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2015 MICHIGAN FALL TURKEY HUNTER SURVEY

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ABSTRACT

A survey of turkey hunters was conducted following the 2015 fall hunting season to determine turkey harvest and hunter participation. Overall, 29,337 people purchased 30,657 licenses in 2015 (versus 31,823 people purchased 33,313 licenses in 2013, and 30,408 people purchased 31,614 licenses in 2014). The number of licenses sold in 2015 decreased 8% from 2013 and 3% from 2014. Excluding the Mentored Youth Hunt licenses, 17,906 hunters purchased 19,261 licenses in 2015, which was nearly 10% fewer licenses sold than in 2013 but nearly the same number of licenses sold in 2014 (20,078 hunters purchased 21,483 licenses in 2013, and 18,013 hunters purchased 19,124 licenses in 2014). Most license buyers (97%) purchased a single hunting license in 2015. During the 2015 fall hunt, an estimated 15,275 hunters harvested about 4,751 turkeys. Hunter numbers and their hunting effort decreased significantly by 14% and 16%, respectively, from 2013. The 2015 harvest decreased significantly by 13% from 2013 (5,430 turkeys harvested in 2013). Hunter success was 29% in 2015 (versus 28% success in 2013). About 61% of the hunters in 2015 rated their hunting experience as excellent, very good, or good (versus 59% satisfaction in 2013). Although the number of turkeys harvested in 2015 decreased significantly from 2013, hunting success and hunter satisfaction did not change significantly from 2013.

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 2015, 11 management units totaling about 44,943 square miles were open for fall turkey hunting during September 15 through November 14 (Figure 1). The area



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open to hunting in 2015 increased by 25% from 2012 (an additional 8,865 square miles), and three new management units were created (units J, T, and WA).

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 six management units (units HA, J, 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 410 (Unit HA) and Hunt 501 (Unit YY) were valid on private lands only, while licenses for hunts 401, 402, 403, 404, 405, 406, 407, 408, and 409 (units G, GB, GC, J, L, M, T, W, and WA) 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). In addition, hunters were asked what type of hunting equipment was used to hunt turkeys and kill turkeys. Finally, hunters rated their overall hunting experience (excellent, very good, good, fair, or poor).

Following the 2015 fall turkey hunting season, a questionnaire was sent to 11,226 randomly selected people that had purchased a 2015 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 15 strata (Cochran 1977). Strata 1-11 consisted of hunters with licenses for a single management unit ($N_G=136$; $N_{GB}=177$; $N_{GC}=133$; $N_{HA}=1,187$; $N_J=940$; $N_L=800$; $N_M=1,183$; $N_T=132$; $N_W=142$; $N_{WA}=81$; and $N_{YY}=12,297$). The twelfth stratum included hunters obtaining only a Mentored Youth Hunt license ($N=11,430$). The thirteenth stratum included hunters obtaining only a Pure Michigan Hunt license ($N=2$). The fourteenth stratum consisted of hunters having licenses for multiple management units ($N=156$). 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 fifteenth stratum ($N=541$).

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 2015, and up to two follow-up questionnaires were mailed to nonrespondents. Although 11,226 people were sent the questionnaire, 218 surveys were undeliverable resulting in an adjusted sample size of 11,008. Questionnaires were returned by 6,245 people, yielding a 57% adjusted response rate. In addition, 541 people voluntarily reported information about their hunting activity via the internet.

RESULTS

In 2015, the DNR offered 51,850 licenses for sale (same quota as in 2013 and 2014), excluding Pure Michigan Hunt and Mentored Youth Hunt licenses (Table 1). A total of 3,741 licenses were purchased by 4,028 people successful in the drawing (93% of successful applicants), and 403 leftover licenses were purchased by people that had applied for a hunt in the drawing. A total of 16,107 licenses were purchased by people that had not entered into the drawing. In addition, 3 people were awarded a Pure Michigan Hunt license, and 11,510 youth obtained a turkey hunting license when they obtained their Mentored Youth Hunt license.

Overall, 29,337 people purchased 30,657 licenses in 2015 (versus 31,823 people purchased 33,313 licenses in 2013, and 30,408 people purchased 31,614 licenses in 2014). The number of licenses sold in 2015 decreased 8% from 2013 and 3% from 2014. Excluding the Mentored Youth Hunt licenses, 17,906 hunters purchased 19,261 licenses in 2015, which was nearly 10% fewer licenses sold than in 2013 but nearly the same number of licenses sold in 2014 (20,078 hunters purchased 21,483 licenses in 2013, and 18,013 hunters purchased 19,124 licenses in 2014).

Excluding people obtaining a Mentored Youth Hunt license, the average age of the 17,906 license buyers was 48 years (Figure 2), and about 6% of the license buyers were younger than 17 years old (1,149). Hunters with a Mentored Youth Hunt license were excluded because only 16 ± 2% of them actually hunted (Table 2).

Including all license types, most license buyers (97%) purchased a single hunting license in 2015 (Figure 3). About 3% of hunters purchased 2 licenses and less than 1% of hunters purchased 3 or more licenses.

Excluding people obtaining a Mentored Youth Hunt license, the number of people buying a license in 2015 (17,906) decreased by about 16% in ten years from 2005 (21,343 people purchased a license in 2005). Although fewer people purchased a license in 2015 than in 2005 (Figure 4), there were increased hunter numbers among the youngest and oldest age classes in 2015. The increased hunter numbers in the oldest age classes likely represented the rising share of older people in the population as the baby-boom generation aged and life expectancies have increased. The increased participation among the youngest hunters likely reflected the lowering of the

minimum age requirements. In 2015, 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 2005.

In 2015, about 15,275 hunters spent 93,116 days afield pursuing turkeys ($\bar{x} = 6.1 \pm 0.2$ days/hunter) (Tables 3 and 4, Figure 5). The number of people pursuing turkeys and their hunting effort in 2015 decreased significantly from 2013 (14% and 16% decrease, respectively). About 92% of the hunters that went afield were males ($14,050 \pm 275$) and 8% of the hunters were females ($1,223 \pm 144$).

About 29% of active hunters successfully harvested a turkey in 2015, and they harvested an estimated 4,751 turkeys (Tables 5 and 6). The number of turkeys harvested decreased significantly by 13% from 2013 (5,430 turkeys harvested in 2013); however, hunter success was not significantly different between 2015 and 2013 (29% versus 28%, Figure 5). Among the 4,402 hunters that took at least one turkey, 94% ($4,143 \pm 212$) of these hunters took one turkey, 5% (197 ± 47) took 2 turkeys, and about 1% (62 ± 23) took more than 2 turkeys (Figure 6). Hunter success was statistically greater for hunters using private lands than for hunters using public lands in 2015 (29% versus 18%, Table 5).

About 90% ($13,764 \pm 279$) of turkey hunters hunted solely on private land, 7% ($1,021 \pm 71$) hunted on public land only, and 3% (399 ± 54) hunted on both private and public lands. Additionally, about 1% of hunters (92 ± 33) hunted on land of unknown ownership. Of the 4,751 turkeys harvested in 2015, 94% of these birds were taken on private land (4,452), while about 6% of the harvest (279) was taken on public land (Table 6). About 59% of the harvested birds had a beard ($2,781 \pm 192$). Most of these bearded birds (85%) were adults ($2,366 \pm 176$); 15% were juvenile birds (416 ± 77).

Of the 15,275 turkey hunters in 2015, 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 (61% versus 47%). Changes in hunter satisfaction between years generally parallel changes in hunter success (Figure 7). Between 2013 and 2015, neither hunter success (28% in 2013 versus 29% in 2015) nor satisfaction changed significantly (59% in 2013 versus 61% in 2015).

Hunter numbers were greatest in St. Clair, Allegan, and Lapeer counties; these counties had more than 500 hunters (Table 8). Harvest was greatest in Allegan, Ottawa, Lapeer, and Tuscola counties; these counties had more than 150 turkeys taken by hunters.

Most hunters ($62 \pm 1\%$; $9,400 \pm 285$ hunters) used shotguns while hunting turkeys, although $33 \pm 1\%$ ($5,025 \pm 238$) used a crossbow, and $20 \pm 1\%$ ($2,994 \pm 180$) of the hunters used either a compound, recurve, or long bow. About 68% ($3,251 \pm 206$) of the harvested turkeys were taken with a shotgun, while 21% (996 ± 113) of harvested turkeys were taken with a crossbow. About 10% (491 ± 84) were taken with either a compound, recurve, or long bow. About $32 \pm 2\%$ of the hunters using a shotgun took at least one turkey with their shotgun; $20 \pm 2\%$ of the hunters using a crossbow harvested

a turkey; and $16 \pm 2\%$ of hunters using either a compound, recurve, or long bow took a turkey.

ACKNOWLEDGEMENTS

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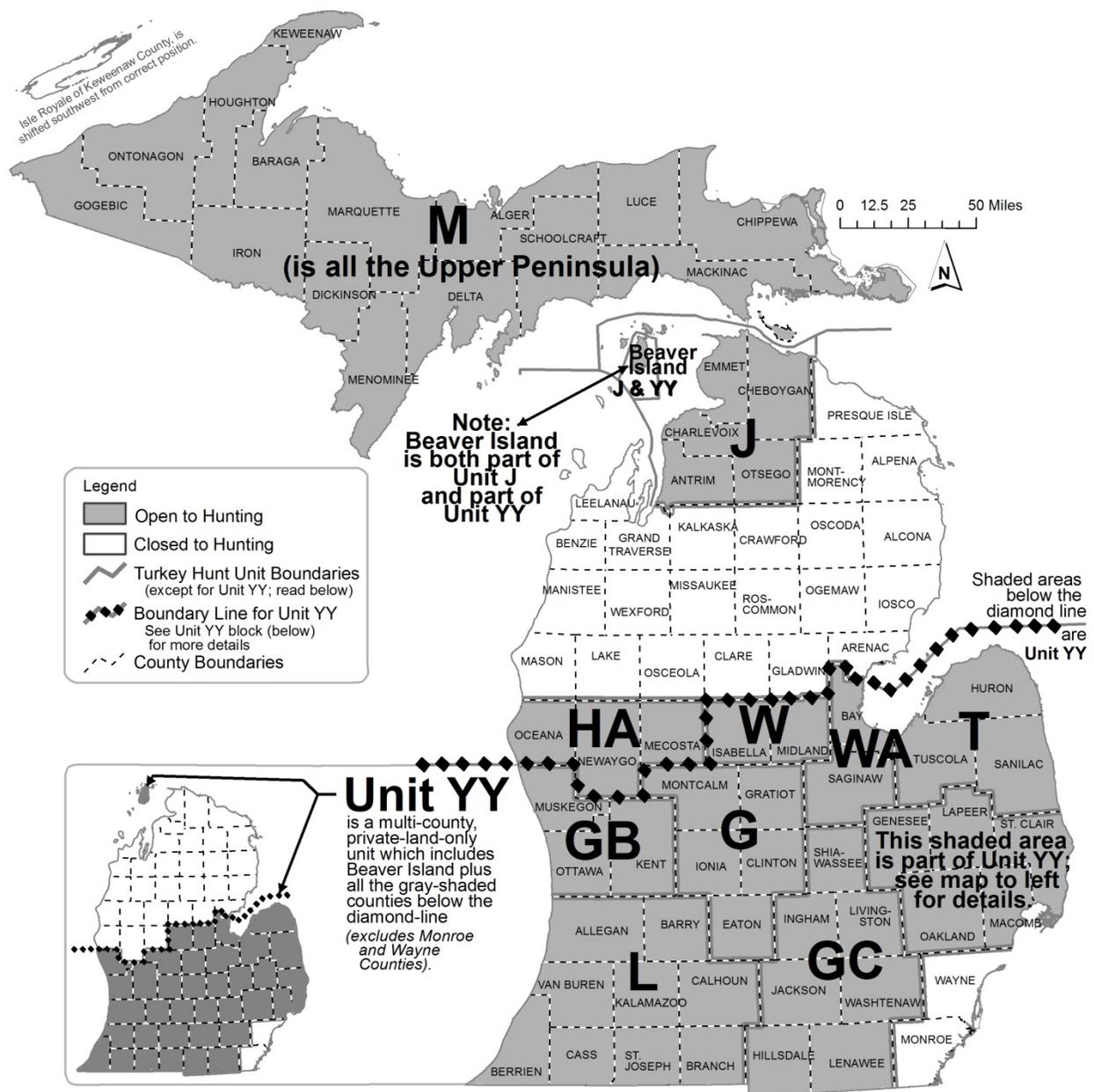


Figure 1. Management units open for fall turkey hunting in Michigan, 2015.

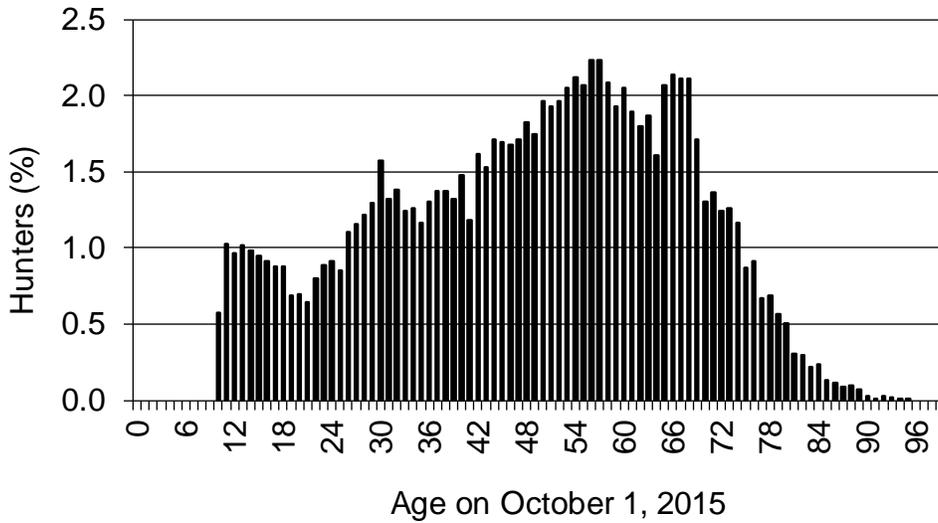


Figure 2. Age of people that purchased a turkey hunting license in Michigan for the 2015 fall hunting season (\bar{x} = 48 years). Licenses were purchased by 17,906 people, excluding Mentored Youth Hunt license buyers.

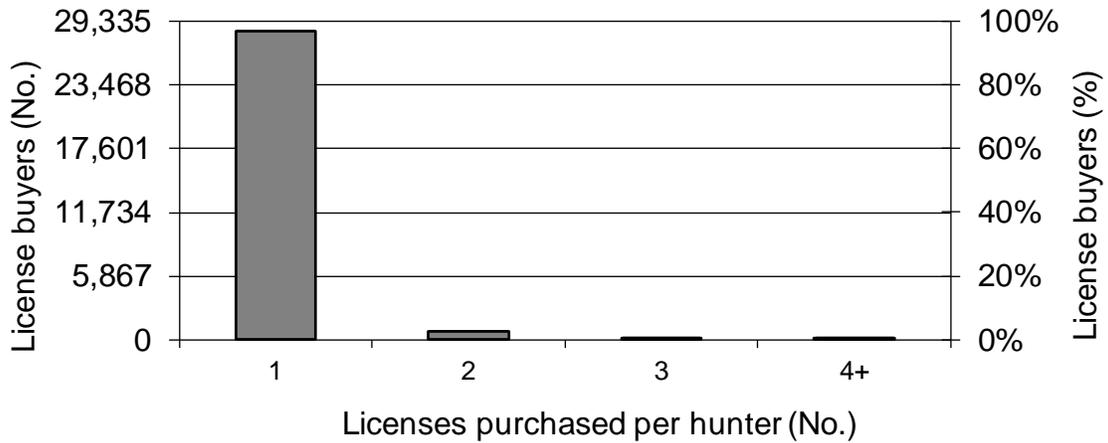


Figure 3. Number of licenses purchased per person for hunting turkey in Michigan during the 2015 fall hunting season (included all hunting license types).

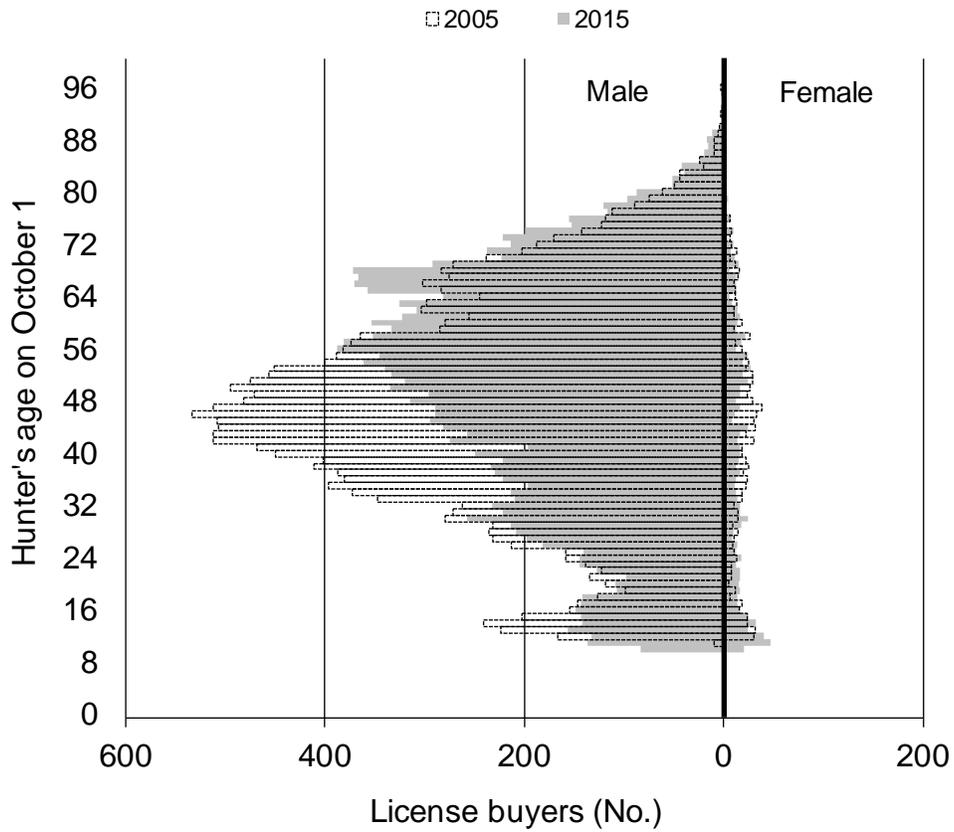


Figure 4. Number of fall turkey hunting license buyers in Michigan by age and sex during 2003 and 2015 hunting seasons, excluding Mentored Youth Hunt licenses. The number of people buying a license was 19,025 in 2003 and 17,906 in 2015.

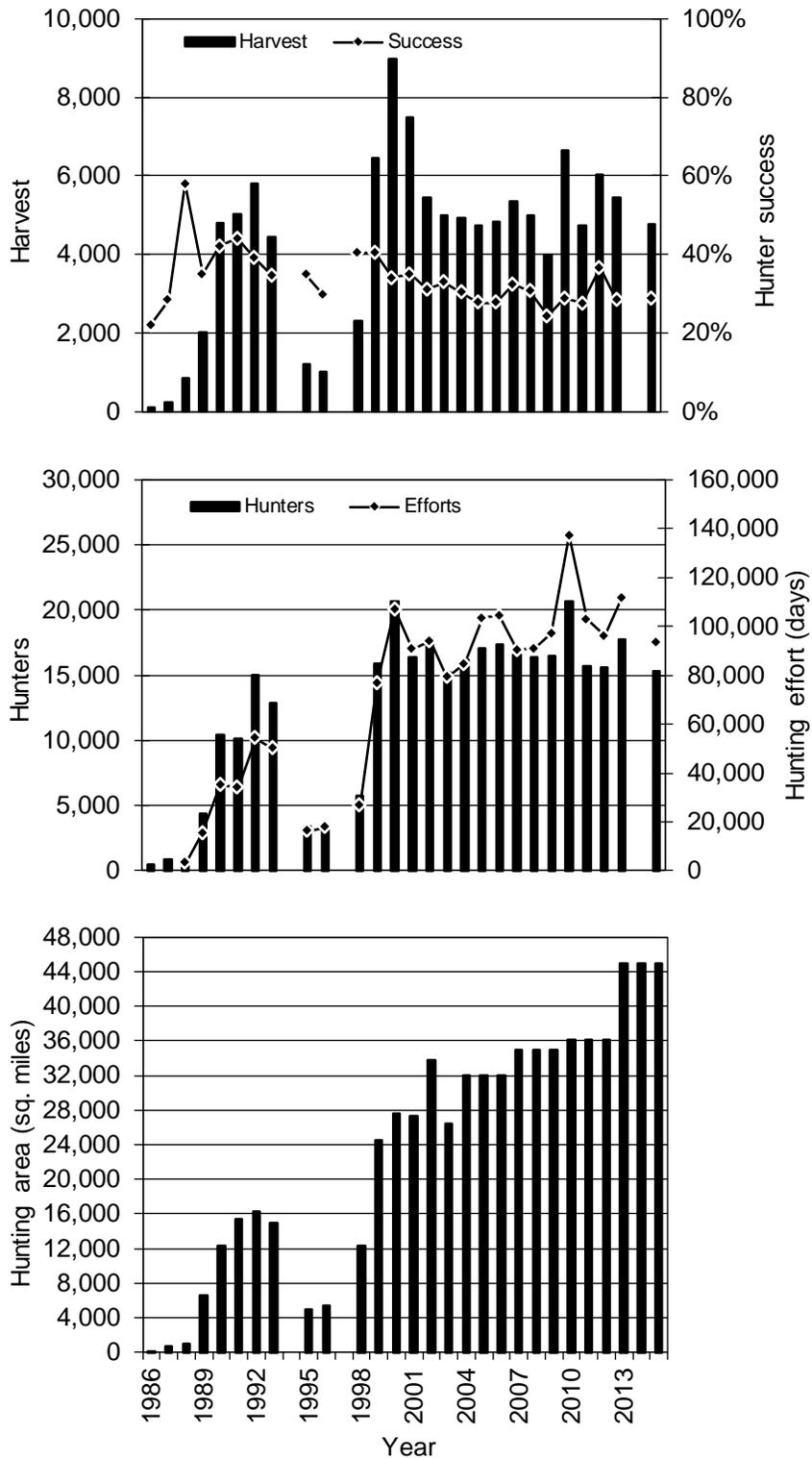


Figure 5. Number of hunters, hunting efforts (days), harvest, hunting success, and hunting area during the fall turkey hunting season, 1986-2015. Turkeys were not hunted during the fall in 1994 and 1997. No survey was done in 2014.

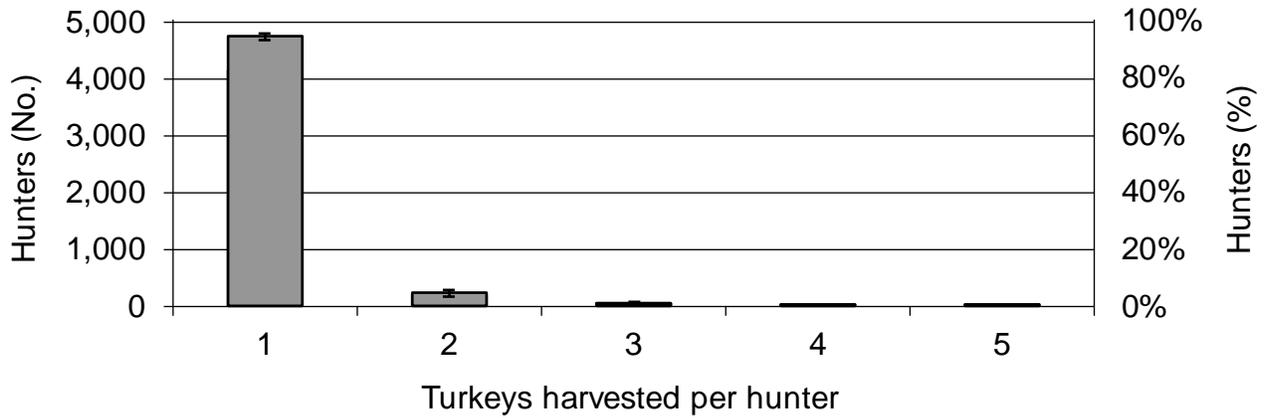


Figure 6. Number of turkeys harvested per successful hunter in Michigan during the 2015 fall hunting season.

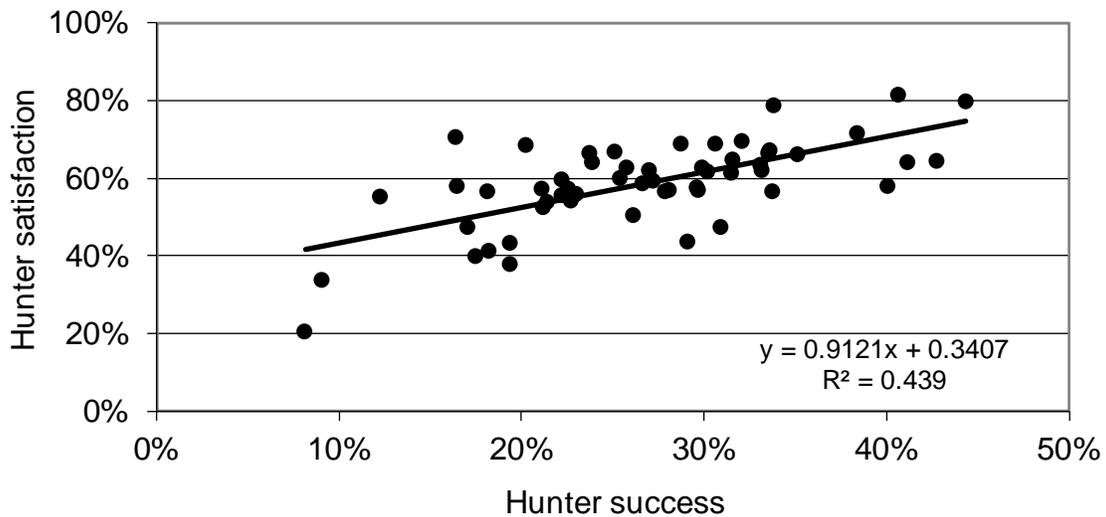


Figure 7. Hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) associated with hunter success for each of 55 counties in Michigan during the 2015 fall turkey hunting season (only included counties with at least 20 hunters).

Table 1. Number of hunting licenses available and people applying for licenses during the 2015 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	162	162	38	121	5	33	159
GB	402	250	154	154	96	105	8	88	201
GC	403	200	487	200	0	155	0	0	155
HA ^b	410	1,700	667	667	1,033	489	34	826	1,349
J	404	1,500	441	441	1,059	318	28	704	1,050
L	405	1,000	294	294	706	226	28	672	926
M	406	1,500	358	358	1,142	255	49	1,087	1,391
T	407	200	172	172	28	125	4	24	153
W	408	200	75	75	125	40	3	121	164
WA	409	100	32	32	68	21	1	67	89
YY ^b	501	45,000	1,186	1,186	43,814	779	243	12,485	13,507
Pure MI ^c	NA ^c	NA	0	0	na	0	0	0	3
MYH ^d	Any	NA	0	0	na	0	0	0	11,510
Statewide	All	51,850	4,028	3,741	48,109	2,634	403	16,107	30,657

^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 Hunts. These hunters could hunt in any management unit.

Table 2. Number of hunters, hunting effort, harvest, hunter success, and hunter satisfaction during the 2015 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
1,832	199	7,612	1,196	363	95	20	5	67	6

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

Table 3. Number of hunters during the 2015 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	40	8	85	8	0	0	110	7
501 ^b	891	113	0	0	0	0	891	113
MYH ^c	178	67	23	24	0	0	193	70
Multiple ^d	39	4	13	3	1	1	48	4
Subtotal	1,147	132	121	26	1	1	1,242	133
GB								
402	89	9	68	9	6	3	142	7
501 ^b	745	104	0	0	0	0	745	104
MYH ^c	155	63	8	14	8	14	170	66
Multiple ^d	46	5	9	2	0	0	50	5
Subtotal	1,034	122	84	17	14	14	1,107	123
GC								
403	24	7	78	9	0	0	97	8
501 ^b	2,151	165	0	0	0	0	2,151	165
MYH ^c	224	75	23	24	0	0	232	77
Multiple ^d	87	3	11	1	1	1	99	3
Subtotal	2,487	182	112	26	1	1	2,579	182
HA								
410 ^b	853	38	0	0	0	0	853	38
MYH ^c	116	54	0	0	0	0	116	54
Multiple ^d	61	4	0	0	0	0	61	4
Subtotal	1,030	67	0	0	0	0	1,030	67
J								
404	520	36	177	29	17	10	666	33
501 ^b	15	15	0	0	0	0	15	15
MYH ^c	62	40	15	20	0	0	77	45
Multiple ^d	23	2	17	2	0	0	38	2
Subtotal	619	56	209	35	17	10	797	58
L								
405	388	31	283	29	7	6	611	26
501 ^b	1,746	152	0	0	0	0	1,746	152
MYH	263	81	31	28	8	14	286	85
Multiple ^c	100	5	32	4	1	1	127	6
Subtotal	2,496	175	346	41	16	15	2,770	176

^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 Hunts.

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

^eIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.

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

Table 3 (continued). Number of hunters during the 2015 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
M								
406	607	42	348	38	18	10	848	38
MYH ^c	77	45	31	28	0	0	93	49
Multiple ^d	35	4	26	3	0	0	51	5
Subtotal	720	61	406	48	18	10	992	62
T								
407	44	7	77	7	0	0	111	5
501 ^b	991	118	0	0	0	0	991	118
MYH ^c	155	63	0	0	0	0	155	63
Multiple ^d	33	3	14	3	0	0	42	4
Subtotal	1,223	134	90	8	0	0	1,298	134
W								
408	77	8	30	6	4	3	108	6
501 ^b	365	74	0	0	0	0	365	74
MYH ^c	46	35	0	0	0	0	46	35
Multiple ^d	32	3	0	0	0	0	32	3
Subtotal	520	82	30	6	4	3	551	82
WA								
409	47	7	10	5	2	2	55	7
501 ^b	365	74	0	0	0	0	365	74
MYH ^c	77	45	0	0	0	0	77	45
Multiple ^d	10	1	1	1	0	0	12	2
Subtotal	499	87	12	5	2	2	509	87
Eastern YY^e								
501 ^b	1,591	146	0	0	0	0	1,591	146
MYH ^c	209	73	0	0	0	0	209	73
Multiple ^d	82	4	0	0	0	0	82	4
Subtotal	1,881	163	0	0	0	0	1,881	163
Unknown YY^f								
501 ^b	610	94	0	0	0	0	610	94
MYH ^c	201	71	15	20	15	20	224	75
Multiple ^d	14	4	2	1	3	2	19	4
Subtotal	825	119	18	20	18	20	853	121
Statewide								
Total	14,160	281	1,423	85	92	33	15,275	283

^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 Hunts.

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

^eIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.

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

Table 4. Days of hunting effort during the 2015 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	252	84	566	96	0	0	818	118
501 ^b	7,204	1,266	0	0	0	0	7,204	1,266
MYH ^c	626	323	70	81	0	0	696	335
Multiple ^d	258	33	43	8	3	3	303	34
Subtotal	8,340	1,309	678	126	3	3	9,020	1,315
GB								
402	584	136	481	125	27	17	1,092	195
501 ^b	3,947	714	0	0	0	0	3,947	714
MYH ^c	742	402	15	28	15	28	773	404
Multiple ^d	236	36	41	8	0	0	277	39
Subtotal	5,510	832	537	129	42	33	6,089	844
GC								
403	70	23	451	85	0	0	521	82
501 ^b	12,762	1,457	0	0	0	0	12,762	1,457
MYH ^c	1,152	527	108	148	0	0	1,260	589
Multiple ^d	490	17	121	3	4	4	645	18
Subtotal	14,474	1,549	680	171	4	4	15,188	1,573
HA								
410 ^b	5,550	510	0	0	0	0	5,550	510
MYH ^c	379	207	0	0	0	0	379	207
Multiple ^d	346	30	0	0	0	0	346	30
Subtotal	6,274	551	0	0	0	0	6,274	551
J								
404	2,696	309	719	148	127	102	3,541	339
501 ^b	50	53	0	0	0	0	50	53
MYH ^c	255	196	93	144	0	0	348	243
Multiple ^d	145	5	68	8	0	0	212	13
Subtotal	3,145	369	879	206	127	102	4,151	421
L								
405	2,277	292	1,812	282	7	7	4,096	367
501 ^b	11,532	1,385	0	0	0	0	11,532	1,385
MYH	842	334	139	140	15	28	997	424
Multiple ^c	666	42	195	44	5	5	866	59
Subtotal	15,317	1,455	2,146	318	28	30	17,491	1,496

^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 Hunts.

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

^eIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.

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

Table 4 (continued). Days of hunting effort during the 2015 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
M								
406	3,339	383	2,502	436	72	59	5,912	583
MYH ^c	363	267	124	137	0	0	487	367
Multiple ^d	199	28	150	25	0	0	349	49
Subtotal	3,901	467	2,775	458	72	59	6,748	690
T								
407	133	27	478	97	0	0	612	95
501 ^b	6,048	1,043	0	0	0	0	6,048	1,043
MYH ^c	510	258	0	0	0	0	510	258
Multiple ^d	256	47	59	10	0	0	315	52
Subtotal	6,948	1,075	537	97	0	0	7,485	1,080
W								
408	400	68	206	72	1	2	608	91
501 ^b	1,981	547	0	0	0	0	1,981	547
MYH ^c	116	105	0	0	0	0	116	105
Multiple ^d	145	12	0	0	0	0	145	12
Subtotal	2,642	562	206	72	1	2	2,849	565
WA								
409	253	65	43	23	17	22	314	65
501 ^b	2,166	618	0	0	0	0	2,166	618
MYH ^c	278	195	0	0	0	0	278	195
Multiple ^d	49	1	4	4	0	0	53	4
Subtotal	2,747	651	47	23	17	22	2,811	651
Eastern YY^e								
501 ^b	9,751	1,298	0	0	0	0	9,751	1,298
MYH ^c	974	446	0	0	0	0	974	446
Multiple ^d	505	17	0	0	0	0	505	17
Subtotal	11,229	1,373	0	0	0	0	11,229	1,373
Unknown YY^f								
501 ^b	2,912	680	0	0	0	0	2,912	680
MYH ^c	773	336	23	32	0	0	796	339
Multiple ^d	66	18	5	1	0	0	71	18
Subtotal	3,750	759	29	32	0	0	3,779	760
Statewide								
Total ^a	84,279	2,938	8,514	656	293	128	93,116	3,026

^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 Hunts.

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

^eIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair 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 2015 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types	
	Private		Public		Unknown			
	%	95% CL	%	95% CL	%	95% CL	% ^a	95% CL
G								
401	12	7	16	6	0	0	17	5
501 ^a	29	6	0	0	0	0	29	6
MYH ^b	30	18	33	50	0	0	32	17
Multiple ^c	38	4	24	5	100	0	40	4
Subtotal	29	5	20	11	100	0	29	5
GB								
402	22	6	13	6	0	0	20	5
501 ^a	38	7	0	0	0	0	38	7
MYH ^b	20	16	0	0	0	0	18	15
Multiple ^c	51	6	62	11	0	0	53	5
Subtotal	34	6	17	5	0	0	33	5
GC								
403	40	15	17	7	0	0	23	7
501 ^a	30	4	0	0	0	0	30	4
MYH ^b	14	12	0	0	0	0	13	11
Multiple ^c	50	2	12	10	0	0	46	2
Subtotal	29	4	13	5	0	0	29	3
HA								
410 ^b	27	4	0	0	0	0	27	4
MYH ^b	27	21	0	0	0	0	27	21
Multiple ^c	47	4	0	0	0	0	47	4
Subtotal	28	4	0	0	0	0	28	4
J								
404	30	5	18	7	29	26	29	4
501 ^a	33	48	0	0	0	0	33	48
MYH ^b	13	21	0	0	0	0	10	17
Multiple ^c	18	1	14	7	0	0	17	3
Subtotal	28	5	17	6	29	26	26	4
L								
405	25	5	15	5	67	40	23	4
501 ^a	27	4	0	0	0	0	27	4
MYH ^b	15	11	50	46	0	0	19	12
Multiple ^c	40	3	17	4	0	0	36	3
Subtotal	26	3	18	6	28	33	25	3

^aLicenses were valid on private lands only.

^bMentored Youth Hunts.

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

^dIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.

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

Table 5 (continued). Hunting success (proportion of hunters taking at least one turkey) during the 2015 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types	
	Private		Public		Unknown			
	%	95% CL	%	95% CL	%	95% CL	% ^a	95% CL
M								
406	31	5	18	5	14	20	30	4
MYH ^b	20	23	0	0	0	0	17	20
Multiple ^c	42	6	25	6	0	0	40	5
Subtotal	30	5	17	5	14	20	29	4
T								
407	29	9	20	6	0	0	26	5
501 ^a	30	6	0	0	0	0	30	6
MYH ^b	5	9	0	0	0	0	5	9
Multiple ^c	43	5	44	11	0	0	42	5
Subtotal	27	5	24	5	0	0	27	5
W								
408	37	7	19	9	33	29	33	6
501 ^a	36	10	0	0	0	0	36	10
MYH ^b	33	35	0	0	0	0	33	35
Multiple ^c	59	4	0	0	0	0	59	4
Subtotal	37	8	19	9	33	29	36	7
WA								
409	33	12	33	25	0	0	31	11
501 ^a	26	9	0	0	0	0	26	9
MYH ^b	20	23	0	0	0	0	20	23
Multiple ^c	58	7	0	0	0	0	51	8
Subtotal	26	8	29	22	0	0	26	7
Eastern YY^d								
501 ^a	30	5	0	0	0	0	30	5
MYH ^c	19	14	0	0	0	0	19	14
Multiple ^c	38	2	0	0	0	0	38	2
Subtotal	29	4	0	0	0	0	29	4
Unknown YY^e								
501 ^a	25	7	0	0	0	0	25	7
MYH ^b	27	16	0	0	0	0	24	15
Multiple ^c	49	14	0	0	100	0	50	12
Subtotal	26	6	0	0	15	19	26	6
Statewide								
Total	29	1	18	2	19	10	29	1

^aLicenses were valid on private lands only.

^bMentored Youth Hunts.

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

^dIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.

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

Table 6. Number of turkeys harvested during the 2015 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	5	3	14	5	0	0	19	6
501 ^b	295	76	0	0	0	0	295	76
MYH ^c	54	37	8	14	0	0	62	40
Multiple ^d	15	2	3	0	1	1	19	2
Subtotal	369	85	25	15	1	1	395	86
GB								
402	19	6	9	4	0	0	28	7
501 ^b	305	75	0	0	0	0	305	75
MYH ^c	31	28	0	0	0	0	31	28
Multiple ^d	29	5	6	1	0	0	35	5
Subtotal	384	81	15	4	0	0	399	81
GC								
403	10	5	13	5	0	0	23	7
501 ^b	690	108	0	0	0	0	690	108
MYH ^c	31	28	0	0	0	0	31	28
Multiple ^d	53	3	1	1	0	0	55	3
Subtotal	784	112	14	5	0	0	799	112
HA								
410 ^b	244	39	0	0	0	0	244	39
MYH ^c	31	28	0	0	0	0	31	28
Multiple ^d	33	3	0	0	0	0	33	3
Subtotal	308	48	0	0	0	0	308	48
J								
404	167	31	35	15	5	5	206	33
501 ^b	5	9	0	0	0	0	5	9
MYH ^c	8	14	0	0	0	0	8	14
Multiple ^d	4	0	2	1	0	0	6	1
Subtotal	183	35	37	15	5	5	225	37
L								
405	96	20	51	18	4	5	152	27
501 ^b	480	87	0	0	0	0	480	87
MYH	39	32	15	20	0	0	54	37
Multiple ^c	48	6	6	1	0	0	54	6
Subtotal	663	95	73	27	4	5	740	99

^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 Hunts.

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

^eIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.

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

Table 6 (continued). Number of turkeys harvested during the 2015 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
M								
406	215	50	77	26	5	8	297	56
MYH ^c	15	20	0	0	0	0	15	20
Multiple ^d	20	6	7	2	0	0	27	6
Subtotal	251	54	84	26	5	8	340	60
T								
407	13	4	16	5	0	0	28	6
501 ^b	315	72	0	0	0	0	315	72
MYH ^c	8	14	0	0	0	0	8	14
Multiple ^d	21	7	6	2	0	0	27	8
Subtotal	357	74	22	5	0	0	378	74
W								
408	28	6	6	3	1	2	36	7
501 ^b	135	47	0	0	0	0	135	47
MYH ^c	15	20	0	0	0	0	15	20
Multiple ^d	21	5	0	0	0	0	21	5
Subtotal	200	52	6	3	1	2	207	52
WA								
409	16	6	3	3	0	0	19	7
501 ^b	110	46	0	0	0	0	110	46
MYH ^c	15	20	0	0	0	0	15	20
Multiple ^d	6	0	0	0	0	0	6	0
Subtotal	147	51	3	3	0	0	150	51
Eastern YY^e								
501 ^b	505	91	0	0	0	0	505	91
MYH ^c	39	32	0	0	0	0	39	32
Multiple ^d	39	5	0	0	0	0	39	5
Subtotal	583	96	0	0	0	0	583	96
Unknown YY^f								
501 ^b	160	51	0	0	0	0	160	51
MYH ^c	54	37	0	0	0	0	54	37
Multiple ^d	8	4	0	0	3	2	11	4
Subtotal	222	63	0	0	3	2	225	63
Statewide								
Total ^a	4,452	236	279	44	20	11	4,751	240

^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 Hunts.

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

^eIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair 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 2015 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types	
	Private		Public		Unknown			
	%	95% CL	%	95% CL	%	95% CL	% ^a	95% CL
G								
401	46	11	40	8	0	0	38	7
501 ^a	60	6	0	0	0	0	60	6
MYH ^b	65	18	67	50	0	0	68	17
Multiple ^c	86	3	71	12	100	0	81	4
Subtotal	61	6	48	12	100	0	60	5
GB								
402	50	7	52	8	25	24	52	6
501 ^a	65	7	0	0	0	0	65	7
MYH ^b	90	12	100	0	100	0	91	11
Multiple ^c	73	5	62	11	0	0	71	5
Subtotal	68	5	58	10	68	37	68	5
GC								
403	60	15	58	9	0	0	58	8
501 ^a	66	4	0	0	0	0	66	4
MYH ^b	48	17	0	0	0	0	47	17
Multiple ^c	71	1	47	6	0	0	69	2
Subtotal	64	4	45	12	0	0	64	4
HA								
410 ^b	53	4	0	0	0	0	53	4
MYH ^b	80	19	0	0	0	0	80	19
Multiple ^c	68	4	0	0	0	0	68	4
Subtotal	57	4	0	0	0	0	57	4
J								
404	63	5	56	9	43	28	60	5
501 ^a	100	0	0	0	0	0	100	0
MYH ^b	63	31	100	0	0	0	70	27
Multiple ^c	56	4	62	6	0	0	57	3
Subtotal	63	5	60	8	43	28	62	5
L								
405	53	6	43	6	100	0	51	4
501 ^a	57	5	0	0	0	0	57	5
MYH ^b	68	15	50	46	0	0	68	14
Multiple ^c	72	2	58	6	100	0	69	2
Subtotal	58	4	45	7	51	49	57	3

^aLicenses were valid on private lands only.

^bMentored Youth Hunts.

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

^dIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.

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

Table 7 (continued). Proportion of hunters that rated their hunting experience as excellent, very good, or good during the 2015 Michigan fall turkey hunting season.

Area and hunting license	Land type						All land types	
	Private		Public		Unknown			
	%	95% CL	%	95% CL	%	95% CL	% ^a	95% CL
M								
406	51	5	38	6	57	29	48	4
MYH ^b	60	28	25	40	0	0	58	26
Multiple ^c	64	6	37	6	0	0	57	5
Subtotal	52	5	37	6	57	29	49	4
T								
407	58	9	57	7	0	0	58	6
501 ^a	64	6	0	0	0	0	64	6
MYH ^b	55	20	0	0	0	0	55	20
Multiple ^c	64	5	66	11	0	0	63	5
Subtotal	63	6	59	6	0	0	62	5
W								
408	63	7	57	12	33	29	59	6
501 ^a	67	10	0	0	0	0	67	10
MYH ^b	83	28	0	0	0	0	83	28
Multiple ^c	87	1	0	0	0	0	87	1
Subtotal	69	7	57	12	33	29	68	7
WA								
409	48	12	50	26	100	0	50	11
501 ^a	51	10	0	0	0	0	51	10
MYH ^b	70	27	0	0	0	0	70	27
Multiple ^c	90	1	0	0	0	0	80	9
Subtotal	55	9	44	24	100	0	55	9
Eastern YY^d								
501 ^a	64	5	0	0	0	0	64	5
MYH ^c	63	17	0	0	0	0	63	17
Multiple ^c	74	2	0	0	0	0	74	2
Subtotal	64	4	0	0	0	0	64	4
Unknown YY^e								
501 ^a	52	8	0	0	0	0	52	8
MYH ^b	58	18	50	65	100	0	62	16
Multiple ^c	56	13	57	24	0	0	48	12
Subtotal	53	7	51	56	85	19	54	7
Statewide								
Total	61	2	47	3	60	17	61	1

^aLicenses were valid on private lands only.

^bMentored Youth Hunts.

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

^dIncluded Genesee, Lapeer, Macomb, Oakland, and St. Clair 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 2015 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	41	15	280	150	5	3	9	5	34	17
Allegan	549	80	3,260	648	200	52	34	7	67	7
Antrim	208	35	1,172	263	78	27	32	9	65	8
Baraga	15	10	59	41	5	6	33	29	33	29
Barry	387	66	2,544	576	90	37	21	8	54	9
Bay	101	39	430	183	40	23	40	19	58	18
Berrien	246	55	1,646	452	76	32	29	10	69	11
Branch	206	58	847	283	44	25	20	11	68	13
Calhoun	390	77	2,040	533	64	29	17	7	58	10
Cass	221	53	1,331	394	49	25	21	10	52	12
Charlevoix	108	29	546	160	36	16	33	12	63	14
Cheboygan	116	30	578	191	26	12	22	10	55	13
Chippewa	29	12	270	169	5	4	17	14	47	21
Clinton	227	60	1,556	608	54	28	24	11	66	12
Delta	157	36	943	263	35	14	19	8	43	11
Dickinson	112	27	750	213	45	23	29	10	44	12
Eaton	238	62	1,916	658	76	37	30	12	57	13
Emmet	84	27	447	143	16	11	16	10	70	13
Genesee	318	70	1,955	688	146	50	44	11	80	9
Gogebic	78	24	480	172	24	17	31	17	47	16
Gratiot	231	58	1,355	493	68	34	27	11	62	12

^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 2015 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
Hillsdale	410	78	1,944	505	136	48	32	9	69	9
Houghton	56	22	309	160	13	10	18	13	41	18
Huron	421	78	2,284	578	138	44	31	8	69	9
Ingham	280	64	1,444	467	95	38	34	11	78	9
Ionia	229	56	1,715	585	78	41	30	12	57	12
Iron	137	32	1,073	360	48	17	33	11	62	11
Isabella	243	58	1,280	383	93	35	38	12	71	11
Jackson	499	87	3,023	752	140	46	28	8	57	9
Kalamazoo	316	62	2,012	590	89	34	28	9	56	10
Kent	428	77	2,452	539	112	38	25	8	60	9
Keweenaw	5	6	18	21	0	0	0	0	50	54
Lapeer	501	87	3,291	764	160	53	30	8	63	9
Lenawee	351	72	2,197	596	88	40	22	9	59	10
Livingston	476	82	2,720	646	132	43	26	7	62	9
Luce	3	4	15	24	0	0	0	0	0	0
Mackinac	10	8	33	34	0	0	0	0	25	33
Macomb	161	51	901	381	44	27	27	14	59	15
Marquette	63	23	444	186	5	6	8	9	20	13
Mecosta	272	49	1,346	282	64	25	23	8	56	9
Menominee	207	41	1,186	319	117	47	43	10	64	10
Midland	295	60	1,493	415	111	38	35	10	66	10

^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 2015 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
Montcalm	335	71	2,332	615	116	50	30	10	62	10
Muskegon	232	54	1,374	383	100	47	34	11	56	12
Newaygo	422	52	2,657	409	126	31	27	6	58	7
Oakland	357	74	2,063	574	93	34	25	9	67	10
Oceana	194	36	1,283	294	88	27	41	10	64	9
Ontonagon	42	15	268	142	5	6	12	12	55	18
Otsego	175	36	810	250	42	15	24	8	64	10
Ottawa	435	83	2,174	545	184	54	41	9	81	7
Saginaw	403	78	2,366	627	108	45	23	8	54	10
St. Clair	565	93	3,021	665	141	48	23	7	57	8
St. Joseph	185	50	1,256	448	48	25	26	12	50	14
Sanilac	422	80	2,504	677	83	35	18	7	56	10
Schoolcraft	55	21	325	159	10	7	18	12	40	18
Shiawassee	240	65	1,634	618	58	30	21	10	57	13
Tuscola	471	82	2,636	616	156	49	32	8	61	9
Van Buren	353	72	2,183	601	70	32	19	8	38	10
Washtenaw	381	72	2,190	592	145	51	34	9	66	9
Unknown	1,371	130	6,457	844	332	67	24	4	51	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.