



2004 MOURNING DOVE HUNTING SURVEY

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ABSTRACT

A survey was completed to determine the number of people hunting mourning doves, the number of days hunting, and the number of doves harvested in Michigan. In 2004, 4,981 hunters obtained a dove stamp allowing them to hunt mourning doves. About 61% of these people hunted doves (3,068 hunters). Hunters spent 12,691 days hunting doves, and harvested 28,139 doves ($\bar{x} = 9.2$ doves/hunter). About 71% of the hunters harvested at least one dove. About 69% of the active hunters rated their hunting experience as either very good or good. Moreover, 95% of hunters reported that they were very likely or somewhat likely to continue hunting doves during the next two years.

INTRODUCTION

Mourning doves (*Zenaida macroura*) are migratory birds that are hunted throughout most of the United States. The Michigan DNR, Wildlife Division, shares authority and responsibility for protection and management of migratory birds with the U.S. Fish and Wildlife Service, other state agencies, Canada, and Mexico. Harvest surveys are a management tool used by the Wildlife Division and other migratory bird management partners to help accomplish their statutory responsibilities. The main objectives of this harvest survey were to determine the number of hunters that hunted mourning doves, the number of days hunted, and the number of doves harvested in Michigan during 2004.

In 2004, Michigan became the forty-first state in the nation to offer a hunting season on mourning doves. The hunting season occurred from September 10 through October 30. Hunters could hunt doves in six counties in southern Michigan (Berrien, Branch, Cass, Hillsdale, St. Joseph, and Lenawee counties). In order to hunt doves, hunters were required to obtain a small game hunting license and a dove stamp. Hunters could harvest up to 15 birds per day with a possession limit of 30.



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METHODS

Following the 2004 dove hunting season, a questionnaire was sent to 2,500 randomly selected people that had obtained a dove stamp. Hunters receiving the questionnaire were asked to report if they hunted mourning doves, number of days spent afield, and number of doves they harvested. Hunters also were asked to indicate whether they hunted with a youth less than 16 years of age, their hunting methods, satisfaction with the hunting season, and the likelihood of hunting doves during the next two years.

Estimates were calculated using a simple random sampling design (Cochran 1977) and were presented along with their 95% confidence limit (CL). This confidence limit can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies that the true value would be within this interval 95 times out of 100. Estimates were not adjusted for possible response or nonresponse bias.

Questionnaires were mailed initially during mid-November 2004, and up to two follow-up questionnaires were mailed to nonrespondents. Although 2,500 people were sent the questionnaire, 33 surveys were undeliverable resulting in an adjusted sample size of 2,467. Questionnaires were returned by 1,932 people, yielding a 78% adjusted response rate.

RESULTS

In 2004, 4,981 people purchased a stamp to hunt doves prior to the end of the hunting season. Men obtained most of these stamps (4,823). The average age of the stamp buyers was 41 years (Figure 1). Nearly 7% (331) of the stamp buyers were younger than 17 years old.

About $61 \pm 2\%$ of the people that purchased a stamp went afield to hunt doves (3,068 hunters) (Table 1). Hunters spent 12,691 days hunting ($\bar{x} = 4.1 \pm 0.2$ days/hunter), and harvested 28,139 doves ($\bar{x} = 9.2$ birds/hunter). About $27 \pm 2\%$ of the dove hunters downed doves that they were unable to retrieve. These hunters downed an estimated $3,320 \pm 836$ doves that they were unable to retrieve. About 71% of hunters successfully harvested at least one dove. The greatest numbers of doves were harvested in Lenawee County.

Hunters most frequently hunted doves by finding a flight path that the doves were following between feeding, watering, and roosting areas and set up to shoot doves as they flew past; 58% of hunters either usually or always used this method (Table 2). Walking along tree lines and shooting doves as they flushed was the next most commonly used method to hunt doves. Hunters rarely relied on decoys to attract birds to their shooting location.

An average of 2.2 ± 0.1 people composed a dove hunting party in Michigan. About $30 \pm 2\%$ of dove hunters usually hunted alone, while $38 \pm 2\%$ of hunters usually hunted with one other person. About $23 \pm 2\%$ of dove hunters normally hunted with two other hunters, and $9 \pm 1\%$ of hunters usually hunted with three or more other hunters.

About $23 \pm 2\%$ of the adult dove hunters took at least one youth hunter with them during the hunting season, and about $10 \pm 1\%$ of adult hunters took an unrelated youth hunter with them.

Adult dove hunters were accompanied by about 973 ± 104 youth hunters (<16 years old). Of these youth hunters, an estimated 449 ± 86 hunters were unrelated to the adult hunter.

Of the estimated 3,068 people hunting doves in 2004, $69 \pm 2\%$ of the hunters rated their hunting experience as either very good (884 ± 67 hunters) or good ($1,237 \pm 76$). Nearly $17 \pm 2\%$ of the hunters rated their experience as neutral (514 ± 53 hunters). Only $13 \pm 1\%$ of the hunters rated their experience as poor (231 ± 37 hunters) or very poor (156 ± 30 hunters). About 2% of the hunters (47 ± 17 hunters) failed to rate their hunting experience.

Among people that hunted doves in 2004, $95 \pm 1\%$ of the hunters were very likely or somewhat likely to hunt doves during the next two years ($2,926 \pm 86$). About $2 \pm 1\%$ of the hunters indicated that they were not very likely or not at all likely to hunt doves during the next two years (57 ± 19 hunters). About 1% of the hunters (39 ± 15 hunters) were not sure whether they would hunt doves again during the next two years. Finally, 2% of the hunters failed to indicate whether they would hunt doves again.

DISCUSSION

Mourning doves have been hunted for many years throughout the United States, and they continue to be one of the most abundant birds in North America. The U.S. Fish and Wildlife Service estimates migratory bird harvests using the national Harvest Information Program. Less than 6% of the fall population of mourning doves was estimated to be harvested annually during recent years (Dolton and Rau 2004). During the 2003-2004 hunting season, about one million hunters harvested 18 million doves nationwide.

Because doves are migratory birds, their populations and harvest are managed cooperatively by Federal and State agencies. Within the United States, three management zones were created for the management of mourning doves, and the doves found in each zone are considered independent populations. The mourning doves found in Michigan are part of the Eastern Management Unit (EMU) which is composed of 27 states (primarily east of the Mississippi River) and accounts for about 30% of the U.S. land area. About 467,000 hunters harvested 8 million doves in the EMU during the 2003-2004 hunting season (Dolton and Rau 2004).

In 2004, Michigan held its first modern hunting season for doves. In the Midwest, Wisconsin, Illinois, Indiana, Minnesota, and Ohio also had mourning dove hunting seasons in 2004. Because this was Michigan's first modern dove hunting season and only 6 counties were open, it is difficult to make comparisons of total hunting effort and success with most other states in the EMU. For example, hunters in both Ohio and Indiana harvested over 300,000 doves during the 2003-2004 season (Dolton and Rau 2004).

Wisconsin held its first dove hunting season in 2003 and provides a good comparison with Michigan's season. Wisconsin hunters averaged 4.1 days hunting doves and harvested an average of 8.2 doves in 2003 (Dhuey and Warnke 2004), which is similar to estimates for Michigan hunters in 2004 ($\bar{x} = 4.1$ days and 9.2 birds per hunter in Michigan). Most Wisconsin (96%) and Michigan (95%) hunters indicated that they planned to continue hunting doves in the future.

In Wisconsin, 29% of dove hunters reported taking a youth under 16 years of age dove hunting (Dhuey and Warnke 2004). In comparison, an estimated 23% of adult dove hunters took a youth hunting with them in Michigan.

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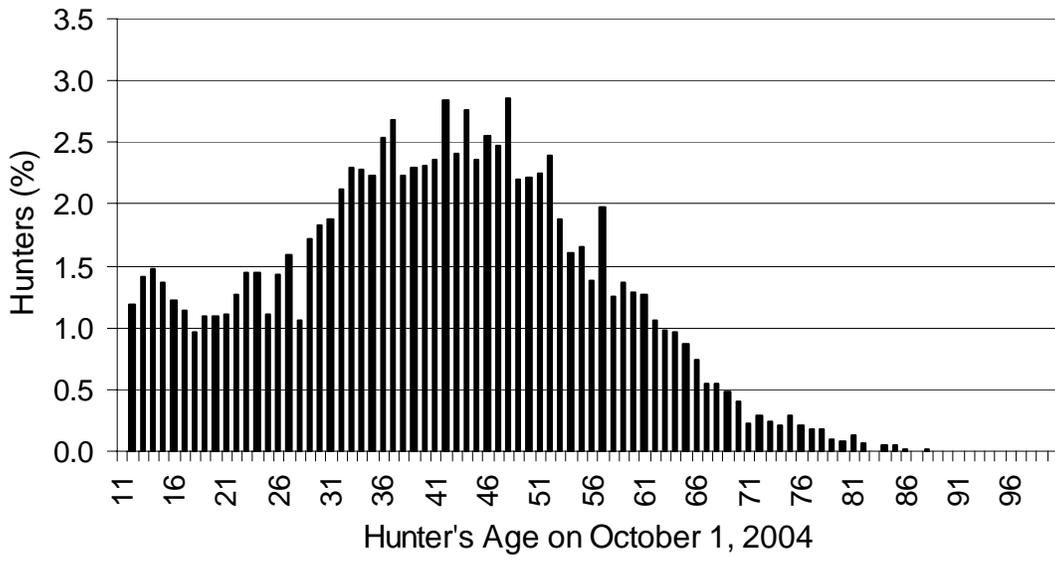


Figure 1. Age of people that purchased a dove hunting stamp in Michigan for the 2004 dove hunting season ($\bar{x} = 41$ years). Stamps were purchased by 4,981 people prior to the season ending.

Table 1. Estimated number of hunters, hunting effort, harvest, harvest per hunter, and hunter success during the 2004 dove hunting season in Michigan.

County	Hunters		Hunting effort (days)		Harvest		Harvest per hunter		Success	
	No.	95% CL	No.	95% CL	No.	95% CL	Mean	95% CL	%	95% CL
Berrien	464	51	2,238	352	4,835	973	10.4	1.8	74	5
Branch	358	45	1,229	217	2,957	1,117	8.3	3.0	70	6
Cass	353	45	1,395	257	3,875	959	11.0	2.3	68	6
Hillsdale	677	60	2,067	261	4,217	717	6.2	0.9	65	5
Lenawee	983	70	3,831	427	8,782	1,308	8.9	1.2	69	4
St. Joseph	467	51	1,727	268	3,190	616	6.8	1.1	69	5
Unknown	73	21	202	83	283	129	3.9	1.4	57	15
Total	3,068	85	12,691	678	28,139	2,323	9.2	0.7	71	2

Table 2. The estimated frequency that dove hunters used various methods to hunt doves in Michigan, 2004.

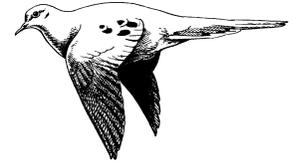
Hunt method	Never		Occasionally		Usually or always		No answer	
	%	95% CL	%	95% CL	%	95% CL	%	95% CL
Pass shooting	15	2	19	2	58	2	8	1
Use decoys	58	2	8	1	12	1	22	2
Flush birds	21	2	30	2	37	2	11	1

Appendix A. The questionnaire sent to a sample of dove hunters in this study.



2004 MOURNING DOVE HARVEST REPORT

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



It is important that you complete and return this questionnaire even if you did not hunt or harvest any doves in Michigan.

1. Did you attempt to hunt mourning doves in Michigan during the 2004 season?

- ¹ Yes ² No, Skip to question number 9.

2. If you attempted to hunt doves during the 2004 season, please complete the following table. Doves could be hunted only in Berrien, Branch, Cass, Hillsdale, St. Joseph, and Lenawee counties.

COUNTY HUNTED <i>(List each county that you hunted for doves)</i>	NUMBER OF DAYS HUNTED	TYPE OF LAND	NUMBER OF DOVES HARVESTED
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both	
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both	
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both	
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both	
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both	

3. Record the number of doves downed but not retrieved :

(Please report a number. Report "0" if you retrieved every bird that was downed.)

4. Do you usually hunt doves alone or with partners? *(Please check box indicating none or report a number.)*

- ¹ Hunt alone

If you usually hunted with other people, record the average number of people in your hunting party (include yourself in the count):

Questions continued on next page.

5. How many youths under 16 years old did you take dove hunting during Michigan's Dove Hunting season? (Please report a number. Report "0" if no youths hunted.)

Record the number of youth : _____

6. How many of the youths under 16 years old that you took hunting during Michigan's Dove Hunting season were not related to you and would not otherwise have been likely to hunt doves? (Please report a number. Report "0" if no unrelated youths hunted.)

Record the number of youth : _____

7. If you attempted to hunt doves, how often did you use the following methods to hunt doves? (Select one choice for each method).

Hunting method	Indicate how frequently hunting method was used			
A. Find a flight pattern that the doves are following between feeding, watering, and roosting areas, and set up for <u>pass shooting</u> .	1 <input type="checkbox"/> Never	2 <input type="checkbox"/> Occasionally	3 <input type="checkbox"/> Usually	4 <input type="checkbox"/> Always
B. Set up decoys near a food, water or roosting site and <u>attract doves to your shooting location</u> .	1 <input type="checkbox"/> Never	2 <input type="checkbox"/> Occasionally	3 <input type="checkbox"/> Usually	4 <input type="checkbox"/> Always
C. Walk along tree lines adjacent to feeding and watering areas and <u>flush birds</u> .	1 <input type="checkbox"/> Never	2 <input type="checkbox"/> Occasionally	3 <input type="checkbox"/> Usually	4 <input type="checkbox"/> Always

8. Overall, how would you rate your 2004 dove hunting experiences?

1 Very Good 2 Good 3 Neutral 4 Poor 5 Very Poor

9. How likely is it that you will continue to hunt doves in Michigan in the next 2 years?

1 Very likely 2 Somewhat likely 3 Not very likely 4 Not at all likely 5 Not sure

10. Do you have any comments or suggestions about dove management in Michigan?

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