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2012 MICHIGAN FALL TURKEY HUNTER SURVEY

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ABSTRACT

A survey of turkey hunters was conducted following the 2012 fall hunting season to determine turkey harvest and hunter participation. In 2012, 30,620 people purchased 32,271 licenses for the fall turkey hunting season, which was 44% greater than in 2011 (22,386 licenses sold in 2011). This increase in license sales primarily reflected the creation of the Mentored Youth Hunt license in 2012. Excluding these Mentored Youth Hunt licenses, 21,001 hunters purchased 22,580 licenses in 2012, which was nearly unchanged from 2011. Most license buyers (96%) purchased a single hunting license. During the 2012 fall hunt, about 15,558 hunters spent 96,128 days afield pursuing turkeys. The number of people pursuing turkeys in 2012 was not significantly different from 2011; however, their hunting effort decreased significantly by 7% from 2011. About 36% of active hunters successfully harvested a turkey in 2012, and they harvested an estimated 6,042 turkeys. The number of turkeys harvested increased significantly by 28% from 2011 (4,724 turkeys harvested in 2011), and hunter success in 2012 also was significantly greater than 2011 (28% in 2011). About 61% of the hunters in 2012 rated their hunting experience as excellent, very good, or good (versus 56% satisfaction in 2011). Changes in hunter satisfaction between years generally parallel changes in hunter success. Between 2011 and 2012, both hunter success and satisfaction increased significantly.



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INTRODUCTION

Fall wild turkey (*Meleagris gallopavo*) hunting seasons were implemented in Michigan to help maintain turkey populations at levels matching biological and social carrying capacities. In 2012, 8 management units totaling about 36,078 square miles were open for fall turkey hunting during September 15 through November 14 (Figure 1).

Most 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 501 without going through the lottery. Applicants could choose one hunt area for the drawing. Any licenses available after the drawing was completed were made available on a first-come, first-served basis to applicants unsuccessful in the drawing. Beginning one week after licenses were available to unsuccessful applicants, all remaining licenses were made available to nonapplicants. Licenses were available for five management units (units HA, L, M, W, and YY) after the drawing was completed (Table 1). Hunters could purchase one of these remaining licenses per day until quotas were met.

Licenses for Hunt 407 (Unit HA) and Hunt 501 (Unit YY) were valid on private lands only, while licenses for hunts 401, 402, 403, 404, 405 and 406 (units G, GB, GC, L, M, and W) were valid on either land ownership types (i.e., public or private land). Hunters were allowed to take one turkey of either sex with the harvest tag issued with each license. Turkey could be harvested with a shotgun, crossbow, or archery equipment. Hunters 12-years-old or older could use a crossbow 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.

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 Pure Michigan Hunt (PMH) was a unique multi-species hunting opportunity offered for the first time in 2010. 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 fall turkey hunting licenses were valid for all areas open for hunting turkey.

The Natural Resources Commission and DNR have the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Harvest surveys are one of the management tools used to meet their statutory responsibility. Estimating

harvest, hunting effort, and hunter satisfaction are among the primary objectives of these surveys.

METHODS

The DNR provided hunters the option to voluntarily report information about their turkey hunting activity via the internet. This option was advertised in the hunting regulations booklet, on the DNR website, and in an email message that was sent to licensees that had provided an email address to the DNR. Hunters could report information anytime during the hunting season. Hunters reported whether they hunted, number of days spent afield, and how many turkeys they harvested. Successful hunters also were asked to report where their turkeys were taken (public or private land) and beard length of harvested birds. Birds with a beard <4 inches long were classified as juveniles (<1 year old), while birds with longer beards were adults (≥ 1 year old) (Kelly 1975). Finally, hunters rated their overall hunting experience (excellent, very good, good, fair, or poor).

The harvest survey for the 2012 and 2013 seasons were combined and delivered following the 2013 fall turkey hunting season. Thus, the survey for the 2012 season was done one year after the season had occurred. A questionnaire was sent to 12,907 randomly selected people that had purchased a 2012 turkey hunting license (resident turkey, senior resident turkey, nonresident turkey, Mentored Youth Hunt, Pure Michigan 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 11 strata (Cochran 1977). Strata 1-8 consisted of hunters with licenses for a single management unit ($N_G=115$; $N_{GB}=144$; $N_{GC}=120$; $N_{HA}=1,063$; $N_L=669$; $N_M=1,056$; $N_W=132$; and $N_{YY}=17,238$). The ninth stratum included hunters obtaining only a Pure Michigan Hunt license ($N=2$). The tenth stratum consisted of hunters having licenses for multiple management units ($N=152$). Finally, hunters that had voluntarily reported information about their hunting activity via the internet before the mail survey sample was selected were treated as the eleventh stratum ($N=311$).

Because estimates were based on information collected from random samples of hunting license buyers, these estimates were subject to sampling errors (Cochran 1977). Thus, a 95% confidence limit (CL) was calculated for each estimate. In theory, this CL can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies the true value would be within this interval 95 times out of 100. Unfortunately, there are several other possible sources of error in surveys that are probably more serious than theoretical calculations of sampling error. They include failure of participants to provide answers (nonresponse bias), question wording, and question order. It is very difficult to measure these biases; thus, estimates were not adjusted for these possible biases.

Statistical tests are used routinely to determine the likelihood that the 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, if the study had been repeated (Payton et al. 2003).

Questionnaires were mailed initially during mid-December 2013, and up to two follow-up questionnaires were mailed to nonrespondents. Although 12,907 people were sent the questionnaire, 289 surveys were undeliverable resulting in an adjusted sample size of 12,618. Questionnaires were returned by 7,222 people, yielding a 57% adjusted response rate. In addition, 311 people voluntarily reported information about their hunting activity via the internet.

RESULTS

In 2012, the DNR offered 50,050 licenses for sale (same as in 2011), excluding Pure Michigan Hunt and Mentored Youth Hunt licenses (Table 1). A total of 2,040 licenses were purchased by people successful in the drawing, and another 633 leftover licenses were purchased by people that had applied for a hunt in the drawing. A total of 19,904 licenses were purchased by people that had not entered into the drawing. In addition, 3 people were awarded a Pure Michigan Hunt license, and 9,691 youth obtained a turkey hunting license when they obtained their Mentored Youth Hunt license.

Overall, 30,620 people purchased 32,271 licenses in 2012 (versus 22,386 licenses in 2011). The number of licenses sold in 2012 increased by 44% from 2011. This increase in license sales primarily reflected the creation of the Mentored Youth Hunt license (Table 1). Excluding the Mentored Youth Hunt licenses, 21,001 hunters purchased 22,580 licenses in 2012, which was nearly unchanged from 2011.

Excluding people obtaining a Mentored Youth Hunt license, the average age of the 21,001 license buyers was 48 years (Figure 2), and about 7% of the license buyers were younger than 17 years old (1,564). Hunters with a Mentored Youth Hunt license were excluded because only $18 \pm 2\%$ of them actually hunted (Table 2).

Including all license types, most license buyers (96%) purchased a single hunting license in 2012 (Figure 3). About 3% of hunters purchased 2 licenses and about 1% of hunters purchased 3 or more licenses.

Excluding people obtaining a Mentored Youth Hunt license, the number of people buying a license in 2012 (21,001) decreased by about 4% in ten years from 2002 (21,951 people purchased a license in 2002). There were fewer license buyers for most age classes between 26 and 50 years of age in 2012, compared to 2002 (Figure 4). 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 likely reflected the lowering of the minimum age

requirements. In 2012, hunters had to be at least 10 years old to participate (excluding Mentored Youth Hunts); while the hunters had to be at least 12 years old to participate in 2002.

In 2012, about 15,558 hunters spent 96,128 days afield pursuing turkeys ($\bar{x} = 6.2 \pm 0.2$ days/hunter) (Tables 3 and 4, Figure 5). The number of people pursuing turkeys in 2012 was not significantly different from 2011; however, their hunting effort decreased significantly by 7% from 2011. About 93% of the hunters that went afield were males ($14,501 \pm 283$) and 7% of the hunters were females ($1,058 \pm 121$).

About 36% of active hunters successfully harvested a turkey in 2012, and they harvested an estimated 6,042 turkeys (Tables 5 and 6). The number of turkeys harvested increased significantly by 28% from 2011 (4,724 turkeys harvested in 2011), and hunter success in 2012 was significantly greater than in 2011 (Figure 5). Among the 5,677 hunters that took at least one turkey, 95% ($5,390 \pm 230$) of these hunters took one turkey, 4% (223 ± 53) took 2 turkeys, and less than 1% took more than 2 turkeys (Figure 6). Hunter success was statistically greater for hunters using private lands than for hunters using public lands in 2012 (37% versus 21%, Table 5).

About 95% ($14,800 \pm 286$) of turkey hunters hunted solely on private land, 3% (529 ± 49) hunted on public land only, and 1% (216 ± 32) hunted on both private and public lands. Additionally, less than 1% of hunters (14 ± 11) hunted on land of unknown ownership. Of the 6,042 turkeys harvested in 2012, 97% of these birds were taken on private land (5,875), while about 3% of the harvest (165) was taken on public land (Table 6). About 55% of the harvested birds had a beard ($3,919 \pm 216$). Most of these bearded birds (85%) were adults ($3,324 \pm 200$); 15% were juvenile birds (595 ± 88).

Of the 15,558 turkey hunters in 2012, nearly 61% rated their hunting experience as either excellent, very good, or good (Table 7). Satisfaction was statistically greater for hunters using private lands than for hunters using public lands (62% versus 52%). Changes in hunter satisfaction between years generally parallel changes in hunter success (Figure 7). Between 2011 and 2012, hunter success increased significantly (28% in 2011 versus 36% in 2012), and satisfaction increased significantly (56% in 2011 versus 61% in 2012).

Hunter numbers were greatest in Lapeer, Tuscola, Sanilac, and St. Clair counties; these counties had more than 550 hunters (Table 8). Harvest was greatest in Tuscola, Genesee, Lapeer, Sanilac, and Kent counties; these counties had more than 200 turkeys taken by hunters.

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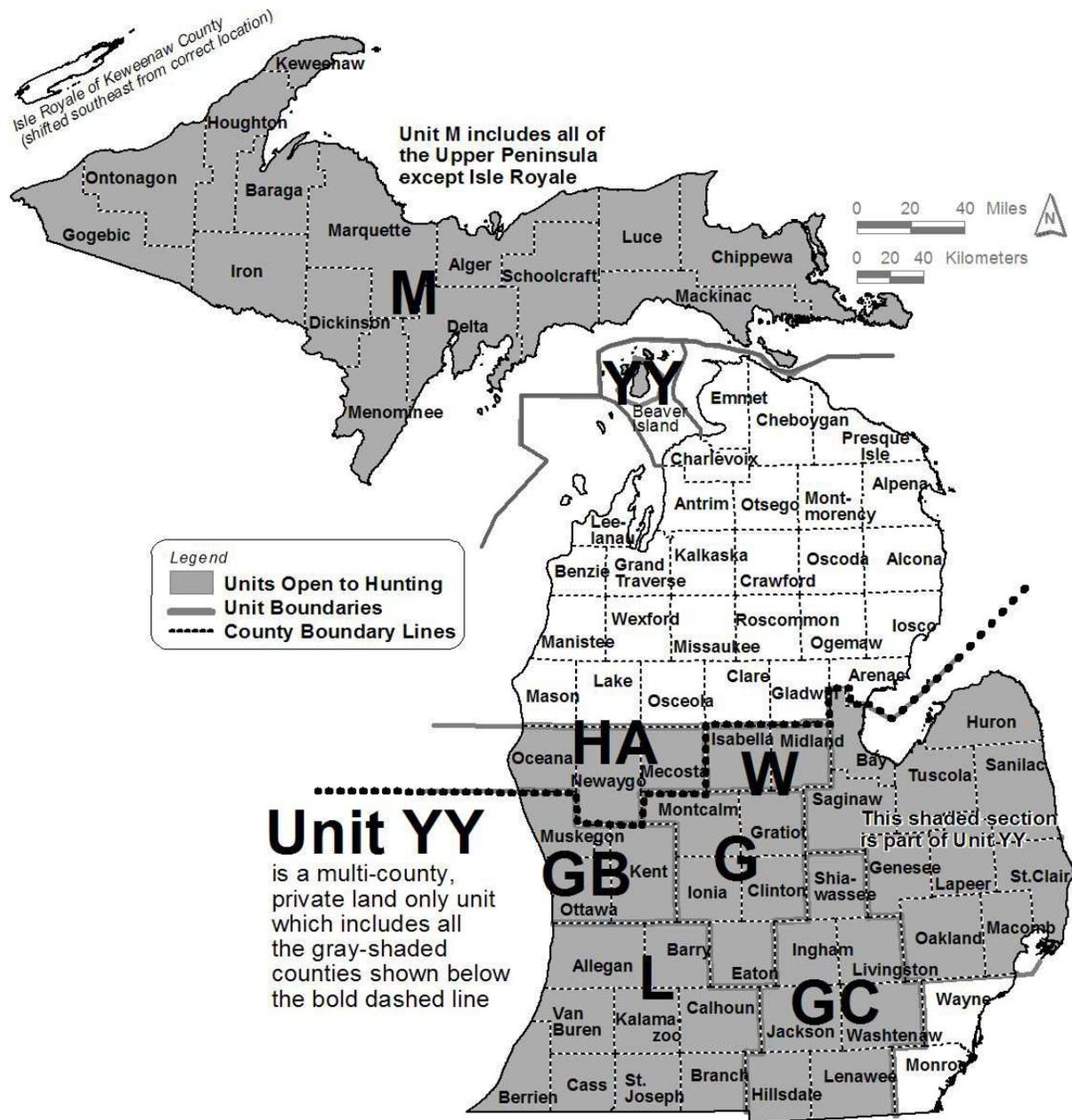


Figure 1. Management units open for fall turkey hunting in Michigan, 2012.

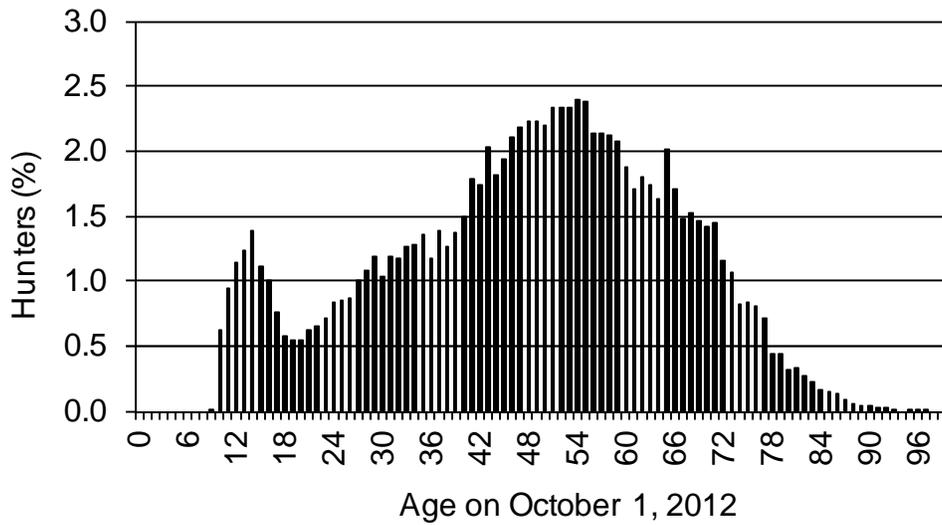


Figure 2. Age of people that purchased a turkey hunting license in Michigan for the 2012 fall hunting season ($\bar{x} = 48$ years). Licenses were purchased by 21,001 people, excluding Mentored Youth Hunting license buyers.

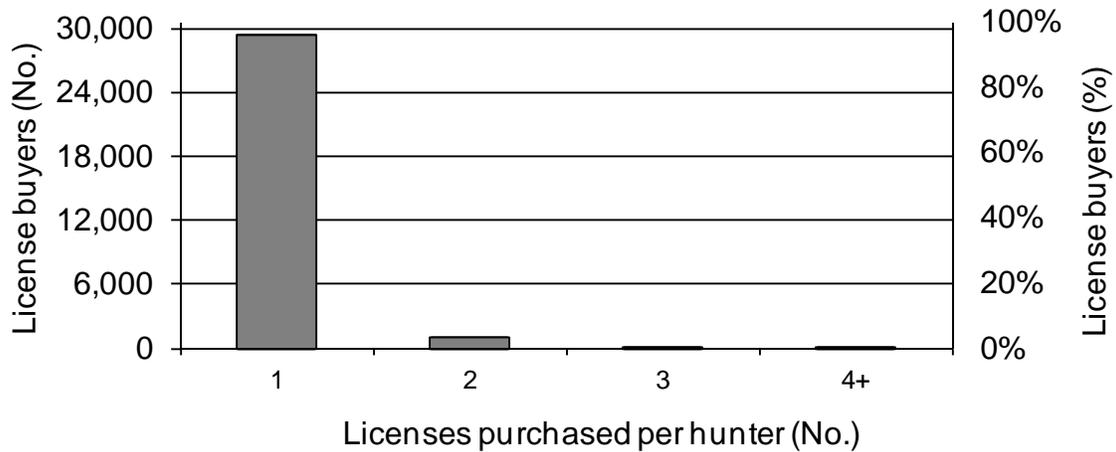


Figure 3. Number of licenses purchased per person for hunting turkey in Michigan during the 2012 fall hunting season (included all hunting license types).

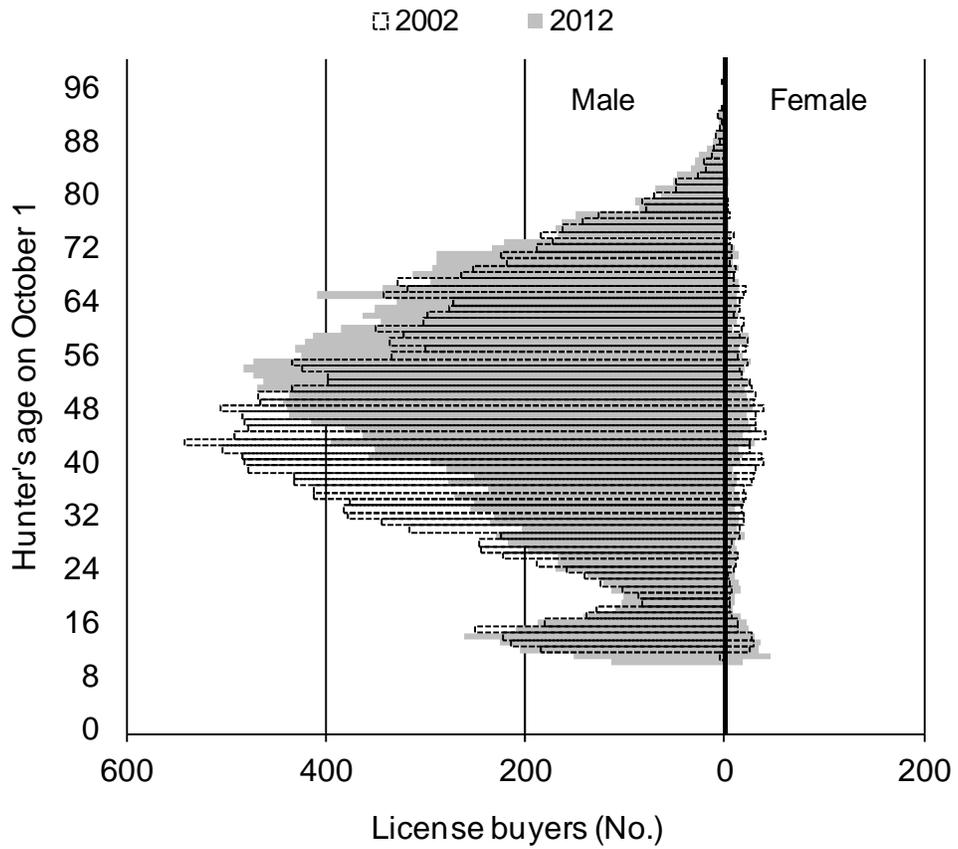


Figure 4. Number of fall turkey hunting license buyers in Michigan by age and sex during 2002 and 2012 hunting seasons, excluding Mentored Youth Hunt licenses. The number of people buying a license was 21,951 in 2002 and 21,001 in 2012.

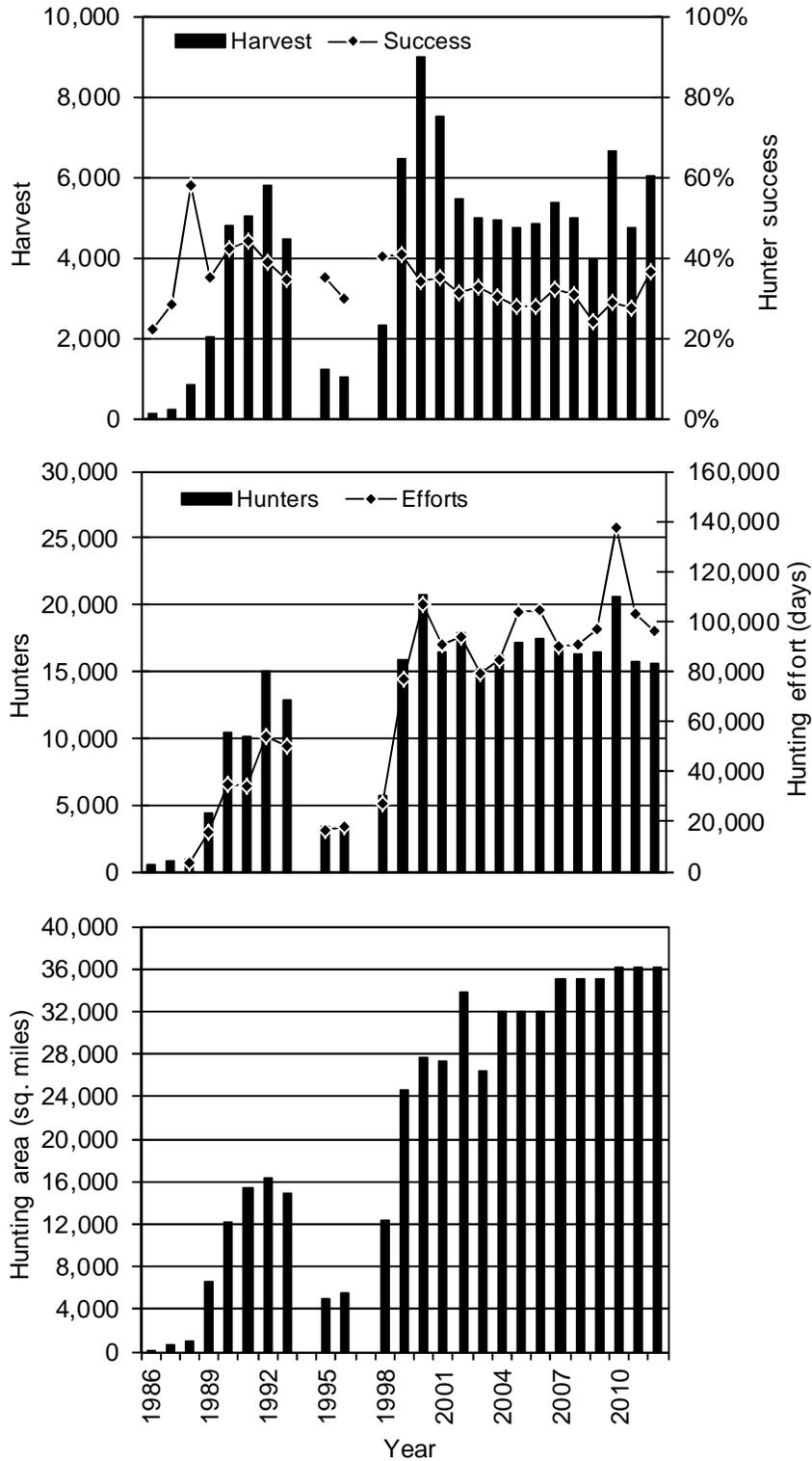


Figure 5. Number of hunters, hunting efforts (days), harvest, hunting success, and hunting area during the fall turkey hunting season, 1986-2012. Turkeys were not hunted during the fall in 1994 and 1997.

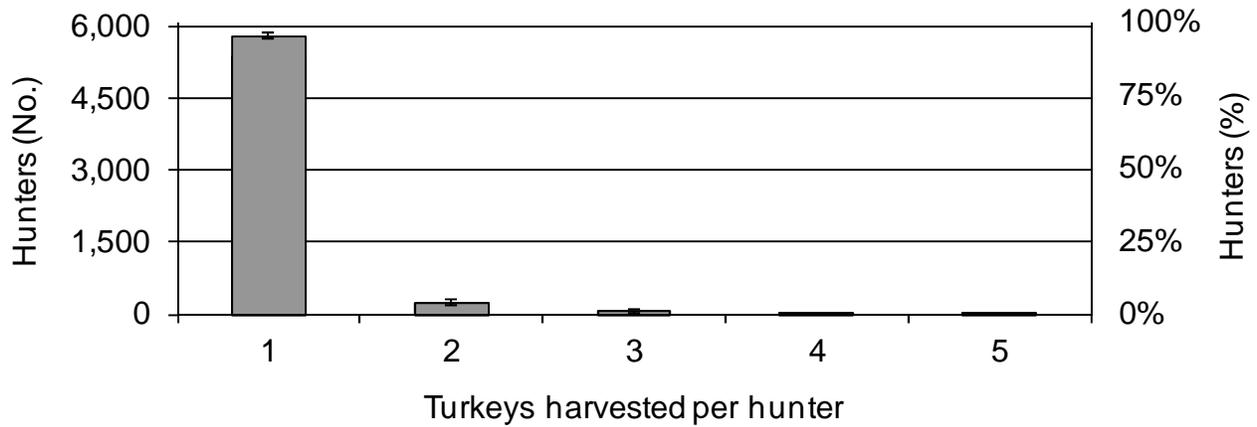


Figure 6. Number of turkeys harvested per successful hunter in Michigan during the 2012 fall hunting season.

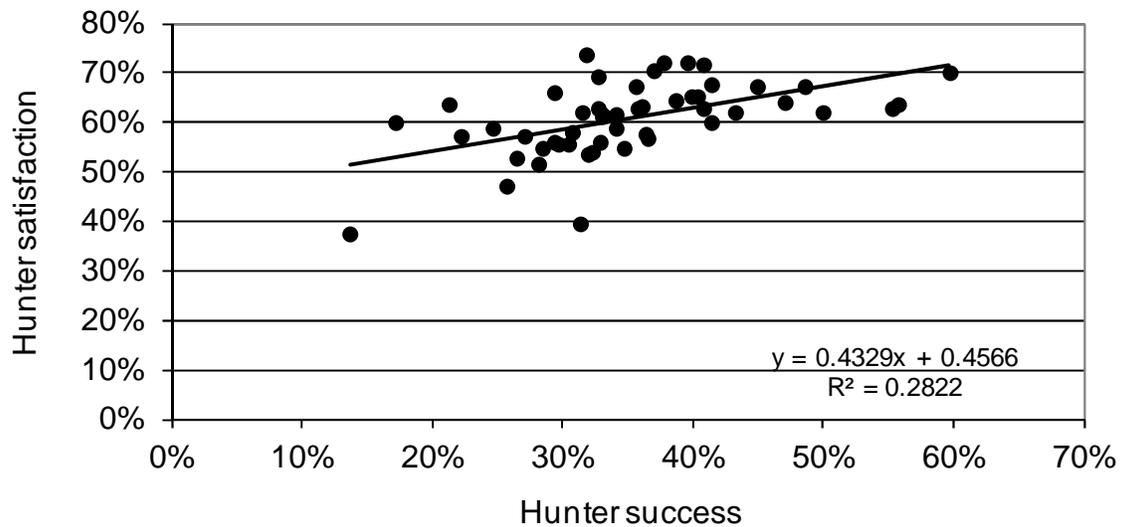


Figure 7. Hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) associated with hunter success for each of 51 counties in Michigan during the 2012 fall turkey hunting season (only included counties with at least 20 hunters).

Table 1. Number of hunting licenses available and people applying for licenses during the 2012 Michigan fall turkey hunting season.

Management unit	Hunt	Licenses available (quota) ^a	Number of eligible applicants	Number of applicants successful in drawing	Number of licenses remaining after drawing	Number of licenses purchased by successful applicants	Number of leftover licenses purchased by applicants	Number of leftover licenses purchased by people not in the drawing	Licenses sold
G	401	200	302	200	0	127	0	0	127
GB	402	250	276	250	0	160	0	0	160
GC	403	200	858	200	0	134	0	0	134
HA ^b	407	1,700	1,108	1,108	592	698	78	439	1,215
L	404	1,000	582	582	418	399	41	337	777
M	405	1,500	612	612	888	413	62	730	1,205
W	406	200	160	160	40	109	4	32	145
YY ^b	501	45,000	0	0	45,000	0	448	18,366	18,814
Pure MI ^c	NA ^c	0	0	0	0	0	0	0	3
Mentored ^d	NA ^d	0	0	0	0	0	0	0	9,691
Statewide	All	50,050	3,898	3,112	46,938	2,040	633	19,904	32,271

^aQuotas were assigned by hunts within each management unit.

^bLicenses were valid on private lands only.

^cPure Michigan Hunt. These hunters could hunt in any management unit.

^dMentored Youth Hunt. These hunters could hunt in any management unit.

Table 2. Number of hunters, hunting effort, harvest, hunter success, and hunter satisfaction during the 2012 Michigan fall turkey hunting season, summarized for hunters that obtained a Mentored Youth Hunt license.

Hunters		Hunting efforts (days)		Harvest		Hunter success		Hunter satisfaction ^a	
Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL
1,714	157	6,307	784	347	77	20	4	63	5

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

Table 3. Number of hunters during the 2012 Michigan fall turkey hunting season.

Area and hunting license	Land type							
	Private		Public		Unknown		All land types	
	Total	95% CL	Total	95% CL	Total	95% CL	Total ^a	95% CL
G – 401	50	7	33	6	1	2	78	7
G – 501 ^b	1,050	119	0	0	0	0	1,050	119
G – MYH ^c	134	48	6	10	0	0	139	49
G – Multiple ^d	25	3	6	2	0	0	31	4
G – Subtotal	1,259	128	45	12	1	2	1,298	129
GB – 402	67	8	42	8	0	0	100	8
GB – 501 ^b	880	109	0	0	0	0	880	109
GB – MYH ^c	139	49	22	20	0	0	156	52
GB – Multiple ^d	33	5	4	2	0	0	37	6
GB – Subtotal	1,120	120	69	21	0	0	1,174	121
GC – 403	28	6	38	7	0	0	64	7
GC – 501 ^b	2,406	172	0	0	0	0	2,406	172
GC – MYH ^c	234	63	6	10	0	0	240	64
GC – Multiple ^d	52	5	1	0	0	0	53	5
GC – Subtotal	2,720	183	45	12	0	0	2,763	184
HA – 407 ^b	674	31	0	0	0	0	674	31
HA – MYH ^c	106	43	0	0	0	0	106	43
HA – Multiple ^d	45	5	0	0	0	0	45	5
HA – Subtotal	825	53	0	0	0	0	825	53
L – 404	295	23	210	22	0	0	459	22
L – 501 ^b	2,288	168	0	0	0	0	2,288	168
L – MYH ^c	179	56	0	0	0	0	179	56
L – Multiple ^d	89	7	17	4	1	2	99	7
L – Subtotal	2,850	179	227	22	1	2	3,025	179
M – 405	479	34	269	29	4	4	638	33
M – MYH ^c	123	46	22	20	0	0	139	49
M – Multiple ^d	22	5	12	3	0	0	31	5
M – Subtotal	624	57	304	36	4	4	809	59
W – 406	59	8	16	5	0	0	73	8
W – 501 ^b	461	80	0	0	0	0	461	80
W – MYH ^c	56	31	0	0	0	0	56	31
W – Multiple ^d	13	2	0	0	0	0	13	2
W – Subtotal	589	86	16	5	0	0	604	86
EYY ^e – 501 ^b	4,002	209	0	0	0	0	4,002	209
EYY – MYH ^c	524	93	0	0	0	0	524	93
EYY – Multiple ^d	85	3	0	0	0	0	85	3
EYY – Subtotal	4,611	229	0	0	0	0	4,611	229
Unk YY ^f – 501 ^b	551	87	0	0	0	0	551	87
Unk YY – MYH ^c	162	53	39	26	6	10	206	60
Unk YY – Multiple ^d	15	3	2	2	0	0	17	3
Unk YY – Subtotal	727	102	41	26	6	10	775	106
Statewide total ^a	15,003	286	745	56	13	11	15,558	288

^aNumber of hunters may not add up to total because hunters could hunt on both private and public lands.

^bLicenses were valid on private lands only.

^cMentored Youth Hunt. These hunters could hunt in any management unit.

^dHunters that purchased multiple hunting licenses for multiple hunting areas.

^eIncluded Bay, Genesee, Huron, Lapeer, Macomb, Oakland, Saginaw, Sanilac, St Clair, and Tuscola counties within Management Unit YY.

^fHunting activity occurred at unknown location within Management Unit YY.

Table 4. Days of hunting effort during the 2012 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types	
	Private		Public		Unknown		Total ^a	95% CL
	Total	95% CL	Total	95% CL	Total	95% CL		
G – 401	339	70	249	72	6	6	594	95
G – 501 ^b	7,510	1,145	0	0	0	0	7,510	1,145
G – MYH ^c	519	232	6	10	0	0	524	232
G – Multiple ^d	152	17	15	2	0	0	167	17
G – Subtotal	8,520	1,170	269	73	6	6	8,795	1,172
GB – 402	423	84	355	91	0	0	778	111
GB – 501 ^b	5,636	921	0	0	0	0	5,636	921
GB – MYH ^c	508	260	45	42	0	0	552	264
GB – Multiple ^d	235	54	17	8	0	0	251	54
GB – Subtotal	6,801	962	416	101	0	0	7,217	966
GC – 403	111	29	233	71	0	0	344	72
GC – 501 ^b	14,686	1,383	0	0	0	0	14,686	1,383
GC – MYH ^c	731	248	28	50	0	0	759	252
GC – Multiple ^d	315	26	3	0	0	0	318	26
GC – Subtotal	15,843	1,406	264	87	0	0	16,107	1,408
HA – 407 ^b	3,940	343	0	0	0	0	3,940	343
HA – MYH ^c	301	169	0	0	0	0	301	169
HA – Multiple ^d	242	23	0	0	0	0	242	23
HA – Subtotal	4,483	383	0	0	0	0	4,483	383
L – 404	1,904	240	1,469	227	0	0	3,373	320
L – 501 ^b	16,037	1,656	0	0	0	0	16,037	1,656
L – MYH ^c	775	350	0	0	0	0	775	350
L – Multiple ^d	720	83	92	18	14	16	827	90
L – Subtotal	19,437	1,712	1,561	228	14	16	21,012	1,725
M – 405	2,648	304	1,408	212	13	15	4,069	372
M – MYH ^c	418	178	89	121	0	0	508	216
M – Multiple ^d	139	28	58	16	0	0	197	33
M – Subtotal	3,206	353	1,555	245	13	15	4,774	432
W – 406	241	46	125	49	0	0	365	61
W – 501 ^b	2,613	628	0	0	0	0	2,613	628
W – MYH ^c	190	124	0	0	0	0	190	124
W – Multiple ^d	89	22	0	0	0	0	89	22
W – Subtotal	3,133	642	125	49	0	0	3,257	643
EYY ^e – 501 ^b	24,169	1,795	0	0	0	0	24,169	1,795
EYY – MYH ^c	2,070	472	0	0	0	0	2,070	472
EYY – Multiple ^d	561	21	0	0	0	0	561	21
EYY – Subtotal	26,800	1,856	0	0	0	0	26,800	1,856
Unk YY ^f – 501 ^b	2,948	647	0	0	0	0	2,948	647
Unk YY – MYH ^c	480	173	145	115	0	0	625	207
Unk YY – Multiple ^d	98	33	12	6	0	0	110	34
Unk YY – Subtotal	3,526	671	157	116	0	0	3,683	681
Statewide total ^a	91,749	2,919	4,346	388	33	23	96,128	2,942

^aColumn and row totals for hunting effort may not equal statewide totals because of rounding errors.

^bLicenses were valid on private lands only.

^cMentored Youth Hunt. These hunters could hunt in any management unit.

^dHunters that purchased multiple hunting licenses for multiple hunting areas.

^eIncluded Bay, Genesee, Huron, Lapeer, Macomb, Oakland, Saginaw, Sanilac, St Clair, and Tuscola counties within Management Unit YY.

^fHunting activity occurred at unknown location within Management Unit YY.

Table 5. Hunting success (proportion of hunters taking at least one turkey) during the 2012 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types	
	Private		Public		Unknown			
	Total	95% CL	Total	95% CL	Total	95% CL	Total	95% CL
G – 401	20	7	22	9	100	0	24	6
G – 501 ^a	37	6	0	0	0	0	37	6
G – MYH ^b	8	10	0	0	0	0	8	10
G – Multiple ^c	26	8	25	21	0	0	25	8
G – Subtotal	33	5	19	9	100	0	33	5
GB – 402	34	8	25	9	0	0	33	7
GB – 501 ^a	40	6	0	0	0	0	40	6
GB – MYH ^b	28	16	25	38	0	0	29	15
GB – Multiple ^c	52	8	37	30	0	0	50	8
GB – Subtotal	39	5	26	14	0	0	38	5
GC – 403	16	9	27	10	0	0	23	7
GC – 501 ^a	35	4	0	0	0	0	35	4
GC – MYH ^b	12	9	0	0	0	0	12	9
GC – Multiple ^c	37	5	100	0	0	0	38	5
GC – Subtotal	33	3	25	10	0	0	33	3
HA – 407 ^b	35	4	0	0	0	0	35	4
HA – MYH ^b	26	18	0	0	0	0	26	18
HA – Multiple ^c	52	5	0	0	0	0	52	5
HA – Subtotal	35	4	0	0	0	0	35	4
L – 404	33	5	21	5	0	0	31	4
L – 501 ^a	34	4	0	0	0	0	34	4
L – MYH ^b	9	9	0	0	0	0	9	9
L – Multiple ^c	44	5	53	12	0	0	47	5
L – Subtotal	33	3	23	5	0	0	32	3
M – 405	44	5	23	5	0	0	42	4
M – MYH ^b	41	19	0	0	0	0	36	17
M – Multiple ^c	53	11	32	14	0	0	51	9
M – Subtotal	44	5	22	5	0	0	41	4
W – 406	38	9	18	13	0	0	34	7
W – 501 ^a	47	9	0	0	0	0	47	9
W – MYH ^b	0	0	0	0	0	0	0	0
W – Multiple ^d	45	5	0	0	0	0	45	5
W – Subtotal	42	7	18	13	0	0	41	7
EYY ^d – 501 ^a	42	3	0	0	0	0	42	3
EYY – MYH ^b	23	8	0	0	0	0	23	8
EYY – Multiple ^c	38	2	0	0	0	0	38	2
EYY – Subtotal	39	3	0	0	0	0	39	3
Unk YY ^e – 501 ^a	31	7	0	0	0	0	31	7
Unk YY – MYH ^b	28	15	0	0	0	0	22	12
Unk YY – Multiple ^c	40	11	0	0	0	0	34	10
Unk YY – Subtotal	30	7	0	0	0	0	28	6
Statewide total	37	1	21	3	11	15	36	1

^aLicenses were valid on private lands only.

^bMentored Youth Hunt. These hunters could hunt in any management unit.

^cHunters that purchased multiple hunting licenses for multiple hunting areas.

^dIncluded Bay, Genesee, Huron, Lapeer, Macomb, Oakland, Saginaw, Sanilac, St Clair, and Tuscola counties within Management Unit YY.

^eHunting activity occurred at unknown location within Management Unit YY.

Table 6. Number of turkeys harvested during the 2012 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types ^a	
	Private		Public		Unknown			
	Total	95% CL	Total	95% CL	Total	95% CL	Total	95% CL
G – 401	10	4	7	3	1	2	19	5
G – 501 ^b	414	81	0	0	0	0	414	81
G – MYH ^c	11	14	0	0	0	0	11	14
G – Multiple ^d	8	4	1	2	0	0	9	4
G – Subtotal	443	82	9	4	1	2	453	83
GB – 402	23	6	11	4	0	0	33	7
GB – 501 ^b	391	84	0	0	0	0	391	84
GB – MYH ^c	39	26	6	10	0	0	45	28
GB – Multiple ^d	17	3	1	2	0	0	19	4
GB – Subtotal	470	88	18	11	0	0	487	89
GC – 403	4	3	10	4	0	0	15	5
GC – 501 ^b	937	128	0	0	0	0	937	128
GC – MYH ^c	28	22	0	0	0	0	28	22
GC – Multiple ^d	19	3	1	0	0	0	20	3
GC – Subtotal	989	130	11	4	0	0	1,000	130
HA – 407 ^b	244	29	0	0	0	0	244	29
HA – MYH ^c	28	22	0	0	0	0	28	22
HA – Multiple ^d	28	7	0	0	0	0	28	7
HA – Subtotal	300	37	0	0	0	0	300	37
L – 404	100	17	46	12	0	0	146	20
L – 501 ^b	843	117	0	0	0	0	843	117
L – MYH ^c	17	17	0	0	0	0	17	17
L – Multiple ^d	50	9	9	2	0	0	59	10
L – Subtotal	1,009	120	55	12	0	0	1,064	120
M – 405	227	31	66	17	0	0	293	34
M – MYH ^c	50	30	0	0	0	0	50	30
M – Multiple ^d	12	4	4	2	0	0	16	4
M – Subtotal	289	43	70	18	0	0	358	45
W – 406	22	6	3	2	0	0	25	6
W – 501 ^b	221	57	0	0	0	0	221	57
W – MYH ^c	0	0	0	0	0	0	0	0
W – Multiple ^d	6	0	0	0	0	0	6	0
W – Subtotal	249	57	3	2	0	0	252	57
EYY ^e – 501 ^b	1,752	158	0	0	0	0	1,752	158
EYY – MYH ^c	123	46	0	0	0	0	123	46
EYY – Multiple ^d	32	2	0	0	0	0	32	2
EYY – Subtotal	1,906	164	0	0	0	0	1,906	164
Unk YY ^f – 501 ^b	170	49	0	0	0	0	170	49
Unk YY – MYH ^c	45	28	0	0	0	0	45	28
Unk YY – Multiple ^d	6	2	0	0	0	0	6	2
Unk YY – Subtotal	220	56	0	0	0	0	220	56
Statewide total ^a	5,875	261	165	25	1	2	6,042	262

^aColumn and row totals may not equal statewide totals because of rounding errors.

^bLicenses were valid on private lands only.

^cMentored Youth Hunt. These hunters could hunt in any management unit.

^dHunters that purchased multiple hunting licenses for multiple hunting areas.

^eIncluded Bay, Genesee, Huron, Lapeer, Macomb, Oakland, Saginaw, Sanilac, St Clair, and Tuscola counties within Management Unit YY.

^fHunting activity occurred at unknown location within Management Unit YY.

Table 7. Proportion of hunters that rated their hunting experience as excellent, very good, or good during the 2012 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types	
	Private		Public		Unknown			
	Total	95% CL	Total	95% CL	Total	95% CL	Total	95% CL
G – 401	46	9	65	11	100	0	57	7
G – 501 ^a	61	6	0	0	0	0	61	6
G – MYH ^b	67	17	0	0	0	0	64	17
G – Multiple ^c	64	5	58	19	0	0	63	5
G – Subtotal	61	5	56	15	100	0	61	5
GB – 402	61	8	46	11	0	0	55	7
GB – 501 ^a	70	6	0	0	0	0	70	6
GB – MYH ^b	80	14	100	0	0	0	82	13
GB – Multiple ^c	81	7	37	30	0	0	76	7
GB – Subtotal	71	5	63	13	0	0	70	5
GC – 403	63	12	54	11	0	0	57	8
GC – 501 ^a	60	4	0	0	0	0	60	4
GC – MYH ^b	64	13	100	0	0	0	65	13
GC – Multiple ^c	75	2	100	0	0	0	75	2
GC – Subtotal	61	4	61	13	0	0	61	3
HA – 407 ^b	56	4	0	0	0	0	56	4
HA – MYH ^b	63	20	0	0	0	0	63	20
HA – Multiple ^c	76	4	0	0	0	0	76	4
HA – Subtotal	58	4	0	0	0	0	58	4
L – 404	52	5	50	6	0	0	53	4
L – 501 ^a	58	4	0	0	0	0	58	4
L – MYH ^b	50	16	0	0	0	0	50	16
L – Multiple ^c	82	3	77	11	0	0	80	4
L – Subtotal	58	3	52	6	0	0	58	3
M – 405	59	5	50	6	0	0	58	4
M – MYH ^b	59	19	25	38	0	0	56	18
M – Multiple ^c	46	11	52	14	0	0	51	9
M – Subtotal	59	5	49	6	0	0	57	4
W – 406	55	9	73	15	0	0	58	8
W – 501 ^a	67	8	0	0	0	0	67	8
W – MYH ^b	60	28	0	0	0	0	60	28
W – Multiple ^d	78	3	0	0	0	0	78	3
W – Subtotal	66	7	73	15	0	0	66	7
EYY ^d – 501 ^a	63	3	0	0	0	0	63	3
EYY – MYH ^b	64	9	0	0	0	0	64	9
EYY – Multiple ^c	71	2	0	0	0	0	71	2
EYY – Subtotal	63	3	0	0	0	0	63	3
Unk YY ^e – 501 ^a	52	8	0	0	0	0	52	8
Unk YY – MYH ^b	62	16	29	30	0	0	54	15
Unk YY – Multiple ^c	74	12	41	26	0	0	69	12
Unk YY – Subtotal	54	7	29	29	0	0	53	7
Statewide total	62	1	52	4	10	13	61	1

^aLicenses were valid on private lands only.

^bMentored Youth Hunt. These hunters could hunt in any management unit.

^cHunters that purchased multiple hunting licenses for multiple hunting areas.

^dIncluded Bay, Genesee, Huron, Lapeer, Macomb, Oakland, Saginaw, Sanilac, St Clair, and Tuscola counties within Management Unit YY.

^eHunting activity occurred at unknown location within Management Unit YY.

Table 8. Number of hunters, hunting effort, harvest, hunter success, and hunter satisfaction during the 2012 Michigan fall turkey hunting season, summarized by county.

County	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL
Alger	45	13	170	51	14	8	31	14	40	15
Allegan	453	68	2,789	574	174	44	36	7	58	8
Baraga	8	6	72	53	0	0	0	0	0	0
Barry	535	77	3,378	617	166	50	28	7	52	7
Bay	142	45	732	273	43	25	30	14	56	16
Berrien	330	63	2,520	600	131	47	34	9	59	10
Branch	222	55	1,202	381	72	31	33	12	69	11
Calhoun	449	78	2,838	699	125	47	25	7	59	9
Cass	306	61	2,265	657	95	36	28	9	55	10
Charlevoix	60	30	199	110	28	20	47	25	64	25
Chippewa	43	13	258	111	24	10	55	16	63	15
Clinton	182	50	1,142	444	58	28	32	13	74	12
Delta	144	32	788	206	42	17	26	9	53	11
Dickinson	102	28	511	150	38	16	35	13	55	14
Eaton	288	64	2,008	589	95	37	33	10	61	11
Genesee	513	85	2,622	558	265	64	50	8	62	8
Gogebic	50	14	337	148	32	12	60	14	70	13
Gratiot	220	53	1,604	451	114	46	43	12	62	12
Hillsdale	319	66	1,795	451	82	34	26	9	47	10
Houghton	25	13	69	38	4	4	17	17	60	29
Huron	455	81	2,351	519	160	51	33	8	62	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.

Table 8 (continued). Number of hunters, hunting effort, harvest, hunter success, and hunter satisfaction during the 2012 Michigan fall turkey hunting season, summarized by county.

County	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL
Ingham	428	77	2,400	584	163	49	37	9	71	8
Ionia	224	55	1,363	443	50	26	22	10	57	12
Iron	140	32	747	178	85	25	56	11	64	11
Isabella	285	61	1,820	526	115	38	40	11	65	10
Jackson	501	83	2,795	582	189	54	36	8	63	8
Kalamazoo	346	65	2,249	582	120	42	32	9	54	10
Kent	526	84	3,229	707	212	58	38	8	72	7
Keweenaw	2	3	11	15	0	0	0	0	0	0
Lapeer	707	99	3,917	743	264	62	36	7	63	7
Lenawee	354	70	1,884	444	118	46	29	9	66	9
Livingston	482	81	2,862	649	162	51	31	8	58	8
Luce	0	0	0	0	0	0	0	0	0	0
Mackinac	15	8	93	56	4	4	28	23	42	25
Macomb	258	60	1,665	509	55	27	21	9	64	11
Marquette	62	20	365	141	8	6	14	9	38	15
Mecosta	205	33	1,087	208	60	19	29	8	56	8
Menominee	149	35	697	174	72	24	49	12	67	11
Midland	317	62	1,419	372	136	43	41	10	68	9
Montcalm	406	73	2,582	669	131	44	30	8	56	9
Muskegon	277	59	1,691	441	128	50	40	10	72	9
Newaygo	355	42	2,117	309	138	26	37	6	57	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.

Table 8 (continued). Number of hunters, hunting effort, harvest, hunter success, and hunter satisfaction during the 2012 Michigan fall turkey hunting season, summarized by county.

County	Hunters ^a		Hunting efforts (days) ^a		Harvest ^a		Hunter success		Hunter satisfaction ^b	
	Total	95% CL	Total	95% CL	Total	95% CL	%	95% CL	%	95% CL
Oakland	360	71	1,917	501	156	50	41	10	72	9
Oceana	177	30	872	177	63	18	34	8	62	8
Ontonagon	38	12	287	144	18	9	41	16	63	16
Ottawa	391	72	2,237	495	144	46	36	9	67	9
Saginaw	470	81	2,741	555	193	53	40	9	65	8
St. Clair	586	91	3,491	757	194	53	32	7	54	8
St. Joseph	207	51	1,298	442	74	30	33	12	63	12
Sanilac	612	92	3,694	758	258	61	41	8	60	7
Schoolcraft	22	9	124	74	8	6	39	21	64	20
Shiawassee	349	71	2,000	492	119	42	33	9	56	10
Tuscola	613	93	3,470	748	289	67	45	8	67	7
Van Buren	378	69	2,288	579	102	35	27	8	57	9
Washtenaw	410	74	2,336	581	167	65	31	8	62	9
Unknown	997	109	4,732	701	283	58	28	5	51	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.