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QUALITY DEER MANAGEMENT (QDM) SURVEY: DEER MANAGEMENT UNIT 135 (Iosco County)

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ABSTRACT

A survey was completed to determine whether hunters and landowners supported mandatory QDM regulations (no spike rule) in Deer Management Unit (DMU) 135. The Michigan Department of Natural Resources (MDNR) supports the voluntary implementation of QDM practices on private land in Michigan. However, mandatory regulations should be imposed in a DMU only when it can be shown that a clear majority ($\geq 66\%$) of hunters and landowners support implementation. Questionnaires were sent to a random sample of landowners and hunters; 77% of the landowners and 81% of hunters returned their questionnaire. About 81% of landowners owning land in DMU 135, and 74% of people hunting deer in DMU 135 supported continuation of the "no-spike rule." Support from both landowners and hunters was sufficient to recommend continuation of the "no-spike rule" for DMU 135.

INTRODUCTION

Starting in 1997, deer hunters in Deer Management Unit 135 (eastern portion of Iosco County, Figure 1) were only permitted to take an antlered deer if it had two or more antler points on one antler ("no spike rule"). The "no spike rule" was originally implemented as part of a deer management philosophy called Quality Deer Management (QDM). Quality Deer Management seeks to keep deer populations in balance with the habitat, more closely balance sex ratios, and increase the number of older-age bucks in the population. The Michigan Department of Natural Resources (MDNR) supports the voluntary implementation of QDM practices on



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private land. The MDNR supports mandatory QDM regulations in a DMU if at least 66% of hunters and landowners in the affected DMU support these regulations. The MDNR developed guidelines for considering and implementing QDM regulations with the assistance of private conservation groups and resource agencies (Quality Deer Management Working Group 1999). According to these guidelines, the MDNR would determine whether hunters and landowners supported continuation of the “no-spike rule” after four years.

The Wildlife Division has 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 and landowners supported continuation of the “no-spike rule” in DMU 135.

METHODS

This survey was done in accordance with guidelines developed for evaluating proposed mandatory QDM regulations in Michigan (Quality Deer Management Working Group 1999). A questionnaire was sent to 1,859 randomly selected hunters and landowners from DMU 135. The survey was designed to produce estimates that would be accurate within a margin of error of plus or minus five percentage points.

A list of property parcels ≥ 5 acres were obtained from the property tax assessors for AuSable, Baldwin, and Wilber townships in Iosco County. The property tax records were organized by property parcel identification numbers, rather than by landowner names. Therefore, people owning multiple parcels were in the property tax records multiple times. To create a list of landowners (without multiple parcels per landowner), the property tax records from the three townships were merged, and then parcels owned by the same landowner were combined. Property tax records included a legal description for each parcel. These legal descriptions were used to exclude parcels lying outside DMU 135 from the sample. As this list was compiled, publicly owned land and parcels within cities and villages were also excluded. The final landowner list consisted of 340 landowners. All of the landowners having mailing addresses (336 out of 340 landowners) were sent a questionnaire.

The estimate of hunter support was calculated using a simple random sampling design. A random sample of these hunters was obtained from lists of people that indicated they had hunted in Iosco County during 1998-2000. These lists represented randomly selected people included in annual deer harvest surveys that were conducted by the Wildlife Division (Frawley 1999, 2000, 2001). For these harvest surveys, hunters reported the county where they hunted deer, rather than the DMU where they hunted. Thus, the hunter sample included some hunters that had hunted outside of DMU 135.

People receiving the questionnaire were asked to report whether they supported continuation of the “no-spike rule” in DMU 135. Response options to the question were “yes,” “no,” “undecided,” and “don’t care” (Appendix A). The percentage of support was measured by dividing the number of “yes” responses by the sum of those responses indicating “yes,” “no,” or “undecided.” People who indicated “don’t care” or who did not provide an answer were not used to estimate support for continuing the “no-spike rule.” Moreover, opinions of hunters that

did not hunt within DMU 135 and landowners that did not own land within DMU 135 were not included when estimating support for continuing the “no-spike rule.”

Estimates of support for the continuation of the “no-spike rule” were calculated along with their 95% confidence limit (CL). This confidence limit 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 336 landowners and 1,543 hunters, including 20 people that were included in both the landowner and hunter samples (Table 1). Questionnaires were initially mailed during December 2001. A reminder note and up to two follow-up questionnaires were mailed to nonrespondents. Although 1,859 people were sent the questionnaire, 37 surveys were undeliverable resulting in an adjusted sample size of 1,822 (i.e., minus undeliverable questionnaires). Questionnaires were returned by 1,470 people, yielding a 81% adjusted response rate.

RESULTS AND DISCUSSION

Questionnaires were originally mailed to 336 landowners and 1,543 hunters, but questionnaires were undeliverable to 8 landowners and 29 hunters. Thus, the adjusted sample size was 328 landowners and 1,514 hunters. Questionnaires were returned by 254 landowners (77%) and 1,233 hunters (81%) (Table 1). Response rates of both groups 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).

About 81% of the landowners owning land in DMU 135 supported the existing “no-spike rule” (Table 2). In contrast, 16% of landowners did not support the “no-spike rule” and 3% did not have an opinion about the rule. Among hunters that hunted in DMU 135, about 74% supported the “no-spike rule” (Table 3). About 23% of the hunters did not support the “no-spike rule” and 3% did not have an opinion about the rule. The support of both landowners and hunters exceeded the minimum support level of 66% that was required to recommend continuation of the “no-spike rule” for DMU 135 by the Wildlife Division to the Natural Resources Commission.

ACKNOWLEDGEMENTS

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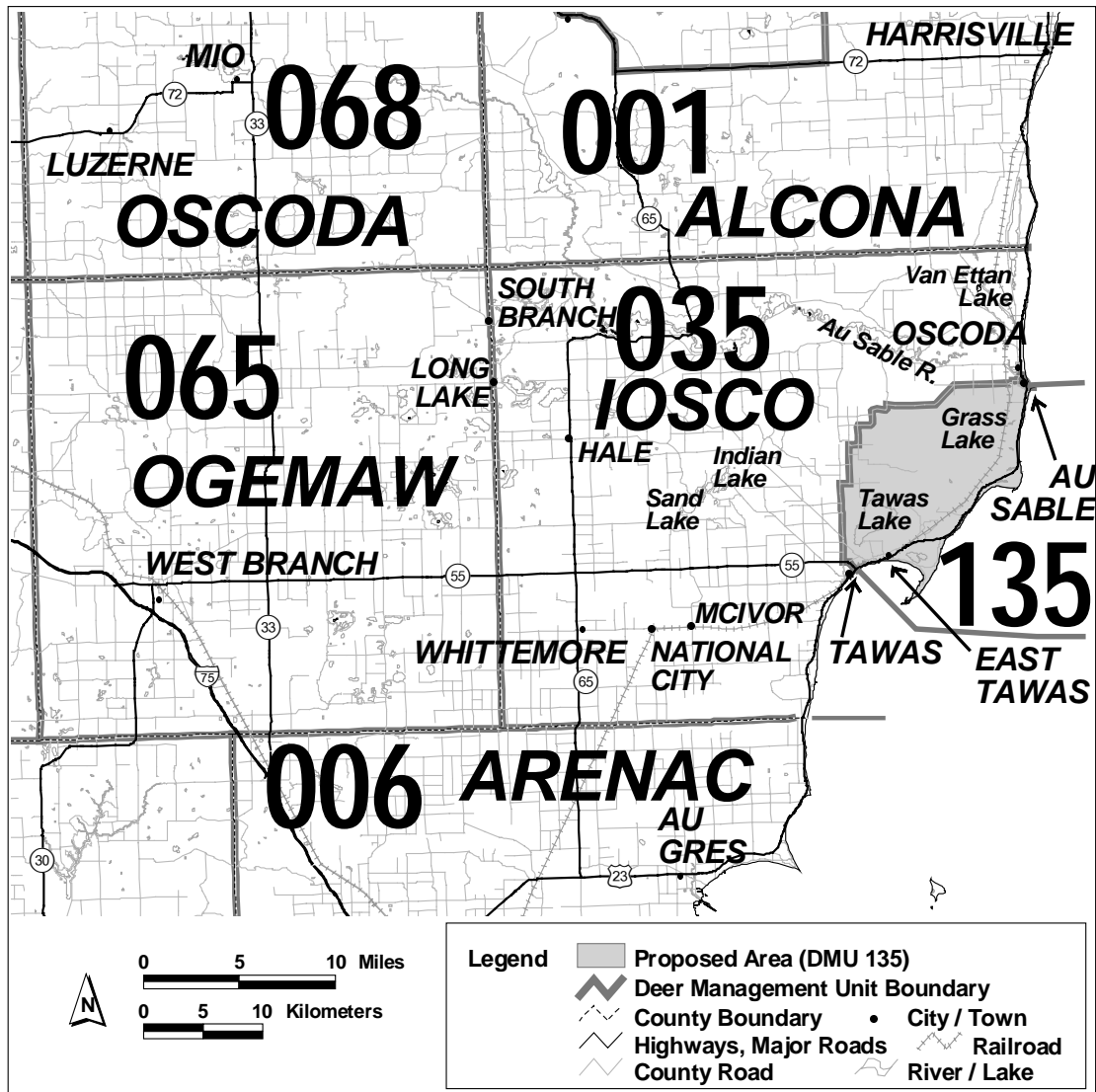


Figure 1. Deer Management Unit 135 (shaded area) in east-central Lower Peninsula of Michigan, 2001.

Table 1. Number of people within each group and number selected for the random sample of people receiving the opinion survey regarding mandatory QDM regulations in DMU 135, Michigan.

Group	Total number of people in group	Number of people included in sample ^a	Number of questionnaires that were undeliverable	Number of questionnaires returned	Response rate (%)
Landowners ^b	340	336	8	254	77
Hunters ^c	13,653	1,543	29	1,233	81

^aTwenty people were included in both the landowner and hunter samples; thus, the overall sample size consisted of 1,859 people.

^bLandowners owned at least one 5-acre parcel; however, each landowner was counted once regardless of number of parcels owned.

^cEstimated number of people that hunted deer in Iosco County in 2000 (unpublished data).

Table 2. Proportion of landowners supporting the continuation of the “no-spike rule” in DMU 135, Michigan.

Response	Percentage of landowners ^a	95% CL ^b	Responses (%)
Yes (Supported mandatory QDM regulations)	81.4%	2.5%	
No (Did not support mandatory QDM regulations)	15.6%	2.4%	
No opinion	3.0%	1.1%	

^aPercentage of landowners owning at least one 5-acre parcel of land in DMU 135; landowners that selected “don’t care” (2.1 ± 1%) about their support for QDM regulations were not used to measure support for the continuation of the “no-spike rule.”

^b95% confidence limits.

Table 3. Proportion of hunters supporting the continuation of the “no-spike rule” in DMU 135, Michigan.

Response	Percentage of hunters ^a	95% CL ^b	Responses (%)
Yes (Supported mandatory QDM regulations)	73.9%	4.4%	<p>A pie chart illustrating the distribution of responses regarding the continuation of the 'no-spike rule'. The largest slice, representing 'Yes' responses, is black and accounts for 73.9% of the total. The 'No' responses are shown in a grey slice, making up 23.2%. The smallest slice, 'No Opinion', is white and represents 2.8% of the responses.</p>
No (Did not support mandatory QDM regulations)	23.2%	4.2%	
No opinion	2.8%	1.7%	

^aPercentage of hunters that hunted deer in DMU 135; hunters that selected “don’t care” (3.8 ± 2%) or failed to provide an answer (0.5 ± 1%) about their support for QDM regulations were not used to measure support for the continuation of the “no-spike rule.”

^b95% confidence limits.

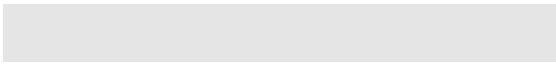
Appendix A

Quality Deer Management Survey Questionnaire for
Deer Management Unit 135.



QUALITY DEER MANAGEMENT SURVEY

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



Starting in 1997, deer hunters in Deer Management Unit 135 (DMU) in eastern Iosco County were only permitted to take an antlered deer if it had two or more antler points on one antler (“No spike rule”). This rule has now been in effect for five hunting seasons, but before we recommend continuation of this rule, we wanted to determine whether hunters and landowners support these antler-point restrictions.

1. Do you hunt in the management unit affected by the existing antler point restrictions *(see map on reverse side)*? 1 No 2 Yes

2. Do you own land in the management unit affected by the existing antler point restrictions *(see map on reverse side)*? 1 No 2 Yes

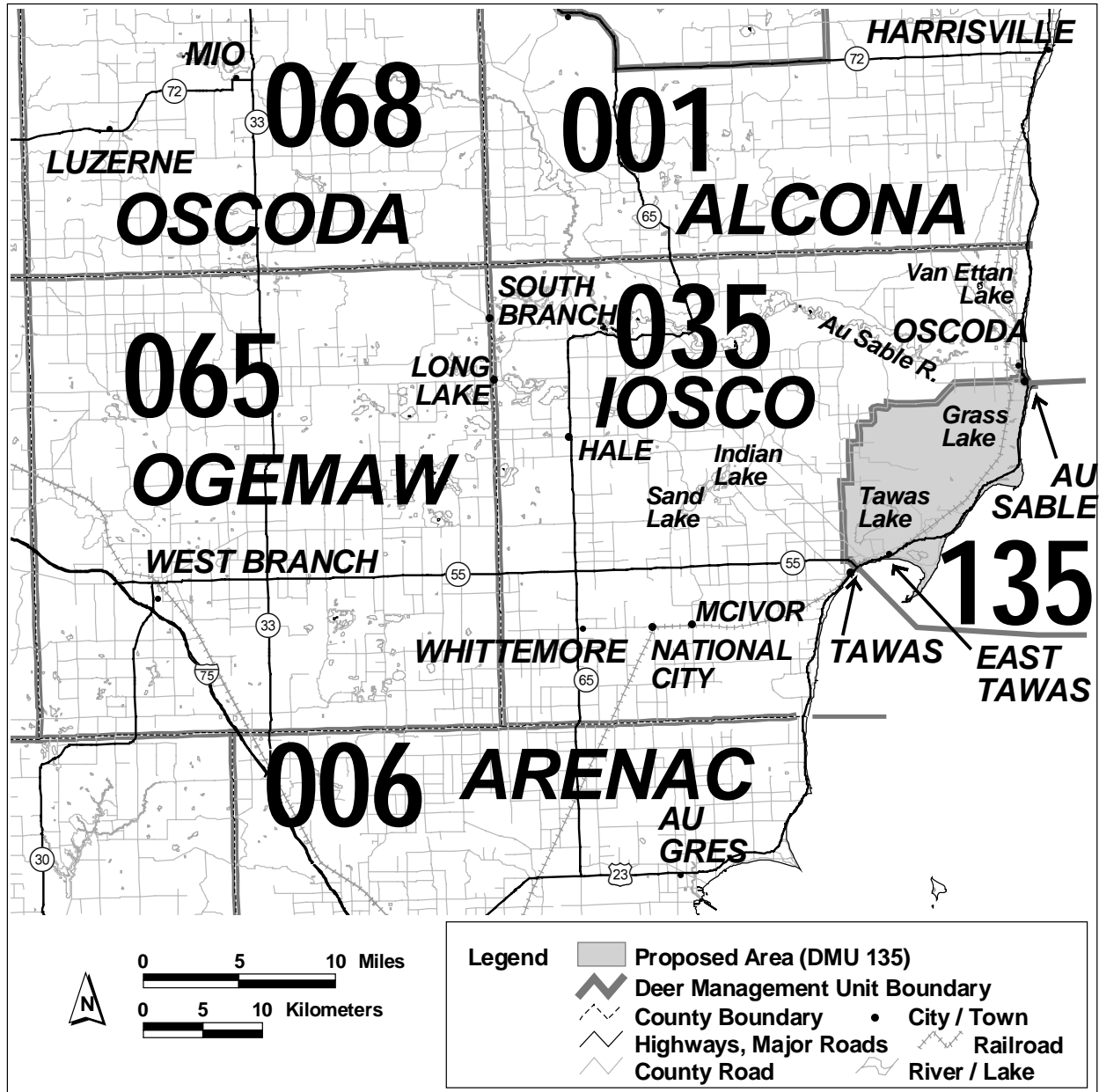
3. Do you support the continuation of the antler point restrictions (“No spike rule”) in the DMU 135 (eastern Iosco County)? **For purposes of measuring support, checking the “no opinion” box will count as a “no” vote and indicates you have not formed an opinion about the proposal.** Checking the “don’t care” box will result in your opinion not being counted as supportive or opposed to the proposal. This merely indicates that you are aware of the proposal and don’t care what the deer hunting regulations are for this area.

1 Yes
2 No
3 No Opinion
4 Don’t Care

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

Deer Management Unit 135 (eastern Iosco County)

The "No spike rule" is in effect in the shaded area.



Deer Management Unit 135 means that area of Iosco county bounded by a line beginning at the mouth of the Au Sable river and the Lake Huron shoreline, then southerly along the Lake Huron shoreline to highway M-55, westerly on highway M-55 to Wilber road, northerly on Wilber road to Galion road, easterly on Galion road to Sherman road, northerly on Sherman road to Curtis road, easterly on Curtis road to Brooks road, northerly on Brooks road to Esmond road, easterly on Esmond road to old highway US-23 (also known as Au Sable road), easterly on old highway US-23 (Au Sable road) to the Au Sable river, easterly along the Au Sable river to the point of beginning.