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# 2015 MICHIGAN SPRING TURKEY HUNTER SURVEY

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## ABSTRACT

*A survey of turkey hunters was conducted following the 2015 spring hunting season to determine turkey harvest and hunter participation. In 2015, about 71,902 hunters harvested about 30,039 turkeys. Statewide, 42% of hunters harvested a turkey. Nearly 70% of the hunters rated their hunting experience as excellent, very good, or good in 2015. About 92% of the hunters reported they experienced no or only minor interference from other hunters. The number of hunters, their harvest, and hunter success were not significantly different between 2014 and 2015. However, hunter satisfaction in 2015 increased significantly from 2014 (70% versus 67%) and hunting effort decreased significantly by 9%.*

## INTRODUCTION

Michigan's spring turkey (*Meleagris gallopavo*) hunting season was based originally on an area and quota system. This system was set up primarily to distribute hunters across geographic areas (management units) and time (hunt periods). As the turkey population has expanded statewide, license types were created that allowed hunters to hunt in multiple management units. The goal of the current system has been to provide hunting opportunities while maintaining acceptable levels of hunter satisfaction (Luukkonen 1998).

In 2015, nearly the entire state was open for wild turkey hunting from April 20 through May 31 (Figure 1). The area open for turkey hunting (58,114 square miles) was the same as last year. The statewide hunting area was divided into 13 management units (Figure 1). Hunting licenses were available on these management units for three types of hunts: (1) quota [limited licenses available] hunts on both public and private lands in a specific management unit, (2) quota hunt on private lands in southern Michigan [Hunt 301 in Unit ZZ], and (3) a guaranteed hunt (no quota) that included all units [Hunt 234], but excluded public lands in the Southern Lower Peninsula (SLP).



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People interested in obtaining a turkey hunting license could enter into a random drawing (lottery) conducted by the Department of Natural Resources (DNR) or purchase a license not allocated through the lottery (i.e., left-over licenses and licenses for Hunt 234). Each applicant in the lottery could select up to two hunt choices (any combination of quota and unlimited quota hunts). The lottery consisted of two drawings. The first drawing was used to select applicants based on their preferred hunt choice. The second drawing was among applicants who were not successful in the first drawing, and was based on the hunter's second choice for a hunt. Any licenses available after the drawing was completed were made available on a first-come, first-served basis to applicants that were unsuccessful in the drawing. Unsuccessful applicants could purchase one leftover license or a license for Hunt 234. Beginning one week after licenses were available to unsuccessful applicants, all remaining licenses were made available to nonapplicants. Hunters were allowed to purchase one license and take one bearded turkey with the harvest tag issued with their license. Hunters could use a bow and arrow, crossbow, or shotgun with number 4 or smaller shot (including a muzzleloading shotgun) to hunt turkeys.

A limited number of licenses were available for quota hunts, and they were valid only in a certain management unit and only during a limited time period (7-42 days). Most quota hunts began before May 5 and lasted for seven days. A private land management unit (Unit ZZ) was created in 2002 that included all private lands in southern Michigan (Figure 1). Hunters who selected Hunt 301 could hunt the first two weeks of the season (April 20-May 3) anywhere on private lands in Unit ZZ. This unit and hunt period was created to provide additional hunting opportunity and increased flexibility for hunters who had difficulty finding time to hunt during shorter quota hunts.

Licenses for Hunt 234 could be used in any management unit. They were valid on public and private lands, except in Unit ZZ, where they were only valid on private lands or on Fort Custer military lands. Hunt 234 started later than most quota hunts but lasted for 28 days (May 4-31). Licenses for Hunt 234 were sold as a leftover license with no quota and could be purchased throughout the entire spring turkey hunting season.

The Pure Michigan Hunt (PMH) was a unique multi-species hunting opportunity offered for the first time in 2012. Individuals could purchase an unlimited number of applications for the PMH. Three individuals were randomly chosen from all applications, and winners received elk, bear, spring turkey, fall turkey, and antlerless deer hunting licenses and could participate in a reserved waterfowl hunt on a managed waterfowl area. The turkey hunting licenses were valid for all areas open for hunting turkey and during all turkey hunting periods. Furthermore, the PMH license holder could hunt any season until their turkey harvest tag was filled.

A mentored youth hunting program started in 2012. Under this program, a mentored youth hunting license was created and could be purchased by youth hunters aged 9 and younger. The youth hunter had to participate with a mentor who was at least 21 years old. The mentored youth hunting license allowed the youth hunter to hunt small game, turkey, deer, trap furbearers, and fish for all species. A turkey kill tag issued under the mentored youth hunting license was valid for one turkey during any hunt period, in any

open hunt unit, on private or public land. No application was required to purchase the mentored youth license.

The DNR and the Natural Resources Commission have the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Harvest surveys are a management tool used by the Wildlife Division to accomplish its statutory responsibility. Estimating harvest, hunting effort, and hunter satisfaction are the primary objectives of this survey.

## **METHODS**

The Wildlife Division provided all hunters the option to report voluntarily information about their turkey hunting activity via the internet. This option was advertised in the hunting regulation booklet and through a statewide news release. Hunters could report information anytime during the hunting season. Hunters reported whether they hunted, the days spent afield, whether they harvested a turkey, type of device used while hunting (i.e., firearm, crossbow, or bow and arrow), and whether other hunters caused interference during their hunt (none, minor, some irritation, or major problem). Successful hunters were also asked to report where their turkeys were taken (public or private land), date of harvest, and beard length of the harvested bird. Birds with a beard less than six inches were classified as juveniles (one year old), while birds with longer beards were adults (two years old or greater; Kelly, 1975). Finally, hunters were asked to rate their overall hunting experience (excellent, very good, good, fair, or poor), and indicate the status of the turkey population in their hunting area (increasing, decreasing, stable, or unknown).

Following the 2015 spring turkey hunting season, a questionnaire was sent to 13,568 randomly selected people that had purchased a turkey hunting license (resident turkey, senior resident turkey, nonresident turkey, mentored youth, and Pure Michigan hunting licenses) and had not already voluntarily reported harvest information via the internet. Hunters receiving the questionnaire were asked to report the same information that was collected from hunters that reported voluntarily on the internet.

Estimates were calculated using a stratified random sampling design that included 18 strata (Cochran 1977). Hunters were stratified based on the management unit where their license was valid (13 management units). Hunters who purchased a license that could be used in multiple management units (mentored youth hunters, PMH license holders, and licenses for hunts 234 and 301) were treated as separate strata (strata 14-17). Moreover, people that had voluntarily reported information about their hunting activity via the internet were treated as a separate stratum (eighteenth stratum).

A 95% confidence limit (CL) was calculated for each estimate. This CL could be added to 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 implies the true value would be within this interval 95 times out of 100. Estimates were based on information collected from random samples of hunting license buyers. Thus, these estimates were subject to sampling errors (Cochran 1977). Estimates were not adjusted for possible response or nonresponse biases.

Statistical tests are used routinely to determine the likelihood that differences among estimates are larger than expected by chance alone. The overlap of 95% confidence intervals was used to determine whether estimates differed. Non-overlapping 95% confidence intervals was equivalent to stating the difference between the means was larger than would be expected 995 out of 1,000 times ( $P < 0.005$ ), if the study had been repeated (Payton et al. 2003).

Questionnaires were mailed initially during early July 2015, and nonrespondents were mailed up to two follow-up questionnaires. Although 13,568 people were sent the questionnaire, 262 surveys were undeliverable resulting in an adjusted sample size of 13,306. Questionnaires were returned by 7,467 people, yielding a 56% adjusted response rate. In addition, 3,002 people voluntarily reported information about their hunting activity via the internet before the random sample was selected.

## **RESULTS AND DISCUSSION**

In 2015, licenses were purchased by 87,163 people, a decrease of about 2% from 2014 (Table 1). Most of the people buying a license were males (92%), and the average age of the license buyers was 44 years (Figure 2). Nearly 11% (9,579) of the license buyers were younger than 17 years old. Mentored youth hunting licenses were purchased by 2,182 youths.

The number of people buying a turkey hunting license in 2015 decreased nearly 20% in ten years from 2005 (108,640 people purchased a license in 2005). There were fewer license buyers for age classes between 26 and 58 years of age in 2015, compared to 2005 (Figure 3). However, there were increased hunter numbers among the youngest and oldest age classes in 2015. The increased hunter numbers in the oldest age classes likely represented the rising share of older people in the population as the baby-boom generation aged and life expectancies have increased. The increased participation among the youngest hunters reflected the lowering of the minimum age requirements. In 2015, there was no minimum age limit to hunt turkeys; while hunters had to be at least 12 years old to participate in 2005.

About 82% ( $\pm 1\%$ ) of license buyers hunted turkeys (71,902 hunters). Most of these hunters were males ( $66,789 \pm 838$ ), although nearly 7% ( $\pm 1\%$ ) of the hunters were females ( $5,112 \pm 456$ ). Estimated hunter numbers (Table 2) were similar in 2014 and 2015 (73,422 versus 71,902 hunters). Counties listed in descending order with more than 2,000 hunters afield included Allegan, Kent, Tuscola, and Jackson (Table 3).

Hunters spent an estimated 283,764 days afield pursuing turkeys ( $3.9 \pm 0.1$  days/hunter), and harvested approximately 30,039 birds (Figure 4). Counties listed in descending order with hunters taking more than 900 turkeys included Allegan, Tuscola, and Montcalm (Table 3). Hunter effort was significantly lower by 9% in 2015 than 2014, but harvest was not significantly different from 2014. Hunter success was 42% in 2015, which was not significantly different from the 40% hunter success experienced in 2014.

About 18% ( $\pm 2\%$ ) of the harvested birds were juvenile males ( $5,486 \pm 478$ ); 81% ( $\pm 2\%$ ) were adult males ( $24,200 \pm 863$ ), and about 1% were bearded females ( $237 \pm 102$ ). Additionally, the age of a small number of harvested birds ( $<1\%$ ) was unknown ( $116 \pm 68$ ) because hunters failed to report a beard length.

Hunting effort and the number of turkeys harvested were generally highest during the earliest hunting periods (Figures 5-8). For turkeys that the harvest date was known, 43% of these birds were taken during the first seven days (April 20-26). Daily hunter success generally was more than 8% during April 20 through May 13. Daily hunter success was generally below 8% during May 14-31. Hunting effort and harvest generally was greater on the weekends than weekdays.

About 81% of turkey hunters hunted solely on private land; 13% hunted on public land only; and 5% hunted on both private and public lands (Table 4). Of the 30,039 turkeys harvested in 2015,  $91\% \pm 1\%$  were taken on private land ( $27,195 \pm 885$  birds). About  $9\% \pm 1\%$  of the harvest ( $2,765 \pm 338$  birds) was taken on public land.

Thirteen percent of turkey hunters believed turkey numbers were increasing in their hunting area (Table 5); while, 44% thought turkey numbers were stable, 26% thought turkey were decreasing; 16% of turkey hunters were uncertain about the status of turkeys; and 1% did not comment on the status of turkey.

Hunter satisfaction is one measure used to assess the turkey management program in Michigan. Of the estimated 71,902 people hunting turkeys in 2015,  $70\% \pm 1\%$  of the hunters rated their hunting experience as either excellent ( $14,452 \pm 718$  hunters), very good ( $15,485 \pm 746$ ), or good ( $20,270 \pm 840$ ) (Table 6). Nearly  $18\% \pm 1\%$  of the hunters rated their experience as fair ( $12,726 \pm 706$  hunters). Only  $12\% \pm 1\%$  of the hunters rated their experience as poor ( $8,235 \pm 596$  hunters). About 1% of the hunters ( $734 \pm 185$  hunters) failed to rate their hunting experience.

Hunter satisfaction is affected by many factors such as hunting success and whether hunting activities were completed without interference (Luukkonen 1998). In 2015,  $74\% \pm 1\%$  of the hunters reported no hunter interference;  $18\% \pm 1\%$  reported minor interference;  $6\% \pm 1\%$  reported some irritation caused by hunter interference; and 1% reported hunter interference was a major problem (Table 7).

Although interference can affect hunter satisfaction, hunter satisfaction was more closely associated with hunter success (Figures 9 and 10). Hunter success was greatest for hunts beginning April 20; however, satisfaction varied little among the hunt periods (Table 8).

Compared to 2014, hunter numbers and harvest statewide in 2015 were not significantly different (Table 9). Hunter effort was significantly lower ( $-9\%$ ) in 2015 than 2014. In addition, hunter success and the proportion of hunters that indicated they experienced no or only minor interference with another hunter were similar in both 2014 and 2015 (Table 10). However, statewide hunter satisfaction increased significantly in 2015.

Most hunters ( $90 \pm 1\%$ ) used firearms while hunting turkeys, although  $6\% \pm 1\%$  of the hunters used archery equipment (compound, recurve, or long bows), and  $5\% \pm 1\%$  used a crossbow. Most hunters ( $94\% \pm 1\%$ ) used a firearm to harvest their turkeys, while  $3\% \pm 1\%$  used archery equipment, and  $3\% \pm 1\%$  used a crossbow. About 43% of hunters using a firearm harvested a turkey, while 20% of hunters using a crossbow took a turkey, and 21% of hunters using another type of bow (longbows, recurve, or compound bows) took a turkey (Table 11).

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Table 1. Number of hunting licenses available and people applying for licenses during the 2015 Michigan spring turkey hunting season.

Management unit or hunt period	Licenses available (quota)	Number of eligible applicants <sup>a</sup>	Number of applicants successful in drawing	Number of licenses remaining after drawing	Number of licenses purchased by successful applicants <sup>b</sup>	Number of licenses purchased by unsuccessful applicants <sup>b</sup>	Number of licenses purchased by people not in the drawing <sup>b</sup>	Number of licensees <sup>b</sup>
A	5,500	1,357	1,363	4,137	963	1	1,023	1,986
B	1,000	35	35	965	19	0	33	52
E	1,700	1,577	1,526	172	1,149	0	163	1,313
F	5,000	2,813	2,825	2,175	2,133	5	864	3,002
J	4,000	1,216	1,228	2,772	877	1	940	1,818
K	8,500	7,766	7,583	916	5,603	16	864	6,483
M	6,000	797	802	5,198	614	0	3,247	3,861
ZA	4,800	1,526	1,545	3,255	1,152	1	1,515	2,668
ZB	2,600	754	759	1,840	565	4	652	1,221
ZC	2,400	1,162	1,153	1,247	806	0	842	1,648
ZD	40	88	40	0	18	0	0	18
ZE	2,000	1,555	1,525	478	1,140	2	463	1,605
ZF	5,600	1,675	1,684	3,916	1,261	2	2,364	3,627
Hunt 234	NA	NA	NA	NA	495	46	30,558	31,099
Hunt 301	65,000	4,792	4,836	60,164	3,907	22	20,648	24,577
Pure MI Hunts	3	NA	NA	NA	NA	NA	NA	3
Mentored Hunts	NA	NA	NA	NA	NA	NA	NA	2,182
Statewide	114,143	27,113	26,904	87,235	20,702	100	64,176	87,163

<sup>a</sup>Number of eligible applicants selecting the management unit as their first choice to hunt.

<sup>b</sup>If a licensee purchased more than one license, only the latest purchase is included in the summary of licenses purchased.

Table 2. Number of hunters, hunting efforts, harvest, hunter success, hunter satisfaction, and hunter interference during the spring 2015 Michigan turkey hunting season.

Management unit	Hunters <sup>a</sup>		Hunting efforts (days) <sup>a</sup>		Harvest <sup>a</sup>		Hunter success		Hunter satisfaction <sup>b</sup>		Noninterfered hunters <sup>c</sup>	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Hunt periods with quotas (General limited quota hunt periods)												
A	1,687	88	6,461	675	543	106	32	6	57	7	94	3
B	42	6	122	23	21	7	50	15	86	11	100	0
E	1,179	48	3,628	295	416	71	35	6	64	6	90	4
F	2,596	126	8,768	763	634	146	24	6	57	6	90	4
J	1,482	94	5,538	662	501	105	34	7	63	7	91	4
K	5,621	264	18,238	1,546	1,920	344	34	6	63	6	91	4
M	2,866	221	14,766	2,258	1,214	231	42	7	63	7	97	3
ZA	2,127	144	7,860	1,109	731	155	34	7	65	7	91	4
ZB	1,017	62	2,884	334	348	73	34	7	67	7	88	5
ZC	1,302	94	4,533	563	409	97	31	7	67	7	78	6
ZD	13	3	38	12	6	3	42	19	54	20	77	17
ZE	1,326	82	4,820	615	353	85	27	6	71	7	85	5
ZF	2,949	188	13,002	1,970	1,049	214	36	7	66	7	92	4
Pure MI Hunt	3	0	4	0	2	0	67	0	100	0	100	0
Subtotal	24,210	479	90,661	3,869	8,147	559	34	2	63	2	91	1
Hunt period 301 with quota (Private lands in Management Unit ZZ; April 20-May 3, 2015)												
ZA	5,396	390	18,870	1,765	2,902	303	54	4	75	4	94	2
ZB	2,329	277	7,653	1,221	1,268	209	54	6	77	5	90	4
ZC	3,211	316	10,716	1,311	1,595	228	50	5	74	5	90	3
ZD	331	109	1,238	493	142	72	43	16	64	16	100	0
ZE	5,805	400	20,286	1,869	2,932	303	51	4	81	3	94	2
ZF	4,264	357	15,250	1,677	2,529	285	58	5	79	4	93	2
Unknown	522	137	1,772	615	0	0	0	0	44	13	84	10
Subtotal	21,473	317	75,785	2,587	11,367	470	53	2	77	2	92	1

<sup>a</sup>Number of hunters does not add up to statewide total because mentored youth and hunters with licenses for hunts 234 and 301 can hunt in more than one unit. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 2 (continued). Number of hunters, hunting efforts, harvest, hunter success, hunter satisfaction, and hunter interference during the spring 2015 Michigan turkey hunting season.

Management unit	Hunters <sup>a</sup>		Hunting efforts (days) <sup>a</sup>		Harvest <sup>a</sup>		Hunter success		Hunter satisfaction <sup>b</sup>		Noninterfered hunters <sup>c</sup>	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Unlimited quota hunt period (Guaranteed Hunt 234; May 4-31, 2015)												
A	519	152	2,124	788	106	67	20	12	46	15	89	9
B	14	26	14	26	14	26	100	0	100	0	100	0
E	1,337	245	5,312	1,402	429	139	32	9	62	9	93	5
F	1,127	224	5,609	1,510	197	92	17	7	49	10	88	7
J	932	204	4,043	1,274	265	108	28	10	67	11	96	5
K	4,881	437	22,182	2,823	1,863	283	38	5	71	4	94	2
M	241	105	859	429	61	51	25	19	43	22	94	10
ZA	4,848	437	19,607	2,540	2,188	307	45	5	71	4	93	2
ZB	1,813	284	9,009	1,960	782	189	43	8	74	7	92	4
ZC	1,718	273	7,307	1,574	630	166	37	8	68	8	94	4
ZD	168	88	824	498	30	36	18	20	67	25	83	20
ZE	4,536	424	18,589	2,554	2,017	293	44	5	80	4	94	2
ZF	3,504	381	15,338	2,363	1,492	256	42	6	73	5	94	3
Unknown	374	132	1,295	632	0	0	0	0	23	15	89	11
Subtotal	24,723	491	112,112	5,079	10,075	561	41	2	70	2	93	1

<sup>a</sup>Number of hunters does not add up to statewide total because mentored youth and hunters with licenses for hunts 234 and 301 can hunt in more than one unit. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 2 (continued). Number of hunters, hunting efforts, harvest, hunter success, hunter satisfaction, and hunter interference during the spring 2015 Michigan turkey hunting season.

Management unit	Hunters <sup>a</sup>		Hunting efforts (days) <sup>a</sup>		Harvest <sup>a</sup>		Hunter success		Hunter satisfaction <sup>b</sup>		Noninterfered hunters <sup>c</sup>	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)												
A	23	12	68	38	5	6	22	21	67	24	89	16
B	0	0	0	0	0	0	0	0	0	0	0	0
E	42	16	115	51	18	11	44	19	75	17	94	9
F	44	16	130	60	5	6	12	12	76	16	88	12
J	43	16	131	65	19	11	45	19	88	12	88	12
K	218	35	788	167	64	19	29	8	72	8	99	2
M	61	19	224	88	17	10	27	14	70	15	83	12
ZA	301	40	1,078	202	95	24	32	7	80	6	93	4
ZB	128	27	457	140	34	14	27	10	80	9	92	6
ZC	123	27	451	139	26	13	21	9	79	9	94	5
ZD	5	6	37	43	0	0	0	0	100	0	100	0
ZE	249	37	716	136	86	22	35	7	73	7	95	4
ZF	257	37	940	174	81	22	32	7	73	7	96	3
Unknown	26	13	73	42	0	0	0	0	90	15	100	0
Subtotal	1,496	54	5,207	344	450	47	30	3	76	3	94	2
Statewide	71,902	757	283,764	6,897	30,039	922	42	1	70	1	92	1

<sup>a</sup>Number of hunters does not add up to statewide total because mentored youth and hunters with licenses for hunts 234 and 301 can hunt in more than one unit. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 3. Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2015 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters <sup>a</sup>		Hunting efforts (days) <sup>a</sup>		Harvest <sup>a</sup>		Hunter success		Hunter satisfaction <sup>b</sup>		Noninterfered hunters <sup>c</sup>	
	Total	95%	Total	95%	Total	95%	%	95%	%	95%	%	95%
		CL		CL		CL		CL		CL		CL
Alcona	800	169	2,631	697	276	98	35	10	51	11	89	7
Alger	149	95	597	500	4	4	2	3	49	32	100	0
Allegan	2,275	308	9,490	1,835	1,045	212	46	7	75	6	90	4
Alpena	596	128	2,640	691	168	71	28	10	44	12	91	7
Antrim	638	148	2,059	561	188	78	29	11	64	12	98	4
Arenac	291	91	993	387	137	62	47	16	71	14	95	5
Baraga	34	43	90	132	19	35	57	62	60	61	100	0
Barry	1,578	262	6,372	1,459	726	178	46	9	69	8	94	4
Bay	395	128	1,623	697	189	85	48	16	79	14	93	8
Benzie	382	153	1,491	692	110	76	29	17	56	20	89	14
Berrien	993	203	3,580	1,143	557	152	56	10	80	8	92	5
Branch	1,013	198	4,000	1,195	523	141	52	10	76	9	94	5
Calhoun	1,378	234	5,673	1,487	575	150	42	8	73	8	92	5
Cass	945	205	3,675	1,155	454	142	48	11	75	10	96	4
Charlevoix	549	129	2,215	1,003	241	86	44	12	66	12	95	5
Cheboygan	338	107	1,241	450	91	53	27	14	62	16	88	11
Chippewa	139	89	580	424	36	43	26	27	26	27	100	0
Clare	1,243	197	4,734	1,228	409	119	33	8	63	8	90	5
Clinton	1,375	234	4,788	1,045	588	152	43	9	72	8	93	4
Crawford	772	175	2,808	934	146	76	19	9	49	12	91	7
Delta	489	164	2,351	1,089	174	103	36	17	55	18	99	1

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2015 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters <sup>a</sup>		Hunting efforts (days) <sup>a</sup>		Harvest <sup>a</sup>		Hunter success		Hunter satisfaction <sup>b</sup>		Noninterfered hunters <sup>c</sup>	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Dickinson	511	170	2,999	1,353	208	113	41	18	56	18	93	9
Eaton	1,116	212	4,116	1,008	534	147	48	10	79	8	95	4
Emmet	305	99	1,101	442	90	53	30	15	75	14	91	10
Genesee	1,157	202	4,195	992	509	136	44	9	72	8	86	6
Gladwin	961	166	3,002	661	292	85	30	8	64	9	93	4
Gogebic	96	77	261	238	21	35	22	33	41	40	100	0
Gd. Traverse	864	239	3,369	1,058	361	157	42	14	64	14	97	6
Gratiot	1,049	205	3,737	991	562	151	54	10	73	9	96	4
Hillsdale	1,355	226	4,067	851	628	156	46	8	80	7	91	5
Houghton	92	70	292	242	40	49	43	39	67	34	100	0
Huron	1,371	212	4,832	1,060	622	146	45	8	79	6	92	4
Ingham	1,331	227	4,688	1,110	470	137	35	8	79	7	93	4
Ionia	1,364	232	4,906	1,069	551	151	40	9	71	8	90	5
Iosco	675	161	2,512	830	154	80	23	11	59	13	90	8
Iron	630	185	3,562	1,430	218	113	35	15	67	15	92	8
Isabella	1,137	212	3,895	947	477	137	42	9	67	9	94	4
Jackson	2,017	269	6,883	1,229	843	176	42	7	81	5	92	4
Kalamazoo	806	186	2,742	740	289	110	36	11	74	10	93	6
Kalkaska	622	202	2,163	838	205	124	33	16	76	13	87	12
Kent	2,105	285	7,498	1,419	871	180	41	7	75	6	94	3
Keweenaw	0	0	0	0	0	0	0	0	0	0	0	0

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2015 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters <sup>a</sup>		Hunting efforts (days) <sup>a</sup>		Harvest <sup>a</sup>		Hunter success		Hunter satisfaction <sup>b</sup>		Noninterfered hunters <sup>c</sup>	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Lake	1,037	259	3,943	1,155	152	90	15	8	50	13	92	7
Lapeer	1,858	259	6,380	1,180	777	165	42	7	73	6	93	3
Leelanau	188	103	776	492	118	83	63	26	94	4	98	1
Lenawee	1,046	200	3,536	874	467	132	45	10	83	7	90	6
Livingston	1,333	211	5,372	1,240	547	137	41	8	80	6	92	4
Luce	1	0	3	0	0	0	0	0	100	0	100	0
Mackinac	38	49	38	49	19	35	51	66	51	66	100	0
Macomb	505	137	1,690	588	196	83	39	13	72	12	82	11
Manistee	601	202	2,062	808	198	121	33	16	56	17	99	0
Marquette	254	123	1,141	728	69	65	27	22	57	25	93	13
Mason	868	239	3,058	1,015	380	159	44	14	69	13	97	6
Mecosta	1,174	266	4,359	1,269	475	165	40	11	72	11	95	5
Menominee	765	196	2,833	909	407	150	53	14	80	11	94	6
Midland	1,100	210	3,594	907	578	153	53	10	80	8	98	3
Missaukee	733	223	2,695	939	177	111	24	13	63	15	93	9
Monroe	410	124	1,762	630	155	76	38	15	67	14	96	6
Montcalm	1,896	276	6,766	1,338	941	194	50	7	73	7	96	3
Montmorency	624	135	2,079	506	169	72	27	10	57	12	94	5
Muskegon	1,148	226	4,521	1,166	371	122	32	9	73	9	94	5
Newaygo	1,873	329	7,161	1,576	676	196	36	9	68	9	88	6
Oakland	1,192	194	4,038	772	542	136	45	9	70	8	86	6

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2015 Michigan spring turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters <sup>a</sup>		Hunting efforts (days) <sup>a</sup>		Harvest <sup>a</sup>		Hunter success		Hunter satisfaction <sup>b</sup>		Noninterfered hunters <sup>c</sup>	
	Total	95%	Total	95%	Total	95%	%	95%	%	95%	%	95%
		CL		CL		CL		CL		CL		CL
Oceana	908	241	3,061	1,091	395	167	43	14	73	12	91	8
Ogemaw	692	166	2,509	751	137	73	20	10	59	12	84	9
Ontonagon	116	85	479	590	39	49	33	35	20	28	100	0
Osceola	1,042	262	3,692	1,188	400	167	38	13	77	11	98	2
Oscoda	506	145	1,939	692	129	75	26	13	40	14	79	12
Otsego	624	143	2,446	689	183	81	29	11	64	11	92	6
Ottawa	1,379	241	5,342	1,240	618	159	45	9	79	7	92	5
Presque Isle	509	109	1,968	501	154	66	30	11	62	12	96	5
Roscommon	755	173	3,108	871	133	73	18	9	56	12	92	6
Saginaw	1,356	233	6,204	1,483	567	152	42	9	67	8	89	6
St. Clair	1,602	237	5,474	956	625	151	39	7	69	7	90	5
St. Joseph	712	177	2,412	712	398	133	56	13	70	12	95	5
Sanilac	1,720	252	6,804	1,575	774	173	45	7	72	7	92	4
Schoolcraft	61	60	199	226	39	49	64	47	98	2	100	0
Shiawassee	1,035	202	3,148	760	516	143	50	10	77	8	88	6
Tuscola	2,084	265	7,640	1,373	1,027	191	49	7	75	6	89	4
Van Buren	1,132	220	4,619	1,468	558	151	49	10	69	9	97	4
Washtenaw	1,508	223	5,207	929	766	164	51	8	83	6	94	4
Wayne	107	66	374	311	22	28	21	24	57	31	87	22
Wexford	800	232	2,671	995	134	72	17	9	65	14	86	11
Unknown	3,233	378	12,212	1,910	412	139	12	4	45	6	85	4

<sup>a</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

<sup>b</sup>Proportion of hunters that rated their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

Table 4. Estimated number and proportion of hunters hunting on private and public lands during the spring 2015 Michigan turkey hunting season.<sup>a</sup>

Management unit	Private land only				Public land only				Both private and public lands				Unknown land			
	Total	95% CL	95% %	95% CL	Total	95% CL	95% %	95% CL	Total	95% CL	95% %	95% CL	Total	95% CL	95% %	95% CL
Hunt periods with quotas (General limited quota hunt periods)																
A	1,310	115	78	5	284	84	17	5	84	49	5	3	9	17	1	1
B	27	7	64	14	5	4	12	9	10	6	24	13	0	0	0	0
E	891	73	76	5	218	58	18	5	64	33	5	3	6	11	1	1
F	1,113	176	43	6	1,275	180	49	7	155	79	6	3	52	48	2	2
J	829	119	56	7	417	100	28	6	206	76	14	5	28	30	2	2
K	3,614	380	64	6	1,241	297	22	5	715	243	13	4	51	70	1	1
M	1,773	250	62	7	423	155	15	5	577	180	20	6	92	77	3	3
ZA	1,139	175	54	7	814	162	38	7	174	87	8	4	0	0	0	0
ZB	438	79	43	7	512	81	50	7	60	35	6	3	7	13	1	1
ZC	548	107	42	8	636	110	49	8	80	49	6	4	38	35	3	3
ZD	9	3	65	19	5	3	35	19	0	0	0	0	0	0	0	0
ZE	389	91	29	7	863	105	65	7	66	41	5	3	9	16	1	1
ZF	1,564	236	53	7	1,055	215	36	7	241	118	8	4	89	75	3	3
PMH	3	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	13,647	619	56	2	7,747	517	32	2	2,435	366	10	1	381	148	2	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 20-May 3, 2015)																
ZA	5,396	390	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZB	2,329	277	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZC	3,211	316	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZD	331	109	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE	5,805	400	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZF	4,264	357	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	522	137	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	21,473	317	100	0	0	0	0	0	0	0	0	0	0	0	0	0

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

Table 4 (continued). Estimated number and proportion of hunters hunting on private and public lands during the spring 2015 Michigan turkey hunting season.<sup>a</sup>

Management unit	Private land only				Public land only				Both private and public lands				Unknown land			
	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL
Unlimited quota hunt period (Guaranteed Hunt 234; May 4-31, 2015)																
A	425	139	82	11	65	51	13	9	28	36	5	7	0	0	0	0
B	14	26	100	0	0	0	0	0	0	0	0	0	0	0	0	0
E	1,075	220	80	7	208	99	16	7	41	44	3	3	14	26	1	2
F	425	139	38	10	564	160	50	10	125	77	11	6	14	26	1	2
J	582	162	62	11	198	95	21	9	125	77	13	8	27	36	3	4
K	3,239	366	66	5	989	210	20	4	585	164	12	3	68	57	1	1
M	170	88	70	20	28	36	12	14	17	26	7	10	0	0	0	0
ZA <sup>b</sup>	4,848	437	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZB <sup>b</sup>	1,813	284	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZC <sup>b</sup>	1,718	273	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZD <sup>b</sup>	168	88	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE <sup>b</sup>	4,536	424	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZF <sup>b</sup>	3,504	381	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	275	114	74	16	71	57	19	14	15	26	4	7	14	26	4	7
Subtotal	21,631	557	87	1	1,713	273	7	1	1,244	236	5	1	135	81	1	0

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Licenses for the unlimited quota hunt were valid only on private lands in Management Unit ZZ in southern Michigan (Figure 1).

<sup>c</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one unit for the unlimited quota hunts.

Table 4 (continued). Estimated number and proportion of hunters hunting on private and public lands during the spring 2015 Michigan turkey hunting season.<sup>a</sup>

Management unit	Private land only				Public land only				Both private and public lands				Unknown land			
	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)																
A	18	11	78	21	0	0	0	0	3	4	11	16	3	4	11	16
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	31	14	75	17	5	6	13	13	5	6	13	13	0	0	0	0
F	29	13	65	18	13	9	29	17	3	4	6	9	0	0	0	0
J	30	13	69	17	8	7	18	15	5	6	12	12	0	0	0	0
K	170	31	78	7	24	12	11	5	23	12	11	5	0	0	0	0
M	42	16	68	15	14	9	23	13	5	6	9	9	0	0	0	0
ZA	288	39	96	3	10	8	3	3	0	0	0	0	3	4	1	1
ZB	112	26	88	7	10	8	8	6	5	6	4	4	0	0	0	0
ZC	117	26	96	5	5	6	4	5	0	0	0	0	0	0	0	0
ZD	5	6	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE	238	36	95	3	11	8	5	3	0	0	0	0	0	0	0	0
ZF	238	36	93	4	5	6	2	2	10	8	4	3	3	4	1	2
Unknown	18	11	70	22	0	0	0	0	0	0	0	0	8	7	30	22
Subtotal	1,318	57	88	2	100	24	7	2	63	19	4	1	16	10	1	1
Statewide <sup>c</sup>	58,028	893	81	1	9,559	585	13	1	3,742	436	5	1	600	178	1	0

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Licenses for the unlimited quota hunt were valid only on private lands in Management Unit ZZ in southern Michigan (Figure 1).

<sup>c</sup>Number of hunters does not add up to statewide total because hunters can hunt in more than one unit for the unlimited quota hunts.

Table 5. Status of turkey population reported by turkey hunters during the spring 2015 Michigan turkey hunting season.

Management unit	Turkey population status (% of hunters) <sup>a</sup>				
	Increasing	Decreasing	Stable	Unknown	No answer
Hunt periods with quotas (General limited quota hunt periods)					
A	11	34	30	23	2
B	10	50	19	21	0
E	12	24	39	25	1
F	11	29	32	26	1
J	10	36	38	15	1
K	10	36	39	14	1
M	6	41	36	16	1
ZA	12	20	44	22	2
ZB	14	18	44	24	1
ZC	10	29	37	23	1
ZD	19	12	35	35	0
ZE	19	12	39	27	1
ZF	13	19	45	21	2
Pure MI Hunt	0	0	67	33	0
Mean	11	29	39	20	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 20-May 3, 2015)					
ZA	15	25	47	12	1
ZB	12	24	53	10	1
ZC	17	21	49	12	1
ZD	30	17	43	10	0
ZE	20	17	51	11	1
ZF	18	21	49	10	2
Unknown	6	19	43	25	6
Mean	17	21	49	11	1

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

Table 5 (continued). Status of turkey population reported by turkey hunters during the spring 2015 Michigan turkey hunting season.

Management unit	Turkey population status (% of hunters) <sup>a</sup>				
	Increasing	Decreasing	Stable	Unknown	No answer
Unlimited quota hunt period (Guaranteed Hunt 234; May 4-31, 2015)					
A	6	41	28	25	0
B	0	100	0	0	0
E	10	26	37	24	4
F	10	35	43	10	1
J	7	28	44	19	3
K	11	31	44	15	0
M	12	63	18	7	0
ZA	12	28	46	14	1
ZB	16	24	50	9	1
ZC	16	24	42	15	2
ZD	17	9	58	17	0
ZE	16	19	51	13	2
ZF	16	24	43	17	0
Unknown	4	51	19	18	7
Mean	13	26	45	15	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)					
A	0	44	22	33	0
B	0	0	0	0	0
E	25	13	31	31	0
F	18	0	35	41	6
J	18	18	27	37	0
K	16	25	33	26	0
M	13	17	44	21	4
ZA	11	16	45	27	1
ZB	20	10	43	27	0
ZC	21	21	38	19	0
ZD	0	0	50	50	0
ZE	24	14	34	27	1
ZF	11	26	38	23	1
Unknown	20	30	30	20	0
Mean	17	19	38	26	1
Statewide <sup>b</sup>	13	26	44	16	1

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Statewide mean interference levels (all hunts and periods).

Table 6. How hunters rated their hunting experience during the spring 2015 Michigan turkey hunting season.

Management unit	Satisfaction level (% of hunters) <sup>a</sup>					
	Excellent	Very good	Good	Fair	Poor	No answer
Hunt periods with quotas (General limited quota hunt periods)						
A	16	17	24	21	22	1
B	26	26	33	14	0	0
E	15	20	30	19	17	1
F	11	21	25	21	22	0
J	18	18	27	21	15	1
K	17	17	29	18	18	1
M	18	22	23	15	21	1
ZA	17	21	28	22	11	2
ZB	16	24	27	21	11	1
ZC	20	21	26	21	9	2
ZD	7	0	46	23	23	0
ZE	18	22	31	18	10	2
ZF	22	20	25	22	11	2
Pure MI Hunt	67	0	33	0	0	0
Mean	17	20	27	19	16	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 20-May 3, 2015)						
ZA	21	26	28	17	7	1
ZB	26	24	27	13	10	0
ZC	25	23	26	17	8	1
ZD	17	30	17	20	17	0
ZE	27	25	29	13	5	1
ZF	26	29	24	14	7	0
Unknown	6	11	27	27	25	4
Mean	24	25	27	15	8	1

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

Table 6 (continued). How hunters rated their hunting experience during the spring 2015 Michigan turkey hunting season.

Management unit	Satisfaction level (% of hunters) <sup>a</sup>					
	Excellent	Very good	Good	Fair	Poor	No answer
Unlimited quota hunt period (Guaranteed Hunt 234; May 4-31, 2015)						
A	12	11	22	18	36	0
B	0	0	100	0	0	0
E	11	19	32	16	19	2
F	7	10	32	31	20	0
J	14	27	25	21	10	1
K	16	21	33	17	12	1
M	13	1	28	28	29	0
ZA	21	20	30	22	6	1
ZB	19	21	34	19	6	1
ZC	17	19	31	16	15	1
ZD	8	33	26	17	16	0
ZE	25	24	30	13	6	1
ZF	21	21	31	17	9	1
Unknown	8	12	4	37	29	11
Mean	19	20	31	18	11	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)						
A	11	11	44	0	22	11
B	0	0	0	0	0	0
E	31	25	19	19	0	6
F	29	12	35	18	0	6
J	45	12	31	12	0	0
K	18	23	31	17	10	1
M	23	9	38	26	4	0
ZA	26	29	25	10	8	2
ZB	31	16	33	16	4	0
ZC	30	23	26	17	4	0
ZD	0	0	100	0	0	0
ZE	33	17	23	19	7	1
ZF	26	20	26	17	10	0
Unknown	40	0	50	10	0	0
Mean	28	20	28	16	7	1
Statewide <sup>b</sup>	20	22	28	18	11	1

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Statewide mean satisfaction levels (all hunts and periods).

Table 7. Estimated amount of hunter interference experienced by turkey hunters during the spring 2015 Michigan turkey hunting season.

Management unit	Interference level (% of hunters) <sup>a</sup>				
	None	Minor	Some irritation	Major problem	No answer
Hunt periods with quotas (General limited quota hunt periods)					
A	79	15	5	1	1
B	67	33	0	0	0
E	77	13	8	1	1
F	70	21	8	2	0
J	74	17	8	1	1
K	70	21	6	3	0
M	76	21	1	1	1
ZA	67	24	8	1	1
ZB	70	17	8	2	2
ZC	51	27	16	4	2
ZD	54	23	23	0	0
ZE	54	32	11	2	2
ZF	67	24	4	2	2
Pure MI Hunt	100	0	0	0	0
Mean	69	21	7	2	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 20-May 3, 2015)					
ZA	78	16	5	1	0
ZB	72	18	9	1	0
ZC	73	17	9	1	1
ZD	76	24	0	0	0
ZE	80	14	5	1	0
ZF	77	15	6	1	0
Unknown	67	17	12	0	4
Mean	77	16	6	1	0

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

Table 7 (continued). Estimated amount of hunter interference experienced by turkey hunters during the spring 2015 Michigan turkey hunting season.

Management unit	Interference level (% of hunters) <sup>a</sup>				
	None	Minor	Some irritation	Major problem	No answer
Unlimited quota hunt period (Guaranteed Hunt 234; May 4-31, 2015)					
A	84	6	5	5	0
B	100	0	0	0	0
E	80	13	5	1	1
F	71	17	11	1	0
J	75	21	1	2	1
K	72	22	5	1	0
M	77	17	6	0	0
ZA	78	15	5	1	1
ZB	82	11	5	2	1
ZC	74	20	2	2	1
ZD	83	1	9	8	0
ZE	78	16	4	1	1
ZF	77	17	4	1	1
Unknown	75	14	0	0	11
Mean	77	16	5	1	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)					
A	67	22	11	0	0
B	0	0	0	0	0
E	69	25	6	0	0
F	76	12	6	0	6
J	76	12	12	0	0
K	80	19	1	0	0
M	53	30	13	0	4
ZA	79	14	5	1	1
ZB	76	16	8	0	0
ZC	79	15	2	4	0
ZD	50	50	0	0	0
ZE	84	10	4	0	1
ZF	77	19	3	1	0
Unknown	80	20	0	0	0
Mean	78	17	5	1	1
Statewide <sup>b</sup>	74	18	6	1	1

<sup>a</sup>Row totals may not equal 100% because of rounding errors.

<sup>b</sup>Statewide mean interference levels (all hunts and periods).

Table 8. Estimated number of hunting efforts, hunters, hunting success, noninterfered hunters, and hunter rating of the 2015 spring turkey hunting season, by hunt periods.

Variable	Hunt periods beginning								All periods <sup>a</sup>	
	April 20		April 27		May 4		May 11			
	Estimate	95% CL	Estimate	95% CL	Estimate	95% CL	Estimate	95% CL	Estimate	95% CL
Hunting efforts (days)	135,121	4,166	18,459	1,854	122,554	5,506	7,631	1,404	283,764	6,897
Number of hunters	37,367	668	5,881	475	26,926	558	1,727	214	71,902	757
Successful hunters (n)	17,047	665	1,604	289	10,911	594	477	122	30,039	922
Successful hunters (%)	46	2	27	4	41	2	28	6	42	1
Noninterfered hunters (n) <sup>b</sup>	34,430	697	5,229	463	25,109	593	1,485	203	66,253	850
Noninterfered hunters (%) <sup>b</sup>	92	1	89	3	93	1	86	5	92	1
Favorable rating (n) <sup>c</sup>	26,730	722	3,645	411	18,743	647	1,088	178	50,207	978
Favorable rating (%) <sup>c</sup>	72	2	62	5	70	2	63	7	70	1

<sup>a</sup>Row totals may not equal totals for all periods because of rounding errors.

<sup>b</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

<sup>c</sup>Hunters rating their hunting experience as excellent, very good, or good.

Table 9. Comparison of the estimated number of hunters, hunting effort, and harvest between 2014 and 2015 Michigan spring turkey hunting seasons, summarized by regions.

Region <sup>a</sup>	Hunters (No.) <sup>b</sup>					Hunting efforts (days)					Harvest (No.)				
	2014		2015		Change (%)	2014		2015		Change (%)	2014		2015		Change (%)
	Total	95% CL	Total	95% CL		Total	95% CL	Total	95% CL		Total	95% CL	Total	95% CL	
UP	2,732	238	3,040	253	11	16,047	2,827	15,426	2,320	-4	989	212	1,292	237	31
NLP	20,530	667	20,795	645	1	85,039	4,631	80,484	4,150	-5	6,543	525	6,878	531	5
SLP	47,867	800	45,697	764	-5*	198,676	6,550	175,642	5,649	-12*	21,201	779	21,458	751	1
Unknown	2,992	358	3,233	378		12,630	1,997	12,212	1,910		377	127	412	139	
Total	73,422	767	71,902	757	-2	312,392	7,903	283,764	6,897	-9*	29,110	930	30,039	922	3

<sup>a</sup>Regions included the Upper Peninsula (UP), the Northern Lower Peninsula north of Management Unit ZZ (NLP), and Management Unit ZZ in the Southern Lower Peninsula (SLP).

<sup>b</sup>Number of hunters did not add up to statewide total because mentored youth and hunters with a license for the unlimited quota hunt can hunt in more than one unit.

\*P<0.005.

Table 10. Comparison of estimated hunter success, hunter satisfaction, and hunt interference between 2014 and 2015 Michigan spring turkey hunting season, summarized by regions.

Region <sup>a</sup>	Hunter success					Hunter satisfaction <sup>b</sup>					Noninterfered hunters <sup>c</sup>				
	2014		2015		Differ-ence (%)	2014		2015		Differ-ence (%)	2014		2015		Differ-ence (%)
	%	95% CL	%	95% CL		%	95% CL	%	95% CL		%	95% CL	%	95% CL	
UP	36	7	43	7	6	60	7	63	7	3	95	3	96	3	1
NLP	32	2	33	2	1	56	2	63	2	7*	93	1	92	1	-1
SLP	44	1	47	1	3	72	1	75	1	2	92	1	92	1	1
Total	40	1	42	1	2	67	1	70	1	3*	92	1	92	1	0

<sup>a</sup>Regions included the Upper Peninsula (UP), the Northern Lower Peninsula north of Management Unit ZZ (NLP), and Management Unit ZZ in the Southern Lower Peninsula (SLP).

<sup>b</sup>Hunters rating their hunting experience as excellent, very good, or good.

<sup>c</sup>Proportion of hunters that indicated they experienced no or only minor interference from other hunters.

\*P<0.005.

Table 11. Number of turkeys harvested and hunter success, summarized by hunting device, during the spring turkey hunting season in Michigan, 2010-2015.

Year	Number of turkey harvested by device								Hunter success by device <sup>a</sup>					
	Firearm		Crossbows		Other bows <sup>b</sup>		Unknown		Firearm		Crossbows		Other bows <sup>b</sup>	
	Total	95% CL	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
2010	34,984	1,093	525	161	1,519	279	22	32	41	1	20	6	20	3
2011	28,831	1,017	590	170	1,143	228	23	34	37	1	17	5	17	3
2012	29,611	984	650	172	1,055	214	62	57	39	1	17	4	18	3
2013	30,152	1,038	921	210	1,090	231	80	76	39	1	22	5	18	4
2014	27,746	919	516	143	838	195	9	13	41	1	17	4	21	4
2015	28,272	908	751	188	935	196	81	63	43	1	20	5	21	4

<sup>a</sup>Hunters harvesting a turkey.

<sup>b</sup>Included longbows, recurve, and compound bows.

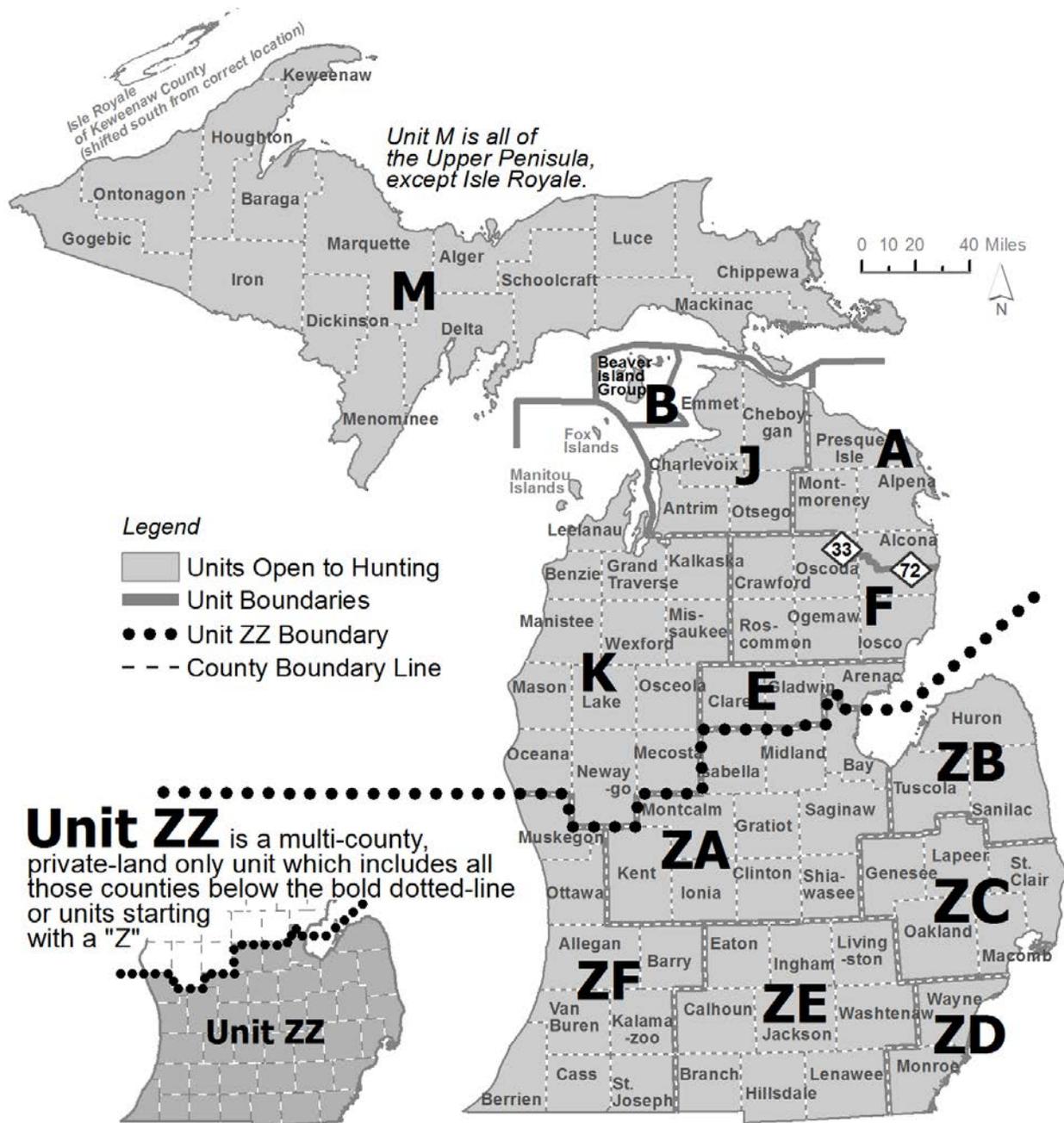


Figure 1. Management units in Michigan open to spring turkey hunting in 2015.

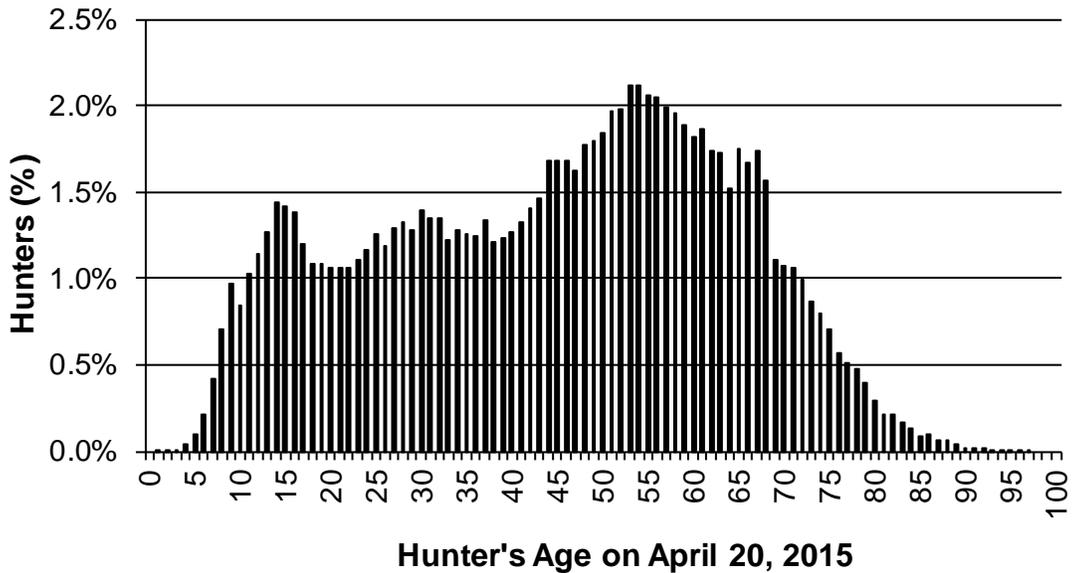


Figure 2. Age of people that purchased a turkey hunting license in Michigan for the 2013 spring hunting season ( $\bar{x}$  = 44 years). Licenses were purchased by 87,163 people.

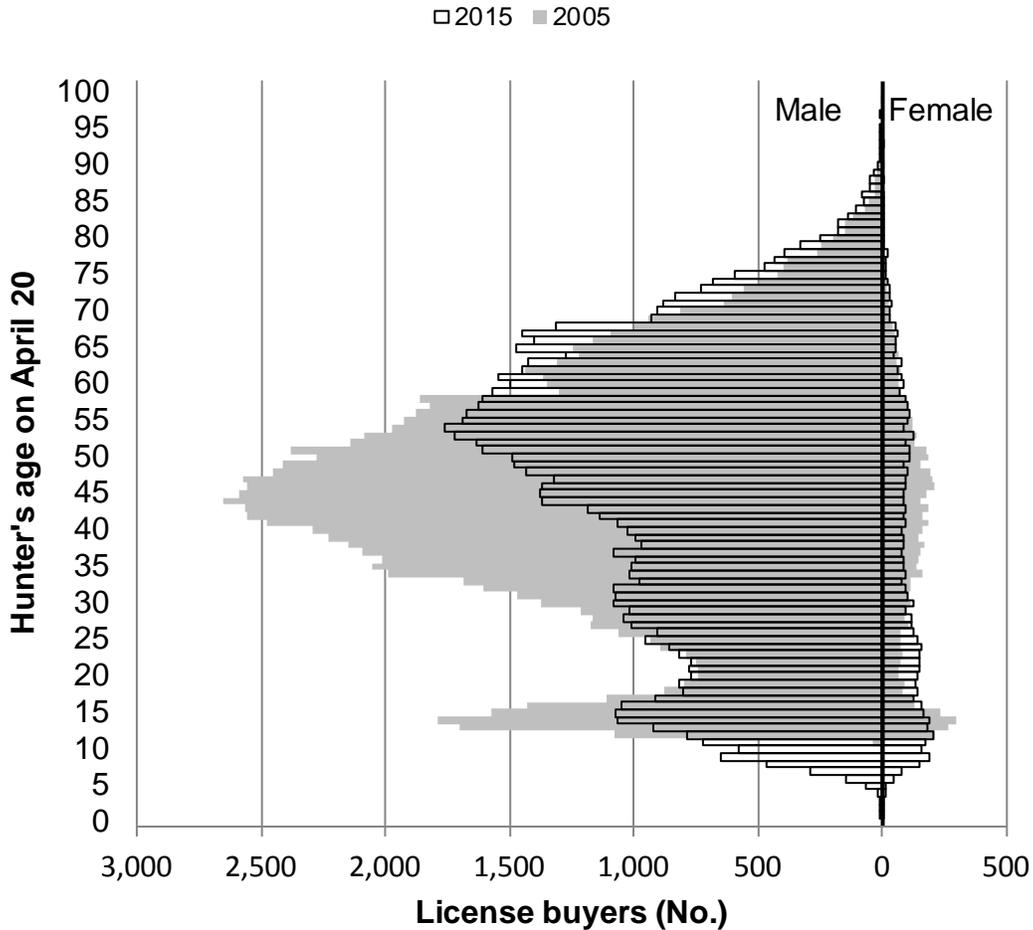


Figure 3. Number of spring turkey hunting license buyers in Michigan by age and sex during 2005 and 2015 hunting seasons. The number of people buying a license was 108,640 in 2005 and 87,163 in 2015.

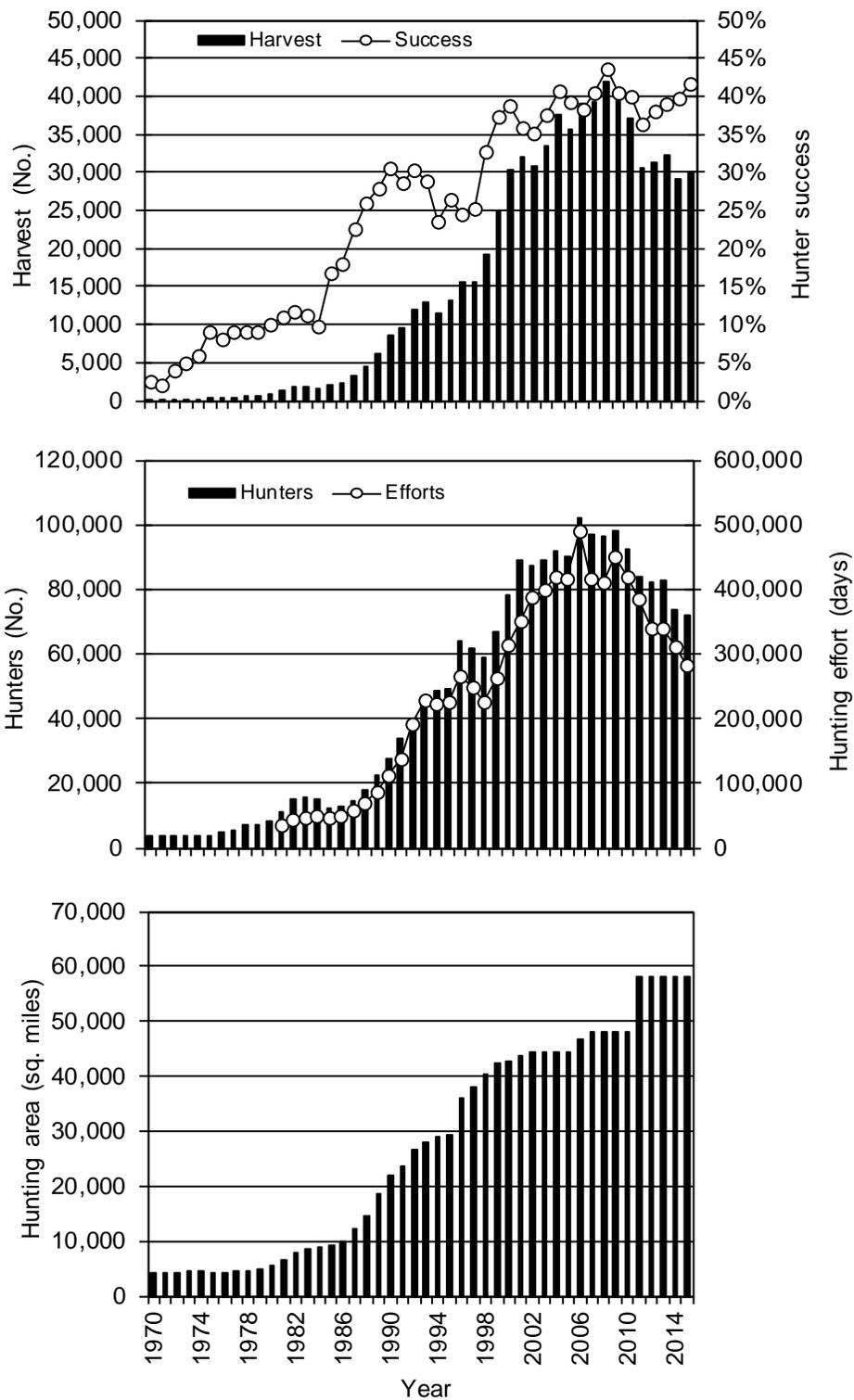


Figure 4. Estimated number of hunters, harvest, hunting efforts, hunter success, and area open to hunting during the Michigan spring turkey hunting season, 1970-2015. Estimates of hunting effort generally were not available before 1981.

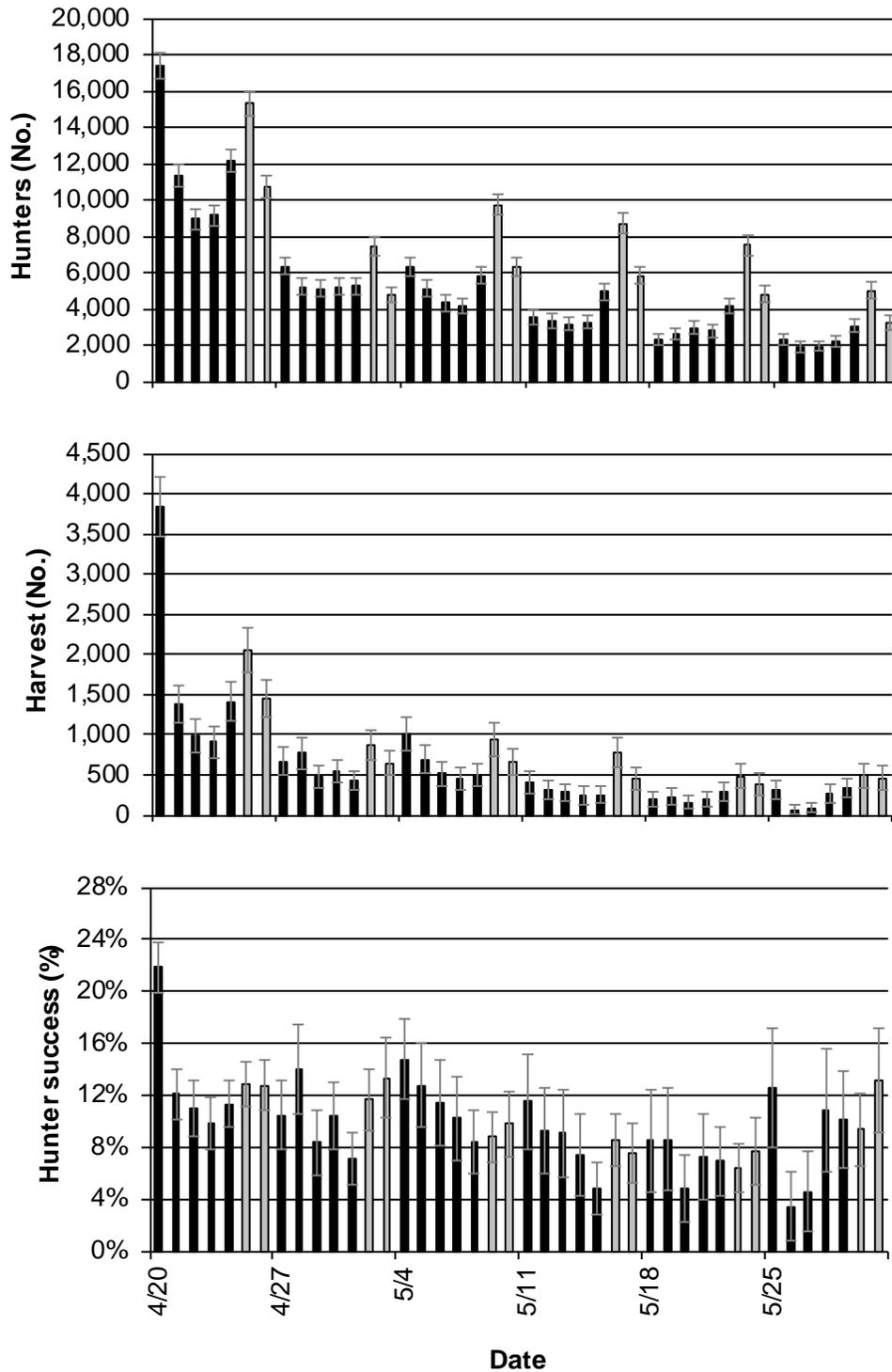


Figure 5. Estimated number of hunters, harvest, and hunter success by date during the 2015 Michigan spring turkey hunting season (includes all hunts). An additional  $2,139 \pm 305$  birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

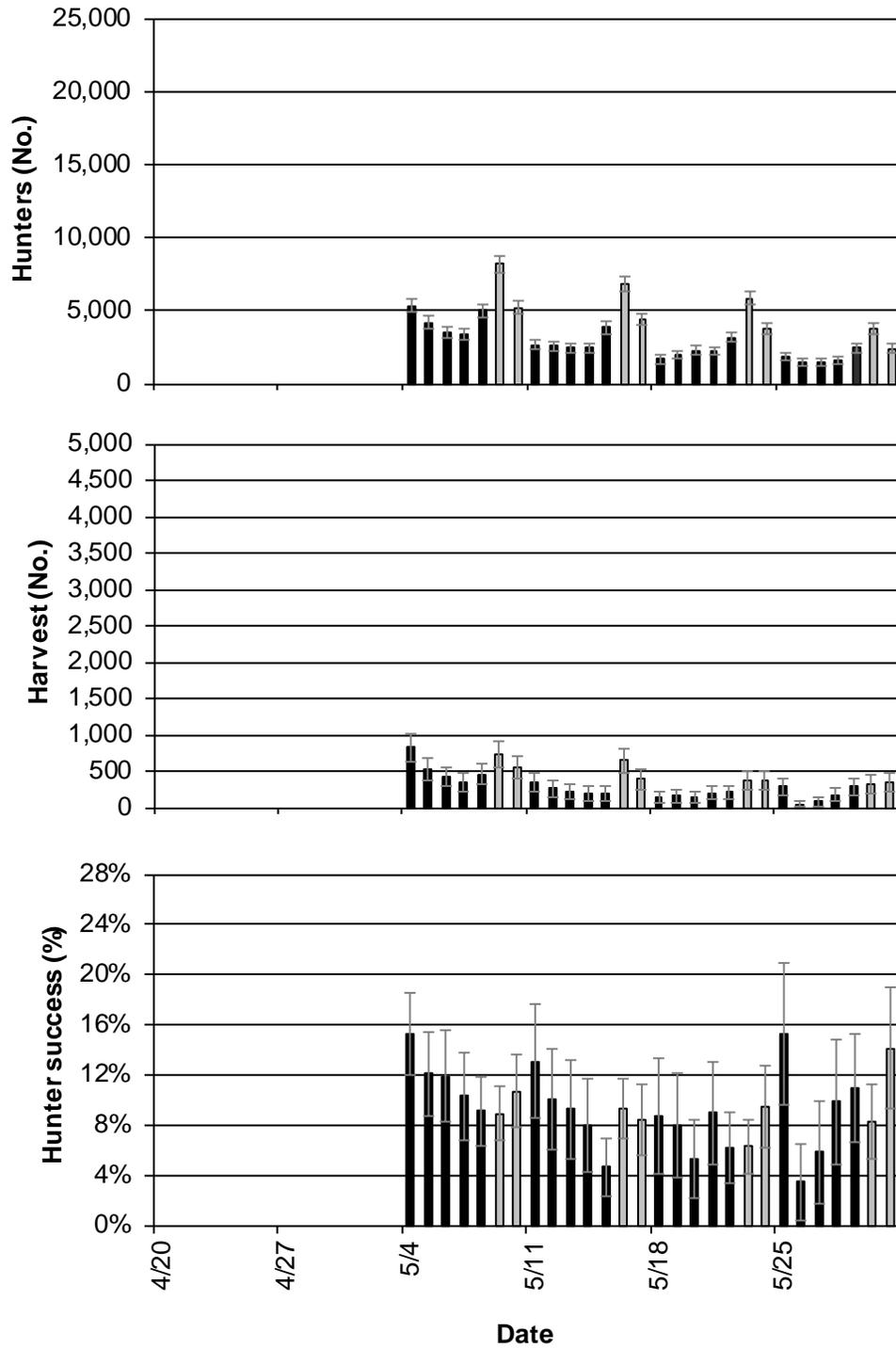


Figure 6. Estimated number of hunters, harvest, and hunter success by date during Hunt 234 of the 2015 Michigan spring turkey hunting season (May 4-31). An additional  $818 \pm 195$  birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

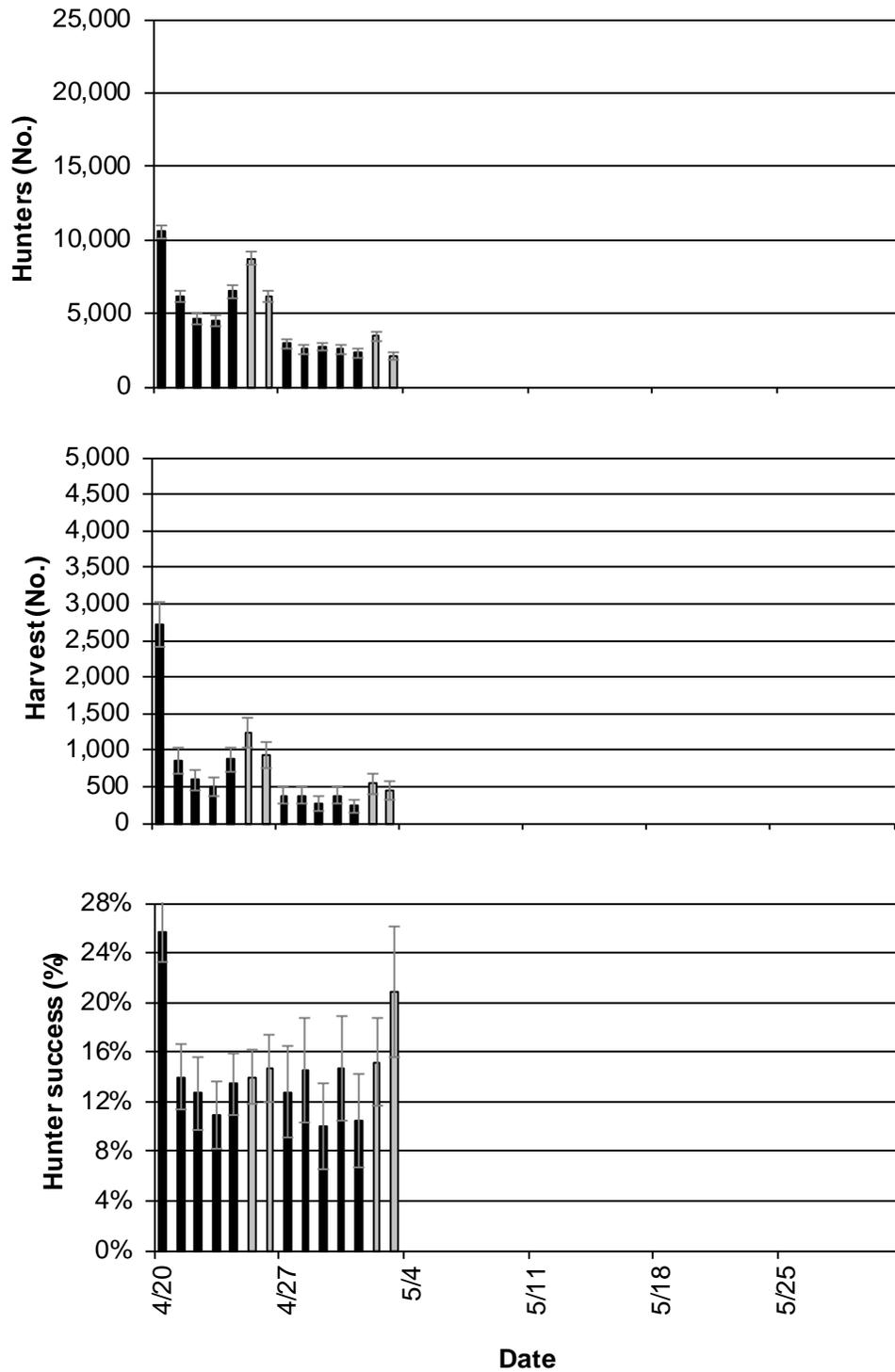


Figure 7. Estimated number of hunters, harvest, and hunter success by date during Hunt 301 of the 2015 Michigan spring turkey hunting season (April 20-May 3). An additional  $1,029 \pm 191$  birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

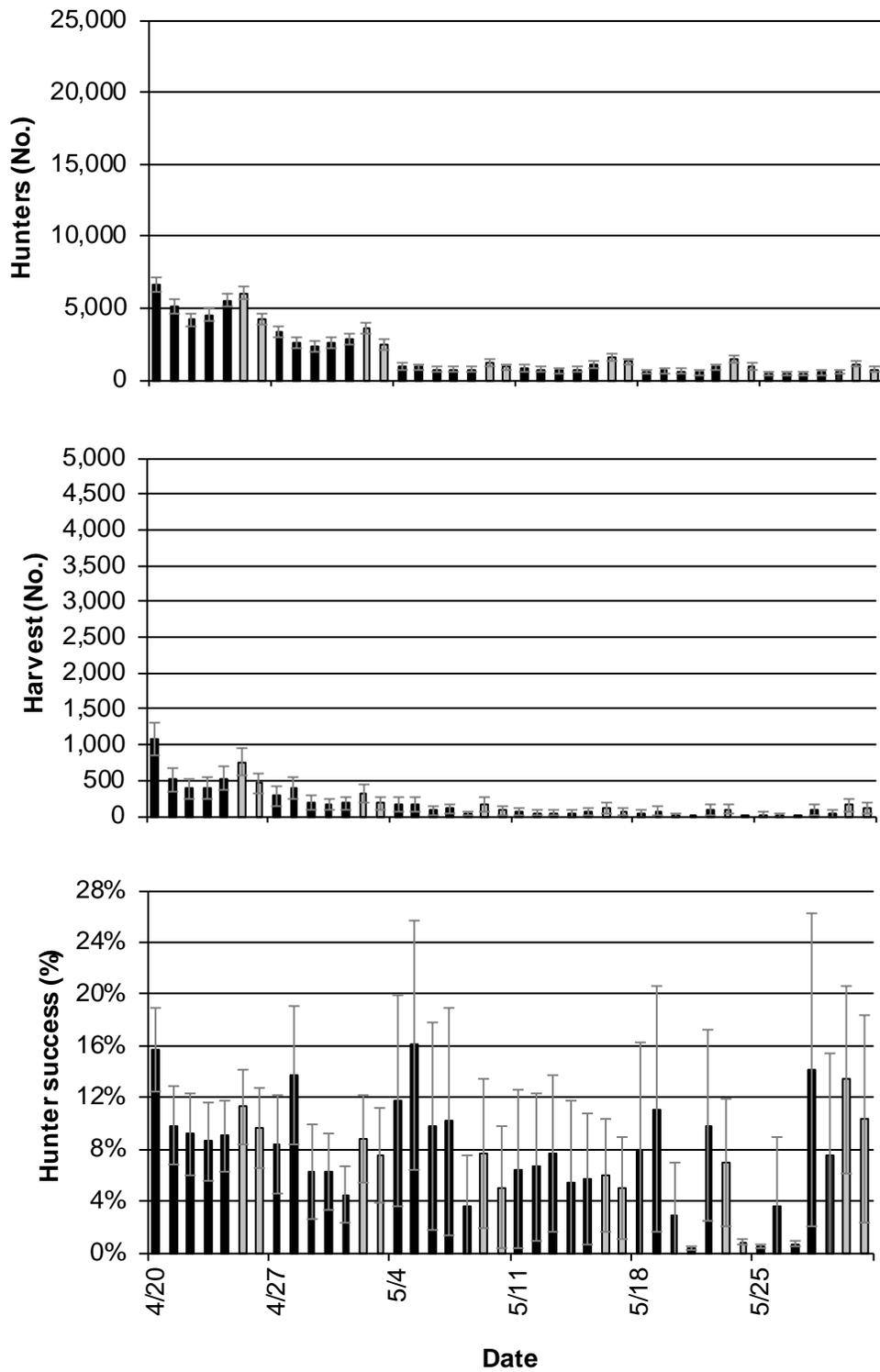


Figure 8. Estimated number of hunters, harvest, and hunter success by date during all hunts, except for mentored youth hunts and hunts 234 and 301 of the 2015 Michigan spring turkey hunting season. An additional 277 + 135 birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

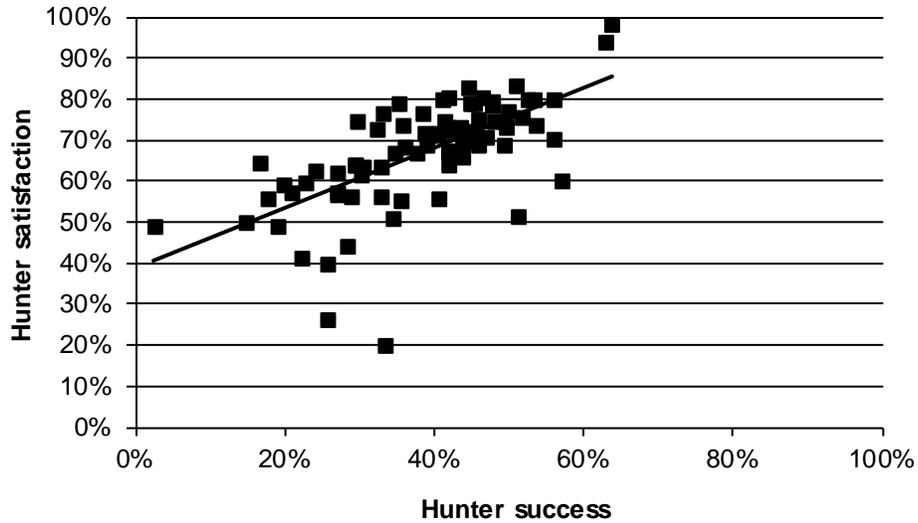


Figure 9. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter success for each of 81 counties in Michigan during the 2015 spring turkey hunting season (included only counties with at least 30 hunters).

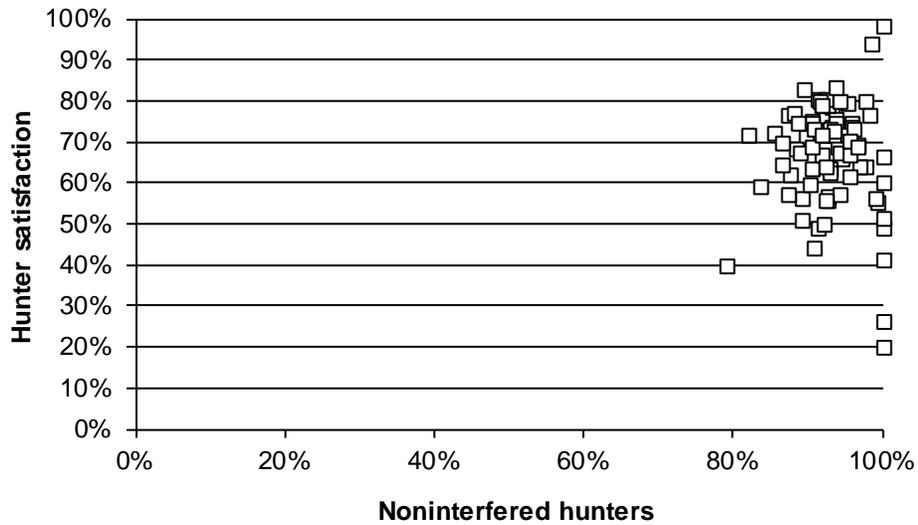


Figure 10. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter interference for each of 81 counties in Michigan during the 2015 spring turkey hunting season (included only counties with at least 30 hunters). Noninterfered hunters were the proportion of hunters that indicated that they experienced no or only minor interference from other hunters.