



## EVALUATING PREFERENCES OF HUNTERS AND LANDOWNERS FOR MANAGING WHITE-TAILED DEER IN SOUTHWEST MINNESOTA<sup>1</sup>

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### SUMMARY OF FINDINGS

During 2012, Minnesota Department of Natural Resources (MNDNR) conducted goal-setting process to gather public input to aid in setting white-tailed deer (*Odocoileus virginianus*) population goals for southwest Minnesota. The goal-setting process included development of recommendations for deer population goals by stakeholder teams and an online questionnaire of voluntary participants. The results of the goal-setting process were not clear, with 46% of respondents indicating that deer numbers were about right and 50% of respondents indicating that deer numbers were too low. With no major opinion about deer population levels in southwest Minnesota, the results of the goal-setting process were difficult to apply to management. In addition, only 36% of online respondents were satisfied with the goal-setting process. Thus, the purpose of our study was to obtain detailed public input data to aid in setting deer population goals for southwest Minnesota.

We mailed surveys to 3,600 hunters and 4,604 landowners in southwest Minnesota to evaluate their experiences and attitudes regarding white-tailed deer densities, hunting opportunities, and potential regulations for deer hunting (Figure 1). We received a total of 2,063 completed surveys from hunters for a response rate of 59.3%. We received a total of 2,105 completed surveys from landowners for a response rate of 47.8%.

Most respondents (98%) to the hunter survey participated in the 2012 deer hunting season. Fifty-two percent of landowners either deer hunted during 2012 (26%) or hunted in Minnesota in the past (26%). Hunters had an average of 23 years of experience hunting in Minnesota, whereas landowners hunted an average of 33 years in Minnesota. Twelve percent of hunters archery hunted, 98% firearm hunted, and 17% muzzleloader hunted. Almost nineteen percent of landowners who hunt participated in archery season, 90% firearm hunted, and 25% muzzleloader hunted. Most hunters (57%) and landowners who hunt (62%) would prefer to kill a mature buck versus female deer or smaller bucks.

One-third of respondents who hunted harvested a buck in southwest Minnesota in 2012. Most hunters ( $\geq 57\%$ ) were satisfied with the number of antlerless deer and the total number of deer seen while hunting. Likewise, most hunters ( $\geq 76\%$ ) felt that the number of either-sex permits provided was either too low or about right. Only about one-third of all hunters were satisfied with the number and quality of bucks.

The landowners we surveyed controlled relatively large landholdings, which were primarily used for row-crop agriculture. They represented approximately 50% of landowners with  $\geq 160$  acres in southwest Minnesota. Two-thirds of respondents had knowledge about wildlife damage to crops on their properties. Therefore, the opinions of landowners included in this survey should accurately describe those of agricultural producers in southwest Minnesota. Although 73% of landowners reported at least some damage due to deer, average total crop damage due to deer was \$4885. Considering the large-scale production by respondents, crop losses to deer damage were relatively minor. Also, most landowners recognized that other species caused damage to crops, and attributed an average of 35% of damage to deer. Sixty-nine percent of landowners believed that deer damage was less than or the same as 5 years ago, which suggests that perceptions about crop damage may not be influenced by increased commodity prices.

<sup>1</sup>For full report, please see: D'Angelo, G. J., and M. D. Grund. 2014. Evaluating preferences of hunters and landowners for managing white-tailed deer in southwest Minnesota. Division of Fish and Wildlife, Minnesota Department of Natural Resources, St. Paul, Minnesota. 101 pp.

Ninety percent of landowners allow family members to hunt on their property and 19% of landowners allow hunting by non-family. Other than family, most landowners will allow friends or neighbors to hunt (80%). Eighteen percent of landowners will allow strangers who ask permission to hunt, and few allow specific hunting groups (5%). The average number of people landowners allow to hunt their land was 5 individuals, which equates to about 1 hunter per 123 acres. Less than 1% of landowners stated that they do not allow people to hunt because they do not believe in hunting.

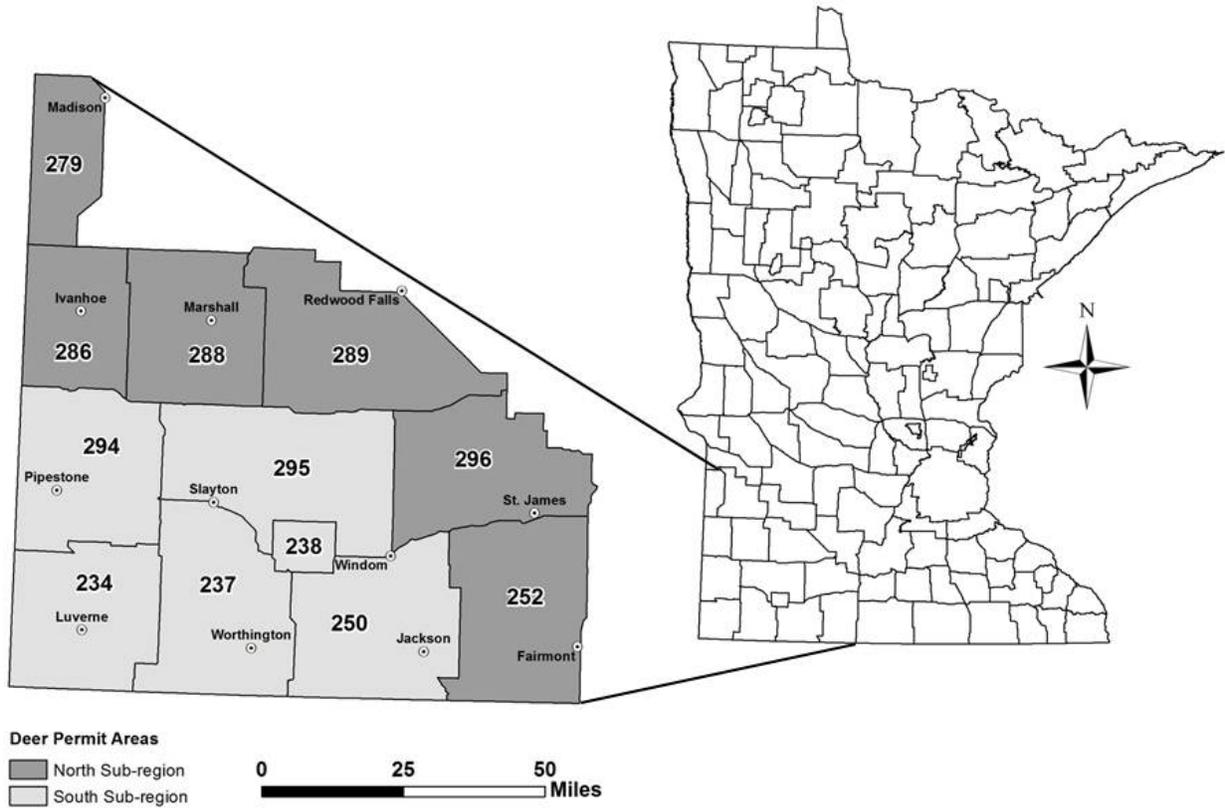
Only 36% of hunters and 18% of landowners felt that there were fewer deer in 2012 than 5 years ago in their area. Similar proportions of hunters (28%) and landowners (30%) believed there should be no change in the level of the deer population. However, the opinions of hunters trended toward increasing the deer population, while landowners tended to want the deer population decreased. Our results indicated that most hunters and landowners believed that there was an adequate number of deer in the population.

Landowners were less concerned about the specifics of deer harvest regulations than hunters. This is evident in their response rates, and answers which were distributed among categories of support or opposition with no clear majority opinion. Most hunters (59%) support a regulation to increase the proportion of antlered bucks in the population (Figure 2). Hunters were asked to rate their support for three potential regulations to reduce harvest pressure on bucks—buck permit lottery, antler point restriction, and a prohibition on cross-tagging of bucks. There was little support among hunters for a buck permit lottery (28%) or a prohibition on the cross-tagging of bucks (28%), however 50% of hunters supported an antler point restriction and 50% of hunters supported a youth-only deer season.

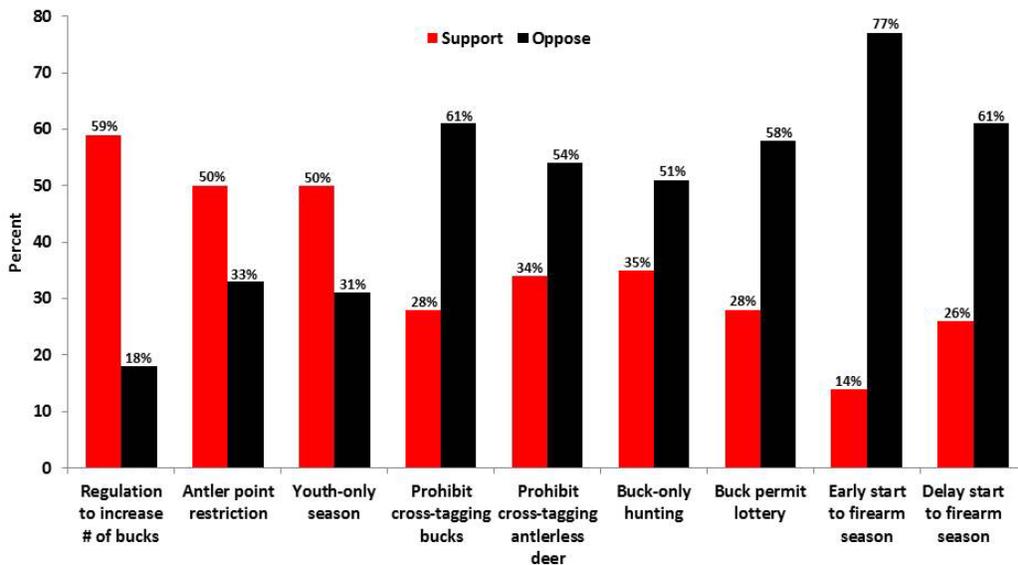
Only one-third of hunters supported buck-only hunting or a prohibition of cross-tagging antlerless deer. It is unlikely that these regulatory changes will be necessary since deer population levels are at or near goal levels and most hunters and landowners are satisfied with current deer numbers. Despite claims voiced by some hunters, there is little support for starting firearm season earlier (14%) or later (26%).

Our results indicated that that most hunters and landowners were satisfied with current deer numbers and believed the number of either-sex permits issued by the MNDNR has been appropriate. Although reports of damage due to deer were relatively minor, nearly one-half of landowners wanted deer densities reduced. Although hunters tend to prefer higher deer densities to maximize recreational opportunities, 20% of hunters wanted deer densities reduced. Thus, current deer densities should be considered to be near maximum levels to be acceptable to all stakeholders. Special opportunities to harvest deer should be afforded to landowners when non-lethal measures are not sufficient to minimize damage.

About two-thirds of the hunters we surveyed were not satisfied with the number or quality of bucks in the southwest Minnesota deer population. As demonstrated in southeast Minnesota and in other states, an antler-point restriction regulation reduces harvest mortality rates of young bucks thereby allowing bucks to reach older-age classes and grow larger racks. Previous hunter surveys conducted in Minnesota suggested that buck harvest mortality would slightly decrease if hunters were not able to cross-tag bucks with their hunting licenses. Our results suggest that 50% of hunters support an antler-point restriction regulation but there was strong opposition from hunters about prohibiting the cross-tagging of deer. Based on these findings, we believe wildlife managers should consider implementing an antler-point restriction to address satisfaction levels associated with the quantity and quality of bucks in southwest Minnesota deer populations.



**Figure 1.** Location of deer permit areas in southwest Minnesota where Minnesota Department of Natural Resources surveyed hunters and landowners during 2013 to evaluate their preferences for managing white-tailed deer in the region.



**Figure 2.** Support of hunters for regulatory changes to white-tailed deer hunting in southwest Minnesota, 2012.