



QUALITY DEER MANAGEMENT (QDM) SURVEY: DEER MANAGEMENT UNIT 245 (SOUTH FOX ISLAND)

Brian J. Frawley

ABSTRACT

A survey was completed to determine whether hunters and the single, private landowner supported mandatory QDM regulations (no spike rule) in Deer Management Unit (DMU) 245. 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 a clear majority ($\geq 66\%$) of hunters and landowners support implementation. Questionnaires were sent to the single, private landowner and all of the hunters that obtained a permit to hunt in DMU 245 during 1997-2001; the landowner and 76% of the hunters returned their questionnaire. The landowner and 74% of the people hunting deer in DMU 245 supported continuation of the "no-spike rule." Thus, support from both the landowner and the hunters was sufficient to recommend continuation of the "no-spike rule" for DMU 245.

INTRODUCTION

South Fox Island is located in Lake Michigan and is part of Leelanau County (Figure 1). About 36% of the island was public property, and the remaining 64% was owned by a single, private landowner. For purposes of managing the deer population, the Wildlife Division has designated South Fox Island as DMU 245. Hunters were required to obtain a permit and hunting license to hunt deer on public lands in DMU 245. Starting in 1997, deer hunters in DMU 245 were only permitted to take an antlered deer if it had two or more antler points on



A contribution of Federal Aid in Wildlife Restoration, Michigan Project W-127-R

Equal Rights for Natural Resource Users

The Michigan Department of Natural Resources (MDNR) provides equal opportunities for employment and access to Michigan's natural resources. Both State and Federal laws prohibit discrimination on the basis of race, color, national origin, religion, disability, age, sex, height, weight or marital status under the Civil Rights Acts of 1964, as amended (MI PA 453 and MI PA 220, Title V of the Rehabilitation Act of 1973 as amended, and the Americans with Disabilities Act). If you believe that you have been discriminated against in any program, activity, or facility, or if you desire additional information, please write the MDNR, HUMAN RESOURCES, PO BOX 30028, LANSING MI 48909-7528, or the MICHIGAN DEPARTMENT OF CIVIL RIGHTS, STATE OF MICHIGAN PLAZA BUILDING, 1200 6TH STREET, DETROIT MI 48226, or the OFFICE FOR DIVERSITY AND CIVIL RIGHTS, US FISH AND WILDLIFE SERVICE, 4040 NORTH FAIRFAX DRIVE, ARLINGTON VA 22203.

For information or assistance on this publication, contact: MDNR, WILDLIFE DIVISION, P.O. BOX 30444, LANSING, MI 48909-7944, <http://www.michigandnr.com>. This publication is available in alternative formats upon request. TTY: Michigan Relay Center 1-800-649-3777

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 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) after the “no-spike” rule was initiated. Although the “no-spike” rule on South Fox Island was initiated before the QDM guidelines were prepared, the Wildlife Division chose to follow the existing guidelines and determine whether hunters and landowners supported continuation of the “no-spike rule.”

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 deer hunters and the single landowner supported continuation of the “no-spike rule” in DMU 245.

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 all hunters that obtained a permit to hunt public lands on South Fox Island between 1997-2001 and to the single, private landowner.

People receiving the questionnaire were asked to report whether they supported continuation of the “no-spike rule” in DMU 245. 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 had stopped hunting deer within DMU 245 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) using a simple random sampling design (Cochran 1977). The 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 people sent the questionnaire included 1 landowner and 313 hunters (Table 1). Questionnaires were initially mailed during December 2001. A reminder note and up to two follow-up questionnaires were mailed to nonrespondents. Although 314 people were sent the

questionnaire, 12 surveys were undeliverable resulting in an adjusted sample size of 302 (i.e., minus undeliverable questionnaires). Questionnaires were returned by 229 people, yielding a 76% adjusted response rate.

RESULTS AND DISCUSSION

Questionnaires were originally mailed to 1 landowner and 313 hunters, but questionnaires were undeliverable to 12 hunters. Thus, the adjusted sample size was 301 hunters. Questionnaires were returned by 288 hunters (76%) and from the single landowner (Table 1). Response rates for the hunters and landowners 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).

The single private landowner supported continuation of the existing “no-spike rule.” In addition, 74% of the landowners owning land in DMU 245 supported the existing “no-spike rule” (Table 2). 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 landowner and the hunters exceeded the minimum support level of 66% that was required to recommend continuation of the “no-spike rule” for DMU 245 by the Wildlife Division to the Natural Resources Commission.

LITERATURE CITED

Cochran, W. G. 1977. Sampling techniques. John Wiley & Sons, New York. USA.

Quality Deer Management Working Group. 1999. Procedure for initiation, evaluation, and review of mandatory quality deer management proposals. Wildlife Division, Michigan Department of Natural Resources, Lansing, USA.

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 245, Michigan.

Group	Total number of people in group	Number of people sent a questionnaire	Number of questionnaires that were undeliverable	Number of questionnaires returned	Response rate (%)
Landowners	1	1	1	1	100
Hunters	313	313	12	228	76

Table 2. Proportion of hunters supporting the proposed mandatory QDM regulations in DMU 245, Michigan.

Response	Percentage of hunters ^a	95% CL ^b	Responses (%)
Yes (Supported mandatory QDM regulations)	74.0%	4.5%	<p>A pie chart illustrating the distribution of responses from hunters. The largest slice, representing 'Yes' responses, is black and accounts for 74.0% of the total. The 'No' responses are shown in a grey slice, making up 23.0%. The smallest slice, 'No Opinion', is white and represents 3.0% of the responses.</p>
No (Did not support mandatory QDM regulations)	23.0%	4.3%	
No opinion	3.0%	1.8%	

^aPercentage of hunters that hunted deer in DMU 245; no hunters selected “don’t care” as an answer or failed to provide an answer about their support for the continuation of the “no-spike rule.”

^b95% confidence limits.

Appendix A

Quality Deer Management Survey Questionnaire for
Deer Management Unit 245.



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 on South Fox Island (Deer Management Unit 245) 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”) on South Fox Island (Deer Management Unit 245)? **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.*

South Fox Island Deer Management Unit (DMU 245)

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

