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2014 MICHIGAN SPRING TURKEY HUNTER SURVEY

Brian J. Frawley and Caitlin E. Boon

ABSTRACT

A survey of turkey hunters was conducted following the 2014 spring hunting season to determine turkey harvest and hunter participation. In 2014, about 73,422 hunters harvested about 29,110 turkeys. Statewide, 40% of hunters harvested a turkey. Nearly 67% of the hunters rated their hunting experience as excellent, very good, or good in 2013. About 92% of the hunters reported they experienced no or only minor interference from other hunters. The number of hunters, hunting effort, and harvest decreased significantly between 2013 and 2014. However, hunter success and hunter satisfaction were not significantly different between 2013 and 2014.

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 2014, nearly the entire state was open for wild turkey hunting from April 21 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 (7-40 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 21-May 4) 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 27 days (May 5-31). 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 2014 spring turkey hunting season, a questionnaire was sent to 13,520 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 2014, and nonrespondents were mailed up to two follow-up questionnaires. Although 13,520 people were sent the questionnaire, 195 surveys were undeliverable resulting in an adjusted sample size of 13,325. Questionnaires were returned by 7,811 people, yielding a 59% adjusted response rate. In addition, 1,552 people voluntarily reported information about their hunting activity via the internet before the random sample was selected.

RESULTS AND DISCUSSION

In 2014, licenses were purchased by 89,167 people, a decrease of over 14% from 2013 (Table 1). This decline was partially attributed to an increase in the cost of hunting licenses in 2014 (Frawley 2014). Most of the people buying a license were males (92%), and the average age of the license buyers was 44 years (Figure 2). Nearly 12% (10,558) of the license buyers were younger than 17 years old. Mentored youth hunting licenses were purchased by 2,436 youths.

The number of people buying a turkey hunting license in 2014 decreased by about 19% in ten years from 2004 (110,617 people purchased a license in 2004). There were fewer license buyers for age classes between 24 and 57 years of age in 2014, compared to 2004 (Figure 3). However, there were increased hunter numbers among the youngest and oldest age classes in 2014. 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 2014, there was no minimum age limit to hunt turkeys; while hunters had to be at least 12 years old to participate in 2004.

About 82% ($\pm 1\%$) of license buyers hunted turkeys (73,422 hunters). Most of these hunters were males ($68,003 \pm 853$), although over 7% ($\pm 1\%$) of the hunters were females ($5,405 \pm 476$). Estimated hunter numbers (Table 2) decreased significantly by 11% from 2013 to 2014 (82,508 versus 73,422 hunters). Counties with more than 2,200 hunters afield were Allegan and Kent (Table 3).

Hunters spent an estimated 312,392 days afield pursuing turkeys (4.3 ± 0.1 days/hunter), and harvested approximately 29,110 birds (Figure 4). Counties listed in descending order with hunters taking more than 900 turkeys included Allegan, Jackson, and Sanilac (Table 3). Hunter effort and harvest in 2014 decreased significantly from 2013 (declined 8% and 10%, respectively). Hunter success was 40% in 2014, which was not significantly different from the 39% hunter success experienced in 2013.

About 20% ($\pm 2\%$) of the harvested birds were juvenile males ($5,672 \pm 494$); 79% ($\pm 2\%$) were adult males ($23,104 \pm 863$), and about 1% were bearded females (194 ± 83). Additionally, the age of a small number of harvested birds ($<1\%$) was unknown (140 ± 84) 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, 42% of these birds were taken during the first seven days (April 21-27). Daily hunter success generally was more than 8% during April 21 through May 9. Daily hunter success was generally below 8% during May 10-31. Hunting effort and harvest generally was greater on the weekends than weekdays.

About 81% of turkey hunters hunted solely on private land; 14% hunted on public land only; and 4% hunted on both private and public lands (Table 4). Of the 29,110 turkeys harvested in 2014, $90 \pm 1\%$ were taken on private land ($26,114 \pm 890$ birds). About $10 \pm 1\%$ of the harvest ($2,958 \pm 360$ birds) was taken on public land.

Twelve percent of turkey hunters believed turkey numbers were increasing in their hunting area (Table 5); while, 40% thought turkey numbers were stable, 31% 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 73,422 people hunting turkeys in 2014, $67 \pm 1\%$ of the hunters rated their hunting experience as either excellent ($13,519 \pm 700$ hunters), very good ($14,744 \pm 743$), or good ($20,749 \pm 852$) (Table 6). Nearly $18 \pm 1\%$ of the hunters rated their experience as fair ($13,502 \pm 728$ hunters). Only $14 \pm 1\%$ of the hunters rated their experience as poor ($10,163 \pm 648$ hunters). About 1% of the hunters (746 ± 184 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 2014, $73 \pm 1\%$ of the hunters reported no hunter interference; $19 \pm 1\%$ reported minor interference; $6 \pm 1\%$ reported some irritation caused by hunter interference; and about 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 21; however, satisfaction varied little among the hunt periods (Table 8).

Compared to 2013, hunter numbers, hunter effort, and harvest statewide in 2014 decreased significantly (Table 9). In addition, significantly fewer hunters indicated that interference with another a hunter was a problem in 2014. In contrast, hunter success and hunter satisfaction were similar in both 2013 and 2014 (Table 10).

Most hunters ($90 \pm 1\%$) used firearms while hunting turkeys, although $5 \pm 1\%$ of the hunters used archery equipment (compound, recurve, or long bows), and about 4% used a crossbow. Most hunters ($95 \pm 1\%$) used a firearm to harvest their turkeys, while $3 \pm 1\%$ used archery equipment, and 2% used a crossbow. About 41% of hunters using a firearm harvested a turkey, while 17% 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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LITERATURE CITED

- Cochran, W. G. 1977. Sampling techniques. John Wiley & Sons, New York. USA.
- Frawley, B. J. 2014. Michigan turkey hunter opinion survey: why frequent license buyers did not buy a license in 2014. Wildlife Division Report 3597. Michigan Department of Natural Resources, Lansing. USA.
- Kelly, G. 1975. Indexes for aging eastern wild turkeys. Proceedings of the National Wild Turkey Symposium. 3:205-209.
- Luukkonen, D. R. 1998. Spring wild turkey hunting regulation issues in Michigan. Wildlife Division Issue Review Paper 4. Michigan Department of Natural Resources, Lansing, USA.
- Payton, M. E., M. H. Greenstone, and N. Schenker. 2003. Overlapping confidence intervals or standard error intervals: what do they mean in terms of statistical significance? Journal of Insect Science 3:34.

Table 1. Number of hunting licenses available and people applying for licenses during the spring 2014 Michigan turkey hunting season.

Management unit or hunt period	Licenses available (quota)	Number of eligible applicants ^a	Number of applicants successful in drawing	Number of licenses remaining after drawing	Number of licenses purchased by successful applicants ^b	Number of licenses purchased by unsuccessful applicants ^b	Number of licenses purchased by people not in the drawing ^b	Number of licensees ^b
A	5,500	1,438	1,445	4,057	1,036	1	754	1,791
B	1,000	31	32	968	18	0	25	43
E	1,700	1,809	1,699	0	1,187	0	0	1,187
F	5,000	3,143	3,170	1,827	2,242	2	798	3,042
J	4,000	1,420	1,436	2,564	1,017	3	718	1,738
K	8,500	8,502	8,195	303	5,706	11	243	5,960
M	6,000	948	954	5,046	679	1	2,988	3,668
ZA	4,800	1,820	1,842	2,958	1,326	2	1,334	2,662
ZB	2,600	819	825	1,775	613	0	583	1,196
ZC	2,400	1,345	1,321	1,079	888	1	750	1,639
ZD	40	74	40	0	25	0	0	25
ZE	2,000	1,793	1,550	450	1,102	49	305	1,456
ZF	5,600	1,807	1,819	3,781	1,361	3	2,216	3,580
Hunt 234	NA	1,576	1,638	NA	1,809	97	32,141	34,047
Hunt 301	65,000	5,963	6,037	58,961	4,787	64	19,843	24,694
Pure hunts	3	NA	NA	NA	NA	NA	NA	3
Mentored youth	NA	NA	NA	NA	NA	NA	NA	2,436
Total	114,143	32,488	32,003	83,769	23,796	234	62,698	89,167

^aNumber of eligible applicants selecting the management unit as their first choice to hunt.

^bIf 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 2014 Michigan turkey hunting season.

Management unit	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b		Noninterfered hunters ^c	
	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	1,472	89	6,248	739	421	98	29	6	45	7	93	4
B	32	5	87	19	19	6	59	16	82	12	94	8
E	1,038	48	3,481	294	287	62	28	6	55	6	93	3
F	2,638	123	9,618	879	607	142	23	5	58	6	94	3
J	1,410	88	5,190	573	486	100	34	7	55	7	90	4
K	5,232	229	18,104	1,557	1,708	311	33	6	58	6	93	3
M	2,608	217	15,641	2,790	914	205	35	7	59	8	93	4
ZA	2,226	128	7,819	1,017	731	151	33	7	68	7	90	4
ZB	1,032	56	3,619	401	333	72	32	7	71	7	82	6
ZC	1,271	99	4,955	672	392	99	31	7	70	7	89	5
ZD	21	2	75	11	7	2	31	11	56	12	88	8
ZE	1,245	65	4,146	490	364	79	29	6	65	7	88	5
ZF	2,970	173	14,952	2,275	1,022	205	34	7	68	7	86	5
Pure MI Hunt	3	0	6	0	1	0	33	0	67	0	100	0
Subtotal	23,198	443	93,939	4,360	7,291	518	31	2	62	2	91	1
Hunt period 301 with quota (Private lands in Management Unit ZZ; April 21-May 4, 2013)												
ZA	5,651	403	20,180	1,859	2,635	295	47	4	71	4	94	2
ZB	2,330	281	8,382	1,429	1,109	198	48	6	78	5	91	4
ZC	3,055	315	10,639	1,409	1,628	236	53	5	78	5	90	3
ZD	472	132	1,588	639	210	88	45	14	77	12	100	0
ZE	5,564	400	20,637	1,994	2,687	297	48	4	77	3	92	2
ZF	4,492	370	17,613	1,917	2,392	282	52	5	66	4	91	3
Unknown	370	117	1,597	716	0	0	0	0	53	16	88	10
Subtotal	21,420	327	80,635	2,929	10,661	475	50	2	73	2	92	1

^aNumber of hunters does not add up to statewide total because hunters can hunt in more than one unit for hunts 234 and 301. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

^bProportion of hunters that rated their hunting experience as excellent, very good, or good.

^cProportion 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 2014 Michigan turkey hunting season.

Management unit	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b		Noninterfered hunters ^c	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Unlimited quota hunt period (Guaranteed Hunt 234; May 5-31, 2014)												
A	445	148	1,979	992	81	61	18	12	35	16	80	13
B	14	27	43	82	0	0	0	0	0	0	100	0
E	1,217	243	6,055	1,689	433	145	36	10	60	10	92	6
F	1,283	250	6,768	1,820	221	105	17	7	43	10	93	5
J	896	209	4,123	1,299	228	105	25	10	47	12	98	3
K	5,457	480	25,207	3,148	2,074	312	38	5	60	5	93	2
M	151	86	609	381	61	54	41	28	61	28	99	0
ZA	5,280	474	24,504	3,008	2,076	312	39	5	68	5	93	3
ZB	2,042	312	7,563	1,510	902	211	44	8	74	7	92	4
ZC	2,169	320	10,111	2,008	741	190	34	7	69	7	91	4
ZD	264	115	1,635	1,084	104	72	39	21	78	18	89	14
ZE	5,122	468	23,045	3,008	2,395	334	47	5	77	4	95	2
ZF	3,696	408	18,475	3,119	1,430	262	39	6	68	5	93	3
Unknown	347	132	1,849	879	0	0	0	0	38	19	83	14
Subtotal	27,107	531	131,965	5,895	10,745	608	40	2	66	2	93	1

^aNumber of hunters does not add up to statewide total because hunters can hunt in more than one unit for hunts 234 and 301. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

^bProportion of hunters that rated their hunting experience as excellent, very good, or good.

^cProportion 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 2014 Michigan turkey hunting season.

Management unit	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b		Noninterfered hunters ^c	
	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	42	16	112	49	18	11	44	19	88	13	94	9
B	0	0	0	0	0	0	0	0	0	0	0	0
E	57	19	257	120	5	6	9	9	77	14	86	11
F	65	20	166	61	10	8	16	11	68	14	92	8
J	42	16	122	59	3	4	6	9	69	18	94	9
K	249	37	802	152	57	19	23	7	68	7	91	5
M	60	19	247	104	13	9	22	13	57	16	96	7
ZA	365	44	1,213	189	99	24	27	6	72	6	93	3
ZB	138	28	415	112	55	18	40	10	83	8	89	7
ZC	174	31	582	134	34	14	19	7	79	8	90	6
ZD	13	9	26	19	3	4	20	28	80	28	80	28
ZE	247	37	898	169	65	20	26	7	85	6	88	5
ZF	278	39	992	183	52	18	19	6	82	6	88	5
Unknown	13	9	21	17	0	0	0	0	80	28	80	28
Subtotal	1,697	56	5,853	344	413	46	24	3	77	3	90	2
Statewide	73,422	767	312,392	7,903	29,110	930	40	1	67	1	92	1

^aNumber of hunters does not add up to statewide total because hunters can hunt in more than one unit for hunts 234 and 301. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.

^bProportion of hunters that rated their hunting experience as excellent, very good, or good.

^cProportion 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 spring 2014 Michigan turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b		Noninterfered hunters ^c	
	Total	95%	Total	95%	Total	95%	%	95%	%	95%	%	95%
		CL		CL		CL		CL		CL		CL
Alcona	764	169	3,901	1,263	147	77	19	9	34	11	91	6
Alger	139	90	419	289	1	0	1	0	27	29	100	0
Allegan	2,450	315	11,105	2,039	1,019	211	42	7	65	7	86	5
Alpena	595	135	2,345	729	162	71	27	11	43	12	94	7
Antrim	540	143	1,896	614	188	84	35	13	62	13	98	3
Arenac	408	122	2,390	1,139	173	80	42	15	54	15	92	8
Baraga	52	57	259	326	0	0	0	0	33	52	100	0
Barry	1,727	276	7,224	1,783	596	163	35	8	69	8	90	5
Bay	469	139	1,670	584	185	87	40	15	74	13	95	7
Benzie	346	139	1,685	861	89	69	26	17	57	20	96	8
Berrien	901	195	5,063	1,600	370	120	41	11	66	10	90	6
Branch	845	187	4,070	1,281	438	134	52	11	75	10	90	6
Calhoun	1,474	248	5,353	1,167	728	177	49	9	72	8	89	5
Cass	732	182	4,283	1,725	372	129	51	13	68	12	88	8
Charlevoix	533	134	2,084	762	164	70	31	11	58	13	96	4
Cheboygan	548	134	2,153	673	136	66	25	11	50	13	96	4
Chippewa	155	94	750	507	87	71	56	30	66	29	99	0
Clare	1,002	175	3,727	819	216	89	22	8	58	9	94	4
Clinton	1,176	222	5,241	1,256	495	145	42	9	65	9	89	6
Crawford	673	167	2,639	868	116	69	17	9	49	13	84	10
Delta	367	140	1,679	1,120	128	86	35	19	58	20	94	9

^aNumber 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.

^bProportion of hunters that rated their hunting experience as excellent, very good, or good.

^cProportion 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 spring 2014 Michigan turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b		Noninterfered hunters ^c	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Dickinson	523	165	2,699	1,222	149	92	28	15	46	17	93	9
Eaton	933	197	3,601	1,062	377	125	40	10	83	8	95	4
Emmet	279	100	999	414	73	47	26	15	32	17	97	6
Genesee	1,479	241	5,293	1,067	605	154	41	8	79	7	89	5
Gladwin	856	167	3,189	899	330	108	39	10	59	10	90	6
Gogebic	88	71	540	561	39	46	44	40	64	39	80	33
Gd. Traverse	785	217	3,278	1,287	300	139	38	14	60	14	96	5
Gratiot	1,048	208	3,868	1,097	470	138	45	10	65	10	89	6
Hillsdale	1,460	242	6,585	1,437	545	150	37	8	75	7	94	4
Houghton	138	91	882	964	17	33	13	22	63	33	100	0
Huron	1,476	229	5,490	1,031	595	152	40	8	73	7	89	5
Ingham	1,429	241	5,637	1,351	584	157	41	8	73	8	92	4
Ionia	1,454	247	5,381	1,170	673	170	46	9	73	8	93	4
Iosco	680	164	2,269	636	149	78	22	10	55	13	98	3
Iron	350	137	1,547	678	100	73	28	18	69	19	100	0
Isabella	1,304	228	4,321	959	625	158	48	9	70	8	93	5
Jackson	2,110	282	7,370	1,329	982	197	47	7	78	6	97	2
Kalamazoo	1,225	236	4,612	1,260	449	141	37	9	71	9	89	6
Kalkaska	733	211	3,020	1,058	168	98	23	12	48	15	91	9
Kent	2,303	307	7,983	1,453	831	186	36	7	74	6	93	4
Keweenaw	17	33	17	33	0	0	0	0	100	0	100	0

^aNumber 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.

^bProportion of hunters that rated their hunting experience as excellent, very good, or good.

^cProportion 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 spring 2014 Michigan turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b		Noninterfered hunters ^c	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL	%	95% CL
Lake	1,187	273	4,737	1,446	220	121	18	9	48	12	92	7
Lapeer	1,783	262	7,012	1,489	711	167	40	7	70	7	91	4
Leelanau	429	164	1,770	985	196	114	46	19	74	17	87	13
Lenawee	1,041	209	3,904	1,222	491	143	47	10	71	9	89	6
Livingston	1,511	232	5,295	1,105	621	155	41	8	76	7	94	3
Luce	0	0	0	0	0	0	0	0	0	0	0	0
Mackinac	0	0	0	0	0	0	0	0	0	0	0	0
Macomb	586	153	2,231	742	222	91	38	13	76	11	93	7
Manistee	721	212	2,295	834	224	114	31	13	70	13	92	8
Marquette	187	104	1,213	1,088	2	0	1	1	36	27	82	22
Mason	767	215	3,021	1,124	336	148	44	14	63	13	98	4
Mecosta	1,093	253	4,064	1,132	489	174	45	12	73	11	95	4
Menominee	856	202	4,480	1,557	414	151	48	13	71	12	94	6
Midland	1,077	213	4,384	1,131	431	136	40	10	68	9	96	4
Missaukee	824	222	2,724	910	274	127	33	13	65	13	92	6
Monroe	607	155	2,927	1,235	234	97	39	13	74	11	97	4
Montcalm	1,943	284	8,468	1,769	765	178	39	7	64	7	96	3
Montmorency	420	108	2,088	871	114	56	27	12	52	14	79	12
Muskegon	777	182	2,671	823	393	128	51	12	77	10	96	5
Newaygo	1,661	310	6,053	1,342	715	207	43	10	63	10	95	4
Oakland	1,124	190	4,298	877	424	125	38	9	79	7	87	6

^aNumber 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.

^bProportion of hunters that rated their hunting experience as excellent, very good, or good.

^cProportion 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 spring 2014 Michigan turkey hunting season. Estimates combined quota and unlimited quota hunts in each county.

County	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b		Noninterfered hunters ^c	
	Total	95%	Total	95%	Total	95%	%	95%	%	95%	%	95%
		CL		CL		CL		CL		CL		CL
Oceana	892	223	2,911	870	274	123	31	12	59	12	94	6
Ogemaw	796	171	2,834	773	190	90	24	10	61	11	92	6
Ontonagon	105	80	741	615	17	33	17	29	50	39	83	29
Osceola	833	223	3,237	1,050	221	111	27	12	51	14	95	6
Oscoda	665	161	2,521	886	149	78	22	11	54	13	90	8
Otsego	552	129	2,156	675	148	70	27	11	49	12	87	8
Ottawa	1,689	272	6,768	1,570	702	175	42	8	68	8	89	5
Presque Isle	419	115	1,562	499	175	74	42	14	53	14	89	9
Roscommon	773	177	3,203	929	96	62	12	8	47	12	93	6
Saginaw	1,774	269	6,840	1,350	616	160	35	7	68	7	90	5
St. Clair	1,653	254	6,344	1,393	767	172	46	8	73	7	94	4
St. Joseph	840	195	3,699	1,092	344	125	41	12	68	11	89	7
Sanilac	1,992	280	6,709	1,368	948	194	48	7	78	6	91	4
Schoolcraft	141	92	821	612	35	46	25	29	39	32	100	0
Shiawassee	1,136	213	4,372	1,038	435	131	38	9	72	9	92	5
Tuscola	2,002	261	7,035	1,286	849	178	42	7	76	6	89	4
Van Buren	1,208	229	5,247	1,349	539	154	45	10	61	9	92	5
Washtenaw	1,665	249	5,960	1,222	695	163	42	8	76	6	92	4
Wayne	146	77	361	238	74	53	50	26	85	18	88	18
Wexford	1,097	261	4,287	1,249	309	133	28	11	58	12	85	9
Unknown	2,992	358	12,630	1,997	377	127	13	4	52	6	87	4

^aNumber 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.

^bProportion of hunters that rated their hunting experience as excellent, very good, or good.

^cProportion 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 2014 Michigan turkey hunting season.^a

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
Hunt periods with quotas (General limited quota hunt periods)																
A	1,158	110	79	6	215	74	15	5	81	48	5	3	18	23	1	2
B	23	6	73	14	3	2	9	8	6	4	18	12	0	0	0	0
E	765	70	74	6	199	54	19	5	68	34	7	3	6	10	1	1
F	1,315	177	50	6	938	165	36	6	299	107	11	4	85	60	3	2
J	942	111	67	7	294	83	21	6	148	63	11	4	26	27	2	2
K	3,083	347	59	6	1,575	306	30	6	417	177	8	3	158	113	3	2
M	1,815	238	70	7	408	149	16	6	282	127	11	5	104	80	4	3
ZA	1,108	169	50	7	911	162	41	7	144	77	6	3	64	53	3	2
ZB	364	74	35	7	600	81	58	7	48	32	5	3	20	21	2	2
ZC	509	109	40	8	676	116	53	8	66	45	5	3	20	26	2	2
ZD	11	3	50	12	11	3	50	12	0	0	0	0	0	0	0	0
ZE	394	82	32	6	764	92	61	7	59	36	5	3	29	26	2	2
ZF	1,528	226	51	7	1,152	213	39	7	241	113	8	4	49	54	2	2
PMH	2	0	67	0	1	0	33	0	0	0	0	0	0	0	0	0
Subtotal	13,828	585	57	2	7,780	509	32	2	1,890	299	8	1	579	178	2	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 21-May 4, 2013)																
ZA	5,651	403	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZB	2,330	281	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZC	3,055	315	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZD	472	132	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE	5,564	400	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZF	4,492	370	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	370	117	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	21,420	327	100	0	0	0	0	0	0	0	0	0	0	0	0	0

^aRow 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 2014 Michigan turkey hunting season.^a

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 5-31, 2013)																
A	268	115	60	16	148	86	33	16	30	38	7	8	0	0	0	0
B	14	27	100	0	0	0	0	0	0	0	0	0	0	0	0	0
E	900	209	74	9	217	105	18	8	72	61	6	5	14	27	1	2
F	566	168	44	10	572	168	45	10	74	61	6	5	57	54	4	4
J	502	157	56	12	250	112	28	11	115	77	13	8	29	38	3	4
K	3,678	406	67	4	1,076	229	20	4	473	153	9	3	187	98	3	2
M	92	66	61	28	44	47	29	26	14	27	10	17	0	0	0	0
ZA ^b	5,280	474	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZB ^b	2,041	312	100	0	1	0	0	0	0	0	0	0	0	0	0	0
ZC ^b	2,169	320	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZD ^b	264	115	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE ^b	5,122	468	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZF ^b	3,696	408	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	230	108	66	18	31	38	9	11	14	27	4	8	72	61	21	16
Subtotal	23,706	605	87	1	2,119	317	8	1	923	211	3	1	359	135	1	0

^aRow totals may not equal 100% because of rounding errors.

^bLicenses for the unlimited quota hunt were valid only on private lands in Management Unit ZZ in southern Michigan (Figure 1).

^cNumber 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 2014 Michigan turkey hunting season.^a

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	34	14	81	15	5	6	13	13	3	4	6	9	0	0	0	0
B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E	44	16	77	14	10	8	18	13	3	4	5	7	0	0	0	0
F	36	15	56	15	21	11	32	14	8	7	12	10	0	0	0	0
J	34	14	81	15	8	7	19	15	0	0	0	0	0	0	0	0
K	184	32	74	7	34	14	14	5	26	13	10	5	5	6	2	2
M	47	17	78	13	8	7	13	11	3	4	4	7	3	4	4	7
ZA	327	42	89	4	18	11	5	3	16	10	4	3	5	6	1	2
ZB	130	27	94	5	8	7	6	5	0	0	0	0	0	0	0	0
ZC	161	30	93	5	10	8	6	4	3	4	1	2	0	0	0	0
ZD	13	9	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE	236	36	96	3	10	8	4	3	0	0	0	0	0	0	0	0
ZF	241	37	87	5	29	13	10	5	8	7	3	2	0	0	0	0
Unknown	10	8	80	28	0	0	0	0	0	0	0	0	3	4	20	28
Subtotal	1,453	60	86	2	156	30	9	2	73	21	4	1	16	10	1	1
Statewide ^c	59,552	905	81	1	10,005	600	14	1	2,854	367	4	0	1,011	230	1	0

^aRow totals may not equal 100% because of rounding errors.

^bLicenses for the unlimited quota hunt were valid only on private lands in Management Unit ZZ in southern Michigan (Figure 1).

^cNumber 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 2014 Michigan turkey hunting season.

Management unit	Turkey population status (% of hunters) ^a				
	Increasing	Decreasing	Stable	Unknown	No answer
Hunt periods with quotas (General limited quota hunt periods)					
A	7	46	31	15	1
B	3	44	35	18	0
E	9	27	43	21	1
F	9	37	28	25	0
J	7	42	30	19	1
K	8	43	33	15	1
M	11	40	33	14	2
ZA	11	25	47	17	1
ZB	12	18	46	21	3
ZC	13	24	36	26	1
ZD	25	19	19	38	0
ZE	15	22	35	26	2
ZF	11	30	40	18	1
Pure MI Hunt	0	33	0	67	0
Mean	10	34	36	18	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 21-May 4, 2014)					
ZA	13	33	42	11	1
ZB	15	26	49	10	0
ZC	14	23	46	17	1
ZD	28	12	40	19	2
ZE	21	19	49	11	0
ZF	14	30	42	14	0
Unknown	12	33	26	21	9
Mean	16	26	45	12	1

^aRow totals may not equal 100% because of rounding errors.

Table 5 (continued). Status of turkey population reported by turkey hunters during the spring 2014 Michigan turkey hunting season.

Management unit	Turkey population status (% of hunters) ^a				
	Increasing	Decreasing	Stable	Unknown	No answer
Unlimited quota hunt period (Guaranteed Hunt 234; May 5-31, 2014)					
A	7	69	4	16	3
B	0	100	0	0	0
E	11	30	34	24	1
F	6	51	29	13	0
J	5	46	43	5	2
K	6	41	35	18	1
M	10	39	31	20	0
ZA	10	35	41	13	1
ZB	13	24	48	14	1
ZC	14	26	43	17	0
ZD	12	27	39	22	0
ZE	17	22	45	15	2
ZF	12	31	42	14	1
Unknown	8	25	25	38	4
Mean	11	33	40	16	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)					
A	13	25	25	38	0
B	0	0	0	0	0
E	14	14	27	45	0
F	12	28	24	32	4
J	6	31	31	31	0
K	10	38	20	32	0
M	13	35	26	22	4
ZA	11	30	30	26	3
ZB	25	9	43	23	0
ZC	13	13	51	22	0
ZD	20	20	40	20	0
ZE	23	12	33	32	1
ZF	16	18	41	21	4
Unknown	0	40	0	40	20
Mean	15	22	33	28	2
Statewide ^b	12	31	40	16	1

^aRow totals may not equal 100% because of rounding errors.

^bStatewide mean interference levels (all hunts and periods).

Table 6. How hunters rated their hunting experience during the spring 2014 Michigan turkey hunting season.

Management unit	Satisfaction level (% of hunters) ^a					
	Excellent	Very good	Good	Fair	Poor	No answer
Hunt periods with quotas (General limited quota hunt periods)						
A	14	12	19	23	32	1
B	36	23	23	6	12	0
E	10	19	26	23	21	1
F	12	14	32	21	20	1
J	16	16	24	23	21	1
K	15	20	24	21	20	0
M	11	17	31	20	19	2
ZA	17	22	29	18	13	1
ZB	25	19	27	15	11	3
ZC	16	23	31	14	14	1
ZD	25	6	25	13	31	0
ZE	18	20	27	23	11	1
ZF	17	20	31	20	10	2
Pure MI Hunt	33	0	33	33	0	0
Mean	16	19	27	20	17	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 21-May 4, 2014)						
ZA	21	22	28	17	11	1
ZB	26	19	33	13	9	0
ZC	24	24	30	14	6	1
ZD	24	32	21	12	12	0
ZE	28	24	26	15	8	1
ZF	23	19	24	19	14	1
Unknown	15	15	23	26	15	6
Mean	24	22	27	16	10	1

^aRow totals may not equal 100% because of rounding errors.

Table 6 (continued). How hunters rated their hunting experience during the spring 2014 Michigan turkey hunting season.

Management unit	Satisfaction level (% of hunters) ^a					
	Excellent	Very good	Good	Fair	Poor	No answer
Unlimited quota hunt period (Guaranteed Hunt 234; May 5-31, 2014)						
A	11	11	13	20	36	10
B	0	0	0	100	0	0
E	12	17	30	21	17	2
F	2	13	28	26	30	0
J	7	12	28	26	26	2
K	13	18	29	22	16	1
M	20	21	20	10	29	0
ZA	16	18	33	18	13	1
ZB	17	25	31	16	10	0
ZC	17	24	28	21	8	1
ZD	12	28	39	11	11	0
ZE	24	25	28	14	8	1
ZF	18	21	30	19	12	0
Unknown	0	0	38	37	25	0
Mean	16	20	30	19	14	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)						
A	31	31	25	6	6	0
B	0	0	0	0	0	0
E	27	9	41	14	5	5
F	20	16	32	16	16	0
J	19	6	44	31	0	0
K	25	14	29	19	14	0
M	9	22	26	26	13	4
ZA	26	27	19	20	7	1
ZB	30	21	32	9	8	0
ZC	10	30	39	15	6	0
ZD	20	60	0	0	20	0
ZE	32	26	27	7	5	2
ZF	21	26	36	15	2	1
Unknown	0	40	40	0	0	20
Mean	23	24	30	15	7	1
Statewide ^b	18	20	28	18	14	1

^aRow totals may not equal 100% because of rounding errors.

^bStatewide mean satisfaction levels (all hunts and periods).

Table 7. Estimated amount of hunter interference experienced by turkey hunters during the spring 2014 Michigan turkey hunting season.

Management unit	Interference level (% of hunters) ^a				
	None	Minor	Some irritation	Major problem	No answer
Hunt periods with quotas (General limited quota hunt periods)					
A	83	10	6	1	1
B	88	6	6	0	0
E	77	16	5	1	1
F	71	23	5	1	0
J	68	22	6	3	1
K	69	24	6	0	0
M	77	16	4	1	2
ZA	70	19	9	1	1
ZB	54	28	12	3	3
ZC	60	29	9	2	0
ZD	63	25	6	6	0
ZE	56	32	6	5	1
ZF	65	21	11	2	1
Pure MI Hunt	67	33	0	0	0
Mean	70	21	7	2	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 21-May 4, 2014)					
ZA	77	17	5	1	0
ZB	73	18	7	2	0
ZC	76	14	7	2	0
ZD	74	26	0	0	0
ZE	76	16	5	2	1
ZF	70	21	8	1	0
Unknown	65	23	3	3	6
Mean	75	17	6	1	1

^aRow totals may not equal 100% because of rounding errors.

Table 7 (continued). Estimated amount of hunter interference experienced by turkey hunters during the spring 2014 Michigan turkey hunting season.

Management unit	Interference level (% of hunters) ^a				
	None	Minor	Some irritation	Major problem	No answer
Unlimited quota hunt period (Guaranteed Hunt 234; May 5-31, 2014)					
A	61	20	13	6	0
B	100	0	0	0	0
E	70	21	6	1	1
F	71	23	3	3	0
J	87	12	2	0	0
K	73	20	6	1	0
M	90	10	0	1	0
ZA	76	17	5	1	1
ZB	77	16	6	1	0
ZC	77	15	7	1	1
ZD	45	44	11	0	0
ZE	79	15	4	1	1
ZF	74	19	6	1	0
Unknown	67	17	8	8	0
Mean	75	18	5	1	0
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)					
A	69	25	6	0	0
B	0	0	0	0	0
E	68	18	9	5	0
F	80	12	8	0	0
J	75	19	6	0	0
K	75	16	9	0	0
M	87	9	0	0	4
ZA	76	17	5	1	1
ZB	74	15	11	0	0
ZC	72	18	9	1	0
ZD	80	0	20	0	0
ZE	75	14	8	2	1
ZF	69	19	10	2	0
Unknown	80	0	0	0	20
Mean	74	16	8	1	1
Statewide ^b	73	19	6	1	1

^aRow totals may not equal 100% because of rounding errors.

^bStatewide mean interference levels (all hunts and periods).

Table 8. Estimated number of hunting efforts, hunters, hunting success, noninterfered hunters, and hunter rating of the 2014 spring turkey hunting season, by hunt periods.

Variable	Hunt periods beginning								All periods ^a	
	April 21		April 28		May 5		May 12			
	Estimate	95% CL	Estimate	95% CL	Estimate	95% CL	Estimate	95% CL	Estimate	95% CL
Hunting efforts (days)	141,346	4,683	19,466	1,984	144,297	6,388	7,283	1,330	312,392	7,903
Number of hunters	36,675	646	5,745	453	29,463	596	1,539	202	73,422	767
Successful hunters (n)	15,593	639	1,611	286	11,448	633	458	122	29,110	930
Successful hunters (%)	43	2	28	4	39	2	30	7	40	1
Noninterfered hunters (n) ^b	33,515	676	5,418	447	27,218	633	1,339	193	67,490	861
Noninterfered hunters (%) ^b	91	1	94	2	92	1	87	5	92	1
Favorable rating (n) ^c	25,179	703	3,484	391	19,370	698	979	170	49,012	997
Favorable rating (%) ^c	69	2	61	5	66	2	64	7	67	1

^aRow totals may not equal totals for all periods because of rounding errors.

^bProportion of hunters that indicated they experienced no or only minor interference from other hunters.

^cHunters rating their hunting experience as excellent, very good, or good.

Table 9. Comparison of the estimated number of hunters, hunting effort, and harvest between 2013 and 2014 Michigan spring turkey hunting seasons, summarized by regions.

Region ^a	Hunters (No.) ^b					Hunting efforts (days)					Harvest (No.)				
	2013		2014		Change (%)	2013		2014		Change (%)	2013		2014		Change (%)
	Total	95% CL	Total	95% CL		Total	95% CL	Total	95% CL		Total	95% CL	Total	95% CL	
UP	3,521	291	2,732	238	-22*	17,798	2,716	16,047	2,827	-10	1,187	252	989	212	-17
NLP	23,507	755	20,530	667	-13*	93,783	4,823	85,039	4,631	-9	7,628	587	6,543	525	-14
SLP	53,177	932	47,867	800	-10*	216,806	6,703	198,676	6,550	-8*	23,084	877	21,201	779	-8*
Unknown	3,151	403	2,992	358		12,570	2,154	12,630	1,997		346	131	377	127	
Total	82,508	946	73,422	767	-11*	340,957	8,081	312,392	7,903	-8*	32,244	1,056	29,110	930	-10*

^aRegions 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).

^bNumber of hunters did not add up to statewide total because hunters can hunt in more than one unit for the unlimited quota hunt.

*P<0.005.

Table 10. Comparison of estimated hunter success, hunter satisfaction, and hunt interference between 2013 and 2014 Michigan spring turkey hunting season, summarized by regions.

Region ^a	Hunter success					Hunter satisfaction ^b					Noninterfered hunters ^c				
	2013		2014		Differ-ence (%)	2013		2014		Differ-ence (%)	2013		2014		Differ-ence (%)
	%	95% CL	%	95% CL		%	95% CL	%	95% CL		%	95% CL	%	95% CL	
UP	34	7	36	7	2	57	7	60	7	2	93	4	95	3	2
NLP	32	2	32	2	-1	60	2	56	2	-3	91	1	93	1	2
SLP	43	1	44	1	1	74	1	72	1	-2	90	1	92	1	1
Total	39	1	40	1	1	69	1	67	1	-2	90	1	92	1	2*

^aRegions 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).

^bHunters rating their hunting experience as excellent, very good, or good.

^cProportion 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, 2010-2014.

Year	Number of turkey harvested by device								Hunter success by device ^a					
	Firearm		Crossbows		Other bows ^b		Unknown		Firearm		Crossbows		Other bows ^b	
	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	30,746	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

^aHunters harvesting a turkey.

^bIncluded longbows, recurve, and compound bows.

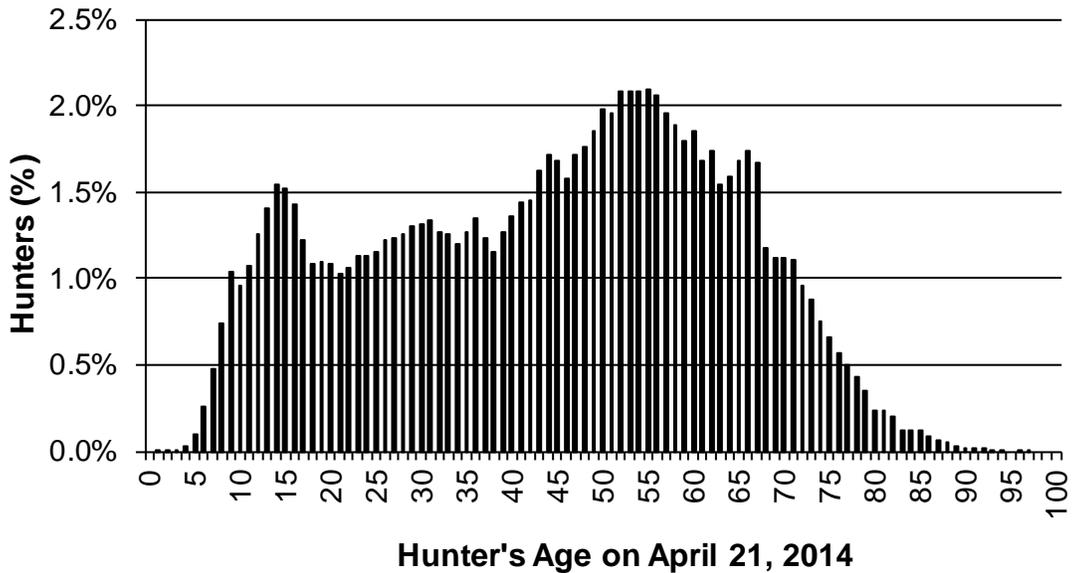


Figure 2. Age of people that purchased a turkey hunting license in Michigan for the 2014 spring hunting season (\bar{x} = 44 years). Licenses were purchased by 89,167 people.

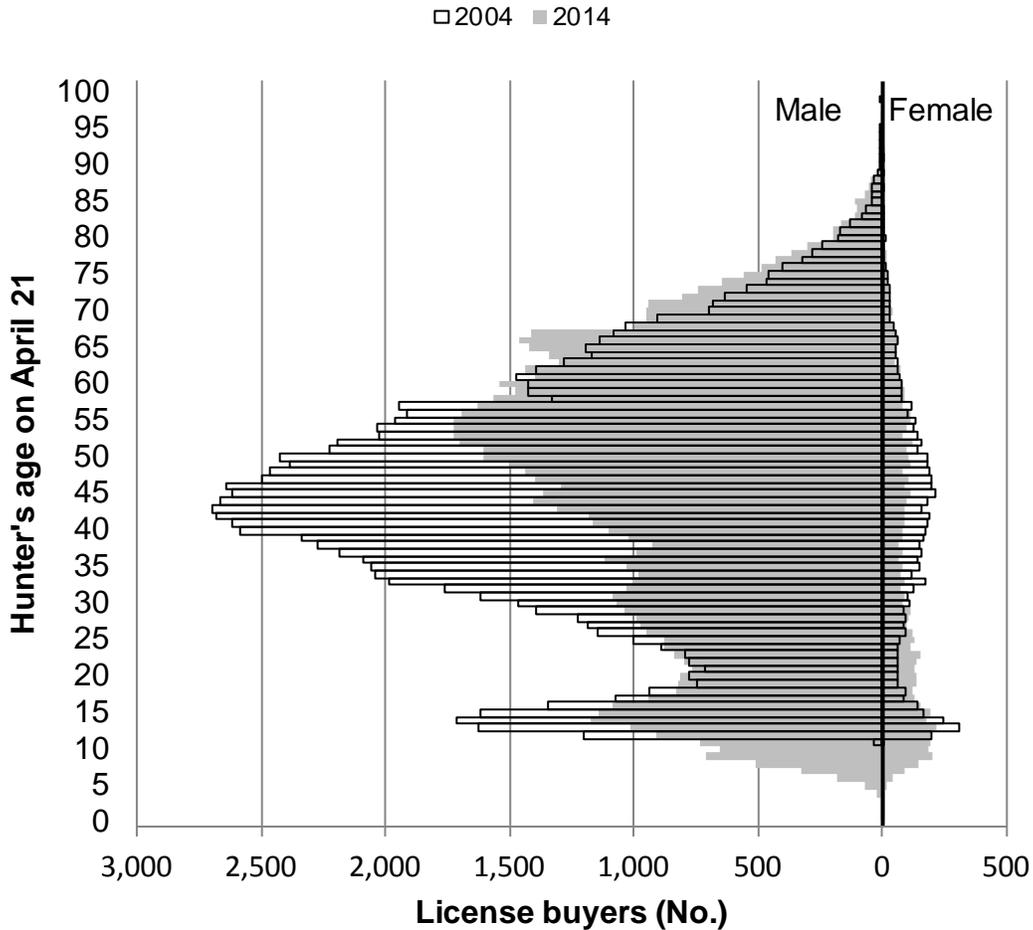


Figure 3. Number of spring turkey hunting license buyers in Michigan by age and sex during 2004 and 2014 hunting seasons. The number of people buying a license was 110,617 in 2004 and 89,167 in 2014.

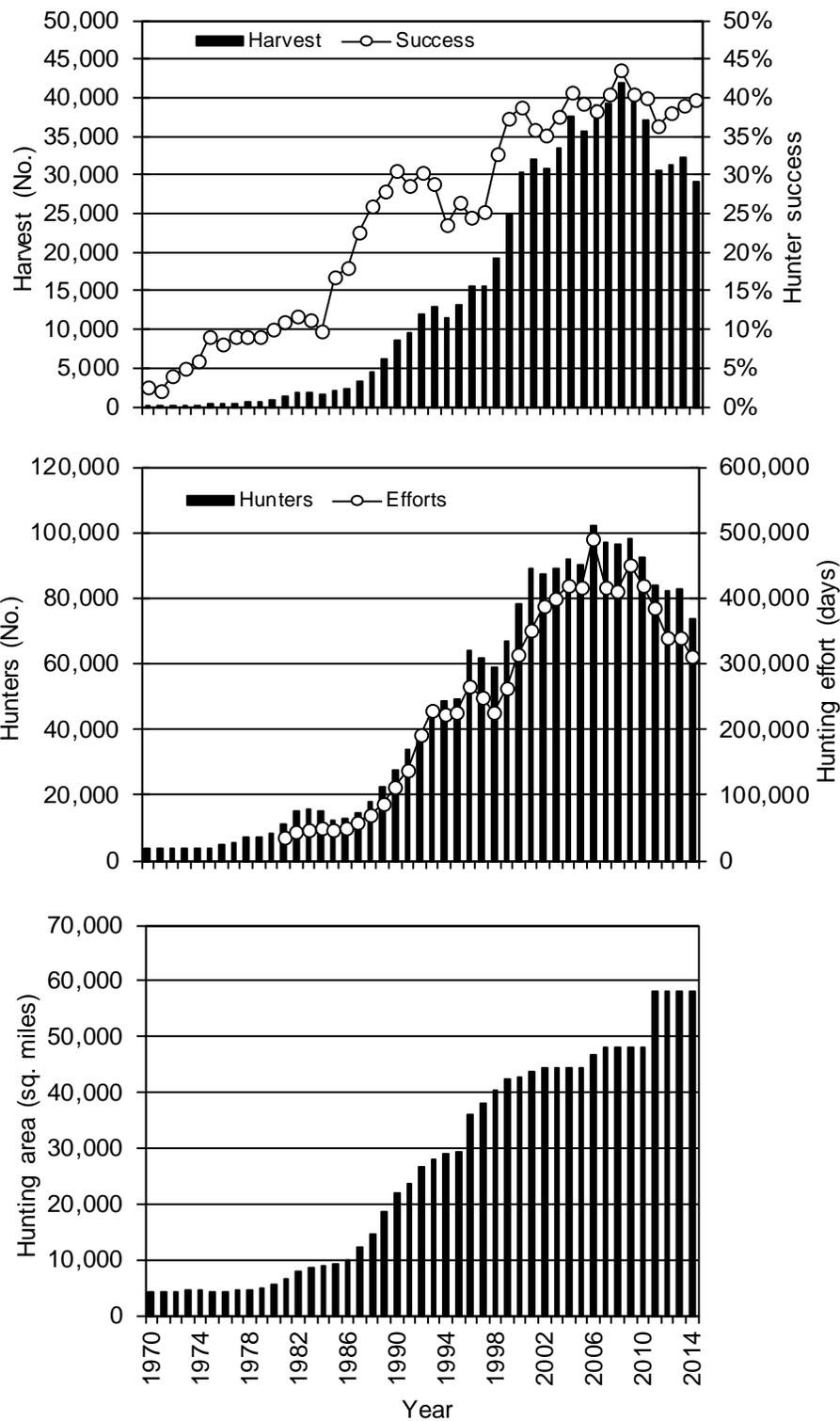


Figure 4. Estimated number of hunters, harvest, hunting efforts, hunter success, and area open to hunting during the Michigan spring turkey hunting season, 1970-2014. Estimates of hunting effort generally were not available before 1981.

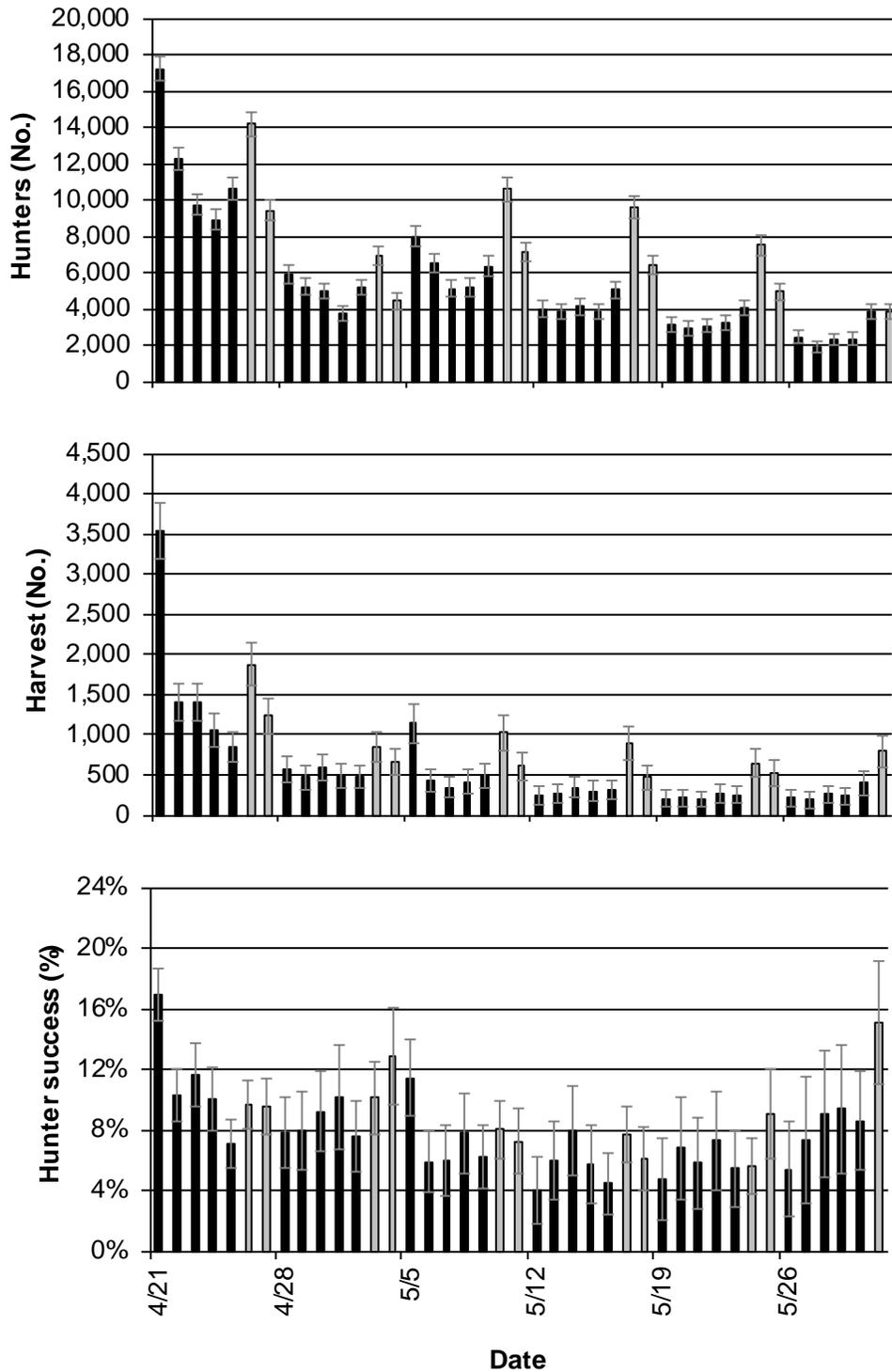


Figure 5. Estimated number of hunters, harvest, and hunter success by date during the 2014 Michigan spring turkey hunting season (includes all hunts). An additional $1,961 \pm 295$ birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

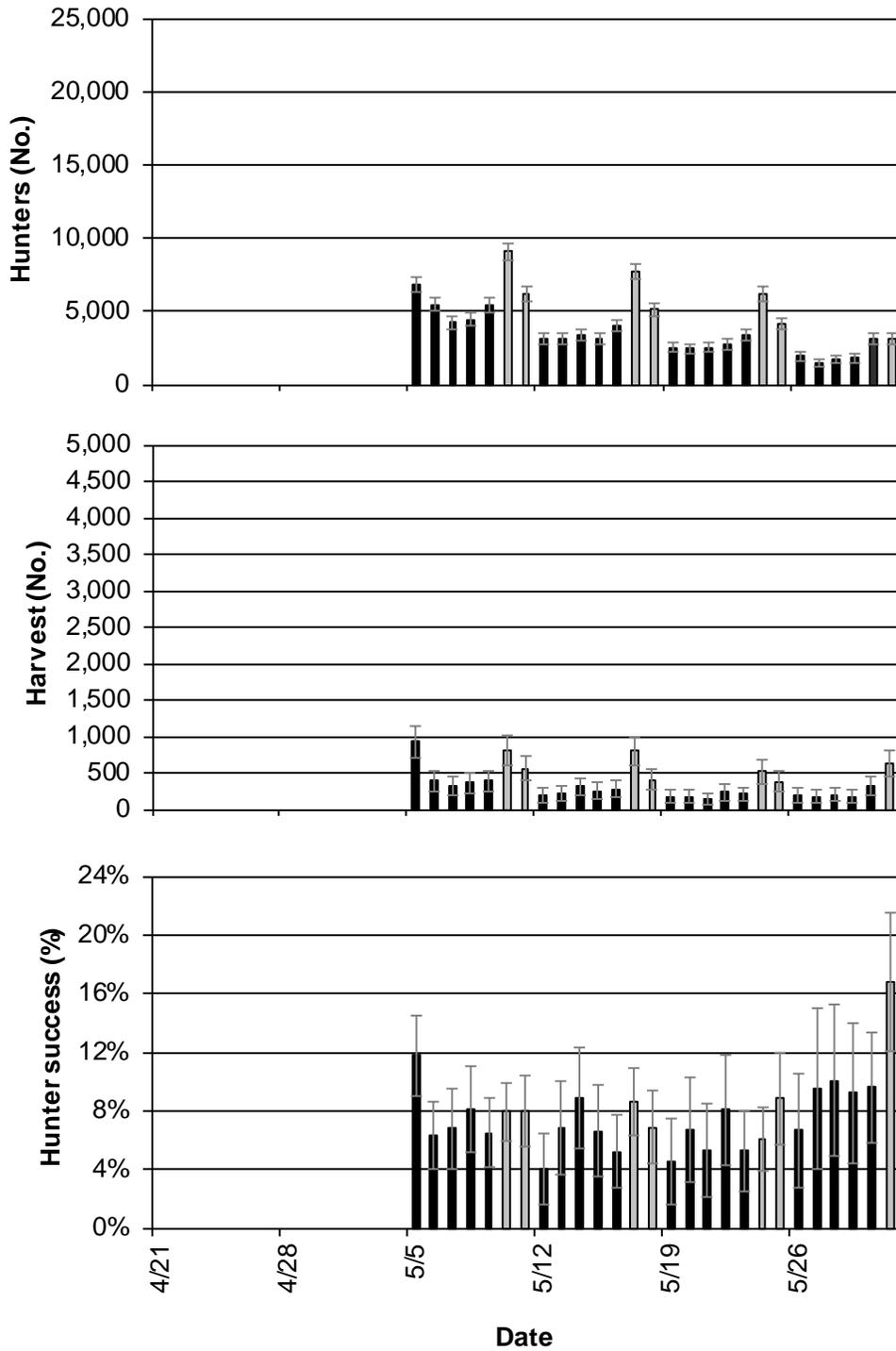


Figure 6. Estimated number of hunters, harvest, and hunter success by date during Hunt 234 of the 2014 Michigan spring turkey hunting season (May 5-31). An additional $1,001 \pm 222$ birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

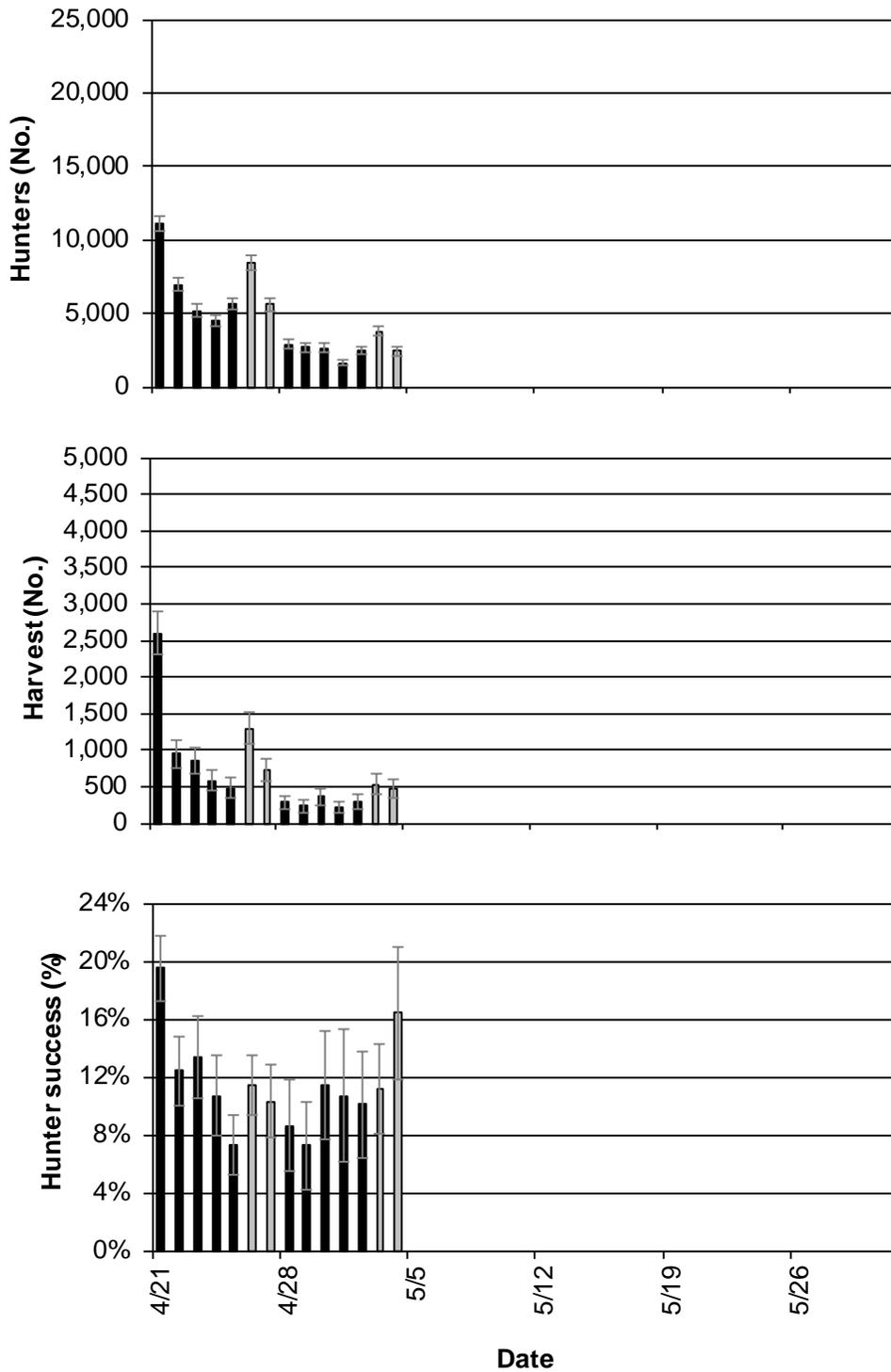


Figure 7. Estimated number of hunters, harvest, and hunter success by date during Hunt 301 of the 2014 Michigan spring turkey hunting season (April 21-May 4). An additional 777 ± 168 birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

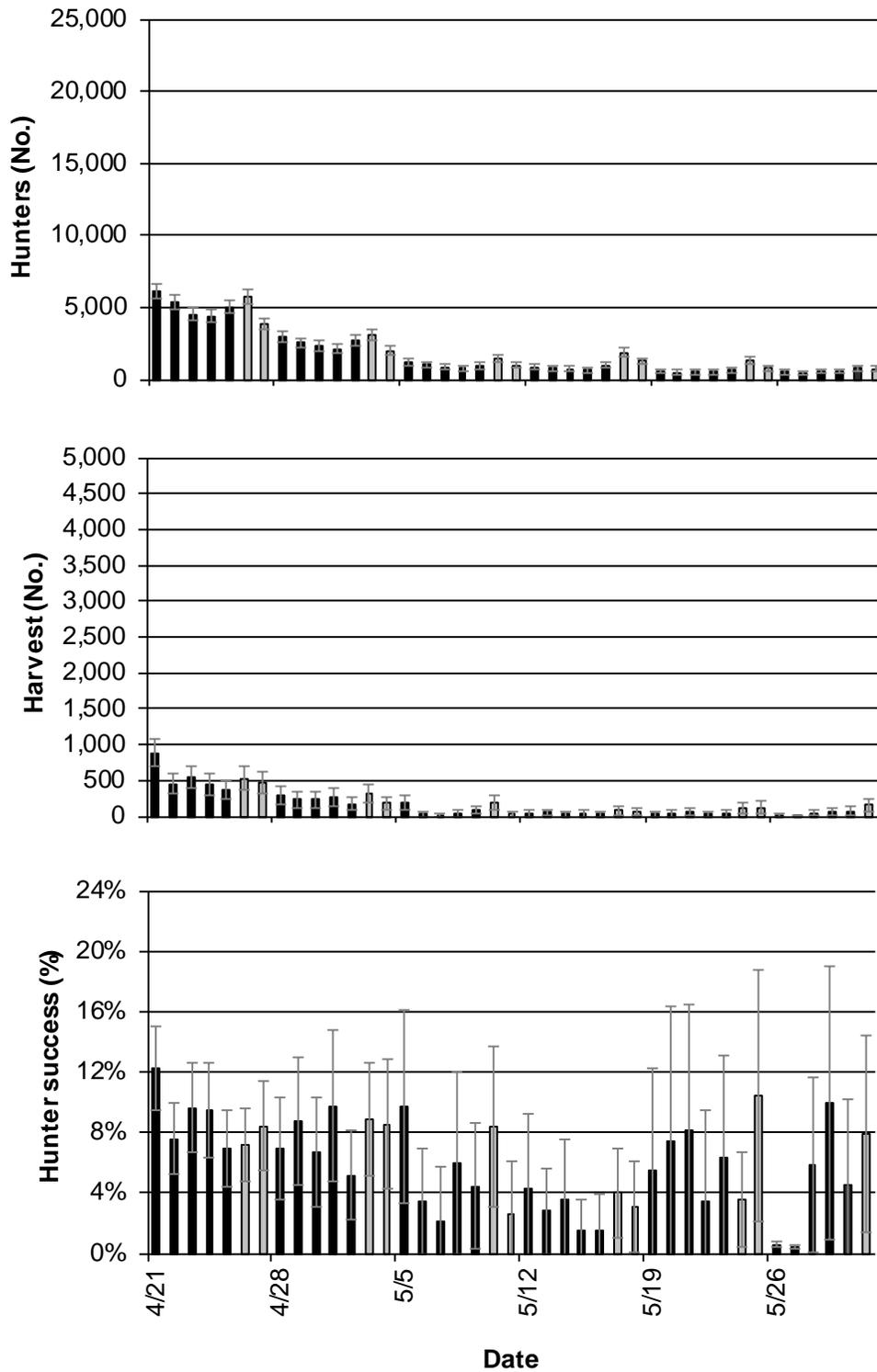


Figure 8. Estimated number of hunters, harvest, and hunter success by date during all hunts, except for mentored youth hunts and hunts 234 and 301 of the 2014 Michigan spring turkey hunting season. An additional 173 ± 95 birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

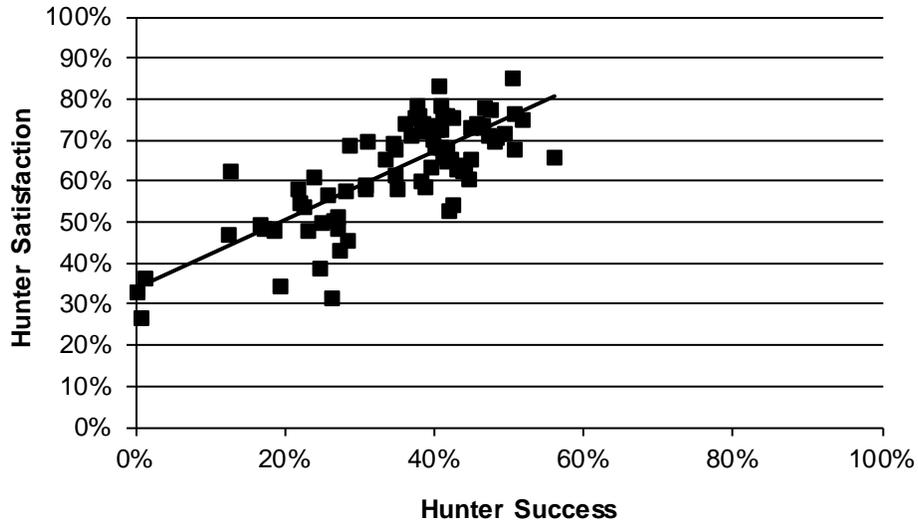


Figure 9. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter success for each of 80 counties in Michigan during the 2014 spring turkey hunting season (included only counties with at least 30 hunters).

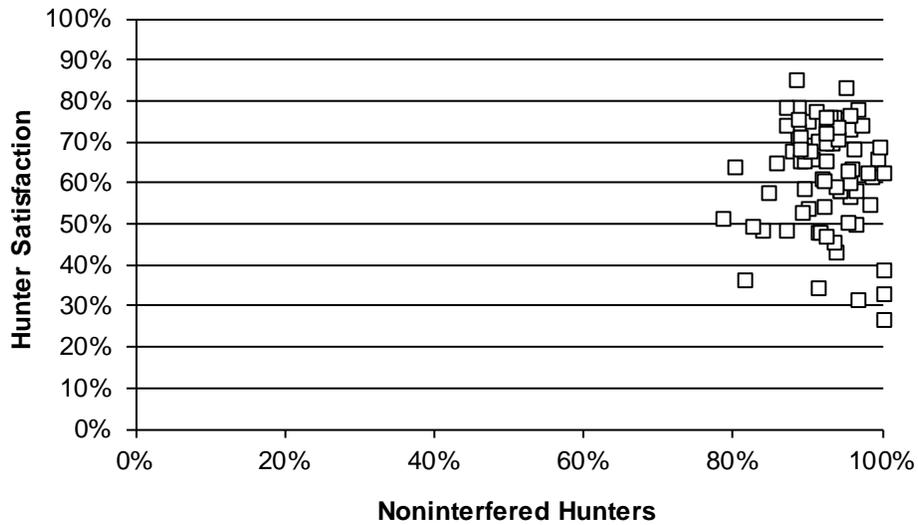


Figure 10. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter interference for each of 80 counties in Michigan during the 2014 spring turkey hunting season (included only counties with at least 30 hunters). Noninterfered hunters were the proportion of hunters that indicated that they experienced no or only minor interference from other hunters.