



MICHIGAN DEPARTMENT OF NATURAL RESOURCES
Wildlife Division Report No. 3559
March 2013

Printed by Authority of: P.A. 451 of 1994
Total Number of Copies Printed:25
Cost per Copy:\$2.38
Total Cost:\$59.50
Michigan Department of Natural Resources

2012 MICHIGAN SPRING TURKEY HUNTER SURVEY

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ABSTRACT

A survey of turkey hunters was conducted following the 2012 spring hunting season to determine turkey harvest and hunter participation. In 2012, about 82,297 hunters harvested about 31,377 turkeys. Statewide, 38% of hunters harvested a turkey. Nearly 65% of the hunters rated their hunting experience as excellent, very good, or good in 2012. About 91% of the hunters reported they experienced no or only minor interference from other hunters. The number of hunters and their hunting effort declined significantly (declined 2% and 12%, respectively) between 2011 and 2012. However, the number of turkeys harvested, hunter success, and hunter satisfaction in 2012 did not change significantly from 2011.

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 2012, nearly the entire state was open for wild turkey hunting from April 23 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 12 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].



A contribution of Federal Aid in Wildlife Restoration, Michigan Project W-147-R

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IC2042-500 (03/04/2013)

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 for Hunt 234 between January 1 and May 1 without going through the lottery. 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 except licenses for Hunt 234 were made available to nonapplicants. After May 1, Hunt 234 was available for purchase only to applicants. Hunters were allowed to purchase one license and take one bearded turkey with the harvest tag issued with their license.

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 (7-39 days). Most quota hunts began before May 7 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 23-May 6) 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 30 days (May 7-31). An unlimited number of licenses were available for Hunt 234.

The Pure Michigan Hunt (PMH) was a unique multi-species hunting opportunity offered for the first time in 2011. 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 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.

Hunters could use a bow and arrow, crossbow, or shotgun with number 4 or smaller shot (including a muzzleloading shotgun) to hunt turkeys. Hunters using a crossbow were required to obtain a free crossbow stamp, except hunters with a disability already hunting under a DNR-issued crossbow permit, did not need the stamp.

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 2012 spring turkey hunting season, a questionnaire was sent to 11,930 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 17 strata (Cochran 1977). Hunters were stratified based on the management unit where their license was valid (12 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 13-16). Moreover, people that had voluntarily reported information about their hunting activity via the internet were treated as a separate stratum (seventh 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 mid-July 2012, and nonrespondents were mailed up to two follow-up questionnaires. Although 13,540 people were sent the questionnaire, 211 surveys were undeliverable resulting in an adjusted sample size of 13,329. Questionnaires were returned by 8,539 people, yielding a 64% adjusted response rate. In addition, 3,197 people voluntarily reported information about their hunting activity via the internet before the random sample was selected.

RESULTS AND DISCUSSION

In 2012, licenses were purchased by 102,299 people, a decrease of nearly 4% from 2011 (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 12% (11,803) of the license buyers were younger than 17 years old. Mentored youth hunting licenses were purchased by 2,256 youths.

The number of people buying a turkey hunting license in 2012 increased by about 4% in ten years from 2002 (98,306 people purchased a license in 2002). Although the number of turkey hunters increased between 2002 and 2012, there were fewer license buyers for age classes between 26 and 48 years of age in 2012, compared to 2002 (Figure 3). However, there were increased hunter numbers among the youngest and oldest age classes in 2012. 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 2012, there was no minimum age limit to hunt turkeys; while hunters had to be at least 12 years old to participate in 2002.

About 80% ($\pm 1\%$) of license buyers hunted turkeys (82,297 hunters). Most of these hunters were males ($76,304 \pm 948$), although nearly 7% ($\pm 1\%$) of the hunters were females ($5,992 \pm 506$). Estimated hunter numbers (Table 2) declined significantly by about 2% between 2011 and 2012 (84,125 versus 82,297 hunters). Counties listed in descending order with more than 2,200 hunters afield included Allegan, Kent, St. Clair, Tuscola, and Lapeer (Table 3).

Hunters spent an estimated 338,493 days afield pursuing turkeys (4.1 ± 0.1 days/hunter), and harvested approximately 31,377 birds (Figure 4). Counties listed in descending order with hunters taking more than 900 turkeys included Kent,

Allegan, and Tuscola (Table 3). Hunter effort decreased significantly by 12% from 2011; however, statewide harvest was not significantly different from 2011. Hunter success was 38% in 2012, which was not significantly different from the 36% hunter success experienced in 2011.

About 21% ($\pm 2\%$) of the harvested birds were juvenile males ($6,568 \pm 536$); 77% ($\pm 2\%$) were adult males ($24,279 \pm 919$), and about 1% were bearded females (393 ± 135). Additionally, the age of a small number of harvested birds ($<1\%$) was unknown (137 ± 82) 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, 47% of these birds were taken during the first seven days (April 23-29). Daily hunter success generally was more than 8% during April 23 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 87% of turkey hunters hunted solely on private land; 8% hunted on public land only; and 5% hunted on both private and public lands (Table 4). Of the 31,377 turkeys harvested in 2012, $91 \pm 1\%$ were taken on private land ($28,614 \pm 965$ birds). About $9 \pm 1\%$ of the harvest ($2,750 \pm 344$ birds) was taken on public land.

Fifteen percent of turkey hunters believed turkey numbers were increasing in their hunting area (Table 5); while, 40% thought turkey numbers were stable, 28% thought turkey were decreasing; 17% 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 82,297 people hunting turkeys in 2012, $65 \pm 1\%$ of the hunters rated their hunting experience as either excellent ($14,996 \pm 753$ hunters), very good ($15,831 \pm 788$), or good ($22,810 \pm 916$) (Table 6). Nearly $19 \pm 1\%$ of the hunters rated their experience as fair ($15,355 \pm 789$ hunters). Only $15 \pm 1\%$ of the hunters rated their experience as poor ($12,324 \pm 719$ hunters). About 1% of the hunters (981 ± 225 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 2012, $72 \pm 1\%$ of the hunters reported no hunter interference; $19 \pm 1\%$ reported minor interference; $7 \pm 1\%$ reported some irritation caused by hunter interference; and $2 \pm 1\%$ 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 23; however, satisfaction varied little among the hunt periods (Table 8).

Compared to 2011, hunter numbers and hunter effort decreased significantly statewide in 2012 (Table 9). Hunter satisfaction also declined significantly in 2012 (Table 10).

However, the overall harvest, hunter success, and the proportion of hunters that indicated they experienced no or only minor interference with another hunter was similar in both 2011 and 2012.

Most hunters ($90 \pm 1\%$) used firearms while hunting turkeys, although $7 \pm 1\%$ of the hunters used archery equipment (compound, recurve, or long bows), and $4 \pm 1\%$ used a crossbow. Most hunters ($94 \pm 1\%$) used a firearm to harvest their turkeys, while $3 \pm 1\%$ used archery equipment, and $2 \pm 1\%$ used a crossbow. About 39% of hunters using a firearm harvested a turkey, while 17% of hunters using a crossbow took a turkey, and 18% of hunters using another type of bow (longbows, recurve, or compound bows) took a turkey (Table 11).

Hunters using a crossbow to hunt turkeys were required to obtain a crossbow stamp, unless they were a disabled hunter that already had a DNR-issued crossbow permit. About $28 \pm 5\%$ of the turkey hunters using a crossbow had obtained the crossbow stamp.

ACKNOWLEDGEMENTS

I thank all the turkey hunters that provided information. Sheree Kershaw and Theresa Riebow completed data entry. Chris Larson and Fukang Wang developed the internet harvest reporting application. Marshall Strong prepared the figure of the turkey management units (Figure 1). Russ Mason, Cheryl Nelson, Doug Reeves, and Al Stewart reviewed a draft version of this report.

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Table 1. Number of hunting licenses available and people applying for licenses during the 2012 Michigan spring 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	1,884	1,887	3,613	1,331	0	938	2,269
E	1,700	1,667	1,595	105	1,180	6	74	1,260
F	5,000	2,957	2,974	2,026	2,209	3	517	2,729
J	4,000	1,413	1,429	2,571	1,085	0	624	1,709
K	8,500	8,429	8,038	462	6,024	15	344	6,383
M	8,000	1,083	1,084	6,916	849	1	3,325	4,175
ZA	4,800	1,905	1,927	2,873	1,444	2	1,552	2,998
ZB	1,750	928	889	861	632	3	506	1,141
ZC	2,400	1,334	1,311	1,089	927	6	799	1,732
ZD	40	66	32	8	16	0	4	20
ZE	2,000	1,597	1,425	575	1,010	21	429	1,460
ZF	5,600	2,118	2,140	3,460	1,621	3	2,208	3,832
Hunt 234	NA	372	499	NA	793	86	37,611	38,490
Hunt 301	65,000	8,957	9,051	55,949	7,585	45	24,212	31,842
Pure MI Hunts	3	NA	NA	NA	NA	NA	NA	3
Mentored Hunts	NA	NA	NA	NA	NA	NA	NA	2,256
Statewide	114,293	34,710	34,281	80,508	26,706	191	73,143	102,299

^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 2012 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	1,982	89	7,941	715	499	109	25	5	47	6	92	3
E	1,113	46	3,479	273	428	66	38	6	60	6	92	3
F	2,297	115	8,088	648	516	119	22	5	48	6	92	3
J	1,493	67	5,023	394	600	93	40	6	60	6	90	4
K	5,789	216	18,362	1,552	2,271	348	39	6	64	6	91	4
M	3,192	214	18,861	2,898	967	208	30	6	54	7	91	4
ZA	2,479	142	8,950	1,099	843	165	34	6	70	6	93	3
ZB	981	51	3,179	319	247	59	25	6	68	6	88	5
ZC	1,394	86	5,149	609	370	86	27	6	68	6	83	5
ZD	15	3	42	11	8	3	50	20	78	17	78	17
ZE	1,260	59	4,787	504	295	67	23	5	67	6	84	5
ZF	3,173	185	13,866	1,772	1,192	224	38	7	58	7	85	5
Pure MI Hunt	1	0	3	0	1	0	100	0	100	0	100	0
Subtotal	25,169	434	97,730	4,129	8,237	545	33	2	61	2	90	1
Hunt period 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2012)												
ZA	7,158	489	25,988	2,347	3,555	367	50	4	74	3	91	2
ZB	2,952	340	10,176	1,494	1,399	239	47	6	70	6	86	4
ZC	4,397	405	15,052	1,783	1,992	283	45	5	77	4	88	3
ZD	315	115	1,066	473	98	63	31	17	75	16	96	7
ZE	6,896	482	25,539	2,300	2,943	336	43	4	72	4	91	2
ZF	6,058	461	22,527	2,245	2,958	340	49	4	70	4	92	2
Unknown	556	156	1,731	686	39	41	7	7	50	14	80	11
Subtotal	27,692	399	102,079	3,350	12,984	575	47	2	73	2	90	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 2012 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 7-31, 2012)												
A	708	188	3,441	1,156	181	96	26	12	60	13	96	5
E	1,296	253	5,457	1,403	325	127	25	9	62	10	95	4
F	1,496	271	7,483	1,738	292	121	20	7	47	9	89	6
J	1,092	230	4,685	1,256	351	130	32	10	62	10	92	6
K	6,502	525	31,421	3,406	1,960	304	30	4	56	4	90	3
M	127	79	453	365	4	0	3	2	63	30	88	21
ZA	5,378	487	24,555	3,108	2,072	316	39	5	63	5	95	2
ZB	1,426	266	6,888	1,809	501	159	35	9	62	9	91	6
ZC	2,152	321	10,891	2,216	611	173	28	7	65	7	91	4
ZD	183	96	714	472	75	62	41	26	82	20	83	20
ZE	4,295	441	17,526	2,477	1,736	288	40	5	67	5	94	3
ZF	3,651	411	16,835	2,781	1,521	272	42	6	69	5	90	4
Unknown	545	166	2,528	1,227	31	39	6	7	50	15	75	13
Subtotal	27,803	633	132,877	5,865	9,659	605	35	2	62	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 2012 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	25	10	65	30	10	7	42	20	75	18	92	11
E	69	17	235	66	34	12	48	12	91	7	97	4
F	25	10	71	32	4	4	17	15	67	19	92	11
J	40	13	128	55	17	8	42	16	89	10	79	13
K	231	30	921	152	55	15	24	6	76	6	94	3
M	48	14	160	57	17	8	35	14	87	10	96	6
ZA	364	36	1,204	156	118	22	32	5	84	4	94	3
ZB	132	23	416	84	38	13	29	8	79	7	87	6
ZC	162	25	552	131	40	13	25	7	82	6	88	5
ZD	10	7	25	17	2	3	20	25	80	25	100	0
ZE	306	33	1,073	152	103	20	34	6	85	4	94	3
ZF	269	31	873	129	61	15	23	5	81	5	93	3
Unknown	29	11	84	42	0	0	0	0	43	19	86	13
Subtotal	1,633	44	5,807	276	497	40	30	2	82	2	93	1
Statewide	82,297	866	338,493	7,921	31,377	998	38	1	65	1	91	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 2012 Michigan spring 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	
	95%		95%		95%		95%		95%		95%	
	Total	CL	Total	CL	Total	CL	%	CL	%	CL	%	CL
Alcona	1,001	189	3,654	888	201	85	20	8	41	10	96	4
Alger	140	88	1,116	861	5	3	4	3	39	31	99	1
Allegan	2,668	344	10,748	1,852	990	217	37	7	61	7	87	5
Alpena	743	146	3,308	926	171	73	23	9	54	11	95	5
Antrim	745	150	2,951	831	308	93	41	10	63	10	87	7
Arenac	475	121	1,541	473	196	78	41	13	69	12	90	7
Baraga	52	55	198	246	18	32	35	51	65	51	67	51
Barry	2,042	307	8,182	1,604	749	188	37	7	55	8	82	6
Bay	488	150	1,705	686	210	97	43	15	70	14	89	9
Benzie	384	155	1,454	761	122	86	32	19	62	20	95	7
Berrien	871	203	2,749	843	354	128	41	12	74	10	87	8
Branch	941	204	3,767	1,059	370	128	39	11	68	10	89	7
Calhoun	1,633	269	6,156	1,369	605	162	37	8	66	8	89	5
Cass	1,020	223	5,865	1,817	572	169	56	11	77	9	95	5
Charlevoix	523	132	1,389	414	232	86	44	13	72	12	92	8
Cheboygan	585	136	1,936	596	165	75	28	11	56	12	89	6
Chippewa	91	70	184	163	38	45	41	38	64	37	98	4
Clare	962	175	3,375	887	296	88	31	8	62	9	97	3
Clinton	1,395	248	4,603	1,126	579	161	41	9	73	8	96	3
Crawford	839	178	3,002	769	126	71	15	8	46	11	86	8
Delta	552	167	3,461	1,458	114	78	21	13	47	16	97	5

^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 2012 Michigan spring 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	568	170	3,383	1,468	176	100	31	15	53	16	91	9
Eaton	1,223	230	4,830	1,098	468	143	38	9	65	9	94	5
Emmet	506	130	1,802	606	119	58	23	10	51	13	85	10
Genesee	1,545	251	5,705	1,329	689	168	45	8	73	7	90	5
Gladwin	983	179	3,736	898	284	91	29	8	62	9	92	5
Gogebic	211	108	1,724	1,481	20	32	9	15	25	22	92	15
Gd. Traverse	899	236	3,815	1,398	207	117	23	11	51	13	77	12
Gratiot	1,197	230	4,441	1,099	575	161	48	10	81	8	87	6
Hillsdale	1,440	247	4,662	1,036	511	148	36	8	73	8	95	4
Houghton	116	83	437	438	34	45	29	33	29	33	85	26
Huron	1,421	230	5,352	1,254	594	155	42	8	70	8	90	5
Ingham	1,420	240	5,721	1,363	673	170	47	9	76	7	89	5
Ionia	1,630	268	5,579	1,176	679	173	42	8	75	7	95	3
Iosco	512	139	2,159	762	109	65	21	11	40	14	95	7
Iron	513	163	2,233	986	179	100	35	16	60	17	97	6
Isabella	1,660	271	5,694	1,163	659	169	40	8	70	8	95	4
Jackson	2,098	288	8,153	1,429	874	194	42	7	71	6	92	4
Kalamazoo	1,174	236	3,981	1,005	506	155	43	10	73	9	92	6
Kalkaska	896	243	2,431	735	301	142	34	13	65	13	95	5
Kent	2,523	331	10,156	1,793	1,074	217	43	7	74	6	94	3
Keweenaw	17	32	51	96	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 2012 Michigan spring 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	1,304	288	4,232	1,084	224	118	17	8	44	11	92	7
Lapeer	2,225	293	8,341	1,472	851	187	38	7	74	6	89	4
Leelanau	416	164	1,134	483	84	67	20	15	56	20	92	9
Lenawee	926	195	2,963	720	369	122	40	10	66	10	91	6
Livingston	1,827	267	6,451	1,161	550	149	30	7	66	7	91	4
Luce	0	0	0	0	0	0	0	0	0	0	0	0
Mackinac	35	45	69	91	1	0	3	4	51	65	100	0
Macomb	700	177	2,542	827	274	113	39	12	73	11	88	8
Manistee	723	217	2,939	1,113	254	133	35	15	59	15	89	10
Marquette	317	131	1,445	724	75	64	24	18	73	19	84	16
Mason	794	222	2,860	991	183	105	23	12	52	14	89	9
Mecosta	1,351	286	5,067	1,305	612	197	45	11	59	11	89	7
Menominee	815	197	3,647	1,100	289	124	35	13	60	13	85	10
Midland	1,172	229	4,623	1,296	434	139	37	9	65	9	93	5
Missaukee	840	228	3,276	1,056	409	164	49	14	72	13	100	0
Monroe	422	135	1,509	596	154	81	37	15	82	12	92	9
Montcalm	2,111	303	8,815	1,740	885	198	42	7	61	7	92	4
Montmorency	573	136	2,471	673	176	79	31	12	46	12	86	8
Muskegon	1,287	247	4,287	1,052	573	165	45	10	70	9	91	6
Newaygo	2,133	352	8,460	1,671	741	213	35	8	64	8	90	5
Oakland	1,227	201	4,182	822	394	117	32	8	73	8	91	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 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunter interference during the 2012 Michigan spring 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
Oceana	1,080	253	4,574	1,304	299	134	28	11	64	11	93	6
Ogemaw	814	172	2,716	697	199	86	24	9	58	11	95	5
Ontonagon	55	55	133	147	1	0	2	2	65	48	98	2
Osceola	1,052	249	3,766	1,089	397	163	38	12	62	12	93	6
Oscoda	660	160	2,422	677	104	65	16	9	45	12	89	8
Otsego	426	115	1,543	573	108	55	25	12	54	14	91	7
Ottawa	1,835	291	7,384	1,478	828	195	45	8	72	7	93	4
Presque Isle	697	148	3,078	876	180	78	26	10	60	11	98	3
Roscommon	793	173	3,524	1,174	238	96	30	10	53	11	86	8
Saginaw	1,949	292	7,919	1,624	844	192	43	8	69	7	92	4
St. Clair	2,361	315	9,832	1,734	737	175	31	6	70	6	84	5
St. Joseph	1,019	219	3,926	1,167	518	158	51	11	72	10	88	7
Sanilac	1,736	262	5,958	1,223	627	162	36	7	66	7	86	5
Schoolcraft	91	71	471	424	38	45	42	39	44	39	100	0
Shiawassee	1,480	255	5,682	1,323	582	160	39	8	64	8	88	6
Tuscola	2,309	295	8,629	1,561	945	194	41	6	68	6	88	4
Van Buren	1,430	256	5,253	1,459	622	167	43	9	72	8	95	4
Washtenaw	1,412	227	4,645	920	624	155	44	8	83	6	92	4
Wayne	86	63	220	197	28	37	33	35	68	35	100	0
Wexford	1,364	294	5,470	1,420	426	174	31	11	58	11	83	9
Unknown	3,581	404	14,649	2,404	346	127	9	3	51	6	86	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 2012 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	1,553	123	78	5	274	85	14	4	154	67	8	3	0	0	0	0
E	732	69	66	6	288	58	26	5	72	32	6	3	21	18	2	2
F	1,010	150	44	6	953	148	41	6	248	89	11	4	85	56	4	2
J	876	98	59	6	335	78	22	5	246	69	16	5	36	29	2	2
K	3,485	365	60	6	1,623	319	28	5	610	216	11	4	72	80	1	1
M	1,843	248	58	7	663	182	21	6	584	174	18	5	101	78	3	2
ZA	1,318	184	53	7	883	168	36	6	225	97	9	4	53	50	2	2
ZB	373	68	38	7	479	72	49	7	99	41	10	4	30	23	3	2
ZC	678	105	49	7	612	102	44	7	80	44	6	3	24	26	2	2
ZD	10	3	65	17	4	2	24	13	2	2	11	13	0	0	0	0
ZE	368	74	29	6	757	85	60	6	110	45	9	4	26	23	2	2
ZF	1,592	240	50	7	1,203	225	38	7	344	139	11	4	35	47	1	1
PMH	1	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	15,494	600	57	2	8,174	524	30	2	2,818	360	10	1	484	152	2	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2012)																
ZA	7,158	489	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZB	2,952	340	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZC	4,397	405	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZD	315	115	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE	6,896	482	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZF	6,058	461	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	556	156	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	27,692	399	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 2012 Michigan turkey hunting season.^a

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
Unlimited quota hunt period (Guaranteed Hunt 234; May 7-31, 2012)																
A	496	157	70	12	120	79	17	10	92	68	13	9	0	0	0	0
E	1,034	227	80	8	187	96	14	7	60	56	5	4	15	28	1	2
F	776	197	52	9	631	177	42	9	89	68	6	4	0	0	0	0
J	660	179	60	10	180	92	16	8	237	111	22	9	15	28	1	3
K	4,595	454	71	4	1,180	240	18	3	712	190	11	3	15	28	0	0
M	81	62	64	30	16	28	12	21	31	39	24	27	0	0	0	0
ZA ^b	5,378	487	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZB ^b	1,426	266	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZC ^b	2,152	321	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZD ^b	183	96	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE ^b	4,295	441	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZF ^b	3,651	411	100	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	434	149	80	12	37	39	7	7	1	0	0	0	74	62	14	11
Subtotal	24,177	681	87	1	2,136	319	8	1	1,372	260	5	1	118	79	0	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 2012 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	23	10	92	11	0	0	0	0	2	3	8	11	0	0	0	0
E	61	16	88	8	4	4	6	6	0	0	0	0	4	4	6	6
F	19	9	75	18	6	5	25	18	0	0	0	0	0	0	0	0
J	25	10	63	16	6	5	16	12	4	4	11	10	4	4	11	10
K	181	26	78	6	27	11	12	4	17	8	7	4	6	5	3	2
M	36	12	74	13	8	6	17	11	4	4	9	8	0	0	0	0
ZA	339	35	93	3	17	8	5	2	8	6	2	2	0	0	0	0
ZB	120	22	90	5	6	5	5	4	6	5	5	4	0	0	0	0
ZC	136	23	84	6	23	10	14	6	2	3	1	2	0	0	0	0
ZD	10	7	100	0	0	0	0	0	0	0	0	0	0	0	0	0
ZE	281	32	92	3	17	8	5	3	6	5	2	2	2	3	1	1
ZF	246	30	91	4	17	8	6	3	4	4	2	2	2	3	1	1
Unknown	23	10	79	16	0	0	0	0	0	0	0	0	6	5	21	16
Subtotal	1,429	47	88	2	118	22	7	1	61	16	4	1	25	10	2	1
Statewide ^c	67,108	992	82	1	10,297	613	13	1	4,206	444	5	1	686	180	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 2012 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	8	49	22	20	0
E	9	30	42	20	0
F	9	44	20	26	1
J	15	37	33	15	0
K	11	38	35	16	0
M	11	43	27	18	1
ZA	16	26	33	22	3
ZB	11	16	46	25	1
ZC	18	20	32	29	1
ZD	39	0	33	28	0
ZE	16	17	38	28	1
ZF	11	25	41	23	1
Pure MI Hunt	0	0	0	100	0
Mean	12	33	34	20	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2012)					
ZA	16	21	48	15	1
ZB	23	25	38	14	0
ZC	17	18	49	15	1
ZD	21	9	49	17	4
ZE	23	16	47	13	1
ZF	16	28	46	10	1
Unknown	20	23	39	16	2
Mean	18	21	46	13	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 2012 Michigan turkey hunting season.

Manage- ment unit	Turkey population status (% of hunters) ^a				
	Increasing	Decreasing	Stable	Unknown	No answer
Unlimited quota hunt period (Guaranteed Hunt 234; May 7-31, 2012)					
A	9	55	20	17	0
E	15	20	42	23	0
F	9	44	27	18	1
J	9	37	37	15	1
K	8	41	34	16	1
M	14	49	25	12	0
ZA	14	25	44	17	1
ZB	20	18	47	14	1
ZC	15	26	49	10	0
ZD	33	9	40	17	0
ZE	16	18	45	20	1
ZF	17	25	45	13	0
Unknown	14	26	41	17	3
Mean	14	29	40	16	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)					
A	17	33	25	25	0
E	6	24	27	42	0
F	17	50	17	17	0
J	21	26	26	26	0
K	10	22	31	36	1
M	30	26	13	26	4
ZA	15	17	35	32	1
ZB	17	16	32	35	0
ZC	16	17	43	22	3
ZD	20	0	40	40	0
ZE	19	10	34	36	1
ZF	9	15	37	38	2
Unknown	0	21	29	43	7
Mean	14	17	33	34	1
Statewide ^b	15	28	40	17	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 2012 Michigan turkey hunting season.

Management unit	Satisfaction level (% of hunters) ^a					No answer
	Excellent	Very good	Good	Fair	Poor	
Hunt periods with quotas (General limited quota hunt periods)						
A	15	13	19	14	38	0
E	14	19	28	23	17	0
F	13	13	23	23	28	1
J	17	25	18	25	13	1
K	18	20	25	16	18	2
M	9	17	29	23	23	1
ZA	22	19	29	15	13	3
ZB	17	22	29	19	11	2
ZC	17	19	31	19	12	1
ZD	22	24	33	22	0	0
ZE	21	19	27	19	14	0
ZF	16	16	27	28	12	2
Pure MI Hunt	0	100	0	0	0	0
Mean	17	18	25	20	18	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2012)						
ZA	23	21	30	15	10	1
ZB	24	20	25	16	13	1
ZC	21	25	30	13	9	1
ZD	22	37	17	21	4	0
ZE	25	19	28	17	9	1
ZF	24	21	26	15	13	1
Unknown	5	11	34	25	23	2
Mean	23	21	28	16	11	1

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

Table 6 (continued). How hunters rated their hunting experience during the spring 2012 Michigan turkey hunting season.

2012 Michigan turkey hunting season.

Management unit	Satisfaction level (% of hunters) ^a					No answer
	Excellent	Very good	Good	Fair	Poor	
Unlimited quota hunt period (Guaranteed Hunt 234; May 7-31, 2012)						
A	11	11	38	11	29	0
E	12	20	31	21	16	0
F	10	11	25	25	29	0
J	12	20	30	18	17	3
K	10	16	29	25	19	1
M	2	25	36	26	12	0
ZA	17	17	29	20	15	2
ZB	8	26	27	21	15	2
ZC	14	22	29	22	13	0
ZD	10	40	32	1	17	0
ZE	20	18	29	21	11	1
ZF	17	25	28	17	14	0
Unknown	14	11	25	22	23	5
Mean	14	19	29	21	16	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)						
A	50	17	8	8	17	0
E	39	27	24	9	0	0
F	17	8	42	25	8	0
J	37	26	26	0	11	0
K	29	18	29	13	11	0
M	43	22	22	9	4	0
ZA	34	15	36	8	7	1
ZB	25	22	32	14	5	2
ZC	26	18	38	9	8	1
ZD	20	60	0	20	0	0
ZE	33	22	30	10	4	1
ZF	29	22	30	16	3	1
Unknown	0	7	36	36	7	14
Mean	31	20	30	12	6	1
Statewide ^b	18	19	28	19	15	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 2012 Michigan turkey hunting season.

Manage-ment unit	Interference level (% of hunters) ^a				
	None	Minor	Some irritation	Major problem	No answer
Hunt periods with quotas (General limited quota hunt periods)					
A	82	10	5	2	1
E	75	17	6	1	1
F	77	15	5	2	1
J	65	25	6	2	1
K	68	22	8	0	1
M	69	23	8	1	0
ZA	74	19	3	2	2
ZB	60	27	10	3	0
ZC	60	23	14	2	1
ZD	78	0	11	11	0
ZE	59	25	12	4	0
ZF	62	23	11	3	1
Pure MI Hunt	100	0	0	0	0
Mean	70	20	8	2	1
Hunt 301 with quota (Private lands in Management Unit ZZ; April 23-May 6, 2012)					
ZA	74	18	6	2	1
ZB	69	18	10	3	1
ZC	65	24	9	1	1
ZD	59	37	4	0	0
ZE	74	17	7	1	1
ZF	75	17	6	2	0
Unknown	66	14	14	2	5
Mean	72	18	7	2	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 2012 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 7-31, 2012)					
A	85	11	4	0	0
E	85	11	5	0	0
F	78	11	9	2	0
J	69	23	4	3	1
K	72	18	8	2	1
M	65	23	0	12	0
ZA	76	19	4	1	1
ZB	65	26	7	1	1
ZC	69	22	6	3	0
ZD	83	0	17	0	0
ZE	79	16	3	1	1
ZF	69	21	8	2	1
Unknown	58	17	8	8	8
Mean	73	18	6	2	1
Mentored hunts (youth hunters nine years old and younger could hunt during any open season)					
A	83	8	8	0	0
E	79	18	3	0	0
F	83	8	8	0	0
J	68	11	21	0	0
K	79	15	6	0	0
M	91	4	4	0	0
ZA	83	11	5	1	0
ZB	78	10	11	2	0
ZC	71	17	9	1	1
ZD	100	0	0	0	0
ZE	80	14	6	0	0
ZF	80	13	6	1	0
Unknown	71	14	7	0	7
Mean	80	13	7	0	0
Statewide ^b	72	19	7	2	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 2012 spring turkey hunting season, by hunt periods.

Variable	Hunt periods beginning									
	April 23		April 30		May 7		May 14		All periods ^a	
	Estimate	95%	Estimate	95%	Estimate	95%	Estimate	95%	Estimate	95%
		CL		CL		CL		CL		CL
Hunting efforts (days)	164,022	4,984	20,453	1,818	146,090	6,192	7,928	1,312	338,493	7,921
Number of hunters	43,304	680	6,338	459	30,801	697	1,854	213	82,297	866
Successful hunters (n)	18,084	717	2,045	324	10,744	644	505	128	31,377	998
Successful hunters (%)	42	2	32	5	35	2	27	6	38	1
Noninterfered hunters (n) ^b	39,130	734	5,705	451	28,043	726	1,672	206	74,551	974
Noninterfered hunters (%) ^b	90	1	90	3	91	1	90	4	91	1
Favorable rating (n) ^c	29,574	773	3,805	406	19,089	748	1,168	179	53,637	1,084
Favorable rating (%) ^c	68	1	60	5	62	2	63	7	65	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 2011 and 2012 Michigan spring turkey hunting seasons, summarized by regions.

Region ^a	Hunters (No.) ^b					Hunting efforts (days)					Harvest (No.)				
	2011		2012		Change (%)	2011		2012		Change (%)	2011		2012		Change (%)
	Total	95% CL	Total	95% CL		Total	95% CL	Total	95% CL		Total	95% CL	Total	95% CL	
UP	3,543	282	3,183	237	-10	19,455	2,893	18,551	2,935	-5	1,205	246	988	208	-18
NLP	23,220	786	23,249	700	0	99,623	5,243	94,084	4,580	-6	7,511	582	7,472	550	-1
SLP	54,572	967	52,861	872	-3	247,918	7,813	211,209	6,449	-15*	21,606	856	22,571	834	4
Unknown	3,717	420	3,581	404		16,997	2,619	14,649	2,404		266	114	346	127	
Total	84,125	957	82,297	866	-2*	383,994	9,184	338,493	7,921	-12*	30,587	1,035	31,377	998	3

^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 2011 and 2012 Michigan spring turkey hunting season, summarized by regions.

Region ^a	Hunter success					Hunter satisfaction ^b					Noninterfered hunters ^c				
	2011		2012		Difference (%)	2011		2012		Difference (%)	2011		2012		Difference (%)
	%	95% CL	%	95% CL		%	95% CL	%	95% CL		%	95% CL	%	95% CL	
UP	34	7	31	6	-3	56	7	56	7	0	94	3	91	4	-2
NLP	32	2	32	2	0	53	2	58	2	5*	91	1	91	1	0
SLP	40	1	43	1	3*	67	1	70	1	3*	90	1	91	1	0
Total	36	1	38	1	2	62	1	65	1	3*	91	1	91	1	0

^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, 2010-2012.

Year	Number of turkey harvested by device								Hunter success by device ^a					
	Firearm		Crossbows		Other bows ^b		Unknown		Firearm		Crossbows		Other bows ^b	
	95%		95%		95%		95%		95%		95%		95%	
	Total	CL	Total	CL	Total	CL	Total	CL	%	CL	%	CL	%	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

^aHunters harvesting a turkey.

^bIncluded longbows, recurve, and compound bows.

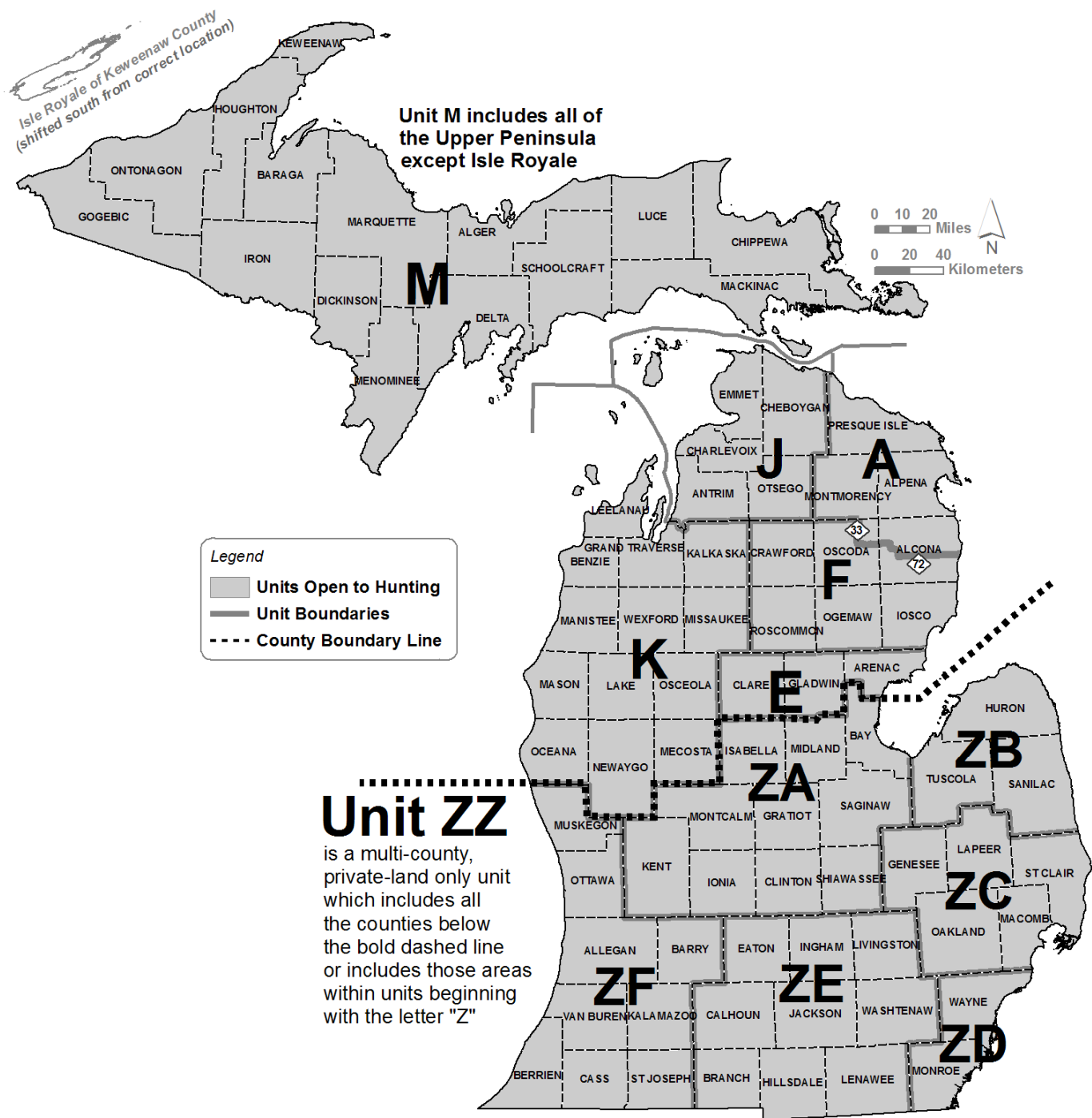


Figure 1. Management units in Michigan open to spring turkey hunting in 2012.

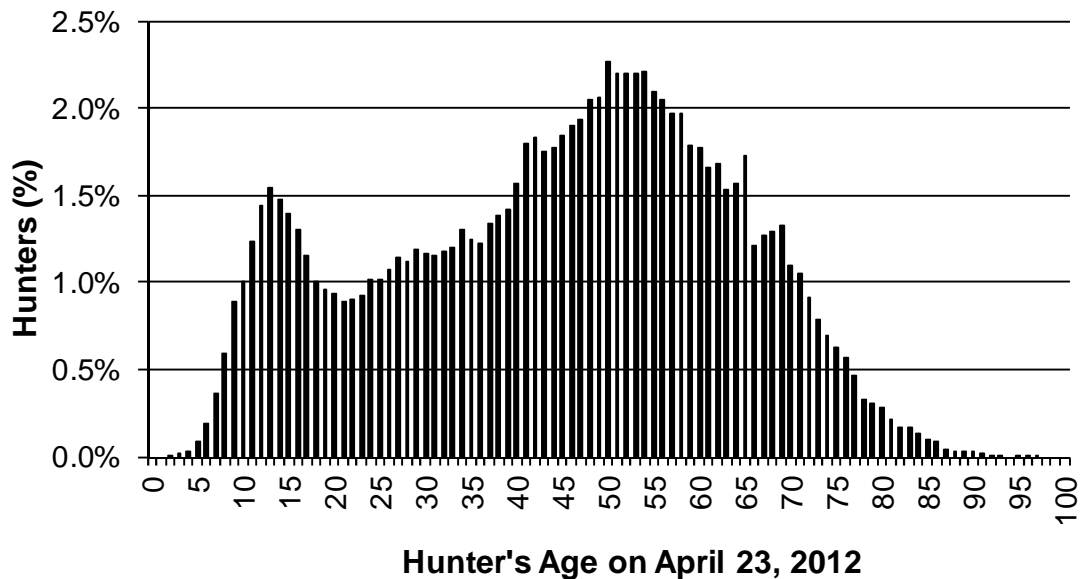


Figure 2. Age of people that purchased a turkey hunting license in Michigan for the 2012 spring hunting season ($\bar{x} = 44$ years). Licenses were purchased by 102,299 people.

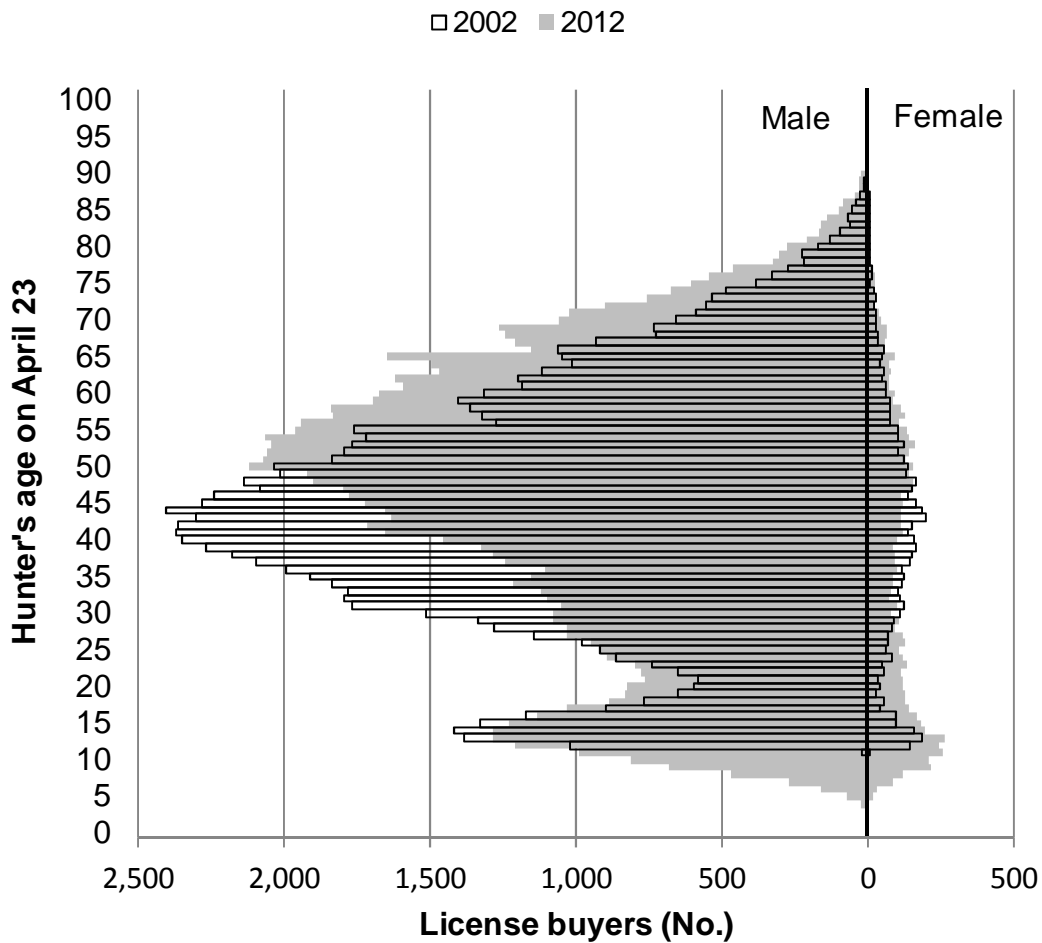


Figure 3. Number of spring turkey hunting license buyers in Michigan by age and sex during 2002 and 2012 hunting seasons. The number of people buying a license was 98,306 in 2002 and 102,299 in 2012.

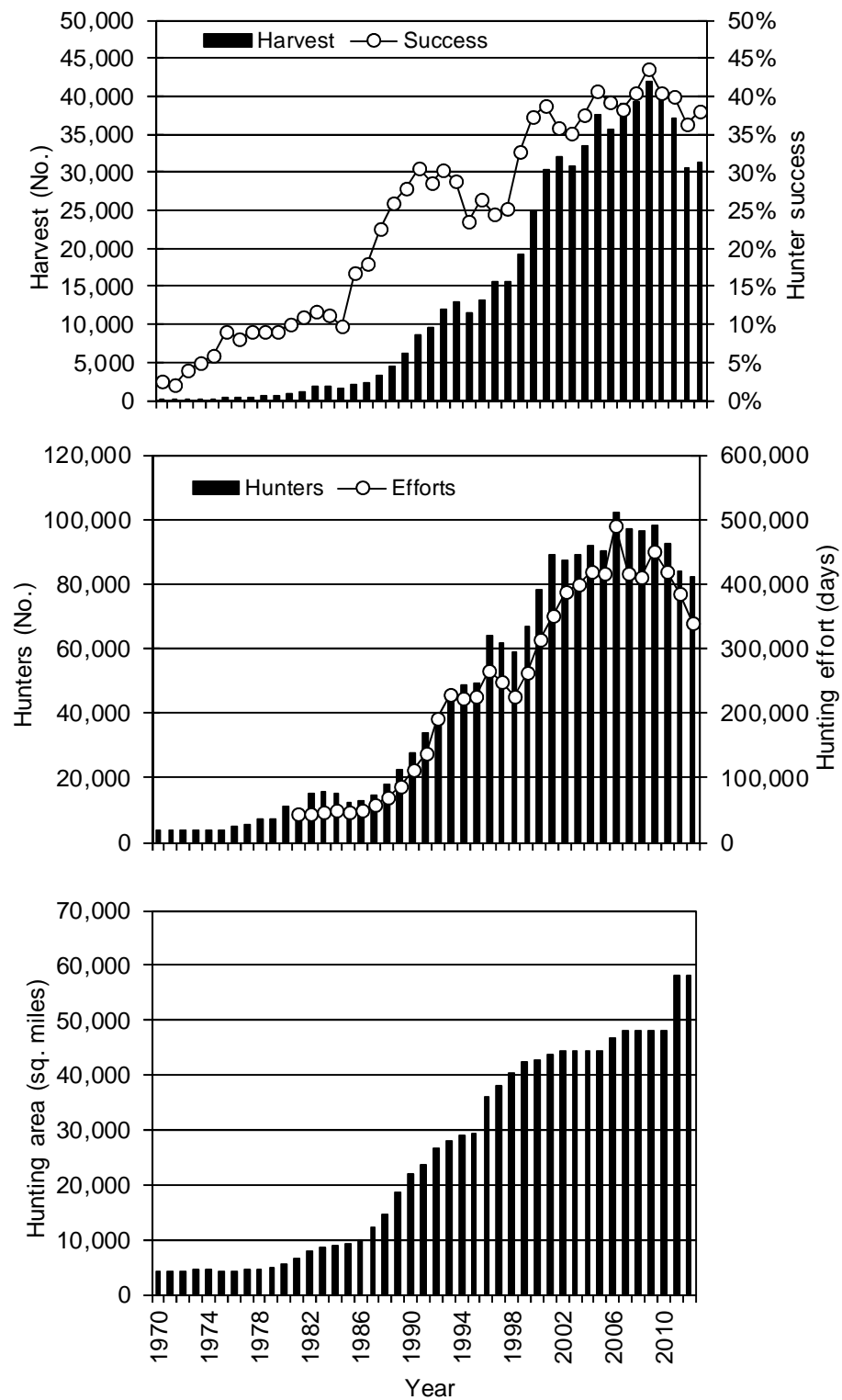


Figure 4. Estimated number of hunters, harvest, hunting efforts, hunter success, and area open to hunting during the Michigan spring turkey hunting season, 1970-2012. Estimates of hunting effort generally were not available before 1981.

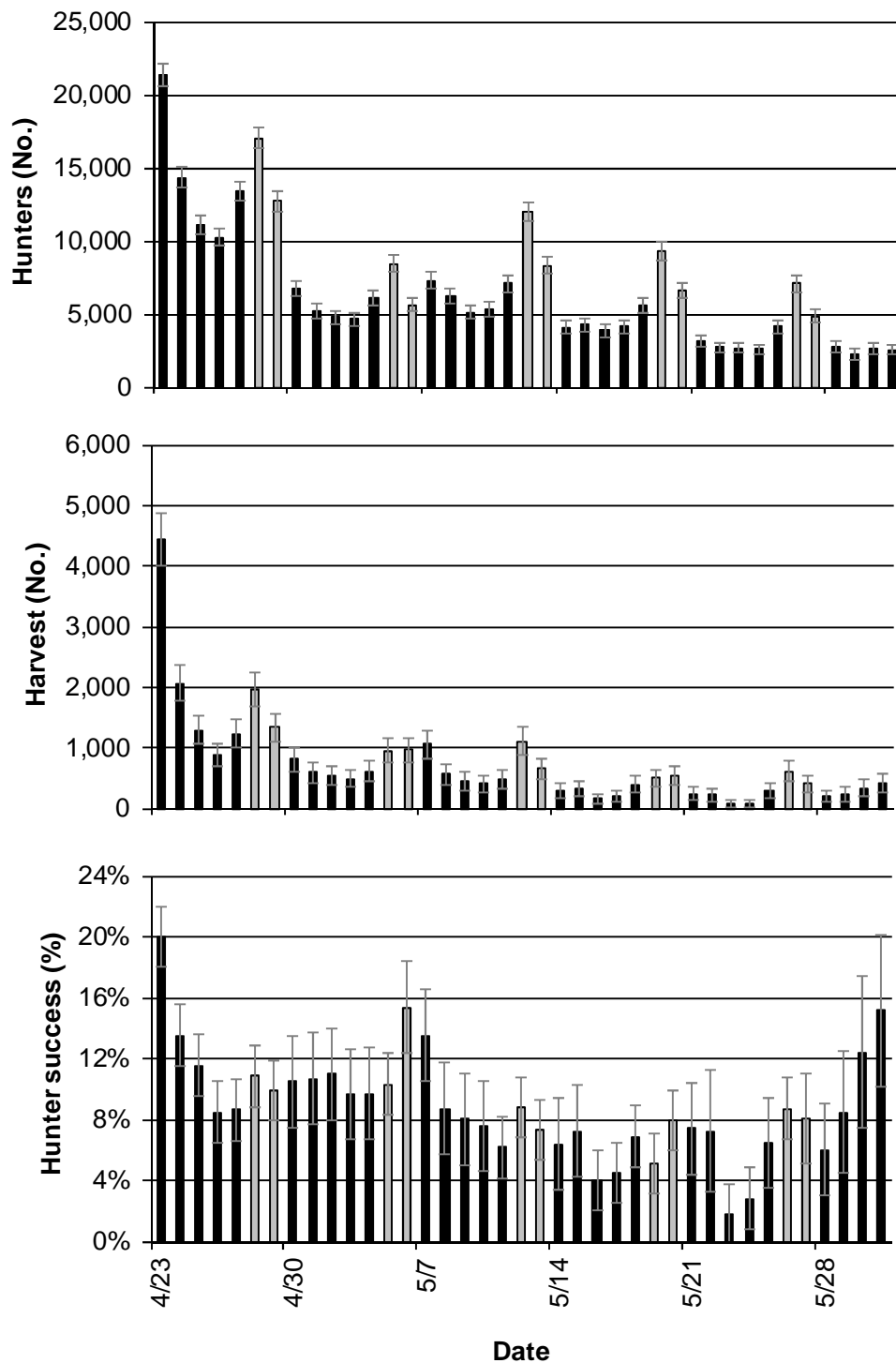


Figure 5. Estimated number of hunters, harvest, and hunter success by date during the 2012 Michigan spring turkey hunting season (includes all hunts). An additional $2,983 \pm 380$ birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

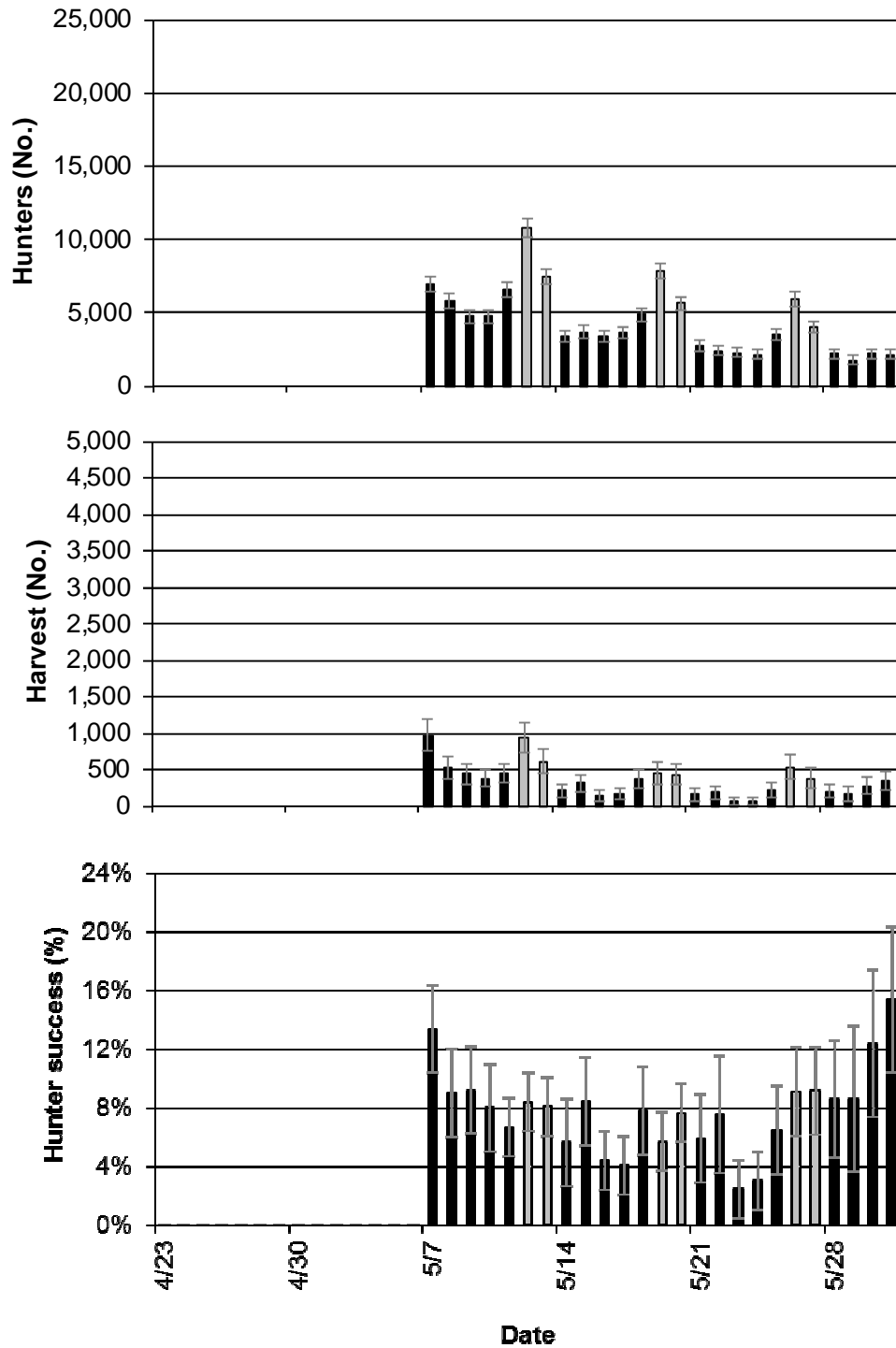


Figure 6. Estimated number of hunters, harvest, and hunter success by date during Hunt 234 of the 2012 Michigan spring turkey hunting season (May 7-31). An additional $1,521 \pm 275$ birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

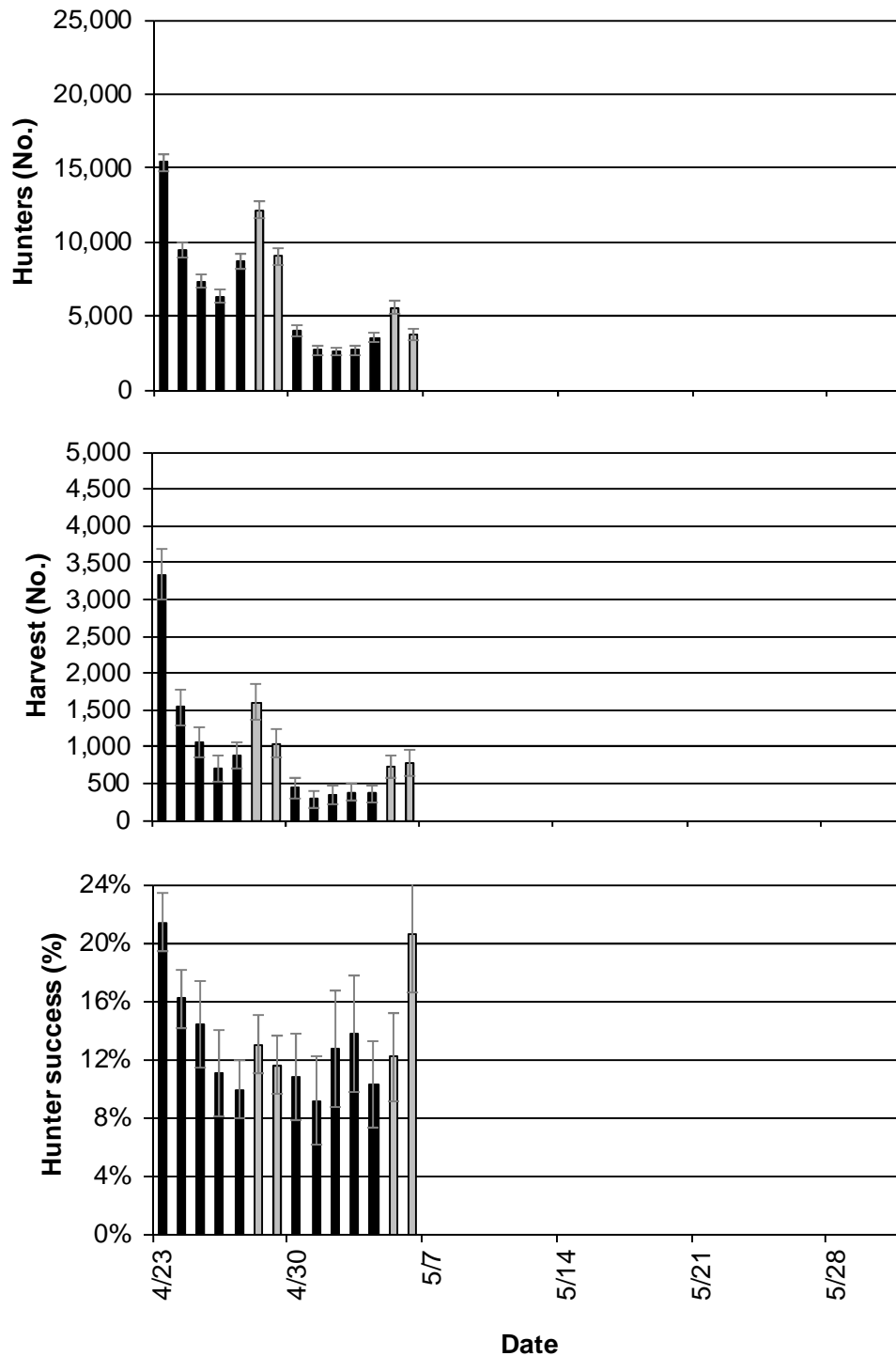


Figure 7. Estimated number of hunters, harvest, and hunter success by date during Hunt 301 of the 2012 Michigan spring turkey hunting season (April 23-May 6). An additional 968 ± 203 birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

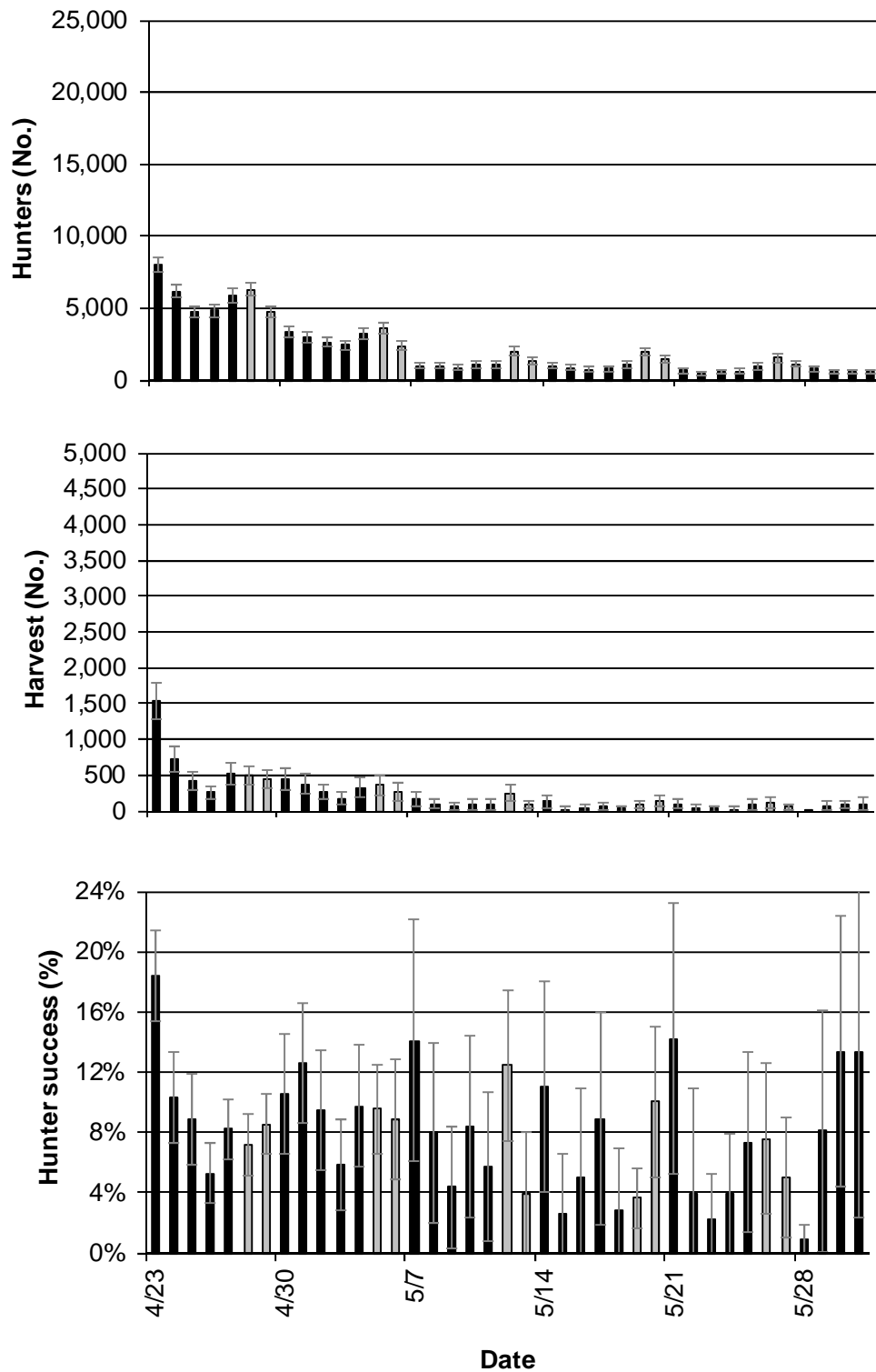


Figure 8. Estimated number of hunters, harvest, and hunter success by date during all hunts, except for mentored youth hunts and hunts 234 and 301 of the 2012 Michigan spring turkey hunting season. An additional 480 ± 167 birds were taken on unknown dates. Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval.

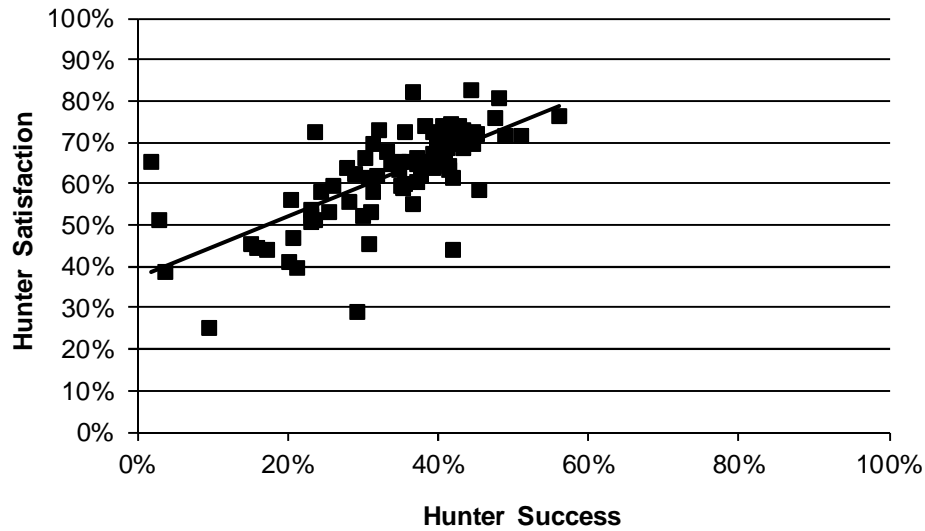


Figure 9. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter success for each of 81 counties in Michigan during the 2012 spring turkey hunting season (included only counties with at least 30 hunters).

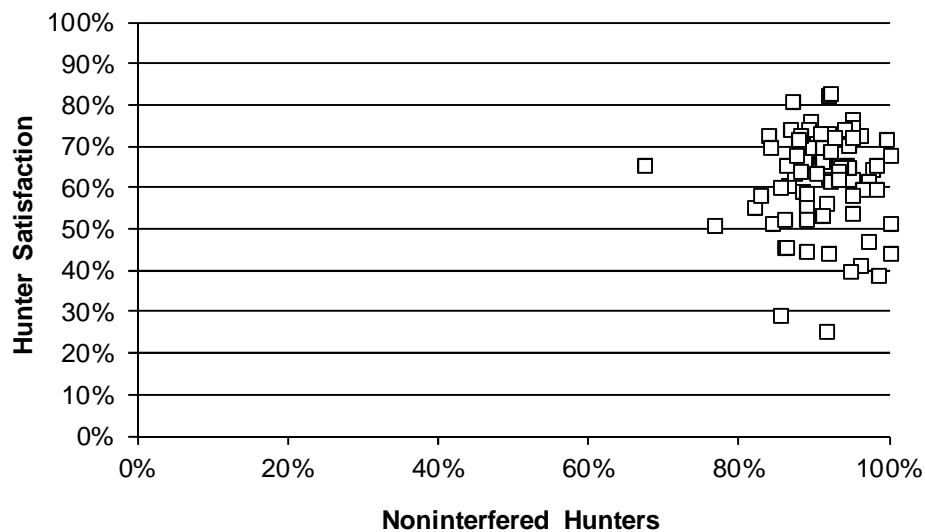


Figure 10. Relationship between hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) and hunter interference for each of 81 counties in Michigan during the 2012 spring turkey hunting season (included only counties with at least 30 hunters). Noninterfered hunters were the proportion of hunters that indicated that they experienced no or only minor interference from other hunters.