



## 2013 ANTLER POINT RESTRICTIONS SURVEY: NORTH-CENTRAL LOWER PENINSULA

Brian J. Frawley

### ABSTRACT

*A survey was completed to determine whether hunters supported proposed mandatory Antler Point Restrictions (APR) in the north-central Lower Peninsula. A key feature of the proposed mandatory regulations was changing the definition of a buck to a deer with three or more points on one antler. The Michigan Department of Natural Resources (MDNR) supports the voluntary implementation of APR practices on private land in Michigan. Mandatory APR are implemented by regulation only when a clear majority (>66%) of hunters support implementation. Questionnaires were sent to a random sample of hunters; 72% of hunters returned their questionnaire. About 62% of the people hunting deer in the north-central Lower Peninsula supported implementing mandatory APR regulations. Support from hunters was insufficient to recommend implementation of antler point restrictions in the north-central Lower Peninsula.*

### INTRODUCTION

The Lower Peninsula – Deer Management Initiative, a nongovernmental group, submitted a proposal to modify deer management regulations in the north-central Lower Peninsula (Figure 1). This proposal requested that the Natural Resources Commission change buck harvest regulations to protect a portion of yearling bucks from harvest and allow them to become older. This would be done by changing the definition of a legal buck to a deer with three or more points on one antler, which would protect bucks with fewer points from harvest. The current definition of a legal buck was a deer with an antler greater than three inches in length. Individuals hunting under an apprentice license and youth hunters participating in the Liberty



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Hunt (youth firearm deer season) were exempted from the proposed changes. Current regulations also exempt individuals hunting under a Mentored Youth license from all antler-point restrictions, and this exemption would not change. Existing regulations allow hunters to take a second buck if one of the harvested bucks has at least four points on one antler. This restriction would not change.

Antlerless harvest quotas would continue to be developed annually by the Wildlife Division for consideration by the Natural Resources Commission (NRC). As done in past years, quota establishment will consider such factors as past winter severity, population size relative to habitat, and the desires of local constituents.

The MDNR supports the voluntary implementation of antler point restrictions on private land. MDNR supports mandatory antler point restrictions only if at least 66% of hunters in the affected area support these regulations. Further, adopted regulation restrictions must be evaluated after five years to measure effectiveness.

The NRC and Wildlife Division have the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Opinion surveys are a management tool used by the Wildlife Division to accomplish its statutory responsibility. The main objectives of this opinion survey were to determine whether hunters supported proposed antler point restrictions (i.e., three points on a side) in the north-central Lower Peninsula.

## **METHODS**

This survey was done in accordance with guidelines developed for evaluating proposed mandatory APR regulations in Michigan (Quality Deer Management Working Group 1999). A questionnaire was sent to 3,000 randomly selected hunters from the north-central Lower Peninsula.

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 north-central Lower Peninsula during 2012 (first stratum). This list represented randomly selected people included in the annual deer harvest survey that was conducted by the Wildlife Division (Frawley 2012). An additional random sample was selected from the list of hunters from the north-central Lower Peninsula 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 random sample consisted of 2,850 people from the first stratum and 150 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 implementing the proposed mandatory APR regulation for the north-central Lower Peninsula. 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 APR regulations. Moreover, opinions of hunters that did not hunt within the north-central Lower Peninsula were not included when estimating support for the proposed APR regulations. Hunters were also asked whether they owned at least 5 acres (landowners) and whether they had a farm which produced at least \$1000 of agricultural products during the year (farmers) in the north-central Lower Peninsula.

Estimates of support for the mandatory APR regulations were calculated along with their 95% confidence limit (CL). The 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. Estimates were calculated for three different groups (1) all hunters, (2) hunters owning land, and (3) hunters that farmed in the north-central Lower Peninsula.

The random sample of people receiving the questionnaire included 3,000 hunters (Table 1). Questionnaires were initially mailed during mid-November 2013. Up to two follow-up questionnaires were mailed to nonrespondents.

## **RESULTS AND DISCUSSION**

Although 3,000 people were sent the questionnaire, 11 surveys were undeliverable resulting in an adjusted sample size of 2,989 (i.e., minus undeliverable questionnaires). Questionnaires were returned by 2,167 people, yielding a 72% 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 1999).

Among hunters that hunted in the north-central Lower Peninsula, about 62% supported the proposed mandatory APR regulations (Table 2). About 38% of the hunters did not support implementation of the mandatory APR regulations. The support of hunters was insufficient to recommend adoption of the proposed APR for the north-central Lower Peninsula by the Wildlife Division to the Natural Resources Commission. The Natural Resources Commission has final authority regarding APR implementation, which will be up for consideration during establishment of deer hunting regulations for the 2014 season.

## **ACKNOWLEDGEMENTS**

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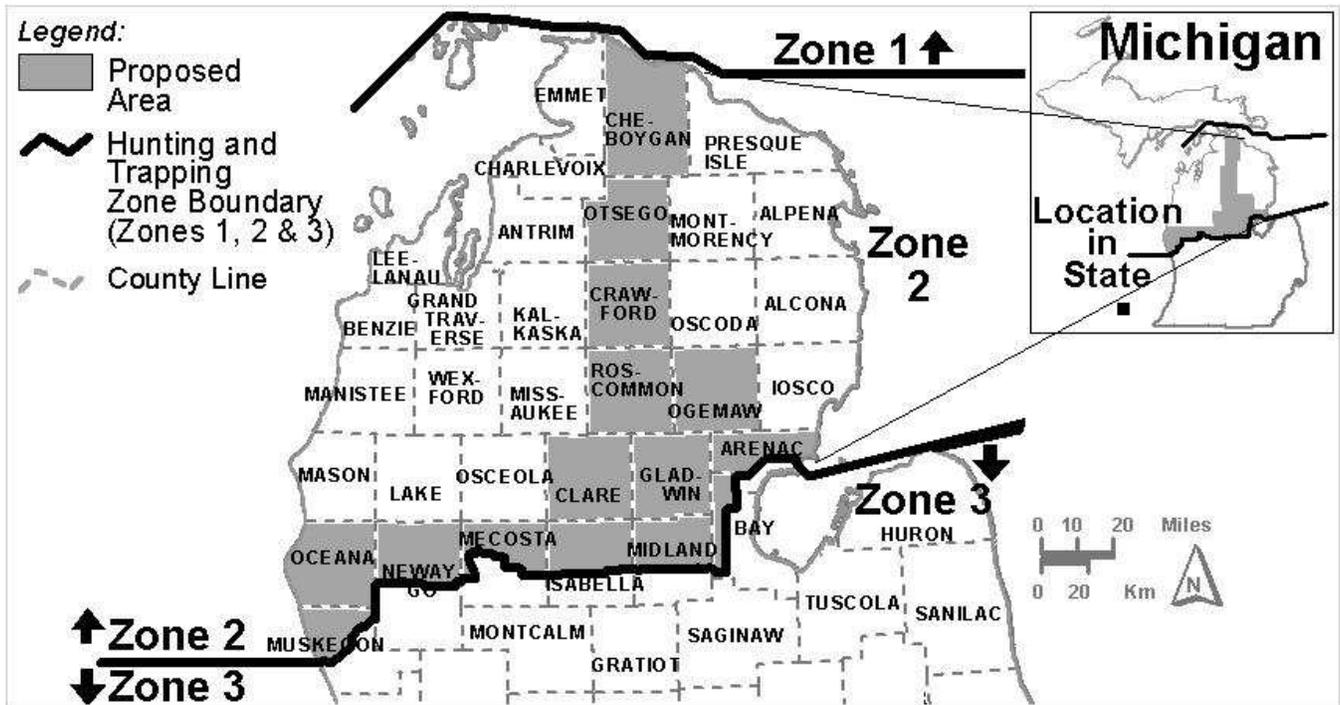


Figure 1. Area (shaded) in the north-central Lower Peninsula affected by the proposed regulation changes, 2013.

Table 1. The estimated number of hunters in the north-central Lower Peninsula and the number of hunters selected to receive the opinion survey about mandatory APR regulations in the north-central Lower Peninsula, Michigan.

Total number of hunters <sup>a</sup>	Number of people included in sample <sup>a</sup>	Number of questionnaires that were undeliverable	Number of questionnaires returned	Response rate (%) <sup>b</sup>
100,000	3,000	11	2,167	72

<sup>a</sup>Estimated number of people that hunted deer in the north-central Lower Peninsula in 2012 (Frawley 2013).

<sup>b</sup>Sample size adjusted for undeliverable questionnaires when calculating response rate.

Table 2. Proportion of hunters supporting proposed antler point restrictions in the north-central Lower Peninsula, Michigan, in 2013.

Group	Yes (Supported mandatory APR regulations)		No (Did not support mandatory APR regulations)	
	% <sup>a</sup>	95% CL <sup>b</sup>	% <sup>a</sup>	95% CL <sup>b</sup>
Hunters	61.7	2.2	38.3	2.2
Hunters that own at least 5 acres <sup>c</sup>	62.2	3.2	37.8	3.2
Hunters that farmed <sup>c,d</sup>	60.4	6.9	39.6	6.9

<sup>a</sup>Percentage of hunters; hunters that failed to provide an answer (<1%) were not used to measure support for mandatory APR regulations.

<sup>b</sup>95% confidence limits.

<sup>c</sup>Subset of hunters.

<sup>d</sup>A farm is defined as any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year.

## Appendix A

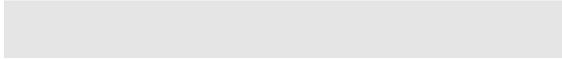
Questionnaire used for the Antler Point Restriction Survey  
of Deer Hunters in the north-central Lower Peninsula.



MICHIGAN DEPARTMENT OF NATURAL RESOURCES, WILDLIFE DIVISION  
PO BOX 30030 LANSING MI 48909-7530

## 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 Lower Peninsula – Deer Management Initiative to modify deer regulations regarding the harvest of bucks in the north-central Lower Peninsula (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 three points on one antler. Existing regulations allow hunters to take a second buck if one of the harvested bucks has at least four points on one antler. This restriction on a second buck will not change. Individuals hunting under an apprentice license and youth hunters participating in the Liberty Hunt (youth firearm deer season) have been requested to be exempt from the APRs. Current regulations also exempt individuals hunting under a Mentored Youth license 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 2014 deer hunting seasons. Another survey would be conducted to determine the level of support for retaining these regulations after five years.

This proposal aims to protect most 1½ year old males by allowing the harvest of only those antlered deer that have three or more antler points on one side, each 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 the brief questionnaire on the reverse side.

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

The proposal submitted to the MDNR by the Lower Peninsula – Deer Management Initiative requests that the Natural Resources Commission implement regulations that would require all bucks taken in the north-central Lower Peninsula (see map below) have at least three points on one antler. The existing regulations allow hunters to take a second buck if one of the harvested bucks has at least four points on one antler (each point being at one inch long). This restriction on a second buck will not change. The proposal requests that individuals hunting under an apprentice license and youth hunters participating in the Liberty Hunt (youth firearm deer season) be exempt from the antler-point restriction. Current regulations also exempt individuals hunting under a Mentored Youth license from all antler-point restrictions, and this exemption will not change.

1. Do you hunt deer in the area to be affected by these proposed regulations (see map below)? 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 farm in the area affected by the proposed regulations? (A farm is defined as any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year.) 1  Yes    2  No
  
4. Do you support the antler-point restriction proposal above? 1  Yes    2  No

*Shaded area will be affected by proposed regulation changes.*

