2017 MICHIGAN FALL TURKEY HUNTER SURVEY

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ABSTRACT

A survey of turkey hunters was conducted following the 2017 fall hunting season to determine turkey harvest and hunter participation. Overall, 28,557 people purchased 30,306 licenses in 2017 (versus 28,877 people purchased 30,664 licenses in 2016, and 29,337 people purchased 30,657 licenses in 2015). The number of licenses sold in 2017 decreased 1% from both 2016 and 2015. Excluding the Pure Michigan Hunt and Mentored Youth Hunt licenses, 17,524 hunters purchased 19,186 licenses in 2017, which was nearly 3% fewer licenses sold than in 2016 but nearly the same number of licenses sold in 2015 (18,088 hunters purchased 19,770 licenses in 2016, and 17,906 hunters purchased 19,261 licenses in 2015). Most license buyers (96%) purchased a single hunting license in 2017. During the 2017 fall hunt, an estimated 14,479 hunters harvested about 4,305 turkeys. Hunter numbers decreased significantly by 5% from 2015, but their hunting effort did not change significantly. The 2017 harvest did not change significantly from 2015 (4,751 turkeys were harvested in 2015). Hunter success was 27% in 2017 (versus 29% success in 2015). About 60% of the hunters in 2017 rated their hunting experience as excellent, very good, or good (versus 61% satisfaction in 2015). Hunting success and hunter satisfaction in 2017 did not change significantly from 2015.

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 2017, 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 open to hunting in 2017 was the same as during 2013-2016.

People interested in obtaining a fall turkey hunting license could enter into a random drawing (lottery) for licenses conducted by the Department of Natural Resources (DNR) or purchase a license that wasn't distributed in the drawing. 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. All units except GC (Hunt 403) had left-over licenses after the drawing (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 401-409 (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. Turkeys could be harvested with a shotgun, crossbow, or archery equipment.

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 the 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 ($\geq$1 year old) (Kelly 1975). In addition, hunters were asked what type of hunting equipment was used to hunt and kill turkeys. Finally, hunters rated their overall hunting experience (excellent, very good, good, fair, or poor).

Following the 2017 fall turkey hunting season, a questionnaire (Appendix A) was sent to 10,918 randomly selected people that had purchased a 2017 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=118; N_{GB}=160; N_{GC}=117; N_{HA}=1,264; N_J=1,079; N_L=340; N_M=1,110; N_T=111; N_W=127; N_{WA}=59; and N_{YY}=12,337). The twelfth stratum included hunters obtaining only a Mentored Youth Hunt license (N=11,031). 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=187). 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=515).

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 the 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 95 out of 100 times if the study had been repeated (Payton et al. 2003).

Questionnaires were mailed initially during mid-December 2017, and up to two follow-up questionnaires were mailed to nonrespondents. Although 10,918 people were sent the questionnaire, 236 surveys were undeliverable resulting in an adjusted sample size of 10,682. Questionnaires were returned by 5,875 people, yielding a 55% adjusted

response rate. In addition, 515 people voluntarily reported information about their hunting activity via the internet.

RESULTS

In 2017, the DNR offered 51,350 fall turkey hunting licenses for sale, excluding Pure Michigan Hunt and Mentored Youth Hunt licenses (Table 1). The quota was 500 fewer licenses than during each of the previous four years (2014-2016). A total of 4,257 people were eligible for a license via the drawing, and 3,947 people were awarded a license (93% of applicants). The 3,947 successful applicants purchased 2,618 licenses that they had been awarded in the drawing (66% of successful applicants).

All units except GC (Hunt 403) had left-over licenses after the drawing. A total of 489 leftover licenses were purchased by people that had applied for a hunt in the drawing. In addition, 16,079 leftover licenses were purchased by people that had not entered into the drawing. Also, 3 people were awarded a Pure Michigan Hunt license, and 11,117 youth obtained a turkey hunting license when they obtained their Mentored Youth Hunt license. Among the hunters buying a quota license in 2017 (excluded Pure Michigan Hunt and Mentored Youth Hunt licenses), 14% purchased a license that was awarded in the drawing and 86% purchased a left-over license (Figure 2).

Overall, 28,557 people purchased 30,306 licenses in 2017 (versus 28,877 people purchased 30,664 licenses in 2016, and 29,337 people purchased 30,657 licenses in 2015). The number of licenses sold in 2017 decreased 1% from both 2016 and 2015. Excluding the Pure Michigan Hunt and Mentored Youth Hunt licenses, 17,524 hunters purchased 19,186 licenses in 2017, which was nearly 3% fewer licenses sold than in 2016 but nearly the same number of licenses sold in 2015 (18,088 hunters purchased 19,770 licenses in 2016, and 17,906 hunters purchased 19,261 licenses in 2015).

Excluding people obtaining a Mentored Youth Hunt license, the average age of the 17,524 license buyers was 49 years (Figure 3), 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 (96%) purchased a single hunting license in 2017 (Figure 4). About 4% 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 2017 (17,524) decreased by about 16% in ten years from 2007 (20,854 people purchased a license in 2007, Figure 5).

In 2017, about 14,479 hunters spent 90,818 days afield pursuing turkeys ($\bar{x} = 6.3 \pm 0.2$ days/hunter) (Tables 3 and 4, Figure 6). The number of people pursuing turkeys in 2017 decreased significantly by 5% from 2015; however, their hunting effort did not change significantly. About 92% of the hunters that went afield were males (13,320 ± 280) and 8% of the hunters were females (1,158 ± 143).

About 27% of active hunters successfully harvested a turkey in 2017, and they harvested an estimated 4,305 turkeys (Tables 5 and 6). The number of turkeys harvested did not change significantly from 2015 (4,751 turkeys harvested in 2015). In addition, hunter success was not significantly different between 2017 and 2015 (27% versus 29%, Figure 6). Among the 3,894 hunters that took at least one turkey, 93% (3,605 ± 204) of these hunters took one turkey, 6% (232 ± 50) took 2 turkeys, and about 1% (58 ± 23) took more than 2 turkeys (Figure 7). Hunter success was statistically greater for hunters using private lands than for hunters using public lands in 2017 (27% versus 17%, Table 5).

About 90% (12,999 ± 289) of turkey hunters hunted solely on private land, 7% (941 ± 76) hunted on public land only, and 3% (403 ± 61) hunted on both private and public lands. Additionally, about 1% of hunters (135 ± 42) hunted on land of unknown ownership. Of the 4,305 turkeys harvested in 2017, 94% of these birds were taken on private land (4,052), while about 6% of the harvest (235) was taken on public land (Table 6). About 64% of the harvested birds had a beard (2,773 ± 196). Most of these bearded birds (83%) were adults (2,291 ± 180); 17% were juvenile birds (482 ± 81).

Of the 14,479 turkey hunters in 2017, nearly 60% 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 53%). Changes in hunter satisfaction between years generally parallel changes in hunter success (Figure 8). Between 2015 and 2017, neither hunter success (29% in 2015 versus 27% in 2017) nor satisfaction changed significantly (61% in 2015 versus 60% in 2017).

Hunter numbers were greatest in Newaygo, Tuscola, Genesee, Lapeer, and Washtenaw counties; these counties had more than 450 hunters (Table 8). Harvest was greatest in Allegan, Lapeer, Washtenaw, and Livingston counties; these counties had more than 130 turkeys taken by hunters.

Most hunters (57 ± 2%; 8,279 ± 278 hunters) used shotguns while hunting turkeys, although 37 ± 2% (5,364 ± 177) used a crossbow, and 19 ± 1% (2,796 ± 177) of the hunters used either a compound, recurve, or long bow. About 67% (2,878 ± 211) of the harvested turkeys were taken with a shotgun, while 25% (1,055 ± 125) of harvested turkeys were taken with a crossbow. About 8% (361 ± 69) were taken with either a compound, recurve, or long bow. About 31 ± 2% of the hunters using a shotgun took at least one turkey with their shotgun; 19 ± 2% of the hunters using a crossbow harvested a turkey; and 13 ± 2% of hunters using either a compound, recurve, or long bow took a turkey.

ACKNOWLEDGEMENTS

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Payton, M. E., M. H. Greenstone, and N. Schenker. 2003. Overlapping confidence intervals or standard error intervals: what do they mean in terms of statistical significance? Journal of Insect Science 3:34.
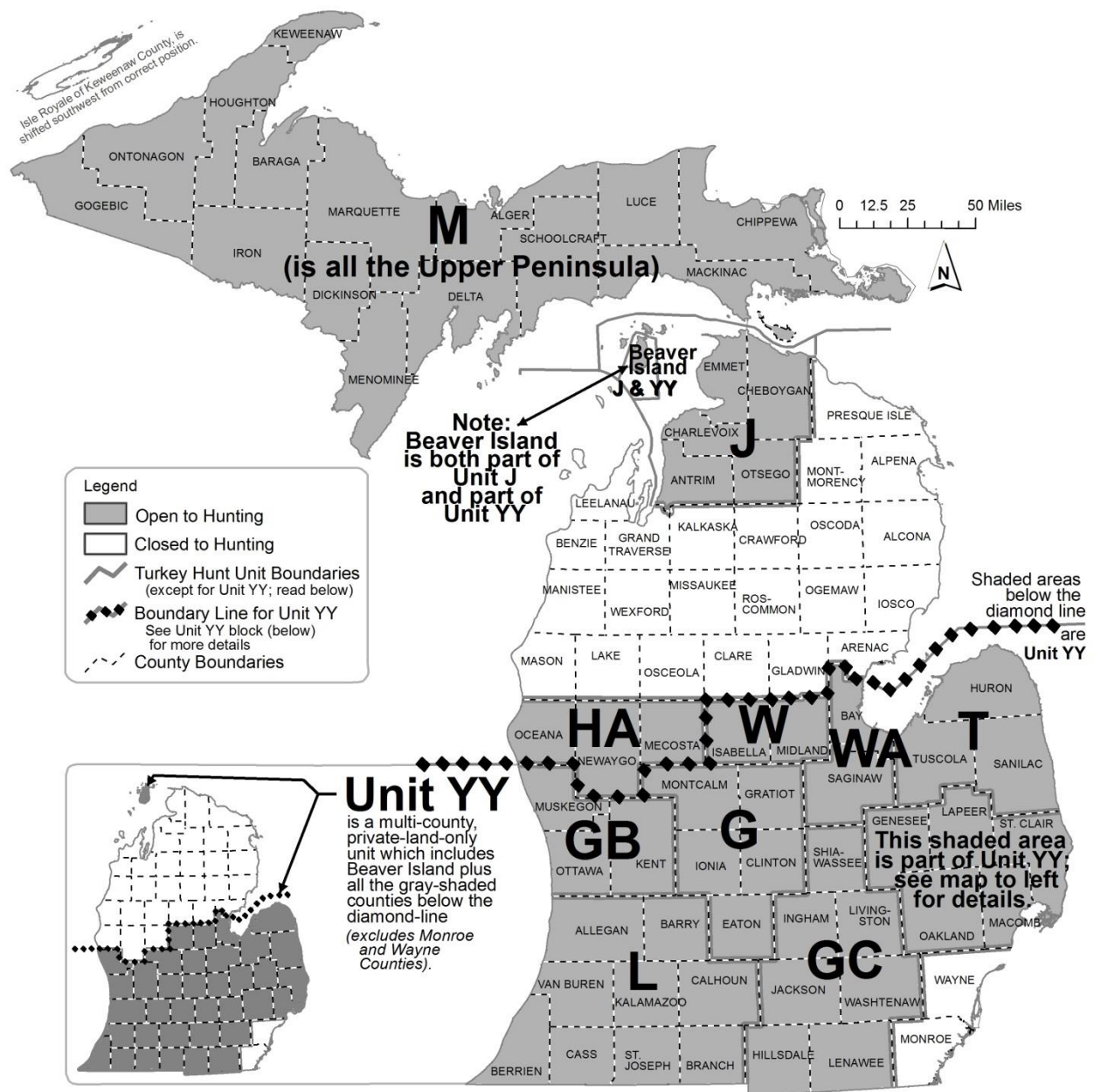
Figure 1. Management units open for fall turkey hunting in Michigan, 2017.
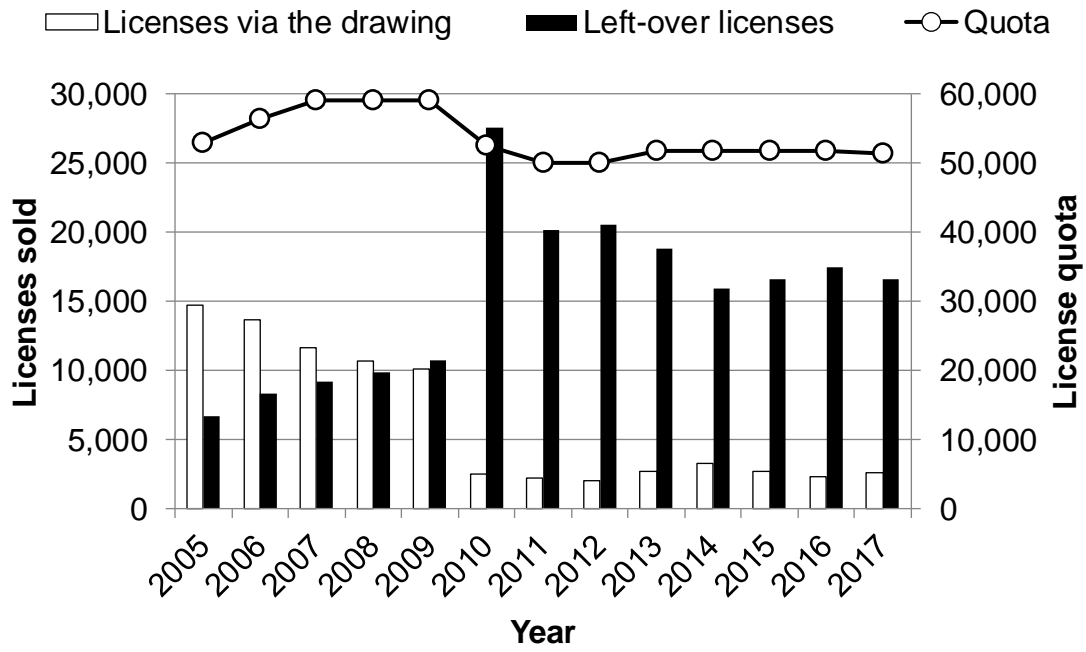
Figure 2. The number of fall turkey hunting licenses available for quota hunts (excluded Mentored Youth licenses and Pure Michigan hunts), the number of quota hunt licenses sold via the drawing, and the number of quota hunt licenses sold as left-over licenses during 2005-2017.
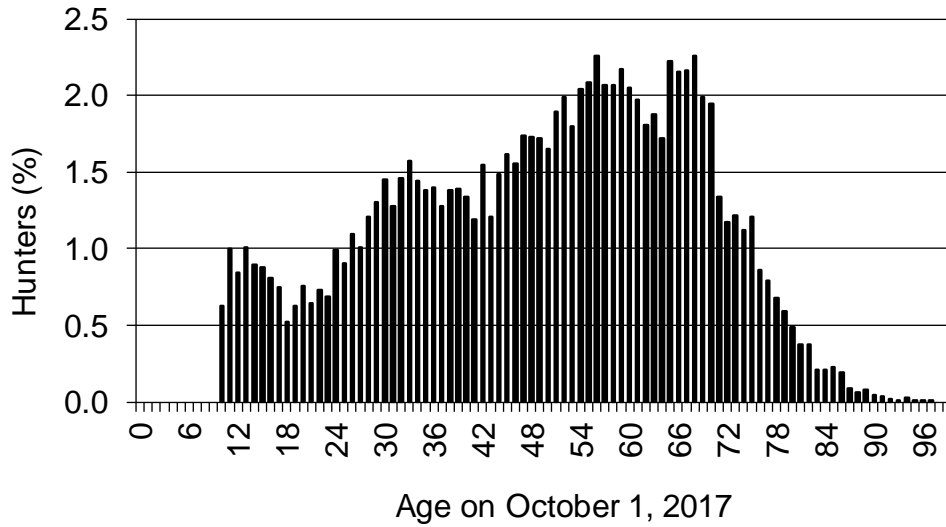
Figure 3. Age of people that purchased a turkey hunting license in Michigan for the 2017 fall hunting season ($\bar{x}$ = 49 years). Licenses were purchased by 17,524 people, excluding Mentored Youth Hunt license buyers.
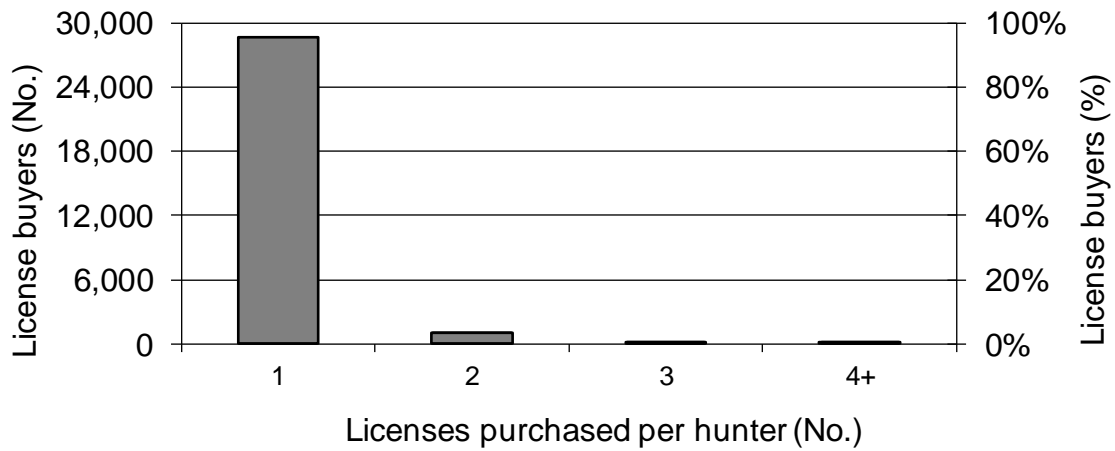
Figure 4. Number of licenses purchased per person for hunting turkey in Michigan during the 2017 fall hunting season (included all hunting license types).
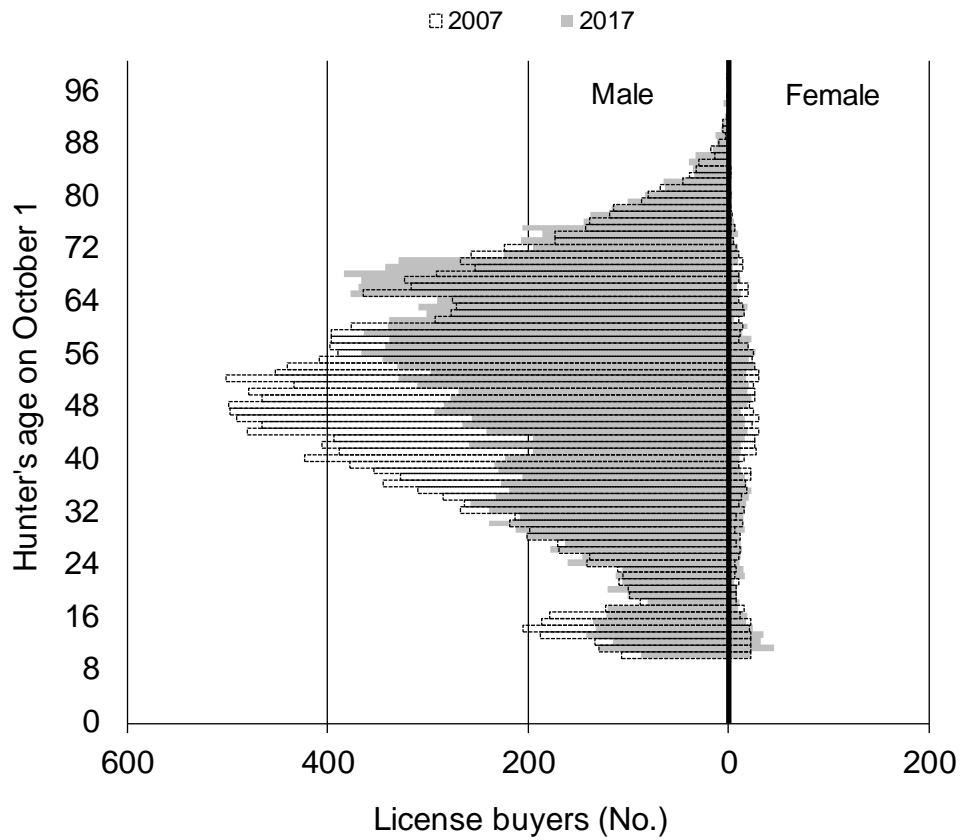
Figure 5. Number of fall turkey hunting license buyers in Michigan by age and sex during 2007 and 2017 hunting seasons, excluding Mentored Youth Hunt licenses. The number of people buying a license was 20,854 in 2007 and 17,524 in 2017.
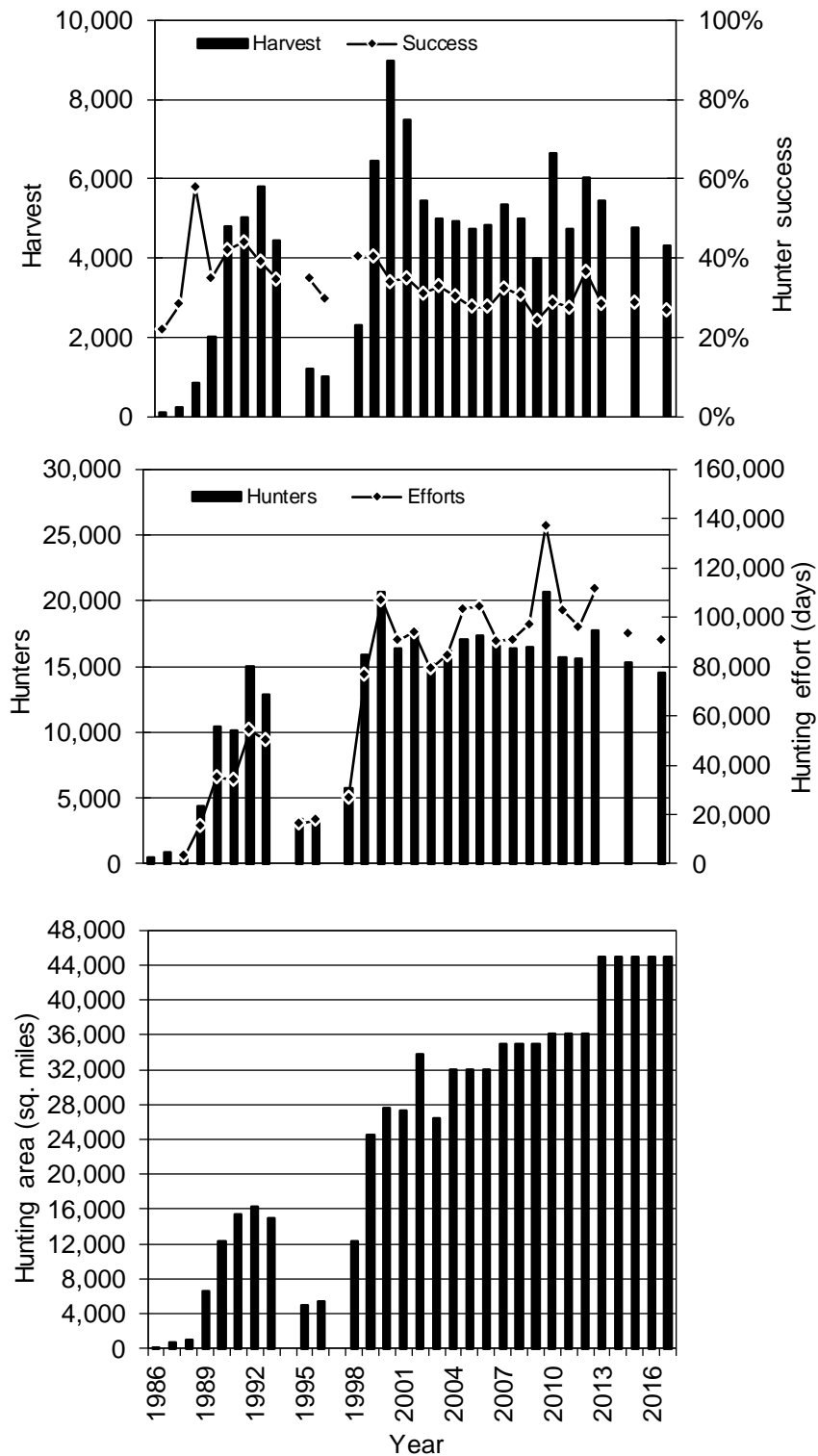
Figure 6. Number of hunters, hunting efforts (days), harvest, hunting success, and hunting area during the fall turkey hunting season, 1986-2017. Turkeys were not hunted during the fall in 1994 and 1997. No surveys were done in 2014 and 2016.

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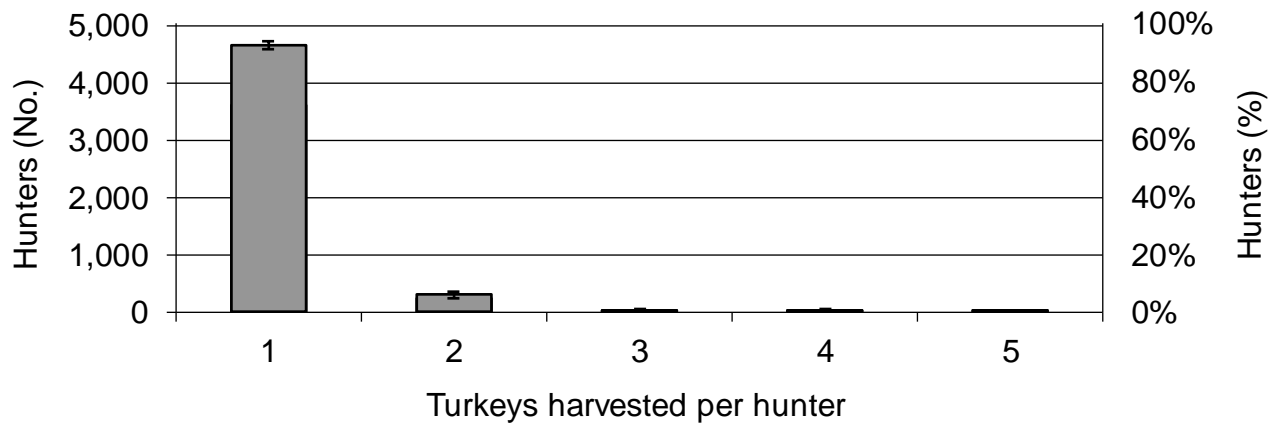
Figure 7. Number of turkeys harvested per successful hunter in Michigan during the 2017 fall hunting season.
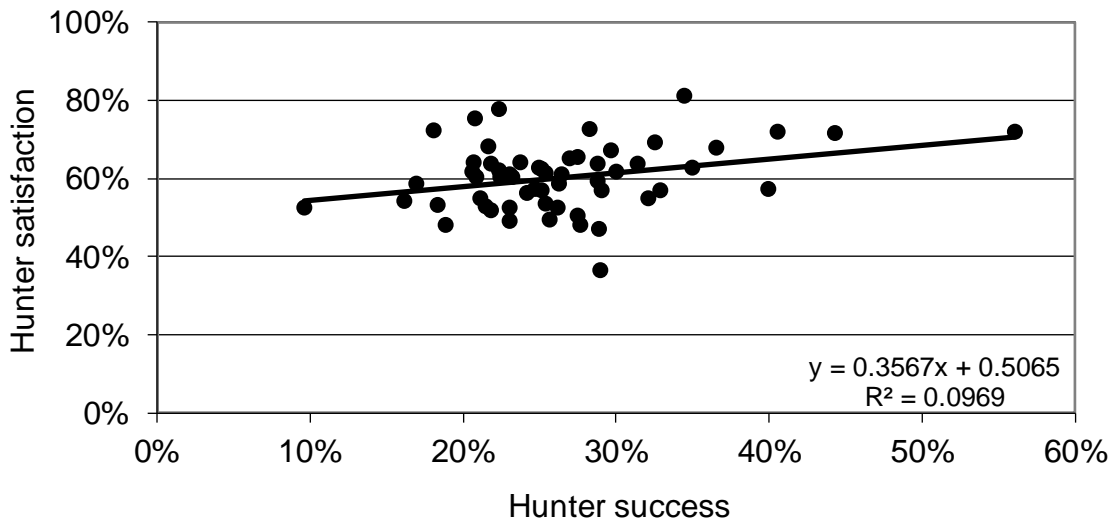
Figure 8. Hunter satisfaction (expressed as the percentage of hunters rating their hunting experience as excellent, very good, or good) associated with hunter success for each of 57 counties in Michigan during the 2017 fall turkey hunting season (only included counties with at least 20 hunters).

Table 1. Number of hunting licenses available and number of people applying for licenses during the 2017 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	182	182	18	131	5	13	149
GB	402	250	173	173	77	118	10	67	195
GC	403	200	510	200	0	133	0	0	133
HA[b]	410	1,700	679	679	1,021	466	49	971	1,486
J	404	1,500	468	468	1,032	289	46	896	1,231
L	405	500	352	352	148	263	26	121	410
M	406	1,500	453	453	1,047	327	75	970	1,372
T	407	200	172	172	28	119	8	19	146
W	408	200	97	97	103	55	5	98	158
WA	409	100	47	47	53	27	7	46	80
YY[b]	501	45,000	1,124	1,124	43,876	690	258	12,878	13,826
Pure MI[c]	NA[c]	NA	0	0	NA	0	0	0	3
MYH[d]	Any	NA	0	0	NA	0	0	0	11,117
Statewide	All	51,350	4,257	3,947	47,403	2,618	489	16,079	30,306

[a]Quotas were assigned by hunts within each management unit.
[b]Licenses were valid on private lands only.
[c]Pure Michigan Hunt. These hunters could hunt in any management unit.
[d]Mentored 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 2017 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
1,791	200	6,773	1,140	358	96	20	5	64	6

[a]Proportion of hunters that rated their hunting experience as excellent, very good, or good.

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Table 3. Number of hunters during the 2017 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[a]	95% CL
G								
401	35	6	55	6	1	1	84	6
501[b]	700	102	5	9	15	15	720	103
MYH[c]	119	56	16	21	0	0	127	58
Multiple[d]	29	4	18	4	0	0	46	5
Subtotal	884	116	94	24	17	15	978	118
GB								
402	76	9	49	8	0	0	115	8
501[b]	695	101	5	9	5	9	705	102
MYH[c]	143	62	16	21	0	0	159	65
Multiple[d]	58	6	9	3	0	0	67	7
Subtotal	973	119	80	24	5	9	1,046	121
GC								
403	23	6	65	8	2	2	80	7
501[b]	1,978	161	61	31	15	15	2,019	163
MYH[c]	215	75	0	0	0	0	215	75
Multiple[d]	73	4	11	2	1	2	85	5
Subtotal	2,289	178	137	32	18	16	2,398	179
HA								
410[b]	890	44	6	6	12	9	904	43
MYH[c]	127	58	0	0	0	0	127	58
Multiple[d]	77	6	0	0	0	0	77	6
Subtotal	1,095	73	6	6	12	9	1,109	73
J								
404	559	45	221	37	6	7	732	42
501[b]	5	9	5	9	0	0	10	13
MYH[c]	72	44	8	15	0	0	80	46
Multiple[d]	25	3	15	3	0	0	39	4
Subtotal	661	64	250	41	6	7	861	64
L								
405	109	13	161	14	3	3	249	12
501[b]	2,004	162	36	24	10	13	2,029	163
MYH	191	71	8	15	0	0	199	72
Multiple[c]	80	6	17	4	0	0	93	6
Subtotal	2,384	177	221	31	13	13	2,570	179

[a]Number of hunters may not add up to total because hunters could hunt on both private and public lands.
[b]Licenses were valid on private lands only.
[c]Mentored Youth Hunts.
[d]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[e]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[f]Hunting activity occurred at unknown location within Management Unit YY.

Table 3 (continued). Number of hunters during the 2017 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[a]	95% CL
M								
406	607	40	309	36	7	7	789	36
MYH[c]	103	52	40	33	0	0	119	56
Multiple[d]	42	5	15	3	0	0	54	6
Subtotal	752	66	363	48	7	7	962	67
T								
407	28	6	67	6	0	0	89	5
501[b]	883	113	5	9	15	15	903	114
MYH[c]	167	66	8	15	0	0	175	68
Multiple[d]	39	5	14	4	0	0	50	6
Subtotal	1,117	131	94	19	15	15	1,217	133
W								
408	52	8	17	6	2	2	70	8
501[b]	330	71	0	0	5	9	335	71
MYH[c]	88	48	0	0	0	0	88	48
Multiple[d]	20	3	1	0	0	0	21	3
Subtotal	490	86	18	6	7	9	513	87
WA								
409	26	6	7	4	0	0	33	6
501[b]	309	69	0	0	5	9	315	69
MYH[c]	103	52	8	15	0	0	111	54
Multiple[d]	19	3	1	2	0	0	20	4
Subtotal	458	87	16	15	5	9	479	88
Eastern YY[e]								
501[b]	1,573	147	0	0	5	9	1,578	147
MYH[c]	199	72	0	0	0	0	199	72
Multiple[d]	63	4	0	0	0	0	63	4
Subtotal	1,835	163	0	0	5	9	1,840	164
Unknown YY[f]								
501[b]	528	89	30	22	25	20	573	92
MYH[c]	191	71	32	29	0	0	215	75
Multiple[d]	14	4	8	3	0	0	22	5
Subtotal	733	114	70	37	25	20	810	119
Statewide								
Total	13,399	290	1,344	95	135	42	14,479	290

[a]Number of hunters may not add up to total because hunters could hunt on both private and public lands.
[b]Licenses were valid on private lands only.
[c]Mentored Youth Hunts.
[d]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[e]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[f]Hunting activity occurred at unknown location within Management Unit YY.

Table 4. Days of hunting effort during the 2017 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[a]	95% CL
G								
401	182	42	260	42	8	8	451	53
501[b]	5,058	1,063	25	45	167	196	5,250	1,081
MYH[c]	557	477	24	33	0	0	581	480
Multiple[d]	183	18	125	27	0	0	307	32
Subtotal	5,980	1,166	434	74	175	196	6,589	1,184
GB								
402	481	77	319	81	0	0	800	99
501[b]	4,408	854	25	45	51	89	4,484	859
MYH[c]	525	395	32	41	0	0	557	397
Multiple[d]	433	62	43	20	0	0	476	64
Subtotal	5,848	946	419	103	51	89	6,318	954
GC								
403	78	27	378	75	8	8	464	82
501[b]	13,245	1,594	284	178	81	98	13,610	1,617
MYH[c]	669	285	0	0	0	0	669	285
Multiple[d]	538	52	84	9	37	40	659	66
Subtotal	14,530	1,620	746	194	125	106	15,401	1,646
HA								
410[b]	5,286	476	17	20	75	90	5,378	480
MYH[c]	438	282	0	0	0	0	438	282
Multiple[d]	420	27	0	0	0	0	420	27
Subtotal	6,144	554	17	20	75	90	6,236	557
J								
404	3,022	432	1,169	266	3	5	4,193	479
501[b]	10	18	5	9	0	0	15	20
MYH[c]	215	175	48	88	0	0	263	196
Multiple[d]	156	12	91	15	0	0	247	19
Subtotal	3,402	467	1,313	280	3	5	4,718	518
L								
405	710	123	1,237	183	8	7	1,955	204
501[b]	14,924	1,766	132	97	36	48	15,092	1,769
MYH	700	376	48	88	0	0	748	385
Multiple[c]	524	44	82	23	0	0	606	55
Subtotal	16,859	1,810	1,499	226	43	48	18,401	1,823

[a]Column and row totals for hunting effort may not equal statewide totals because of rounding errors.
[b]Licenses were valid on private lands only.
[c]Mentored Youth Hunts.
[d]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[e]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[f]Hunting activity occurred at unknown location within Management Unit YY.

Table 4 (continued). Days of hunting effort during the 2017 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[a]	95% CL
M								
406	3,208	369	1,991	321	22	20	5,221	501
MYH[c]	398	275	207	224	0	0	605	481
Multiple[d]	253	31	110	27	0	0	363	53
Subtotal	3,859	461	2,308	392	22	20	6,189	697
T								
407	169	46	355	63	0	0	524	76
501[b]	5,595	977	107	187	86	100	5,788	999
MYH[c]	716	349	32	58	0	0	748	354
Multiple[d]	265	47	37	14	0	0	302	57
Subtotal	6,745	1,040	531	207	86	100	7,362	1,064
W								
408	344	84	116	65	0	0	460	99
501[b]	2,004	554	0	0	5	9	2,009	554
MYH[c]	294	200	0	0	0	0	294	200
Multiple[d]	91	13	1	0	0	0	92	13
Subtotal	2,733	595	117	65	5	9	2,855	598
WA								
409	213	98	61	39	0	0	274	100
501[b]	1,466	393	0	0	25	45	1,491	395
MYH[c]	390	208	32	58	0	0	422	216
Multiple[d]	109	17	7	8	0	0	116	19
Subtotal	2,178	456	100	70	25	45	2,303	462
Eastern YY[e]								
501[b]	9,532	1,262	0	0	15	27	9,547	1,262
MYH[c]	661	298	0	0	0	0	661	298
Multiple[d]	374	33	0	0	0	0	374	33
Subtotal	10,566	1,297	0	0	15	27	10,581	1,297
Unknown YY[f]								
501[b]	2,871	729	76	71	0	0	2,947	734
MYH[c]	724	344	64	62	0	0	788	350
Multiple[d]	95	23	35	15	0	0	130	28
Subtotal	3,690	807	175	95	0	0	3,865	814
Statewide								
Total[a]	82,534	3,075	7,657	631	627	285	90,818	3,148

[a]Column and row totals for hunting effort may not equal statewide totals because of rounding errors.
[b]Licenses were valid on private lands only.
[c]Mentored Youth Hunts.
[d]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[e]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[f]Hunting activity occurred at unknown location within Management Unit YY.

Table 5. Hunting success (proportion of hunters taking at least one turkey) during the 2017 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	27	9	2	2	0	0	13	4
501[a]	24	6	0	0	33	48	24	6
MYH[b]	20	19	0	0	0	0	19	18
Multiple[c]	29	7	38	10	0	0	34	6
Subtotal	24	6	9	3	31	44	23	5
GB								
402	25	7	18	8	0	0	25	6
501[a]	26	7	100	0	0	0	27	7
MYH[b]	28	19	0	0	0	0	25	18
Multiple[c]	50	6	47	16	0	0	50	6
Subtotal	28	6	23	12	0	0	28	5
GC								
403	20	12	7	4	0	0	11	5
501[a]	25	4	8	14	0	0	25	4
MYH[b]	15	13	0	0	0	0	15	13
Multiple[c]	44	3	9	2	100	0	40	3
Subtotal	25	4	8	7	8	11	24	3
HA								
410[b]	26	4	0	0	25	34	25	4
MYH[b]	19	18	0	0	0	0	19	18
Multiple[c]	37	4	0	0	0	0	37	4
Subtotal	26	4	0	0	25	34	26	4
J								
404	32	5	16	7	0	0	29	5
501[a]	0	0	100	0	0	0	50	62
MYH[b]	33	29	0	0	0	0	30	27
Multiple[c]	56	7	36	9	0	0	49	5
Subtotal	33	6	19	7	0	0	31	5
L								
405	19	6	13	4	50	42	17	4
501[a]	27	4	0	0	0	0	27	4
MYH[b]	17	14	0	0	0	0	16	13
Multiple[c]	45	4	41	14	0	0	44	4
Subtotal	26	4	12	4	12	17	25	3

[a]Licenses were valid on private lands only.
[b]Mentored Youth Hunts.
[c]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[d]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[e]Hunting activity occurred at unknown location within Management Unit YY.

Table 5 (continued). Hunting success (proportion of hunters taking at least one turkey) during the 2017 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	37	5	27	6	0	0	38	4
MYH[b]	38	25	20	33	0	0	40	23
Multiple[c]	48	6	20	4	0	0	42	5
Subtotal	38	5	26	6	0	0	39	4
T								
407	20	9	15	5	0	0	17	5
501[a]	23	6	0	0	0	0	22	5
MYH[b]	14	14	0	0	0	0	14	13
Multiple[c]	53	7	36	14	0	0	51	6
Subtotal	23	5	16	5	0	0	22	5
W								
408	27	9	0	0	0	0	20	7
501[a]	28	10	0	0	0	0	27	10
MYH[b]	18	21	0	0	0	0	18	21
Multiple[c]	62	7	0	0	0	0	59	7
Subtotal	27	8	0	0	0	0	26	7
WA								
409	25	13	0	0	0	0	20	11
501[a]	36	11	0	0	0	0	35	11
MYH[b]	8	14	0	0	0	0	7	13
Multiple[c]	50	9	0	0	0	0	46	9
Subtotal	30	8	0	0	0	0	28	8
Eastern YY[d]								
501[a]	28	4	0	0	0	0	28	4
MYH[c]	12	12	0	0	0	0	12	12
Multiple[c]	37	3	0	0	0	0	37	3
Subtotal	26	4	0	0	0	0	26	4
Unknown YY[e]								
501[a]	28	8	17	27	20	31	27	7
MYH[b]	33	18	0	0	0	0	30	16
Multiple[c]	55	12	31	18	0	0	47	11
Subtotal	30	7	11	13	20	31	29	7
Statewide								
Total	27	1	17	3	12	10	27	1

[a]Licenses were valid on private lands only.
[b]Mentored Youth Hunts.
[c]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[d]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[e]Hunting activity occurred at unknown location within Management Unit YY.

Table 6. Number of turkeys harvested during the 2017 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[a]	95% CL
G								
401	9	3	1	1	0	0	11	4
501[b]	183	61	0	0	5	9	188	62
MYH[c]	24	25	0	0	0	0	24	25
Multiple[d]	8	3	7	2	0	0	15	4
Subtotal	224	67	8	3	5	9	238	67
GB								
402	19	6	9	4	0	0	28	7
501[b]	208	67	5	9	0	0	213	67
MYH[c]	40	33	0	0	0	0	40	33
Multiple[d]	46	12	4	3	0	0	50	12
Subtotal	313	76	18	10	0	0	331	76
GC								
403	5	3	5	3	0	0	9	4
501[b]	553	106	5	9	0	0	558	107
MYH[c]	32	29	0	0	0	0	32	29
Multiple[d]	33	3	1	0	3	3	37	5
Subtotal	622	110	11	9	3	3	636	111
HA								
410[b]	271	49	0	0	3	5	274	49
MYH[c]	24	25	0	0	0	0	24	25
Multiple[d]	35	6	0	0	0	0	35	6
Subtotal	329	55	0	0	3	5	332	55
J								
404	188	36	36	16	0	0	224	39
501[b]	0	0	5	9	0	0	5	9
MYH[c]	24	25	0	0	0	0	24	25
Multiple[d]	15	2	5	2	0	0	20	3
Subtotal	227	44	46	19	0	0	274	47
L								
405	22	7	21	7	2	2	45	10
501[b]	604	112	0	0	0	0	604	112
MYH	32	29	0	0	0	0	32	29
Multiple[c]	41	6	9	4	0	0	50	8
Subtotal	699	117	30	8	2	2	731	117

[a]Column and row totals for hunting effort may not equal statewide totals because of rounding errors.
[b]Licenses were valid on private lands only.
[c]Mentored Youth Hunts.
[d]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[e]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[f]Hunting activity occurred at unknown location within Management Unit YY.

Table 6 (continued). Number of turkeys harvested during the 2017 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[a]	95% CL
M								
406	254	42	85	22	0	0	338	46
MYH[c]	40	33	8	15	0	0	48	36
Multiple[d]	29	3	6	1	0	0	35	3
Subtotal	323	53	99	26	0	0	421	59
T								
407	6	3	10	4	0	0	15	5
501[b]	233	69	0	0	0	0	233	69
MYH[c]	24	25	0	0	0	0	24	25
Multiple[d]	21	4	5	2	0	0	26	5
Subtotal	284	73	15	4	0	0	298	73
W								
408	14	5	0	0	0	0	14	5
501[b]	101	44	0	0	0	0	101	44
MYH[c]	16	21	0	0	0	0	16	21
Multiple[d]	17	4	0	0	0	0	17	4
Subtotal	149	49	0	0	0	0	149	49
WA								
409	7	4	0	0	0	0	7	4
501[b]	117	44	0	0	0	0	117	44
MYH[c]	8	15	0	0	0	0	8	15
Multiple[d]	9	3	0	0	0	0	9	3
Subtotal	141	47	0	0	0	0	141	47
Eastern YY[e]								
501[b]	451	85	0	0	0	0	451	85
MYH[c]	24	25	0	0	0	0	24	25
Multiple[d]	28	4	0	0	0	0	28	4
Subtotal	503	89	0	0	0	0	503	89
Unknown YY[f]								
501[b]	167	57	5	9	5	9	178	58
MYH[c]	64	41	0	0	0	0	64	41
Multiple[d]	8	3	2	2	0	0	10	4
Subtotal	239	70	8	9	5	9	252	71
Statewide								
Total[a]	4,052	244	235	37	18	14	4,305	246

[a]Column and row totals for hunting effort may not equal statewide totals because of rounding errors.
[b]Licenses were valid on private lands only.
[c]Mentored Youth Hunts.
[d]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[e]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[f]Hunting 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 2017 Michigan fall turkey hunting season.

| Area and hunting license | Land type | | | | | | | |
| | Private | | Public | | Unknown | | All land types | |
	%	95% CL	%	95% CL	%	95% CL	%[a]	95% CL
G								
401	58	10	41	8	0	0	48	6
501[a]	56	7	0	0	33	48	55	7
MYH[b]	80	19	50	65	0	0	75	20
Multiple[c]	20	9	16	11	0	0	19	7
Subtotal	58	7	36	13	31	44	55	6
GB								
402	59	8	48	10	0	0	54	6
501[a]	67	7	100	0	0	0	66	7
MYH[b]	56	21	50	65	0	0	55	20
Multiple[c]	28	7	47	16	0	0	31	6
Subtotal	62	6	52	15	0	0	61	6
GC								
403	73	13	51	9	100	0	56	8
501[a]	65	4	67	24	33	48	64	4
MYH[b]	81	14	0	0	0	0	81	14
Multiple[c]	10	4	13	12	100	0	12	4
Subtotal	65	4	55	12	44	42	64	4
HA								
410[b]	57	4	100	0	100	0	56	4
MYH[b]	56	23	0	0	0	0	56	23
Multiple[c]	28	6	0	0	0	0	28	6
Subtotal	55	5	100	0	100	0	55	4
J								
404	64	6	51	9	50	57	60	5
501[a]	100	0	100	0	0	0	100	0
MYH[b]	78	25	0	0	0	0	70	27
Multiple[c]	12	8	25	11	0	0	17	7
Subtotal	64	6	49	9	50	57	60	5
L								
405	65	7	54	6	100	0	58	5
501[a]	61	4	43	33	50	62	61	4
MYH[b]	54	19	0	0	0	0	52	18
Multiple[c]	18	5	70	8	0	0	24	5
Subtotal	59	4	52	8	62	49	59	4

[a]Licenses were valid on private lands only.
[b]Mentored Youth Hunts.
[c]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[d]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[e]Hunting 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 2017 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	66	5	56	7	0	0	62	4
MYH[b]	69	23	100	0	0	0	73	21
Multiple[c]	32	8	29	14	0	0	30	7
Subtotal	64	5	60	7	0	0	62	4
T								
407	55	12	56	8	0	0	52	6
501[a]	58	7	100	0	67	48	58	6
MYH[b]	67	19	0	0	0	0	64	19
Multiple[c]	30	8	32	15	0	0	29	7
Subtotal	58	6	50	11	67	48	58	6
W								
408	30	10	55	18	0	0	35	8
501[a]	54	11	0	0	100	0	55	11
MYH[b]	42	26	0	0	0	0	42	26
Multiple[c]	7	8	0	0	0	0	7	7
Subtotal	47	9	52	17	76	39	48	9
WA								
409	63	15	100	0	0	0	67	13
501[a]	59	11	0	0	100	0	60	11
MYH[b]	69	23	100	0	0	0	71	22
Multiple[c]	23	11	0	0	0	0	22	11
Subtotal	60	9	91	13	100	0	61	9
Eastern YY[d]								
501[a]	65	5	0	0	100	0	65	5
MYH[c]	64	18	0	0	0	0	64	18
Multiple[c]	7	4	0	0	0	0	7	4
Subtotal	63	4	0	0	100	0	63	4
Unknown YY[e]								
501[a]	63	8	50	36	60	38	62	8
MYH[b]	71	17	25	40	0	0	63	17
Multiple[c]	20	13	56	19	0	0	33	12
Subtotal	64	7	39	25	60	38	61	7
Statewide								
Total	61	2	53	4	56	15	60	2

[a]Licenses were valid on private lands only.
[b]Mentored Youth Hunts.
[c]Hunters that purchased multiple hunting licenses for multiple hunting areas.
[d]Included Genesee, Lapeer, Macomb, Oakland, and St. Clair counties within Management Unit YY.
[e]Hunting activity occurred at unknown location within Management Unit YY.

Table 8. Number of hunters, hunting effort, harvest, hunter success, and hunter satisfaction during the 2017 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	34	19	308	189	10	8	29	21	36	24
Allegan	450	80	3,127	745	168	71	29	8	64	9
Antrim	226	41	1,373	318	61	21	25	8	57	9
Baraga	37	14	254	120	11	11	16	13	54	19
Barry	408	75	2,538	596	77	31	19	7	48	9
Bay	157	52	679	233	28	18	18	11	72	14
Berrien	241	57	2,022	658	65	30	27	11	65	11
Branch	199	55	1,288	454	53	31	24	12	56	14
Calhoun	342	73	2,271	657	88	37	25	9	61	10
Cass	229	57	1,577	605	60	31	25	11	53	13
Charlevoix	100	30	285	93	34	17	35	14	81	11
Cheboygan	149	31	821	242	38	16	26	9	49	11
Chippewa	54	21	358	163	15	8	28	15	48	20
Clinton	157	51	981	507	36	27	23	15	52	16
Delta	104	29	669	287	27	12	26	11	52	14
Dickinson	102	26	559	162	44	14	40	12	57	13
Eaton	217	58	1,370	442	60	32	28	12	50	14
Emmet	92	31	420	195	22	13	24	13	64	17
Genesee	477	90	2,626	640	111	41	23	8	61	9
Gogebic	67	23	379	146	24	11	37	15	68	14
Gratiot	127	41	918	414	28	18	22	13	52	16

[a]Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.
[b]Proportion 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 2017 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	296	67	1,709	510	72	39	21	9	60	11
Houghton	84	24	444	160	51	22	44	15	72	12
Huron	299	66	1,977	620	55	27	18	8	53	11
Ingham	268	66	1,441	464	56	29	21	10	75	10
Ionia	194	55	1,567	678	19	16	10	8	52	14
Iron	147	33	740	199	99	36	56	11	72	9
Isabella	233	60	1,278	428	54	28	23	11	49	13
Jackson	384	75	2,298	600	91	40	22	9	62	10
Kalamazoo	341	69	2,160	587	96	41	25	9	57	10
Kent	402	78	2,023	512	127	45	29	9	57	9
Keweenaw	20	11	149	123	5	5	25	23	63	26
Lapeer	471	85	3,121	824	150	51	30	8	67	8
Lenawee	383	78	2,624	675	84	38	21	8	61	10
Livingston	387	75	2,659	744	133	47	33	9	69	9
Luce	1	2	3	3	0	0	0	0	0	0
Mackinac	7	7	57	76	5	5	67	41	67	41
Macomb	153	50	884	342	39	27	21	13	55	16
Marquette	63	26	320	127	18	16	28	21	72	16
Mecosta	261	46	1,397	315	82	29	27	8	61	9
Menominee	169	34	917	207	59	22	32	10	55	10
Midland	277	65	1,504	419	95	40	29	10	47	12

[a]Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.
[b]Proportion 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 2017 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	285	64	1,691	579	94	47	28	10	65	10
Muskegon	321	66	2,001	495	124	49	30	9	62	10
Newaygo	487	60	2,650	425	130	34	22	5	53	7
Oakland	332	71	1,648	456	106	41	31	10	64	10
Oceana	229	45	1,454	326	78	32	29	10	59	10
Ontonagon	67	29	372	161	17	11	22	14	78	14
Otsego	226	47	1,264	334	82	33	35	11	63	10
Ottawa	343	73	2,237	642	79	38	22	9	68	10
Saginaw	325	72	1,624	399	112	43	33	10	57	11
St. Clair	443	83	2,302	559	98	38	22	8	64	9
St. Joseph	185	54	1,605	595	37	27	17	11	59	14
Sanilac	439	86	2,313	541	128	55	23	8	60	10
Schoolcraft	53	25	285	199	21	17	41	24	72	24
Shiawassee	274	68	1,886	615	57	29	21	10	64	12
Tuscola	486	85	3,008	689	114	41	22	7	60	9
Van Buren	301	65	1,768	513	85	36	25	9	62	11
Washtenaw	461	82	2,763	719	143	56	26	8	58	9
Unknown	1,178	128	5,853	872	351	76	28	5	59	5

[a]Number of hunters does not add up to statewide total because hunters can hunt in more than one county. Column totals for hunting effort and harvest may not equal statewide totals because of rounding errors.
[b]Proportion of hunters that rated their hunting experience as excellent, very good, or good.

Appendix A. Questionnaire used to collect data for the 2017 fall turkey harvest survey.

MICHIGAN DEPARTMENT OF NATURAL RESOURCES, WILDLIFE DIVISION
PO BOX 30030 LANSING MI 48909-7530

2017 MICHIGAN FALL TURKEY HUNTER REPORT

This information is requested under authority of Part 435, 1994 PA 451, M.C.L. 324.43539.

It is important that you complete and return this questionnaire even if you did not hunt or harvest a turkey. If you want to provide your answers via the internet, visit our website at www.michigan.gov/turkey.

1. Did you hunt turkeys during the 2017 fall season?　　¹ ☐ Yes　　² ☐ No; skip the remaining questions and return the questionnaire.

2. If you hunted during the 2017 season, please complete the adjacent table:

(If you hunted on both public and private lands in the same county, report your activity on separate lines.)

County hunted *(see map on back)*	Land ownership *(please check one)*	Number of days hunted	Number of turkeys harvested
Example: Kent County	¹ ☒ Private ² ☐ Public	*4 days*	*1*
	¹ ☐ Private ² ☐ Public		
	¹ ☐ Private ² ☐ Public		
	¹ ☐ Private ² ☐ Public		

3. Did you hunt with a firearm, crossbow, or bow? *(select all that apply)*

¹ ☐ Firearm　　² ☐ Crossbow　　³ ☐ Bow (recurve, compound, or long bow)

4. If you harvested a turkey, report how many were taken with a firearm, crossbow, or bow.

_____ Number of turkey you took with a <u>firearm</u>.

_____ Number of turkey you took with a <u>crossbow</u>.

_____ Number of turkey you took with a bow (<u>recurve</u>, <u>compound</u>, <u>or</u> <u>long</u> <u>bow</u>).

5. If you harvested a turkey, report how many of your turkeys had a beard.

_____ Number of harvested turkeys that <u>did</u> <u>not</u> <u>have</u> <u>a</u> <u>beard</u>.

_____ Number of harvested turkeys with a beard <u>less</u> <u>than</u> <u>4</u> <u>inches</u> long.

_____ Number of harvested turkeys with a beard <u>4</u> <u>or</u> <u>more</u> <u>inches</u> long.

6. Overall, how would you rate your 2017 fall turkey hunting experiences?

1 ☐ Excellent   2 ☐ Very Good   3 ☐ Good   4 ☐ Fair   5 ☐ Poor

Please return questionnaire in the enclosed postage-paid envelope.
Thank you for your help.

2017 Fall Turkey Hunting Area