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2017 MICHIGAN BLACK BEAR HUNTER SURVEY

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ABSTRACT

We contacted a random sample of bear hunters after the 2017 hunting season to determine hunter participation, hunting methods, bear harvest, and hunter satisfaction. In 2017, an estimated 5,181 hunters spent nearly 35,434 days afield and harvested about 1,892 bears. The estimated number of hunters increased by 3% and bear harvest improved by 19% in 2017, both increasing significantly from 2016. Statewide, 37% of hunters harvested a bear in 2017, which was significantly higher than in 2016 (32%). The average number of days required to harvest a bear statewide was 19.4 days in 2017, which was not significantly different from 2016. Baiting was the most common hunting method used to harvest bears (86% of hunters primarily used bait only), although hunters using dogs had greater hunting success than hunters that only used bait (50% for dog hunters versus 35% for bait hunters). Statewide, about 59% of hunters rated their hunting experience as very good or good in 2017 (versus 58% in 2016).

INTRODUCTION

Beginning in 1990, the Michigan Department of Natural Resources (DNR) created black bear (*Ursus americanus*) management units and limited the number of bear hunting licenses issued for each unit. Before 1990, an unlimited number of bear licenses were available, and licenses were valid in all areas open to bear hunting. In 2000, the DNR modified the licensing system



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by implementing a zone and quota system based on preference points for issuing bear hunting licenses. Under this system, hunters received one preference point if they applied for a hunt but were unsuccessful in the drawing. Hunters also could obtain a preference point by completing an application but forgoing the drawing. Applicants with the greatest number of preference points had the greatest chance of being drawn for a hunt, but no more than 5% of the licenses were issued to nonresidents.

In 2017, ten bear management units in Michigan, totaling about 35,360 square miles, were open for bear hunting (Figure 1). Hunters could pursue bears from September 10-October 26 in all of the Upper Peninsula (UP) units, except the Drummond Island Management Unit (September 10-October 21). Hunters could pursue bears from September 8-23 in Benzie, Leelanau, Grand Traverse, and part of Kalkaska counties and during September 17-25 for remaining counties in the Northern Lower Peninsula (LP) units. Hunters could use bait or dogs to hunt bears except during restricted dates. The first day of each hunt period in the LP (September 8 and 17) was restricted to hunting with bait only, and the last two days of the hunt periods in the LP (September 24-25) were restricted to hunters using dogs. The Red Oak Management Unit in the LP also had an archery-only hunt during October 6-12 (i.e., firearms prohibited). The first five days (September 10-14) of the first hunt in the UP were restricted to bait-only hunting.

The number of bear hunting licenses available in the state in 2017 (license quota) increased by 245 licenses (4% increase) from 2016. The license quota was increased in all units except Baraga (unchanged), Carney (-16%), and Newberry (-2%).

Hunters had to be at least 10 years old to purchase a hunting license. Licenses were valid on all land ownership types and allowed a hunter to take one bear of either sex, excluding cubs and female bears with cubs. Hunters could harvest bears with a firearm, crossbow, or archery equipment, except for the special archery-only hunt in the Red Oak Management Unit. Youth 10 to 13 years old could hunt with a firearm on private land only. Youth 14 years old and older could hunt with a firearm on private or public land.

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 winners, selected by random draw, 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 bear hunting licenses were valid for all areas open for hunting bear, except Drummond Island, and during all bear hunting periods. Furthermore, the PMH license holder could hunt any bear season until they filled their bear harvest tag.

The DNR and Natural Resources Commission (NRC) 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 by the DNR to accomplish its statutory responsibility. Estimating harvest, hunting effort, and hunter satisfaction are the primary objectives of these surveys. The DNR and NRC use estimates derived from harvest surveys, as well as harvest reported by hunters at mandatory registration stations, and other indices to monitor bear populations and establish harvest regulations.

METHODS

The DNR provided all bear hunters the option to report information about their bear hunting activity voluntarily via an internet survey. The DNR notified hunters of the internet questionnaire by sending an email message to all license buyers that had provided an email address (49% of license buyers) and by posting the questionnaire on the DNR website. Hunters reported whether they hunted, number of days spent afield, whether they harvested a bear, date of harvest, and their hunting methods. Hunters also reported whether other hunters (including bear hunters) caused interference during their hunt. The questionnaire asked successful hunters to report harvest date, sex of the bear taken, and harvest method. The questionnaire asked hunters to report how satisfied they were with the number of bears seen, number of opportunities they had to take a bear, and their overall bear hunting experience. Finally, hunters were asked to report whether they used bait and trail cameras to hunt bear. Following the 2017 bear hunting season, a questionnaire (Appendix A) was mailed to 3,213 randomly selected people (Table 1) that had purchased a bear hunting license (resident, nonresident bear licenses, comprehensive lifetime bear license, and Pure Michigan Hunt) and had not already voluntarily reported harvest information via the internet. The questionnaire sent via mail asked the same questions as the internet version.

We calculated parameter estimates using a stratified random sampling design that included 12 strata (Cochran 1977). We stratified hunters based on the management unit where their license was valid (10 management units). We considered hunters who purchased a license valid in multiple management units (PMH license holders) as a separate stratum (stratum 11). In addition, we treated hunters that had voluntarily reported information about their hunting activity via the internet before our sample was selected as a separate stratum (stratum 12). We calculated the statewide estimate of the mean number of days required to harvest a bear using a different ratio for each stratum (i.e., separate ratio estimator). To improve the precision of ratio estimates, we used the number of bears registered in each stratum as an auxiliary variate.

We calculated a 95% confidence limit (CL) for each parameter estimate. In theory, we can determine the 95% confidence interval by adding and subtracting the CL from the estimate. The confidence interval is a measure of the precision associated with the estimate and implies that 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, we did not adjust the estimates for these possible biases.

Statistical tests determine the likelihood that the differences among estimates are larger than expected by chance alone. To determine whether estimates differed, we examined the respective 95% confidence intervals for overlapping values. Non-overlapping 95% confidence intervals was equivalent to stating that 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).

We initially mailed questionnaires during late November 2017 and sent a maximum of two follow-up questionnaires to nonrespondents. Of the 3,213 questionnaires mailed, 41 were undeliverable, resulting in an adjusted sample size of 3,172. We received questionnaires from 2,206 people, yielding a 70% adjusted response rate. In addition, 400 people voluntarily reported information about their hunting activity via the internet before we selected the random sample.

RESULTS

In 2017, hunters purchased 5,759 bear hunting licenses (Table 1), which was an increase of 5% from 2016 (5,482). Most of the hunters buying a license in 2017 were men (90%), and the average age of the license buyers was 50 years (Figure 2). About 4% of the license buyers (205) were younger than 17 years old.

Compared to 10 years ago, the number of people buying a bear hunting license in 2017 decreased by 39% (9,514 people purchased a license in 2007). Although the overall number of license buyers decreased, hunter numbers among the youngest and oldest age classes were similar or slightly higher in 2017 than in 2007 (Figure 3). The consistency of 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 2017, hunters had to be at least 10 years old to participate; while the hunters had to be at least 12 years old to participate in 2007.

Nearly $90 \pm 1\%$ of the license buyers hunted bear (Table 2). These hunters spent 35,434 days afield ($\bar{x} = 6.8$ days/hunter) and harvested 1,892 bears. The number of hunters (3%) and overall harvest (19%) increased significantly between 2016 and 2017 (Figure 4), while hunting effort did not change significantly. Baraga and Marquette counties had the greatest number of bear hunters, and these two counties had the greatest number of bears harvested during 2017 (Table 3).

The average number of days required to harvest a bear statewide was 19.4 days in 2017 (Table 2, Figure 5), which was not significantly different than in 2016 (22.5 days). Mean effort per harvested bear also was not significantly different for any management units between 2016 and 2017 (Figure 6). Long-term trends are difficult to interpret because of changes to hunting season's length, and the addition of hunt periods and areas open to hunting since 1992; thus, these annual estimates are not directly comparable. In 1994, most early hunt periods were increased from 37 to 42 days and a third hunt period was added in the Gwinn Management Unit. In 1995, a third hunt period was added in the Baraga Management Unit. In 1996, Baldwin and Gladwin management units were created, and a third period was added to Bergland, Amasa, Carney, and Newberry management units. In 2002, the units in the LP were expanded slightly to coincide with county boundaries. In 2007, the area of the Baldwin Unit was increased slightly with the addition of Leelanau County. The units having the highest effort per harvested bear during recent years have been Carney and Gwinn management units, while Amasa, Baldwin, Drummond Island, and Red Oak management units have had the lowest effort per harvested bear (Figure 7).

About 41% of the bear hunters hunted on private lands only in 2017, 42% hunted on public lands only, and 16% hunted on both private and public lands (Table 4). Bear hunters spent 14,211 days afield on private land, 14,492 days hunting on public land only, and 6,541 days hunting on both private and public lands (Table 5). Of the estimated 1,892 bear harvested in 2017, hunters harvested $46 \pm 3\%$ of these bears (866 ± 61) on private land. Hunters harvested about $54 \pm 3\%$ of the bears ($1,017 \pm 67$) on public land.

Based on reported harvest dates, hunters took about 21% of these bears during September 10-14 (i.e., the first five days for most units) and 52% during September 10-19 (i.e., the first ten days, Figure 8). Of the bears harvested and their sex known, $57 \pm 3\%$ were males ($1,087 \pm 68$) and $42 \pm 3\%$ were females (793 ± 59 ; Table 6). Statewide, 37% of hunters harvested a bear in 2017 (Table 2), which was significantly greater than in 2016 (32% success in 2016). Hunter success ranged from 23-100% among the bear management units (Table 2).

Most hunters (86%) used firearms while hunting bear, although 11% of the hunters used archery equipment (compound, recurve, or long bows), and 10% used a crossbow (Tables 7 and 8). The total equals more than 100% because hunters could use more than one type of equipment during the season. Most hunters (88%) used a firearm to harvest their bear, while 7% used archery equipment, and 5% used a crossbow (Tables 9 and 10).

Most hunters ($86 \pm 1\%$) relied primarily on baiting only as a means of locating and attracting bears (Table 11). About 12% ($\pm 1\%$) of hunters relied primarily on dogs alone or a combination of baiting and dogs to locate bears. About 1% of hunters relied on a hunting method not involving dogs or bait. Among hunters using bait, about 70% of hunters used either bakery products or corn and grains as bait (Tables 12 and 13).

Hunters harvested about $80 \pm 2\%$ of the bears with the aid of bait only (Table 14). Hunting success for hunters primarily using bait only was $34 \pm 2\%$, while hunting success for hunters using dogs was $57 \pm 5\%$ in 2017. Success among hunters using dogs has usually been greater than among hunters using baits only (Figure 9).

About 42% of bear hunters statewide rated the number of bears seen during the 2017 hunting season as very good or good, and 33% rated bear seen as poor or very poor (Table 15). Similarly, about 35% of hunters statewide rated the number of chances they had to take a bear during the 2017 hunting season as very good or good, and 37% rated their chances as poor or very poor (Table 16).

Statewide, about 59% of hunters rated their hunting experiences as very good or good (versus 57% in 2016), and 20% rated their hunting experiences as poor or very poor (Table 17). Many factors may affect hunter satisfaction; however, satisfaction appeared more closely associated with hunting success than with hunter interference (Figure 10). In 2017, 18% of the hunters reported that other hunters interfered with their hunts (Table 18). Other bear hunters accounted for most of the interference reported; 14% of the hunters reported that other bear hunters interfered with their hunt. Generally, hunters in the UP experienced less interference than hunters in the LP (Table 18, Figure 11).

Only 13% of the hunters (653 hunters) hired a hunting guide in 2017 (Table 19). Furthermore,

most hunting guides (79%) relied on baiting only to locate bears for their clients in 2017 (Table 20). Hunting success of hunters using a guide was significantly greater than hunters that did not use a guide ($50 \pm 5\%$ with a guide versus $35 \pm 2\%$ without a guide).

About 79% of the bear hunters using bait also used a trail camera to monitor bear activity in hunt area (Table 21). Among the hunters using a trail camera, 92% reported they took a photograph of a bear (Table 22). An increased proportion of hunters in 2017 captured a photograph of a bobcat (3% in 2016 versus 5% in 2017), deer (35% versus 45%), and fisher (16% versus 21%) than in 2016 (Figure 12); while fewer hunters captured a photograph of a wolf (23% versus 17%).

ACKNOWLEDGEMENTS

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LITERATURE CITED

- Cochran, W. G. 1977. Sampling techniques. John Wiley & Sons, New York. USA.
- Frawley, B. J. 2001. 2000 Michigan black bear hunter survey. Wildlife Division Report 3334. Michigan Department of Natural Resources, Lansing, USA.
- Payton, M. E., M. H. Greenstone, and N. Schenker. 2003. Overlapping confidence intervals or standard error intervals: what do they mean in terms of statistical significance? *Journal of Insect Science* 3:34.



Figure 1. Bear management units open to hunting in Michigan, 2017.

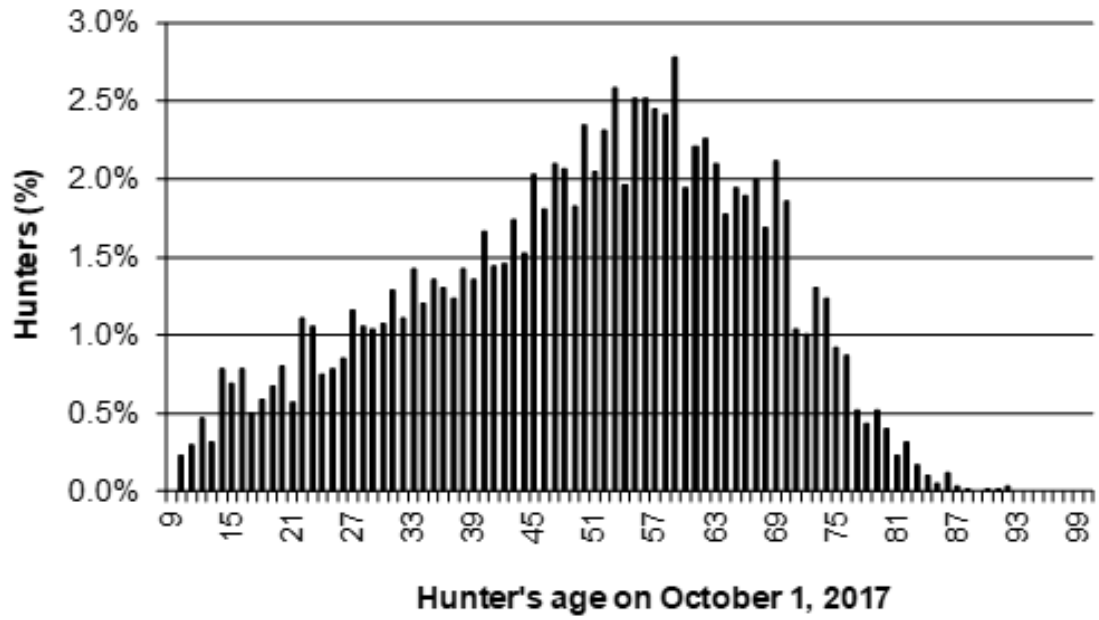


Figure 2. Age of people that purchased a bear hunting license in Michigan for the 2017 hunting season (mean = 50 years). Licenses were purchased by 5,759 people.

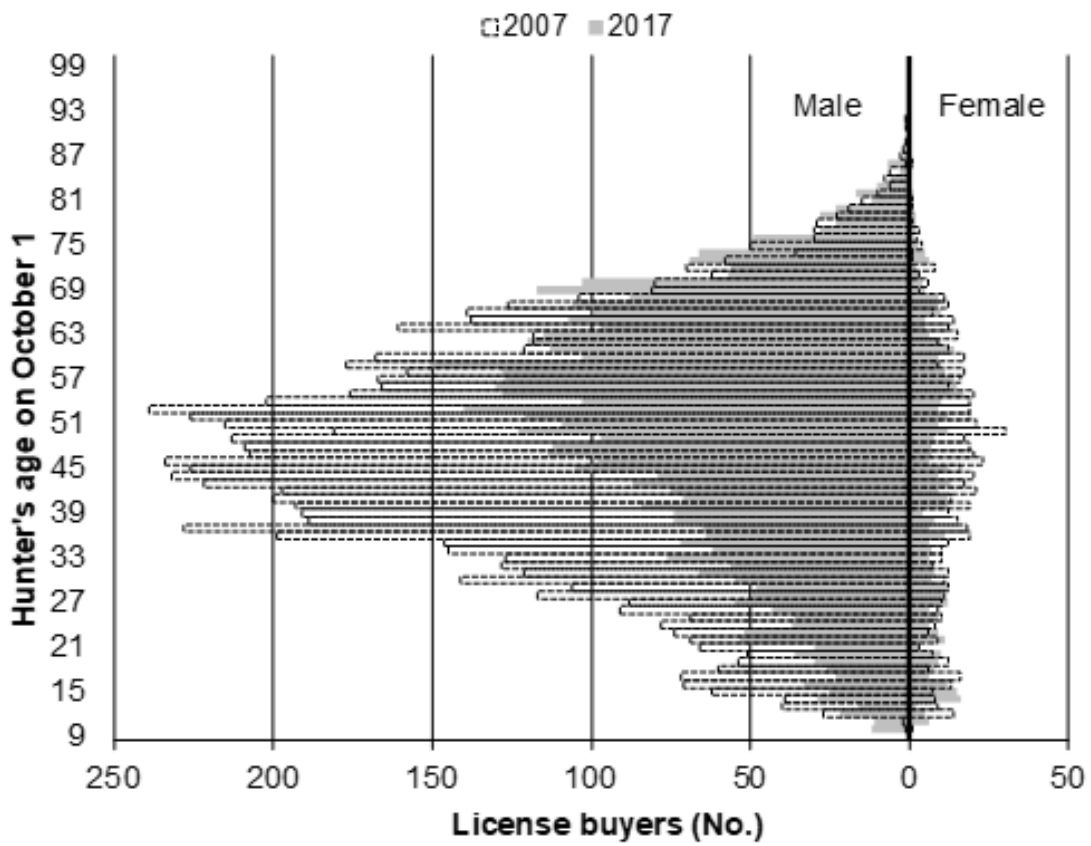


Figure 3. Number of bear hunting license buyers in Michigan by age and sex during 2007 and 2017 hunting seasons. The number of people buying a license was 9,514 in 2007 and 5,759 in 2017.

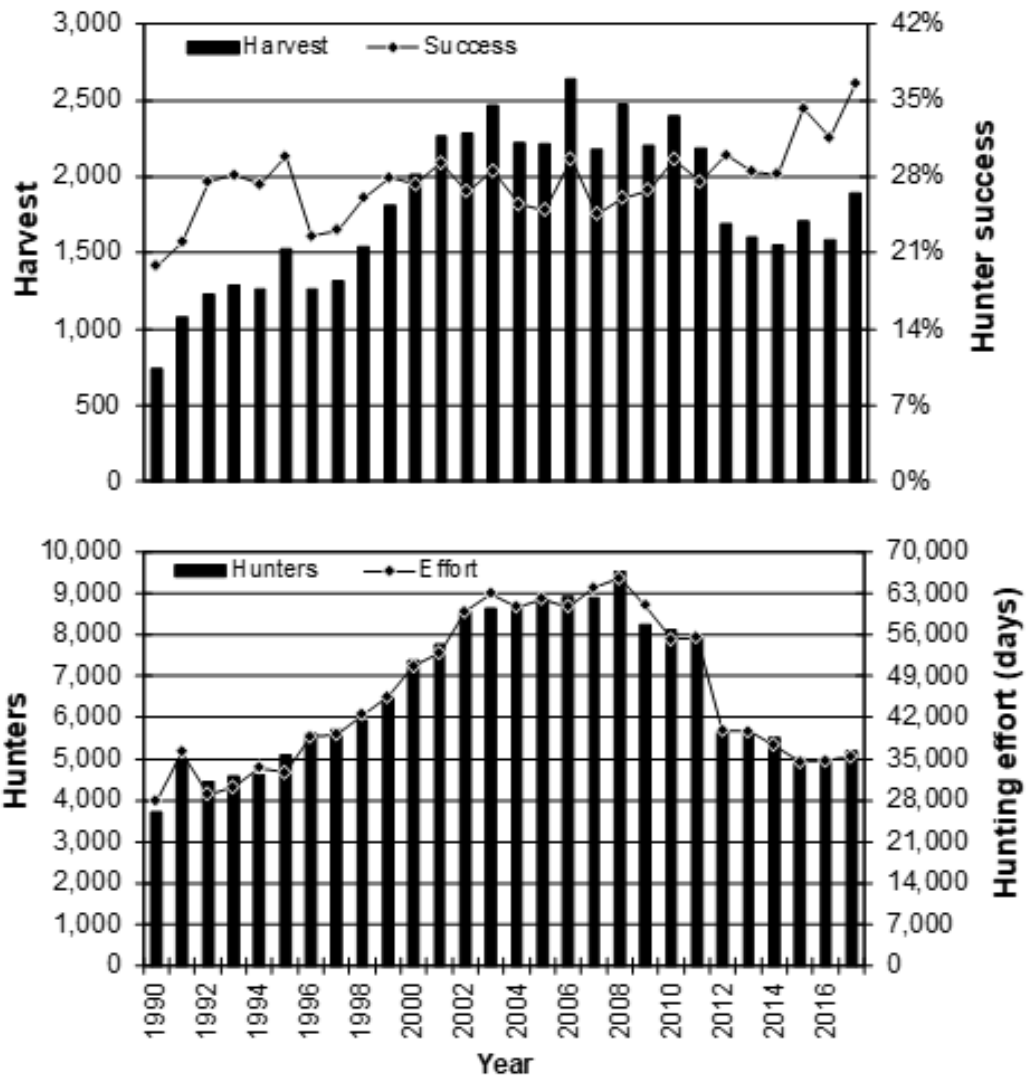


Figure 4. Estimated harvest, hunting success, number of hunters, and hunting effort during bear hunting seasons, 1990-2017.

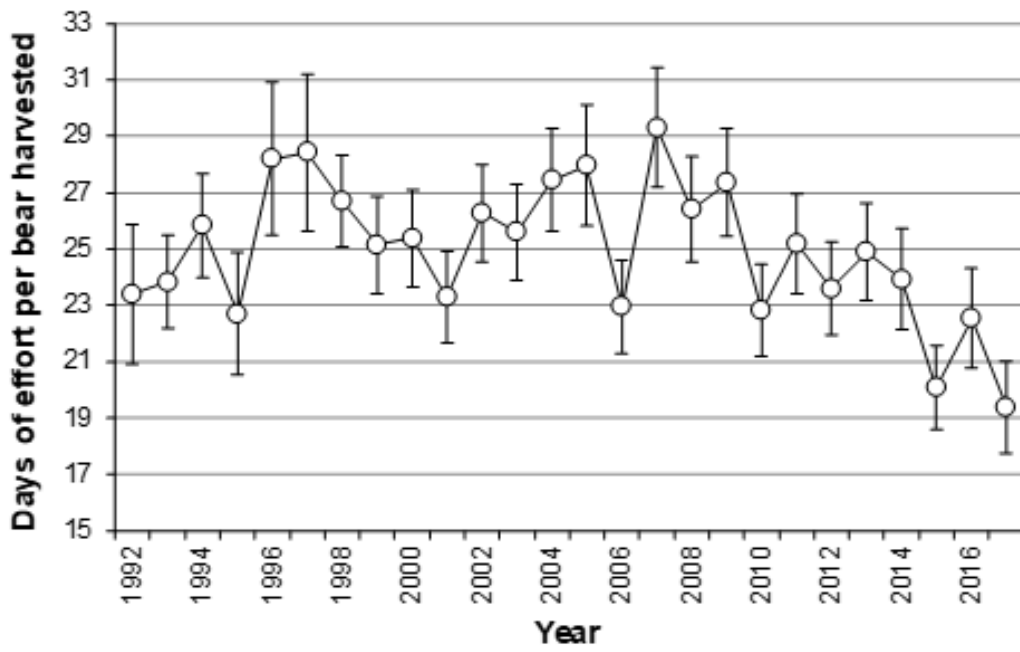


Figure 5. Estimated mean number of days required to harvest a bear statewide in Michigan during 1992-2017. Vertical bars represent the 95% confidence interval.

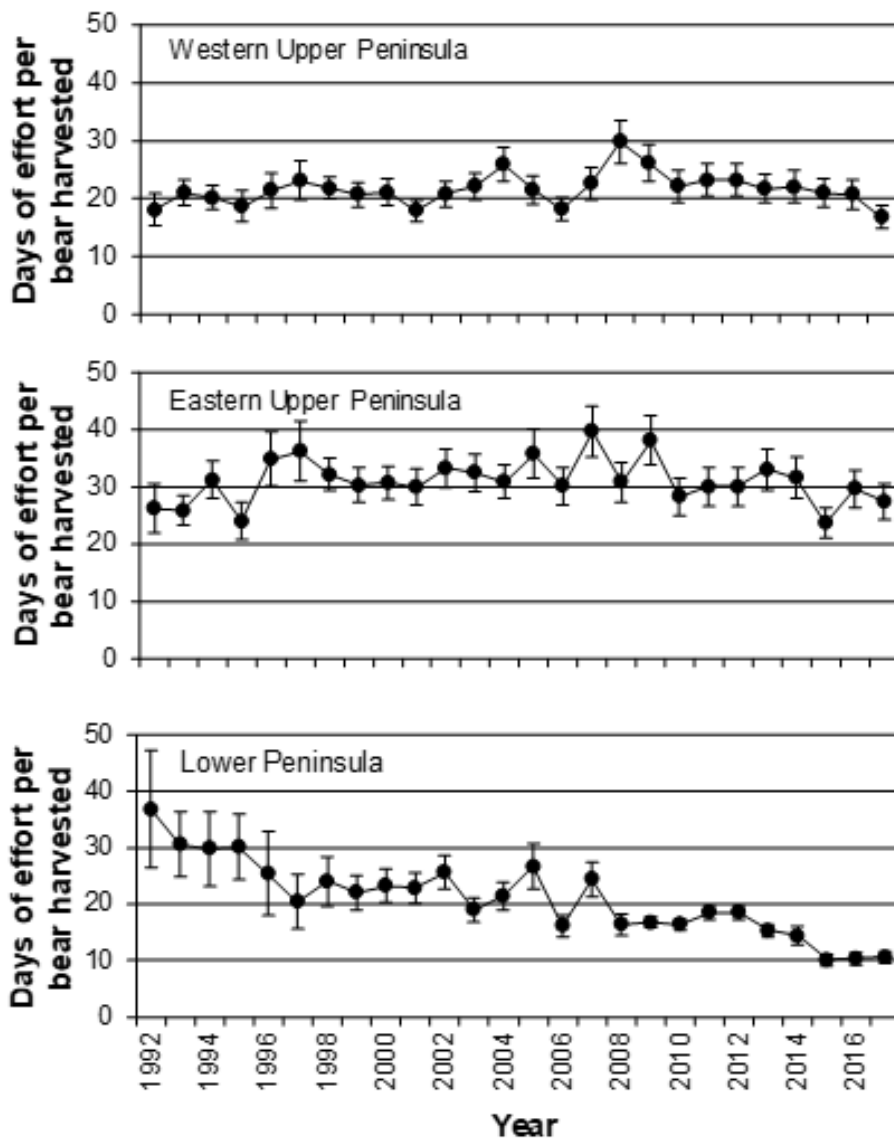


Figure 6. Estimated mean number of days required to harvest a bear in Michigan during 1992-2017, summarized by ecological region. Western UP consisted of Amasa, Baraga, and Bergland units, and Eastern UP consisted of Carney, Gwinn, and Newberry units (Drummond Island Management Unit excluded). Lower Peninsula consisted of Baldwin, Gladwin, and Red Oak management units. Vertical bars represent the 95% confidence interval.

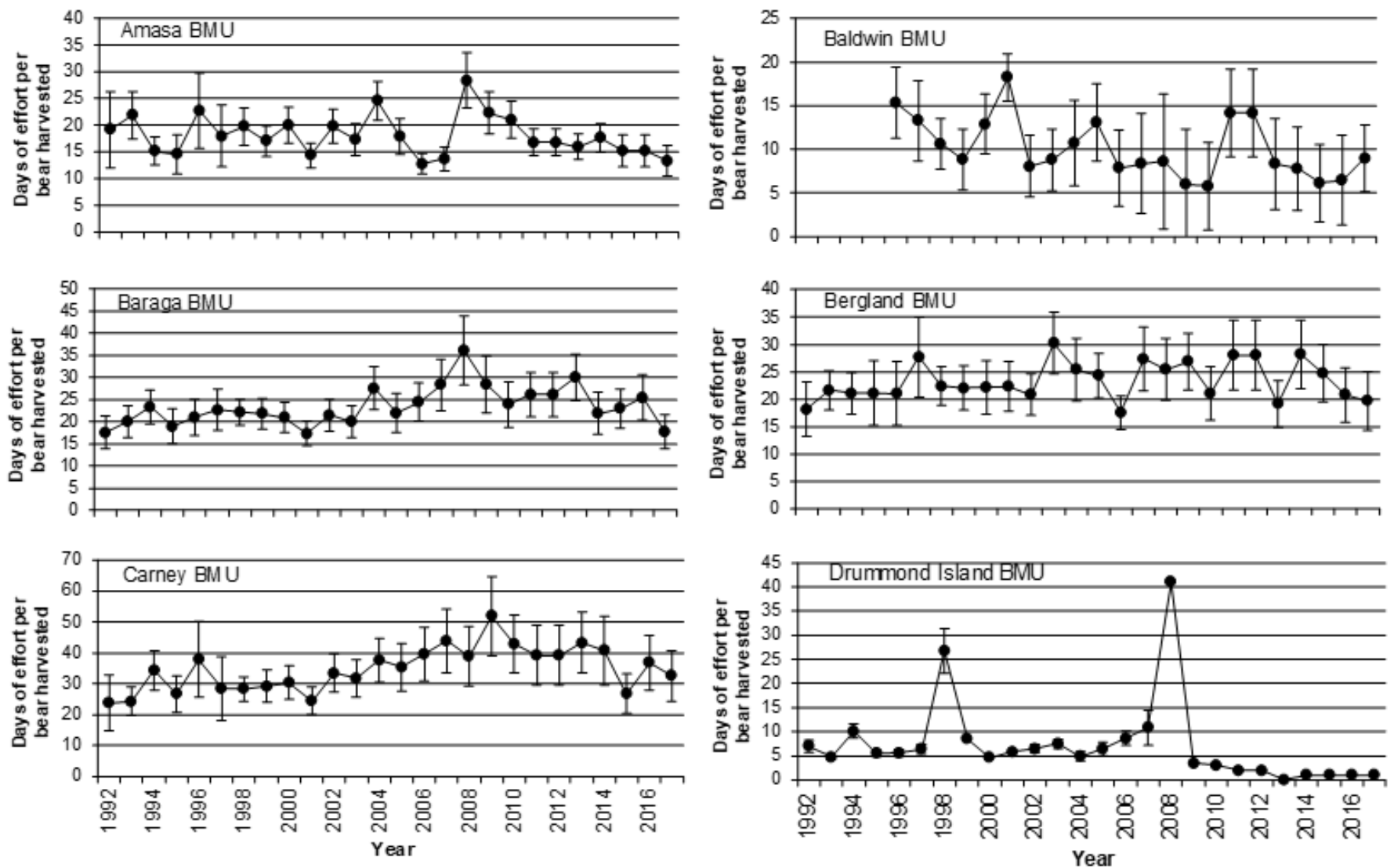


Figure 7. Estimated mean number of days required to harvest a bear in Michigan during 1992-2017, summarized by management unit. Baldwin and Gladwin management units were created in 1996. Vertical bars represent the 95% confidence interval. The scale of the vertical axis differs for each unit.

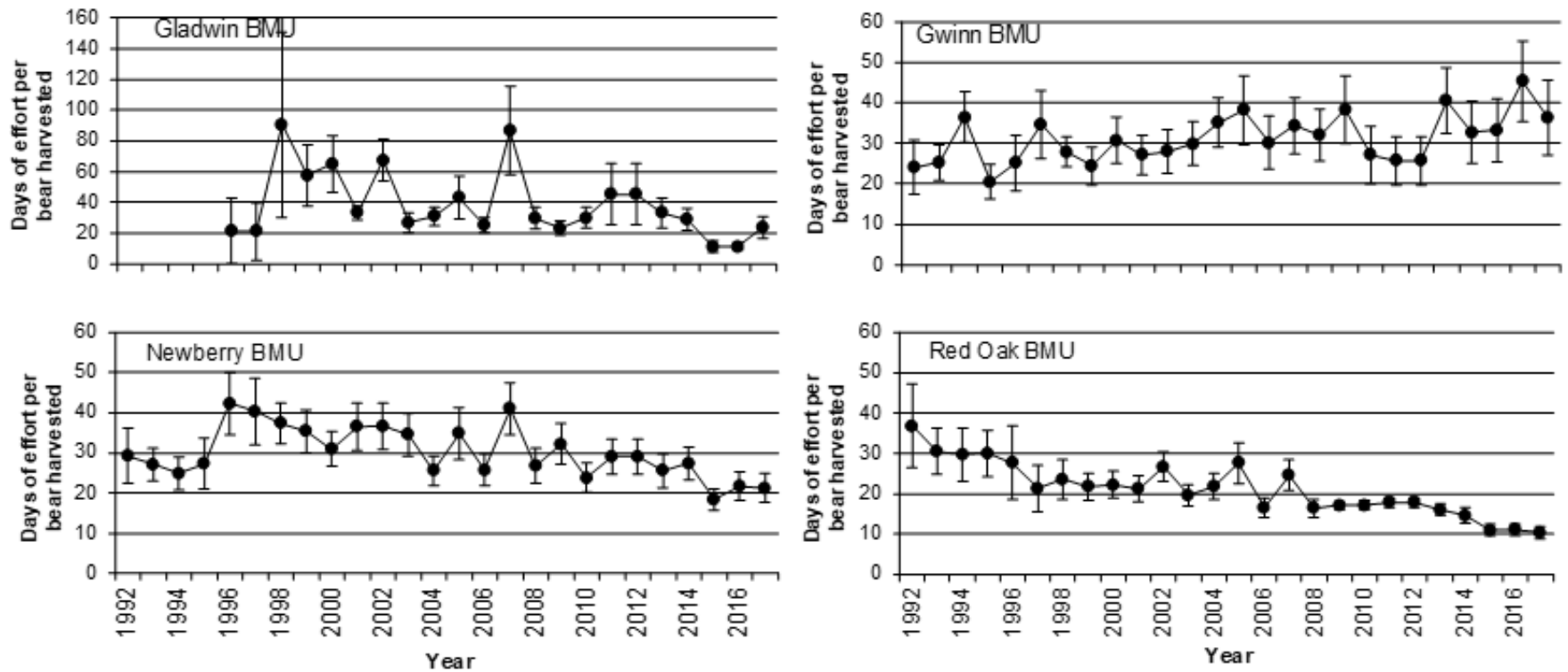


Figure 7 (continued). Estimated mean number of days required to harvest a bear in Michigan during 1992-2017, summarized by management unit. Baldwin and Gladwin management units were created in 1996. Vertical bars represent the 95% confidence interval. The scale of the vertical axis differs for each unit.

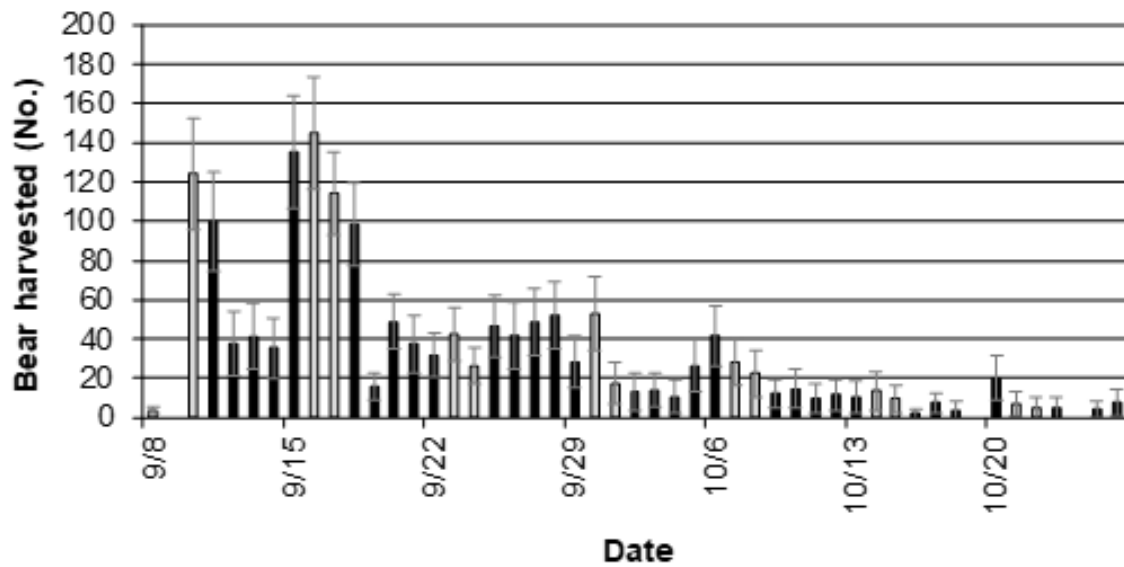


Figure 8. Estimated number of bear harvested by date during the 2017 bear hunting season (includes all hunt periods). Gray-shaded bars indicate weekends. Vertical bars represent the 95% confidence interval. The opening of the bear hunting season was September 10 in the UP and September 20 in the LP (except northern Baldwin Unit). Hunting with dogs in the UP started on September 15.

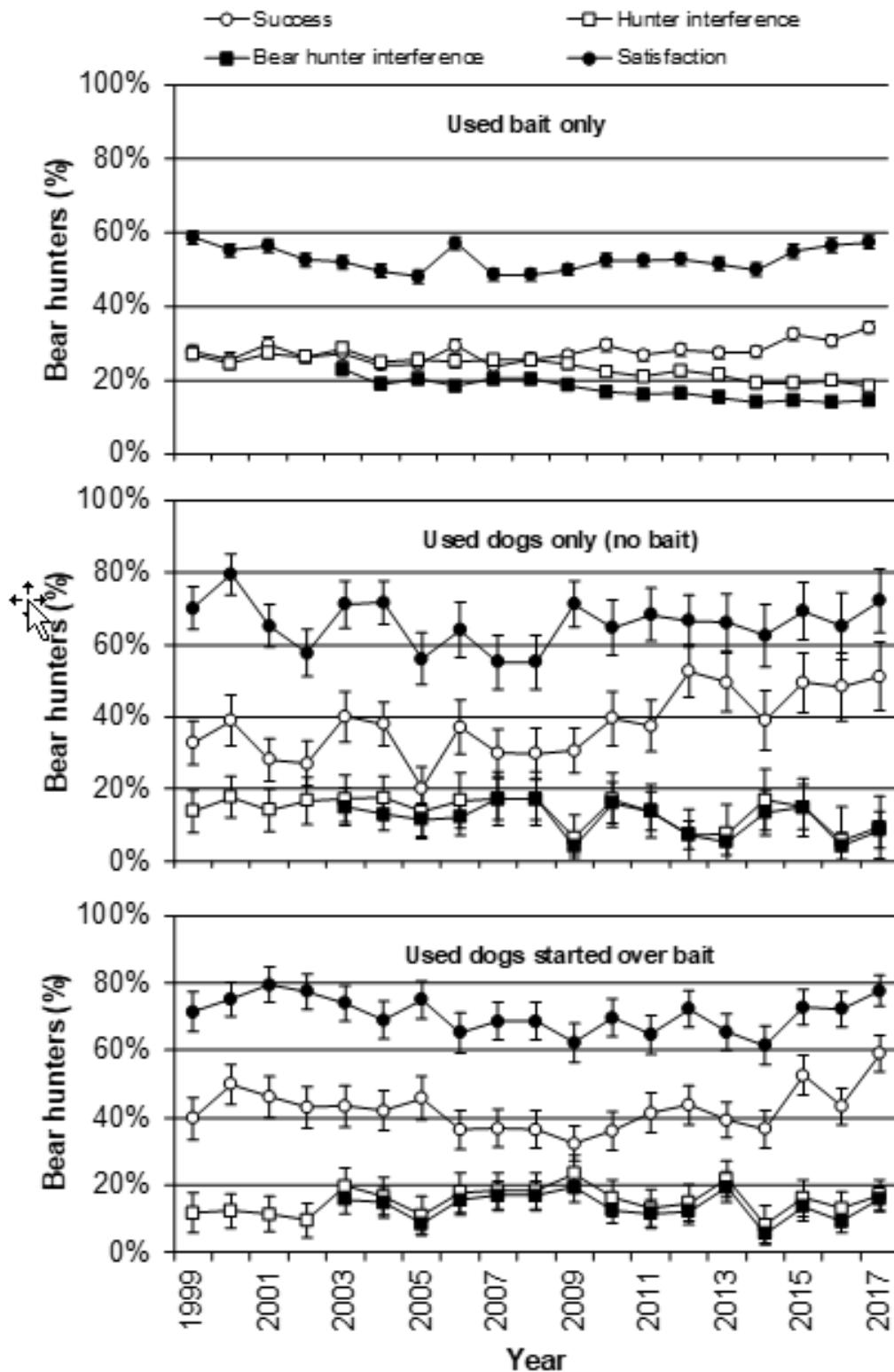


Figure 9. Estimated hunter success, interference, and satisfaction of bear hunters with their hunting experience in Michigan during 1999-2017, summarized by primary method of hunt. Vertical bars represent the 95% confidence interval. Interference was the proportion of hunters indicating they experienced interference from other hunters. Satisfaction was the proportion of hunters rating their hunting experience as very good or good.

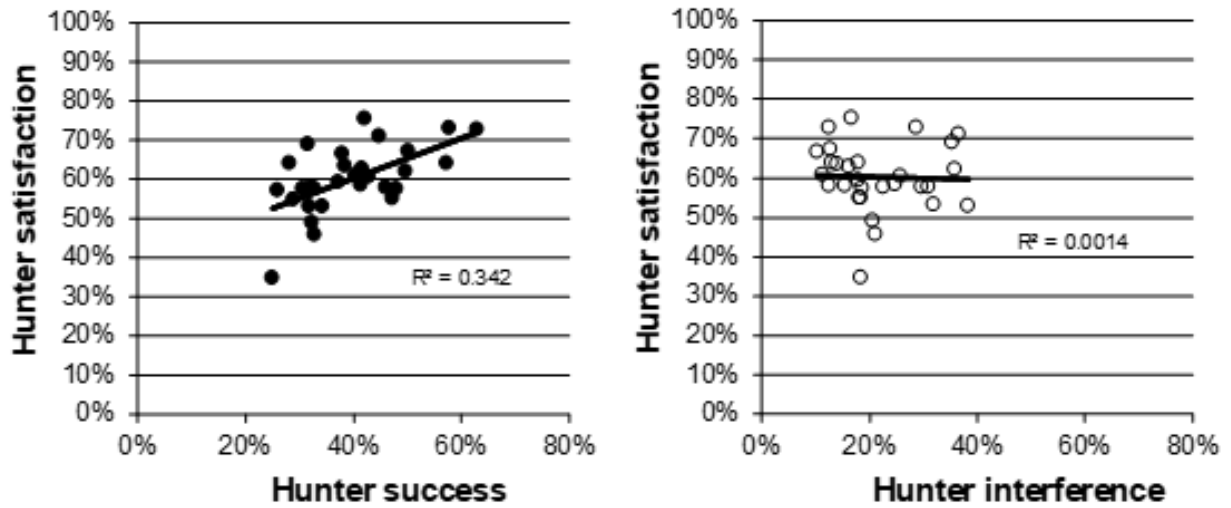


Figure 10. Hunter satisfaction (hunters rating their hunting experience as very good or good) relative to hunter success and hunter interference for 29 counties in Michigan during the 2017 bear hunting season (included only counties with at least 20 hunt



Figure 11. Estimated hunter satisfaction, hunting success, and level of hunter interference in Michigan's bear management units during the 2017 bear hunting season. Satisfaction measures the proportion of hunters rating their hunting experiences as very good or good. Error bars represent the 95% confidence limit. Interference was the proportion of hunters that reported interference from other hunters (all types of hunters).

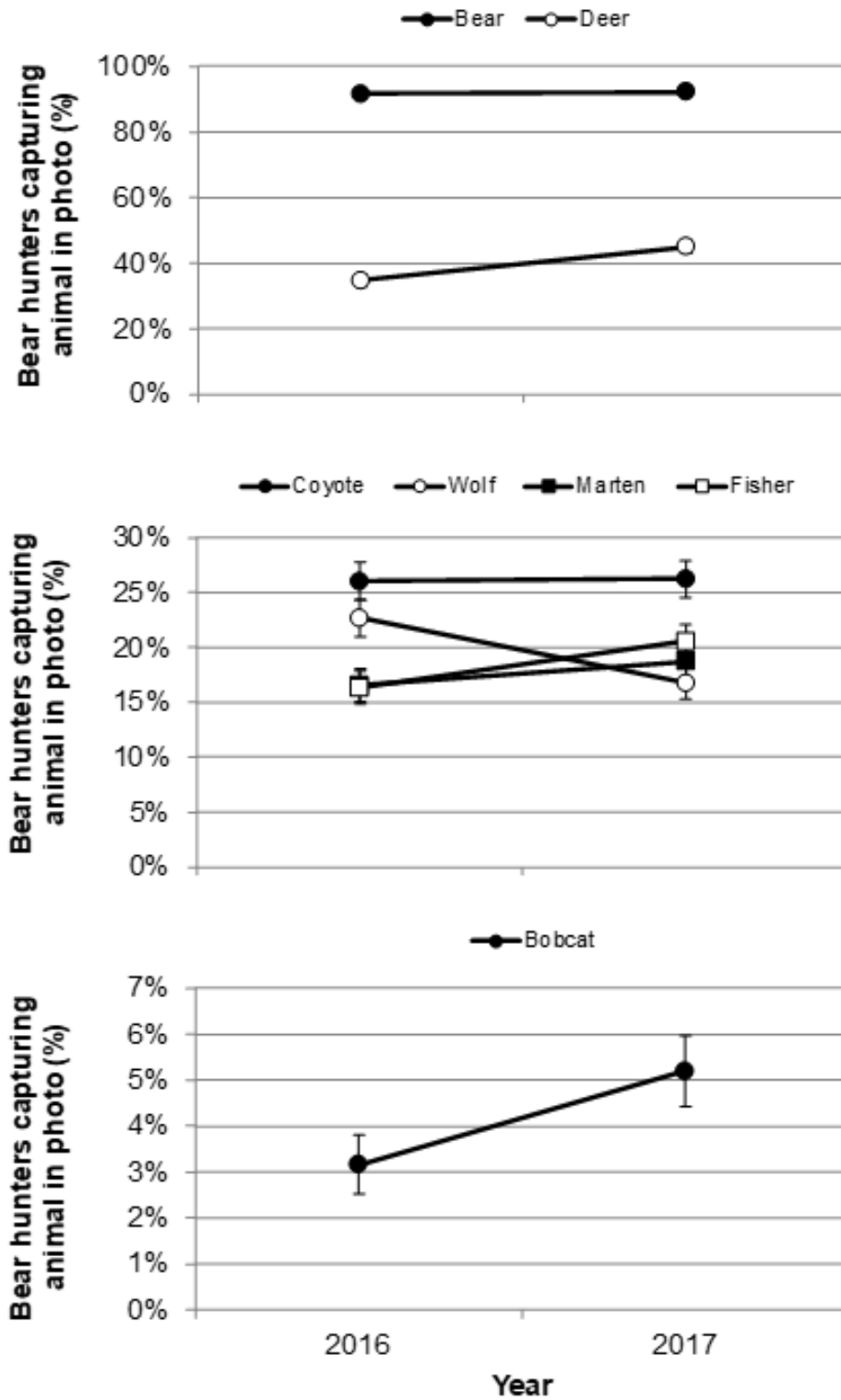


Figure 12. The proportion of bear hunters that used a trail camera and photographed animals with their camera in 2016-2017.

Table 1. Number of people purchasing hunting licenses for the 2017 Michigan bear hunting seasons and number of people selected for survey sample.

Management unit	Licenses available (quota)	Number of eligible applicants ^a	Licenses sold ^b	Number of people included in mail survey sample ^c
Amasa	530	2,145	469	305
Baldwin	155	3,630	149	128
Baraga	1,490	3,452	1,132	470
Bergland	1,210	1,892	951	440
Carney	615	2,096	482	320
Drummond Island	5	230	5	4
Gladwin	100	1,330	88	81
Gwinn	1,205	2,639	868	426
Newberry	1,130	5,926	960	588
Red Oak	700	10,762	651	448
Pure Michigan Hunt	4	NA	4	3
Statewide	7,144	34,102	5,759	3,213
Applicants opting for Preference Point ^d		22,400		

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

^bFewer licenses were sold than the number available because some successful applicants failed to purchase a license.

^cAn additional 400 hunters responded on the internet before the mail sample was selected; these internet responders were assigned to a separate stratum when calculating survey estimates.

^dApplicants that chose to receive a preference point rather than enter into the drawing for a hunting license.

Table 2. Estimated number of hunters, harvest, hunter success, hunting effort, mean days hunted, and mean effort per harvested bear during the 2017 Michigan bear hunting season, summarized by area.

Management Unit	Hunters		Harvest		Hunter success		Hunting effort		Days hunted per hunter (\bar{x})		Days hunted per harvested bear (\bar{x})	
	No.	95% CL ^a	No.	95% CL ^a	%	95% CL ^a	Days	95% CL ^a	Days	95% CL ^a	Days	95% CL ^a
Amasa	441	9	211	19	48	4	2,797	219	6.3	0.5	13.3	2.5
Baldwin	148	1	83	5	56	3	724	47	4.9	0.3	8.6	1.5
Baraga	1,037	27	372	45	36	4	6,525	563	6.3	0.5	17.6	3.3
Bergland	825	30	287	40	35	5	5,505	490	6.7	0.5	19.2	4.5
Carney	421	15	117	20	28	5	3,759	365	8.9	0.8	32.0	6.9
Drummond Is.	5	0	5	0	100	0	5	0	1.0	0.0	1.0	0.0
Gladwin	78	4	18	5	23	6	376	38	4.8	0.4	22.4	5.7
Gwinn	736	29	185	32	25	4	6,252	627	8.5	0.8	34.4	7.8
Newberry	869	20	301	31	35	3	6,251	488	7.2	0.5	20.6	2.9
Red Oak	618	9	309	21	50	3	3,230	166	5.2	0.3	10.4	1.2
Pure MI Hunt	4	0	4	0	100	0	10	0	2.5	0.0	2.3	0.0
Statewide ^b	5,181	57	1,892	82	37	2	35,434	1,183	6.8	0.2	19.4	1.6

^a95% confidence limits.

^bColumn totals may not equal statewide totals because of rounding error.

Table 3. Estimated number of hunters, harvest, hunter success, hunting effort, hunter satisfaction, and hunt interference during the 2017 Michigan bear hunting season, summarized by county.

County	Hunters ^a		Harvest ^a		Hunter success		Hunting effort (days) ^a		Hunter satisfaction ^b		Interfered hunters ^c	
	Total	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	%	95% CL
Alcona	99	15	62	12	63	8	441	91	73	7	13	6
Alger	162	30	53	17	33	9	993	260	58	10	30	9
Alpena	55	11	31	9	57	11	260	71	64	11	13	8
Antrim	15	6	5	3	29	18	97	46	47	20	29	18
Arenac	1	2	1	2	100	0	3	3	100	0	0	0
Baraga	545	49	203	36	37	6	3,203	406	59	6	18	4
Bay	0	0	0	0	0	0	0	0	0	0	0	0
Benzie	21	4	11	3	51	9	131	30	56	9	45	9
Charlevoix	11	6	4	3	33	25	59	36	67	25	17	20
Cheboygan	44	10	21	7	47	12	191	56	55	12	18	9
Chippewa	226	28	74	17	33	7	1,763	328	46	7	21	6
Clare	19	5	4	2	21	11	95	32	21	11	47	15
Crawford	37	10	15	6	41	13	147	50	59	13	25	11
Delta	279	38	90	23	32	7	2,152	433	49	8	21	6
Dickinson	200	30	61	17	31	7	1,854	400	58	8	23	7
Emmet	18	7	4	3	20	16	85	50	50	21	20	16
Gladwin	45	6	11	4	25	8	196	36	35	9	18	7

^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 very good or good.

^cProportion of hunters that indicated that they experienced interference from other hunters (all types of hunters).

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunt interference during the 2017 Michigan bear hunting season, summarized by county.

County	Hunters ^a		Harvest ^a		Hunter success		Hunting effort (days) ^a		Hunter satisfaction ^b		Interfered hunters ^c	
	Total	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	%	95% CL
Gogebic	319	41	133	29	42	7	2,069	380	63	7	16	6
Gd. Traverse	12	3	4	2	30	12	68	24	70	12	50	13
Houghton	241	39	91	26	38	9	1,459	320	67	9	10	6
Iosco	11	5	4	3	31	23	78	54	71	21	0	0
Iron	286	19	144	17	50	5	1,850	215	67	5	13	3
Isabella	0	0	0	0	0	0	0	0	0	0	0	0
Kalkaska	30	8	10	5	34	14	102	32	53	14	38	13
Keweenaw	84	26	24	14	28	14	492	171	64	15	18	12
Lake	33	4	17	3	53	7	144	24	52	7	26	7
Leelanau	2	1	2	1	100	0	3	1	100	0	0	0
Luce	174	26	56	15	32	8	1,205	244	58	8	16	6
Mackinac	122	22	47	14	38	10	922	239	64	9	14	7
Manistee	19	4	15	3	81	8	60	14	74	9	32	10
Marquette	504	52	130	29	26	5	3,799	554	57	6	19	5
Mason	6	2	1	1	20	15	27	12	20	15	20	15
Mecosta	3	2	0	0	0	0	27	21	0	0	0	0
Menominee	258	23	75	16	29	6	2,323	326	55	6	18	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 very good or good.

^cProportion of hunters that indicated that they experienced interference from other hunters (all types of hunters).

Table 3 (continued). Estimated number of hunters, hunting effort, harvest, hunter success, hunter satisfaction, and hunt interference during the 2017 Michigan bear hunting season, summarized by county.

County	Hunters ^a		Harvest ^a		Hunter success		Hunting effort (days) ^a		Hunter satisfaction ^b		Interfered hunters ^c	
	Total	95%	Total	95%	%	95%	Total	95%	%	95%	%	95%
		CL		CL		CL		CL		CL		CL
Midland	0	0	0	0	0	0	0	0	0	0	0	0
Missaukee	35	9	11	5	32	12	197	60	69	12	35	13
Montmorency	87	14	37	10	43	9	390	86	61	9	26	8
Muskegon	0	0	0	0	0	0	0	0	0	0	0	0
Newaygo	20	4	7	2	34	9	77	19	52	9	23	8
Oceana	1	1	1	1	100	0	6	5	0	0	0	0
Ogemaw	28	8	14	6	48	14	152	54	58	14	31	13
Ontonagon	446	50	188	35	42	7	2,928	470	75	6	17	5
Osceola	18	4	3	1	19	8	62	21	26	9	21	10
Oscoda	47	11	27	8	58	12	188	50	73	10	29	11
Otsego	46	10	15	6	32	10	191	53	53	12	32	10
Presque Isle	59	11	27	8	46	10	342	77	58	10	12	6
Roscommon	57	11	26	7	45	10	265	66	71	9	36	10
Schoolcraft	211	28	85	19	40	7	1,385	287	61	7	11	5
Wexford	43	5	21	4	50	7	183	28	62	6	36	6
Unknown	429	50	28	13	6	3	2,770	435	53	6	17	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 very good or good.

^cProportion of hunters that indicated that they experienced interference from other hunters (all types of hunters).

Table 4. Estimated number and proportion of hunters hunting on private and public lands during the 2017 bear hunting season, summarized by area.

Management unit	Land type															
	Private land only				Public land only				Both private and public lands				Unknown land			
	Total	95% CL	95% CL	%	Total	95% CL	95% CL	%	Total	95% CL	95% CL	%	Total	95% CL	95% CL	%
Amasa	162	18	37	4	192	19	44	4	85	15	19	3	2	3	<1	1
Baldwin	56	5	38	3	45	5	30	3	47	5	32	3	0	0	0	0
Baraga	354	45	34	4	478	47	46	4	198	37	19	4	7	8	1	1
Bergland	233	38	28	4	454	43	55	5	125	29	15	4	13	10	2	1
Carney	252	23	60	5	92	18	22	4	75	17	18	4	2	3	1	1
Drummond Is.	3	0	60	0	2	0	40	0	0	0	0	0	0	0	0	0
Gladwin	52	6	67	7	13	4	16	5	11	4	15	5	1	2	2	2
Gwinn	302	38	41	5	315	38	43	5	115	27	16	4	3	5	<1	1
Newberry	349	32	40	4	379	33	44	4	128	23	15	3	14	8	2	1
Red Oak	338	21	55	3	210	19	34	3	62	12	10	2	7	5	1	1
Pure MI Hunt	0	0	0	0	4	0	100	0	0	0	0	0	0	0	0	0
Statewide	2,103	85	41	2	2,184	88	42	2	846	64	16	1	49	17	1	<1

Table 5. Estimated number of days of hunting effort on private and public lands during the 2017 Michigan bear hunting season, summarized by area.

Management unit	Land type							
	Private lands		Public lands		Both private and public lands		Unknown	
	Total	95% CL	Total	95% CL	Total	95% CL	Total	95% CL
Amasa	1,113	181	1,151	181	524	120	9	13
Baldwin	223	28	226	31	276	42	0	0
Baraga	1,991	354	3,028	407	1,470	460	36	49
Bergland	1,522	354	3,102	444	848	247	32	40
Carney	2,148	305	600	151	1,012	290	0	0
Drummond Is.	4	0	1	0	0	0	0	0
Gladwin	243	37	82	31	46	22	4	5
Gwinn	2,714	493	2,470	470	1,024	331	44	71
Newberry	2,517	342	2,665	388	1,057	298	12	12
Red Oak	1,735	151	1,158	140	284	74	53	44
Pure MI Hunt	0	0	10	0	0	0	0	0
Statewide ^a	14,211	872	14,492	901	6,541	759	191	106

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

Table 6. Number of applicants, licenses sold, estimated number of hunters, harvest, hunting effort (days), and hunting success during Michigan bear hunting seasons, 2011-2017.

Region	Year						
	2011	2012	2013	2014	2015	2016	2017
Upper Peninsula							
Applicants	20,175	18,880	18,776	17,510	17,284	17,425	18,380
Licenses sold	7,813	5,323	5,408	5,322	4,729	4,759	4,867
Hunters	6,808	4,782	4,871	4,784	4,280	4,323	4,334
Harvest	1,873	1,376	1,350	1,297	1,387	1,255	1,479
Males (%)	61	59	60	63	59	61	58
Females (%)	39	41	40	36	41	38	41
Unknown (%)	0	0	0	0	0	0	1
Hunter-days	49,627	35,348	35,847	33,702	31,279	31,361	31,094
Hunter success (%)	28	29	28	27	32	29	34
Lower Peninsula							
Applicants	13,644	13,224	13,169	12,641	13,534	13,695	15,722
Licenses sold	1,204	900	806	757	732	721	888
Hunters	1,141	860	754	715	711	688	843
Harvest	313	314	252	256	323	327	409
Males (%)	59	49	55	55	64	46	55
Females (%)	40	51	45	45	36	54	45
Unknown (%)	0	0	0	0	0	0	0
Hunter-days	5,862	4,385	3,851	3,548	3,209	3,401	4,330
Hunter success (%)	27	37	33	36	45	48	49
Statewide							
Applicants ^a	51,621	51,152	51,715	48,882	51,077	51,767	56,502
Licenses sold ^b	9,020	6,226	6,217	6,082	5,464	5,483	5,759
Hunters ^c	7,949	5,643	5,626	5,499	4,991	5,011	5,177
Harvest ^c	2,187	1,690	1,602	1,552	1,710	1,582	1,888
Males (%)	61	57	59	62	60	58	57
Females (%)	39	43	41	38	40	42	42
Unknown (%)	0	0	0	0	0	0	1
Hunter-days ^c	55,489	39,733	39,699	37,250	34,488	34,763	35,424
Hunter success (%) ^c	28	30	28	28	34	32	36

^aNumber of applicants statewide included people that applied for a preference point.

^bNumber of license sold statewide included people that received Pure Michigan Hunt licenses, which were valid in both the UP and LP.

^cExcluded Pure Michigan Hunt licenses.

Table 7. Estimated proportion of hunters that used firearms, crossbows, and archery equipment while hunting bears in Michigan, 2017, summarized by area.

Management unit	Hunting equipment							
	Firearms		Compound, recurve, or long bows		Crossbows		Unknown	
	%	95% CL	%	95% CL	%	95% CL	%	95% CL
Amasa	88	3	9	2	6	2	1	1
Baldwin	81	3	16	2	11	2	1	1
Baraga	85	3	9	3	10	3	0	0
Bergland	86	3	10	3	10	3	0	1
Carney	91	3	10	3	6	2	0	0
Drummond Is.	80	0	20	0	0	0	0	0
Gladwin	79	6	17	6	9	4	0	0
Gwinn	83	4	13	3	7	2	2	1
Newberry	89	2	9	2	6	2	0	0
Red Oak	88	2	17	2	23	3	1	1
Pure MI Hunt	75	0	25	0	0	0	0	0
Statewide ^a	86	1	11	1	10	1	0	0

^aRow totals equal more than 100% because hunters could use more than one type of equipment during season.

Table 8. Estimated number of hunters that used firearms, crossbows, and archery equipment while hunting bears in Michigan, 2017, summarized by area.

Management unit	Hunting equipment							
	Firearms		Compound, recurve, or long bows		Crossbows		Unknown	
	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL
Amasa	387	14	41	10	27	9	4	4
Baldwin	119	4	23	4	17	3	1	1
Baraga	878	40	98	27	100	27	0	0
Bergland	713	38	79	23	83	24	3	5
Carney	384	19	42	13	27	10	0	0
Drummond Is.	4	0	1	0	0	0	0	0
Gladwin	61	6	13	5	7	4	0	0
Gwinn	613	36	99	25	53	18	12	9
Newberry	777	27	75	18	49	15	2	3
Red Oak	542	16	104	15	143	17	4	3
Pure MI Hunt	3	0	1	0	0	0	0	0
Statewide ^a	4,482	77	576	52	507	49	26	12

^aRow totals equal more than the estimated number of hunters in the unit because hunters could use more than one type of equipment during season.

Table 9. Estimated proportion of bears harvested by firearms, crossbows, and archery equipment during the 2017 bear hunting season in Michigan, summarized by area.

Management unit	Hunting equipment							
	Firearms		Compound, recurve, or long bows		Crossbows		Unknown	
	%	95%	%	95%	%	95%	%	95%
		CL		CL		CL		CL
Amasa	90	3	8	3	2	2	0	0
Baldwin	82	4	11	3	7	3	0	0
Baraga	87	5	8	4	6	3	0	0
Bergland	89	5	7	4	4	3	0	0
Carney	94	5	6	5	1	0	0	0
Drummond Is.	80	0	20	0	0	0	0	0
Gladwin	83	12	17	12	0	0	0	0
Gwinn	90	5	6	4	4	4	0	0
Newberry	92	3	5	3	3	2	0	0
Red Oak	80	4	9	3	12	3	0	0
Pure MI Hunt	75	0	25	0	0	0	0	0
Statewide	88	2	7	1	5	1	0	0

Table 10. Estimated number of bears harvested during the 2017 bear hunting season in Michigan, summarized by hunting equipment used to take the bear, summarized by area.

Management unit	Hunting equipment							
	Firearms		Compound, recurve, or long bows		Crossbows		Unknown	
	No.	95%	No.	95%	No.	95%	No.	95%
		CL		CL		CL		CL
Amasa	190	19	16	6	5	4	0	0
Baldwin	68	5	9	2	6	2	0	0
Baraga	323	43	28	15	22	13	0	0
Bergland	254	38	21	13	12	9	0	0
Carney	109	19	7	5	1	0	0	0
Drummond Is.	4	0	1	0	0	0	0	0
Gladwin	15	4	3	2	0	0	0	0
Gwinn	168	30	11	8	7	7	0	0
Newberry	277	30	14	8	10	7	0	0
Red Oak	246	20	27	8	36	9	0	0
Pure MI Hunt	3	0	1	0	0	0	0	0
Statewide	1,656	79	138	26	98	21	0	0

Table 11. Primary hunting methods used to hunt bear in Michigan, 2017.

Method	Number of hunters	95% CL	Method used (%)
Bait only	4,463	77	
Dogs only	132	25	
Dogs and bait	474	50	
Other	76	22	
Unknown	36	15	

Table 12. Proportion of bait hunters that used various types of bait, summarized by management unit.^{a,b,c}

Management unit	Type of bait									
	Fruit or vegetables		Corn, grains, or granola		Bakery products including jams, jellies, or sweeteners		Meat and meat products, including dog food or grease		Fish products, including cat food	
	%	95% CL	%	95% CL	%	95% CL	%	95% CL	%	95% CL
Amasa	18	3	72	4	69	4	28	4	10	2
Baldwin	18	3	67	3	62	3	42	4	17	3
Baraga	20	4	71	4	59	4	33	4	14	3
Bergland	19	4	66	5	62	5	23	4	7	3
Carney	21	4	79	4	73	5	21	4	5	2
Drummond Is.	20	0	100	0	60	0	40	0	20	0
Gladwin	25	7	66	7	86	5	32	7	6	4
Gwinn	26	4	76	4	60	5	27	4	11	3
Newberry	17	3	74	3	67	4	33	4	10	2
Red Oak	14	2	58	3	81	3	41	3	12	2
Pure MI Hunt	0	0	75	0	100	0	0	0	0	0
Statewide	19	1	70	2	66	2	30	2	10	1

^aBait was allowed from 31 days before the start of the bear hunting season until the end of the season. It was illegal to establish a bait station that attracted bear prior to August 10 and after October 26 in Amasa, Bergland, Baraga, Carney, Gwinn, and Newberry units; prior to August 10 and after October 21 in Drummond Island Unit; prior to August 9 and after September 26 in the Baldwin north area, prior to August 18 and after September 28 in Baldwin, Gladwin, and Red Oak units, and prior to September 7 and after October 13 in the Red Oak bow and arrow-only season.

^bExcluded hunters that did not use bait.

^cRow totals equal more than 100% because hunters could use more than one type of bait.

Table 13. Number of bait hunters that used various types of bait, summarized by management unit.^{a,b}

Management unit	Type of bait									
	Fruit or vegetables		Corn, grains, or granola		Bakery products including jams, jellies, or sweeteners		Meat and meat products, including dog food or grease		Fish products, including cat food	
	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL
Amasa	79	14	314	18	298	18	124	17	42	11
Baldwin	26	4	95	5	88	5	59	5	25	4
Baraga	197	36	708	47	587	48	329	44	143	32
Bergland	154	32	530	43	498	44	188	34	55	20
Carney	83	17	316	22	292	22	83	17	19	9
Drummond Is.	1	0	5	0	3	0	2	0	1	0
Gladwin	19	5	50	6	64	6	24	5	4	3
Gwinn	177	32	525	39	411	39	189	32	78	22
Newberry	135	23	595	33	542	33	262	30	81	19
Red Oak	78	13	333	21	468	19	236	20	66	13
Pure MI Hunt	0	0	3	0	4	0	0	0	0	0
Statewide	949	68	3,475	89	3,255	90	1,496	77	514	52

^aBait was allowed from 31 days before the start of the bear hunting season until the end of the season. It was illegal to establish a bait station that attracted bear prior to August 10 and after October 26 in Amasa, Bergland, Baraga, Carney, Gwinn, and Newberry units; prior to August 10 and after October 21 in Drummond Island Unit; prior to August 9 and after September 26 in the Baldwin north area, prior to August 18 and after September 28 in Baldwin, Gladwin, and Red Oak units, and prior to September 7 and after October 13 in the Red Oak bow and arrow-only season.

^bExcluded hunters that did not use bait.

Table 14. Hunting methods used to harvest bear in Michigan, 2017.

Method	Number of hunters		Method used (%)
	hunters	95% CL	
Bait only	1,508	77	
Dogs only	96	20	
Dogs and bait	258	36	
Other	15	9	
Unknown	15	10	

Table 15. Hunters' level of satisfaction with the number of bear seen during the 2017 bear hunting season, summarized by area.

Management unit	Satisfaction level							
	Very good or good		Neutral		Poor or very poor		No answer or not applicable	
	%	95% CL	%	95% CL	%	95% CL	%	95% CL
Amasa	52	4	16	3	28	4	4	2
Baldwin	45	3	13	2	30	3	12	2
Baraga	44	4	21	4	29	4	6	2
Bergland	40	5	22	4	31	5	6	2
Carney	40	5	18	4	32	5	10	3
Drummond Is.	100	0	0	0	0	0	0	0
Gladwin	32	7	8	4	48	7	13	5
Gwinn	35	5	16	4	40	5	9	3
Newberry	39	4	15	3	34	3	12	2
Red Oak	45	3	19	3	31	3	4	1
Pure MI Hunt	75	0	25	0	0	0	0	0
Statewide	42	2	18	1	33	2	8	1

Table 16. Hunters' level of satisfaction with the number of opportunities to take a bear during the 2017 bear hunting season, summarized by area.

Management unit	Satisfaction level							
	Very good or good		Neutral		Poor or very poor		No answer or not applicable	
	%	95%	%	95%	%	95%	%	95%
		CL		CL		CL		CL
Amasa	48	4	11	3	32	4	9	2
Baldwin	40	3	14	2	29	3	17	3
Baraga	36	4	17	3	34	4	13	3
Bergland	35	5	18	4	37	5	10	3
Carney	34	5	11	3	40	5	15	4
Drummond Is.	100	0	0	0	0	0	0	0
Gladwin	15	5	5	3	46	7	34	7
Gwinn	28	4	15	4	40	5	17	4
Newberry	32	3	14	3	38	4	17	3
Red Oak	38	3	17	2	35	3	10	2
Pure MI Hunt	75	0	25	0	0	0	0	0
Statewide	35	2	15	1	37	2	14	1

Table 17. Hunters' level of satisfaction with overall bear hunting experience during the 2017 bear hunting season, summarized by area.

Management unit	Satisfaction level							
	Very good or good		Neutral		Poor or very poor		No answer or not applicable	
	%	95%	%	95%	%	95%	%	95%
		CL		CL		CL		CL
Amasa	68	4	14	3	15	3	3	1
Baldwin	56	3	9	2	27	3	8	2
Baraga	63	4	16	3	19	3	3	2
Bergland	66	5	16	4	16	4	2	2
Carney	54	5	16	4	25	4	5	2
Drummond Is.	100	0	0	0	0	0	0	0
Gladwin	29	7	15	5	46	7	11	5
Gwinn	49	5	20	4	26	4	5	2
Newberry	56	4	19	3	20	3	5	2
Red Oak	63	3	14	2	19	3	3	1
Pure MI Hunt	100	0	0	0	0	0	0	0
Statewide	59	2	16	1	20	1	4	1

Table 18. Number and proportion of hunters that experienced interference with another hunter during the 2017 bear hunting season, summarized by area.

Management unit	Hunters interfered by other hunters (all types of hunters)				Hunters interfered by other bear hunters			
	%	95% CL	No.	95% CL	%	95% CL	No.	95% CL
Amasa	14	3	60	13	11	3	48	12
Baldwin	30	3	44	5	19	3	28	4
Baraga	13	3	137	31	12	3	126	30
Bergland	17	4	139	31	15	3	123	29
Carney	18	4	77	17	13	3	53	14
Drummond Is.	20	0	1	0	20	0	1	0
Gladwin	22	6	17	5	9	4	7	3
Gwinn	23	4	166	31	20	4	145	29
Newberry	17	3	150	24	15	3	133	23
Red Oak	23	3	145	17	13	2	79	13
Pure MI Hunt	0	0	0	0	0	0	0	0
Statewide	18	1	938	65	14	1	744	61

Table 19. Number and proportion of hunters that used a hunting guide during the 2017 bear hunting season, summarized by area.

Management unit	%	95% CL	No.	95% CL
Amasa	12	3	55	12
Baldwin	20	3	29	4
Baraga	16	3	161	33
Bergland	18	4	152	32
Carney	4	2	17	8
Drummond Island	0	0	0	0
Gladwin	7	4	5	3
Gwinn	9	3	65	20
Newberry	13	2	113	21
Red Oak	8	2	52	11
Pure MI Hunt	75	0	3	0
Statewide	13	1	653	58

Table 20. Methods used by guides to hunt bear in Michigan, 2017, summarized by area.

Management unit	Hunted over bait only		Used dogs only (no bait)		Used dogs started over bait		Used other method		Unknown method	
	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL
Amasa	44	10	0	0	9	6	0	0	2	3
Baldwin	16	3	3	1	9	2	0	0	0	0
Baraga	150	33	0	0	8	8	0	0	3	5
Bergland	136	31	0	0	6	7	3	5	6	7
Carney	8	5	0	0	8	5	0	0	2	3
Drummond Island	0	0	0	0	0	0	0	0	0	0
Gladwin	0	0	3	2	1	0	0	0	1	2
Gwinn	41	17	3	5	21	11	0	0	0	0
Newberry	93	20	5	5	15	8	0	0	0	0
Red Oak	28	8	15	6	8	5	1	0	0	0
Pure MI Hunt	2	0	0	0	1	0	0	0	0	0
Statewide	519	54	29	10	86	20	4	5	15	10

Table 21. Proportion and number of bait hunters using a trail camera in 2017, summarized by area.^a

Management unit	Bait hunters using a trail camera			
	%	95% CL	Total	95% CL
Amasa	82	3	359	16
Baldwin	89	2	125	4
Baraga	77	4	771	45
Bergland	71	4	575	43
Carney	83	4	332	21
Drummond Is.	100	0	5	0
Gladwin	92	4	69	5
Gwinn	76	4	523	39
Newberry	77	3	620	32
Red Oak	90	2	518	17
Pure MI Hunt	75	0	3	0
Statewide	79	1	3,901	86

^aExcluded hunters that did not use bait.

Table 22. Proportion of bear hunters using a trail camera that photographed the following animals with their trail camera in 2017, summarized by area.^a

Management unit	Species													
	Bear		Coyote		Deer		Bobcat		Wolf		Marten		Fisher	
	%	95 CL	%	95 CL	%	95 CL	%	95 CL	%	95 CL	%	95 CL	%	95 CL
Amasa	93	2	23	4	40	5	4	2	19	4	24	4	28	4
Baldwin	96	2	30	4	55	4	11	2	0	0	0	0	0	0
Baraga	95	2	25	4	44	5	3	2	25	4	37	5	35	5
Bergland	91	3	23	5	38	6	2	2	28	5	17	4	29	5
Carney	91	3	28	5	60	6	6	3	9	3	3	2	14	4
Drummond Is.	100	0	40	0	60	0	20	0	20	0	0	0	0	0
Gladwin	84	6	18	6	46	8	6	3	0	0	0	0	0	0
Gwinn	91	3	32	5	55	6	8	3	14	4	19	5	24	5
Newberry	87	3	26	4	40	4	6	2	20	3	24	4	15	3
Red Oak	96	1	27	3	43	4	8	2	0	0	1	1	0	0
Pure MI Hunt	100	0	33	0	0	0	0	0	0	0	0	0	0	0
Statewide	92	1	26	2	45	2	5	1	17	1	19	2	21	2

^aExcluded hunters that did not use a trail camera.

APPENDIX A

2017 Michigan Bear Harvest Questionnaire



2017 MICHIGAN BEAR HARVEST 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 report even if you did not hunt or harvest a bear. If you want to provide your answers via the internet, visit our website at michigan.gov/bear.

1. Did you hunt bear in Michigan during the 2017 season?

- Yes No; (If you select "No", you are finished. Please return the survey.)

2. Please report the number of days for each county that you hunted bear in the following table.

COUNTY HUNTED <i>(List each county that you hunted for bear; for example, Marquette County)</i>	NUMBER OF DAYS HUNTED	TYPE OF LAND		
		<input type="checkbox"/> Private	<input type="checkbox"/> Public	<input type="checkbox"/> Both
		<input type="checkbox"/> Private	<input type="checkbox"/> Public	<input type="checkbox"/> Both
		<input type="checkbox"/> Private	<input type="checkbox"/> Public	<input type="checkbox"/> Both
		<input type="checkbox"/> Private	<input type="checkbox"/> Public	<input type="checkbox"/> Both
		<input type="checkbox"/> Private	<input type="checkbox"/> Public	<input type="checkbox"/> Both

3. Did you hunt with a firearm, crossbow, or bow during the 2017 bear season?

(select all that apply)

- Firearm Crossbow Bow (recurve, compound, or long bow)

4. What hunting method did you use most often when hunting bear in Michigan during the 2017 bear season? *(Please select only one item.)*

- Hunted over bait only Used dogs only (bait not used)
 Used dogs started over bait Used other methods not involving dogs or bait

5. If you used bait to attract bears, what was the total number of gallons you used during the legal baiting and hunting periods?

_____ Please write in gallons used.

6. If you used bait, select the types of bait you used. *(select all that apply)*

- Chocolate or cocoa derivatives Fruit or vegetables Corn, grains, or granola
 Bakery products including jams, jellies, or sweeteners Meat and meat products, including dog food or grease Fish and fish products, including cat food

7. If you used bait, did you use a trail camera to record events at a bait station?

- Yes No *(If no, please skip to question 9.)*

8. If you used a trail camera, what animals did you photograph? *(select all that apply)*

- None Bear Coyote Deer Bobcat
 Wolf Marten Fisher Other: _____

Please continue on back

9. At any time during the 2017 season, did you hire a guide's service to hunt bear in Michigan?

- ¹ Yes ² No (If no, please skip to question 11.)

10. If yes, what hunting techniques were used most often by the guide? (Please select only one item.)

- ¹ Hunted over bait only ² Used dogs only (bait not used)
³ Used dogs started over bait ⁴ Used other methods not involving dogs or bait

11. Did you kill a bear and place your harvest tag on it?

- ¹ Yes ² No (If no, please skip to question 13.)

12. If your harvest tag was put on a bear, please fill in the information below

a. What date was the bear harvested?

(please check [X] the box for the date of harvest)

September 2017						
S	M	T	W	T	F	S
					8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

October 2017						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26		

b. What was the sex of the bear?

- ¹ Male ² Female ³ Not sure

c. In what county was it harvested?

_____ please write in county name

d. On what type of land was the bear harvested?

- ¹ Private ² Public

e. What weapon was used to harvest bear?

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

f. What was the method of harvest?

- ¹ Taken over bait ² Used dogs only (bait not used)
³ Used dogs started over bait ⁴ Used other methods not involving dogs or bait

g. If you used a hunting guide, was your hunting guide responsible for your success in taking a bear? (You can skip this question if you did not use a hunting guide.)

- ¹ Yes ² No ³ Not sure

13. Did other hunters interfere with your bear hunting?

- ¹ Yes ² No (Skip to question 15.)

14. If you answered "yes" to the previous question, was the interference caused by other bear hunters?

- ¹ Yes ² No

15. How would you rate the following for your 2017 bear hunting season:

(Select one choice per item.)

- | | Very Good | Good | Neutral | Poor | Very Poor | Not Applicable |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Number of bear you saw. | ¹ <input type="checkbox"/> | ² <input type="checkbox"/> | ³ <input type="checkbox"/> | ⁴ <input type="checkbox"/> | ⁵ <input type="checkbox"/> | ⁶ <input type="checkbox"/> |
| b. Number of opportunities you had to take a bear. | ¹ <input type="checkbox"/> | ² <input type="checkbox"/> | ³ <input type="checkbox"/> | ⁴ <input type="checkbox"/> | ⁵ <input type="checkbox"/> | ⁶ <input type="checkbox"/> |
| c. Your overall bear hunting experience. | ¹ <input type="checkbox"/> | ² <input type="checkbox"/> | ³ <input type="checkbox"/> | ⁴ <input type="checkbox"/> | ⁵ <input type="checkbox"/> | ⁶ <input type="checkbox"/> |

Return the completed report in the enclosed postage-paid envelope. Thanks for your help.