questionnaire were asked to report whether they supported the proposed mandatory APRs for the Thumb Area. Response options to the question on the proposal were “yes” or “no” (Appendix A). The percentage of support was measured by dividing the number of “yes” responses by the sum of those responses indicating “yes” or “no.” People who did not provide an answer were not used to estimate support for the proposed APRs. Moreover, opinions of hunters that did not hunt within the Thumb Area were not included when estimating support for the proposed APRs.

Estimates of support for the mandatory APRs were calculated along with their 95% confidence limit (CL). This CL could be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval was a measure of the precision associated with the estimate and implied that the true value would be within this interval 95 times out of 100. Estimates were not adjusted for possible response or nonresponse bias.

The random sample of people receiving the questionnaire included 2,100 hunters (Table 1). Questionnaires were initially mailed during mid-January 2019. Up to two follow-up questionnaires were mailed to nonrespondents.

RESULTS AND DISCUSSION

Although 2,100 people were sent the questionnaire, 29 surveys were undeliverable resulting in an adjusted sample size of 2,071 (i.e., minus undeliverable questionnaires). Questionnaires were returned by 1,641 people, yielding a 79% adjusted response rate. The response rate exceeded the minimum response rate of 50% that was required in order to accept the results of the survey (Quality Deer Management Working Group 2013).

Among hunters that hunted in the Thumb Area, about 55% supported implementing the proposed mandatory APRs (Table 2). About 45% of the hunters did not support implementing the mandatory APRs. The support of hunters failed to exceed the minimum support level of 66% that was required to recommend implementation of mandatory APRs for the 5-county Thumb Area by the Wildlife Division to the NRC. The NRC holds final authority regarding APR implementation, which will be up for consideration during the establishment of deer hunting regulations for the 2019 season.

ACKNOWLEDGEMENTS

I thank all the hunters that provided information. Theresa Riebow completed data entry. Marshall Strong prepared Figure 1. Ashley Autenrieth, Mike Donovan, Russ Mason, and Chad Stewart reviewed a draft version of this report.

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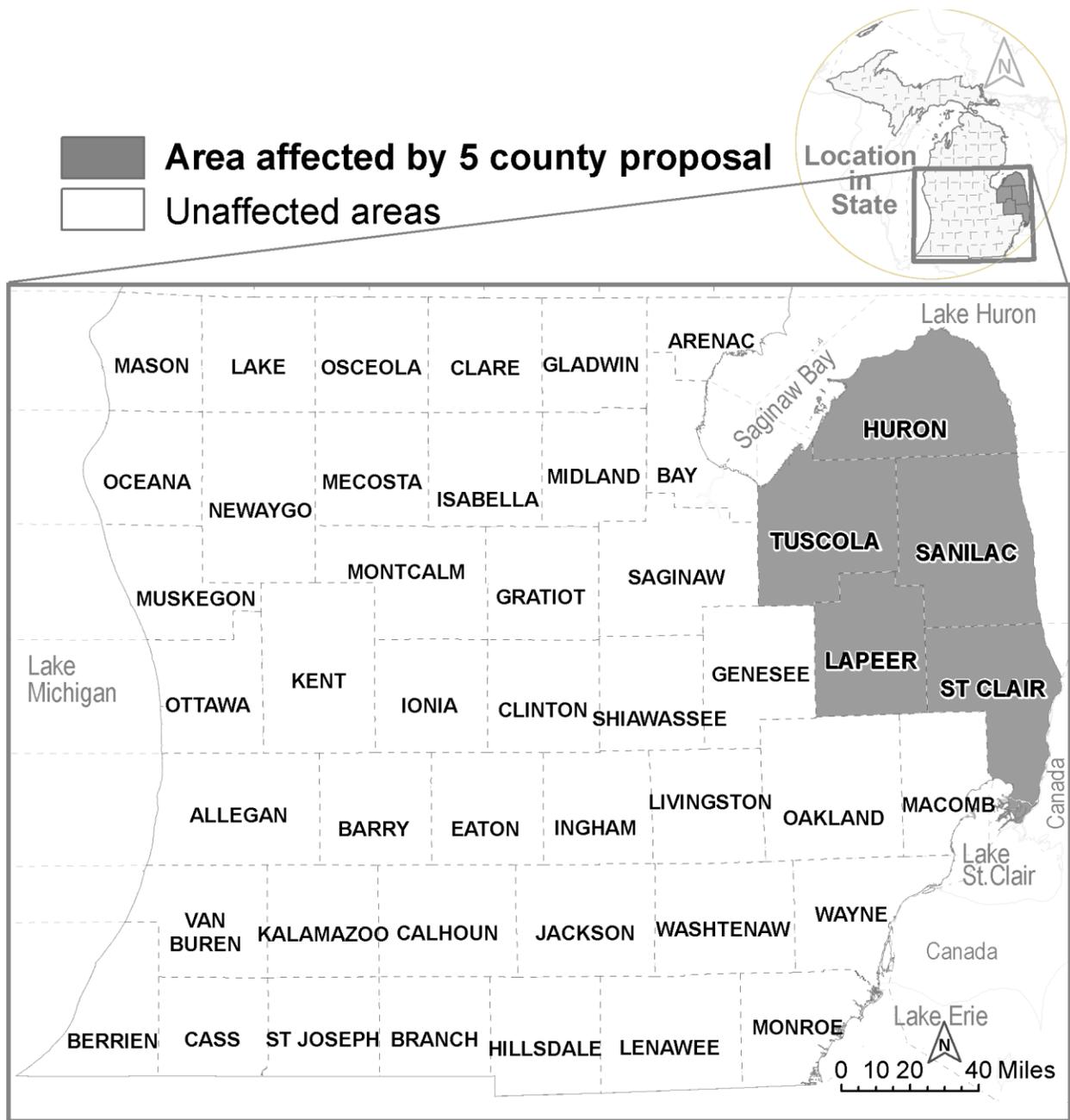


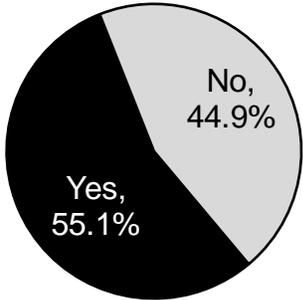
Figure 1. Five counties (shaded) in the Thumb Area affected by the proposed APRs, 2019.

Table 1. The estimated number of hunters in the 5-county Thumb Area and the number of hunters selected to receive the opinion survey about mandatory APR regulations in Thumb Area, Michigan.

Total number of hunters ^a	Number of people included in sample ^a	Number of questionnaires that were undeliverable	Number of questionnaires returned	Response rate (%)
55,617	2,100	29	1,641	79

^aEstimated number of people that hunted deer in the 5-county Thumb Area in 2017 (Frawley 2018).

Table 2. Proportion of hunters supporting proposed antler point restrictions in the 5-county Thumb Area, Michigan, in 2019.

Response	Percentage of hunters ^a	95% CL ^b	Responses (%)
Yes (Supported mandatory APR regulations)	55.1	2.5	
No (Did not support mandatory APR regulations)	44.9	2.5	

^aPercentage of hunters that hunted deer in the 5-county Thumb Area; hunters that failed to provide an answer (<1%) were not used to measure support for mandatory APRs.

^b95% confidence limits.

APPENDIX A

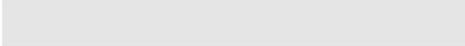
Questionnaire Used for the Evaluation the Proposed Antler Point Restrictions in Deer Management Units in the 5-county Thumb Area of Michigan.



MICHIGAN DEPARTMENT OF NATURAL RESOURCES, WILDLIFE DIVISION
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DEER HUNTER OPINION SURVEY

This information is requested under authority of Part 435, 1994 PA 451, M.C.L. 324.43539.



A proposal has been submitted to the MDNR by the Thumb Hunters for Antler Point Restrictions (APRs) to modify deer regulations regarding the harvest of bucks in Huron, Lapeer, St. Clair, Sanilac, and Tuscola counties (see map on reverse side). The proposal requests that the Natural Resources Commission implement regulations that would require all bucks taken in the area have at least four points on one antler. Youth hunters participating in the Liberty Hunt (youth firearm deer season) and veterans who qualify for the Liberty and Independence Hunts will be exempt from the proposed APRs during these seasons. Current regulations also exempt individuals hunting under a Mentored Youth license (under age 10) from all APRs, and this exemption will not change. If the proposed APRs are implemented, these APRs would be in place for five years beginning with the 2019 deer hunting seasons. Another survey would be conducted to determine the level of support for retaining these regulations after four years.

This proposal aims to protect most 1½ year old males by allowing the harvest of only those antlered deer that have four or more antler points on one side, each point one or more inches in length. The MDNR supports mandatory APRs only if at least 66% of hunters in the affected area support these regulations. Thus, MDNR needs your assistance in measuring support for this proposal. Please provide us your opinion about the proposed regulation by completing this brief questionnaire.

- 1. Do you hunt deer in the area affected by this antler-point restriction (see figure on reverse side)? 1 Yes 2 No

- 2. Do you own at least 5 acres of land in the area affected by the proposed regulations? 1 Yes 2 No

- 3. Do you support this proposed antler-point restriction? 1 Yes 2 No

*Please return questionnaire in the enclosed postage-paid envelope.
Thank you for your help.*

Shaded area affected by the proposed antler-point restriction.

