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2006 MICHIGAN FURBEARER HARVEST SURVEY

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ABSTRACT

A sample of furtakers was contacted after the 2006 hunting and trapping seasons to estimate the number of participants, days afield (effort), and furbearer harvests. In 2006, about 15,000 furtakers pursued furbearers; an increase of 14% from 2005. About 37% of the license buyers trapped (8,793 trappers), 43% hunted (10,183 hunters), and 16% (3,925) both trapped and hunted. Trapper numbers increased 26% and hunter numbers increased 9% between 2005 and 2006. Changes for days of effort by hunters and trappers between 2005 and 2006 generally followed changes in the number of furtakers. Hunters most commonly sought coyotes, raccoons, and red fox. The species most frequently pursued by trappers were raccoons, muskrats, and coyotes. Although participation and effort increased between 2005 and 2006 for most species, harvest increased only for raccoons and muskrats. Only harvest for otter declined significantly between 2005 and 2006. Harvest levels of all furbearers in 2006 were within historical ranges. Trends in harvest can be affected by both changes in furtaker and furbearer numbers; thus, harvest per furtaker was also examined for trends. The mean number of raccoon and opossum taken per furtaker has increased since the 1980s. The mean harvest of coyotes per hunter has increased since the mid-1980s, while the mean harvest of red fox by both hunters and trappers has declined during this same period. These trends suggest raccoon, opossum, and coyote may have been increasing in abundance during the last 20 years, while red fox numbers may have been declining. An estimated 92% of trappers that tried to catch coyote or fox used foothold traps. About 29% of coyote and fox trappers used snares in their attempts to catch coyote or fox. Overall, about 25% of active trappers and hunters were members of a furbearer hunting or trapping organization in 2006. If the Michigan Department of Natural Resources (DNR) developed a voluntary

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trapper education course, nearly 50% of furtakers indicated that would be interested in participating.

INTRODUCTION

The Natural Resources Commission and the 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 by the DNR to accomplish its statutory responsibility. Estimating harvests and hunter participation are primary objectives of these surveys. Information from harvest surveys, mandatory registration, and other indices are used to monitor furbearer populations and help establish harvest regulations.

The primary furbearing animals harvested for their pelts in Michigan during recent years have been badger (*Taxidea taxus*), beaver (*Castor canadensis*), bobcat (*Felis rufus*), coyote (*Canis latrans*), fisher (*Martes pennanti*), gray fox (*Urocyon cinereoargenteus*), marten (*Martes americana*), mink (*Mustela vision*), muskrat (*Ondatra zibethica*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), red fox (*Vulpes vulpes*), river otter (*Lontra canadensis*), striped skunk (*Mephitis mephitis*), and weasels (*Mustela* spp.) (Frawley 2007b). Opossum, weasels, and skunks could be taken year-round with any hunting or fur harvester license. The remaining furbearers could be harvested in 2006 during late fall through mid-winter by a person possessing a fur harvesters license (included Fur Harvester, Junior Fur Harvester, Senior Fur Harvester, Non-resident Fur Harvester, Military Fur Harvester, Resident Fur [trap only], and Junior Fur [trap only]) (Table 1). Landowners or their designees could take raccoons and coyotes throughout the year on their property without a license if these animals were causing damage. Coyotes can also be taken by hunters possessing a small game hunting license. Thus, harvest estimates of raccoons and coyotes from this survey do not represent all possible forms of harvest, but only those taken by people with a fur harvesters license.

METHODS

Following the 2006 hunting and trapping seasons, a questionnaire was sent to a random sample of people who had purchased a fur harvester license (Table 2). All licensees had an equal chance of being included in the random sample. Although hunters that purchased a small game hunting license could take coyotes; these license buyers were not included in the sample. After the sample was selected, licensees were grouped into one of four strata on the basis of their residence. These strata included residents of the Upper Peninsula (UP), northern Lower Peninsula (NLP), southern Lower Peninsula (SLP), and nonresidents (Figure 1). People receiving the questionnaire were asked to report whether they pursued furbearers, number of days spent afield, and whether they harvested any furbearing animals. Estimates were calculated using a stratified random sampling design (Cochran 1977). The primary reason for using a stratified sampling design was to produce more precise estimates. Improved precision means similar estimates should be obtained if this survey was repeated.

Estimates were calculated along with their 95% confidence limit (CL). 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. Furthermore, harvest estimates did not include nuisance animals legally taken out of season or illegal take.

Statistical tests are used routinely to determine the likelihood 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-April 2007, and up to two follow-up questionnaires were mailed to nonrespondents. About 2% of the questionnaires were undeliverable (Table 2). Of the questionnaires that were delivered, 66% of the questionnaires were completed and returned.

Estimates of events that occur infrequently are difficult to estimate precisely using common sampling designs (Cochran 1977). Relatively few furtakers harvest river otter, bobcat, badger, fisher, and marten; thus, estimates associated with these species should be viewed cautiously. More precise harvest estimates were probably obtained for these species through tallying registration reports. All furtakers harvesting a river otter, bobcat, fisher, or marten were required to present these animals at a DNR office for registration. Prior to 2003, furtakers were also required to register badger; however, this requirement was eliminated in 2003. In this report, marten harvest was determined only by registration. Separate surveys were conducted to estimate hunting and trapping participation, harvest, and effort for bobcat (Frawley et al. 2007), fisher and marten (Frawley 2007a), and otter and beaver (Frawley 2007c) seasons.

While the primary objectives of the fur harvester's survey were estimating harvest, trapper and hunter numbers, and trapping and hunting effort, this survey also provided an opportunity to collect information about management issues. Questions were added to the questionnaire to determine whether trappers had used snares while attempting to capture coyote or fox during 2006-2007 seasons. Furtakers were asked to report the average number of traps set daily for furbearers. Furtakers were asked to report whether they were a member of a furtaker organization, and whether they were interested in participating in a voluntary trapper education course. In addition, furtakers were asked whether they would attempt to obtain a furtaker license in Wisconsin if regulations allowed Michigan furtakers an opportunity to hunt or trap furbearers in Wisconsin.

RESULTS AND DISCUSSION

In 2006, 24,149 fur harvester licenses were purchased by 23,844 people (Figure 2, Table 2). The number of license buyers in 2006 was 13% higher than the preceding three-year average of 21,013 (2003-2005). Most license buyers were men (98%), with an average age of 44 years (Figure 3). About 7% of the license buyers (1,552) were younger than 17 years of age.

Mail Harvest Survey

Overall, approximately 63% of license buyers either hunted or trapped furbearers during 2006 (Tables 2 and 3). The number of active furtakers increased about 14% from 2005. About 37% of the license buyers trapped and 43% hunted furbearers during 2006. Trappers most often pursued raccoons, muskrat, and coyote (Table 4). Hunters most commonly sought coyotes, raccoon, and red fox. Coyotes and raccoons ranked as the most frequently sought furbearers when trappers and hunters were combined.

The estimated number of trappers increased 26% between 2005 and 2006 (Table 3). However, the estimated number of people trapping during recent years is well below the record highs of nearly 16,000 in the early 1980s (Figure 4). The peaks in furtaker numbers corresponded closely to periods when pelt values peaked for many species such as muskrat, raccoon, and red fox (Iowa Department of Natural Resources 2002). The number of trappers during recent years has been comparable to the numbers active during the 1960s, prior to the peak in fur prices.

The estimated number of people hunting furbearers increased 9% between 2005 and 2006 (Table 3). Since 1994, the number of people hunting furbearers has been consistently greater than the number of people trapping (Figure 4). However, the difference between the number of hunters and trappers was less pronounced in 2006 because the number of trappers increased more than the number of hunters since 2005.

Collectively, a greater number of people trapped furbearers in 2006 compared to 2005. Moreover, significantly greater numbers of trappers pursued most species (Table 4). Only beaver had fewer trappers pursuing them in 2006 than 2005; however, the estimates associated with beaver came from a separate survey that produced estimates that were not directly comparable with estimates from prior years (Frawley 2007c). Overall, more people hunted furbearers in 2006 than 2005; however, a significant increase in hunter numbers was only noted among people hunting raccoon and bobcat. Changes for hunting and trapping effort between 2005 and 2006 generally followed changes in the number of furtakers.

Although participation and effort increased between 2005 and 2006 for most species, harvest increased only for raccoons and muskrats (Table 4). Only harvest for otter declined significantly between 2005 and 2006.

Harvest levels of all furbearers in 2006 were within historical ranges (Figures 5-7). Many factors influence harvest trends such as hunter numbers, wildlife population size, hunting

regulations, habitat conditions, and fur prices; thus, any interpretations of trends should be viewed cautiously. Trends in harvest per furtaker were examined because this measure may eliminate some of the affects of changing furtaker and furbearer numbers over time, although many other factors may still complicate interpretations of these trends (Poole and Mowat 2001).

The mean number of raccoon and opossum taken per furtaker has increased since the early 1980s (Figures 8 and 9). The mean harvest of coyotes per hunter has increased since the mid-1980s, while the mean harvest of red fox by both hunters and trappers has declined during this same period. These trends suggest raccoon, opossum, and coyote may have been increasing in abundance during the last 20 years, while red fox numbers may have been declining.

These trends in furbearer numbers are not unique to Michigan. Increasing raccoon numbers have also been reported in Illinois since the 1980s (Gehrt et al. 2002). Furthermore, declining red fox numbers and increasing coyote numbers also have been reported in portions of the northern Great Plains since the 1980s (Sovada et al. 1995). The decline in red fox numbers in the northern Great Plains during recent years has been attributed largely to competition from increased coyote numbers (Sovada et al. 1995).

The mean number of bobcats taken per trapper declined from 2003 to 2006 (Figure 8). The seasonal harvest limit for bobcats was lowered from three to two bobcats in 2005 and 2006, and this reduction probably contributed to the decline of bobcats taken per trapper (Frawley et al. 2007).

Registration Data

Compared to 2005, more fisher (21% increase), marten (17%), and bobcat (4%) were registered in 2006; however, fewer otter (24% decline) were registered (Figure 10, Table 5).

Supplemental Questions

An estimated 92% of trappers that tried to catch coyote or fox used foothold traps (Table 6, 4,440 trappers). About 29% of coyote and fox trappers used snares in their attempt to catch coyote or fox (1,383 trappers). An estimated 3,824 trappers caught 7,337 coyotes with foothold traps, while 3,443 trappers caught 9,353 fox with foothold traps (Table 7). These trappers also reported 2,696 coyotes and 1,332 fox escaping from foothold traps. Among trappers using snares, 1,302 trappers caught 2,399 coyotes, and 806 trappers caught 725 fox. In addition, trappers reported 1,474 coyotes and 796 fox escaping from snares.

Overall, about 25% ± 3% of active trappers and hunters were members of a furbearer hunting or trapping organization in 2006 (2,642 ± 273). About 25% ± 3% of active trappers (2,162 ± 250) and 13% ± 2% of active hunters (1,295 ± 198) belonged to a furtaker organization.

If the DNR developed a voluntary trapper education course covering furbearer biology, trapping techniques, and trapping regulations, nearly 50% of furtakers indicated that they would be interested in participating in this course (Tables 8 and 9). Slightly more furtakers preferred a classroom course with hands-on experience over an internet-based course.

Currently, Michigan hunters and trappers cannot legally harvest furbearers in Wisconsin. If regulations were changed to allow Michigan residents to harvest furbearers in Wisconsin, they probably would need to apply for a limited number of harvest tags in Wisconsin, and the maximum number of animals taken probably would be limited. Relatively few furtakers active in Michigan during 2006 reported they would be interested in pursuing furbearers in Wisconsin if regulations were revised to allow furtakers from Michigan to participate in Wisconsin (Tables 10 and 11).

ACKNOWLEDGEMENTS

I thank all the furtakers that provided information. Autumn Feldpausch, Theresa Riebow, and Becky Walker completed data entry. Marshall Strong prepared Figure 1. Mike Bailey, Dwayne Etter, Cheryl Fliearman, Val Frawley, Jen Kleitch, Pat Lederle, and Doug Reeves reviewed a draft version of this report.

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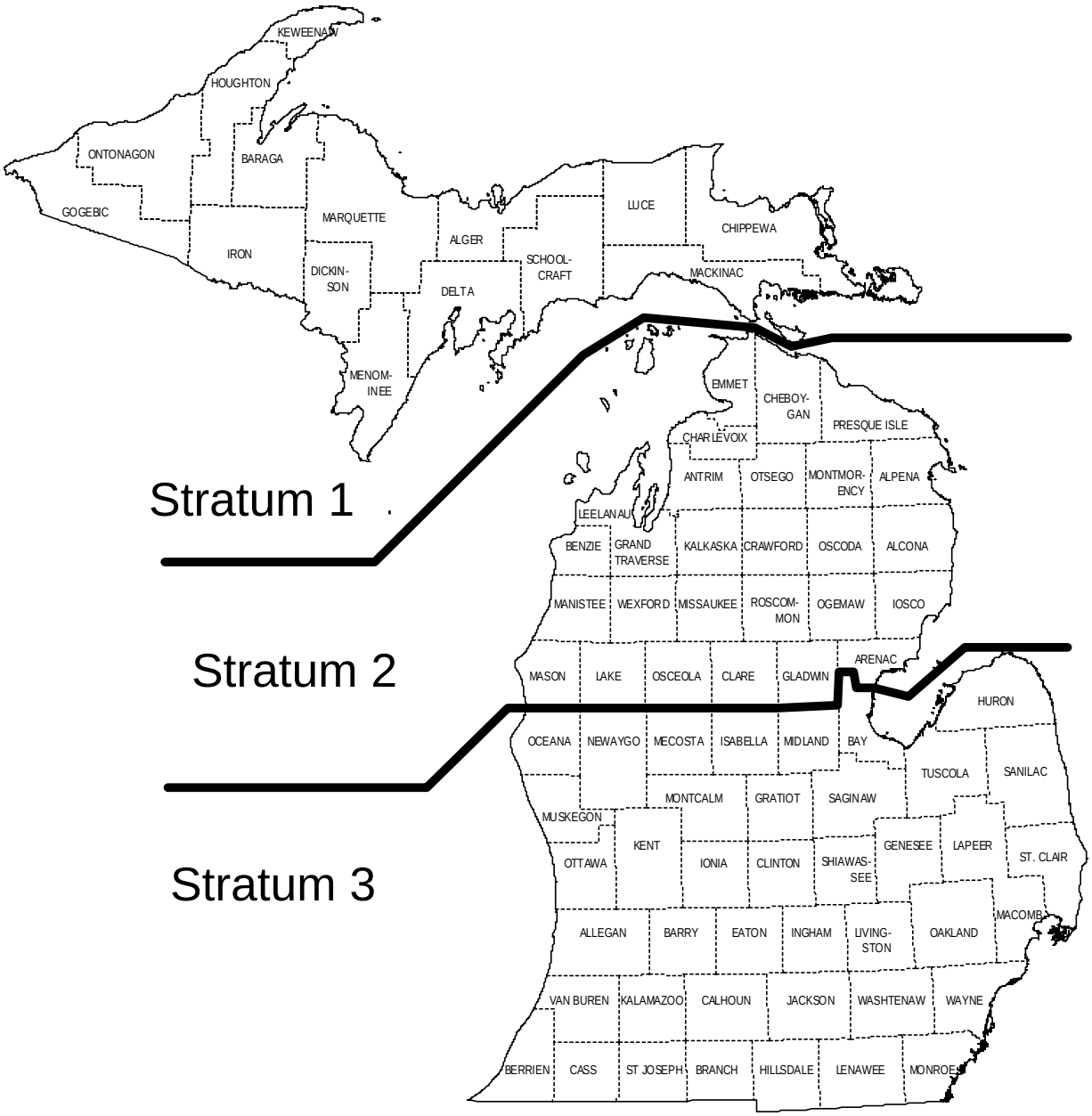


Figure 1. Stratum boundaries used for the analysis of the Michigan furbearer harvest survey. Nonresidents were included as a fourth stratum.

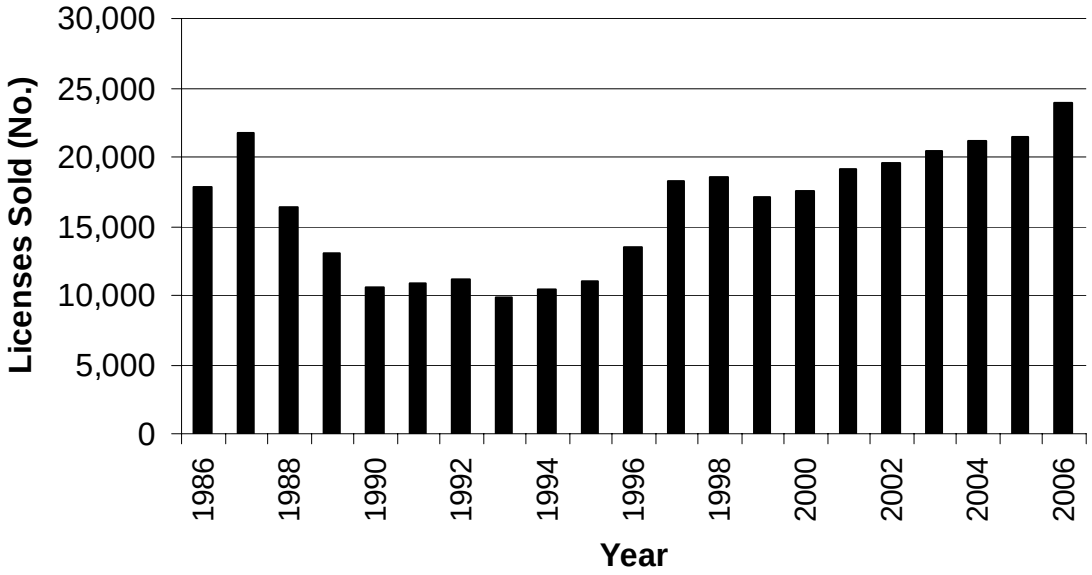


Figure 2. Number of fur harvester licenses sold in Michigan, 1986-2006. Fur harvester licenses included Resident Fur Harvester, Senior Fur Harvester, Junior Fur Harvester, Military Fur Harvester, and Nonresident Fur Harvester licenses. During 1996-2006, totals also included Resident Fur Harvester (trap only) and Junior Fur Harvester (trap only) licenses.

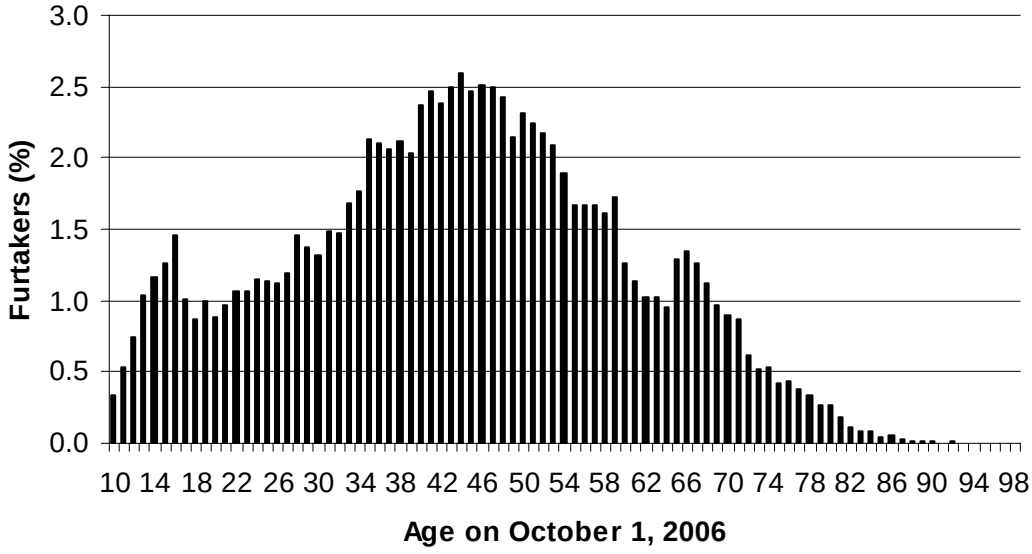


Figure 3. Ages of people that purchased a license to hunt or trap furbearers in Michigan for the 2006 hunting and trapping seasons ($\bar{x}$ = 44 years).

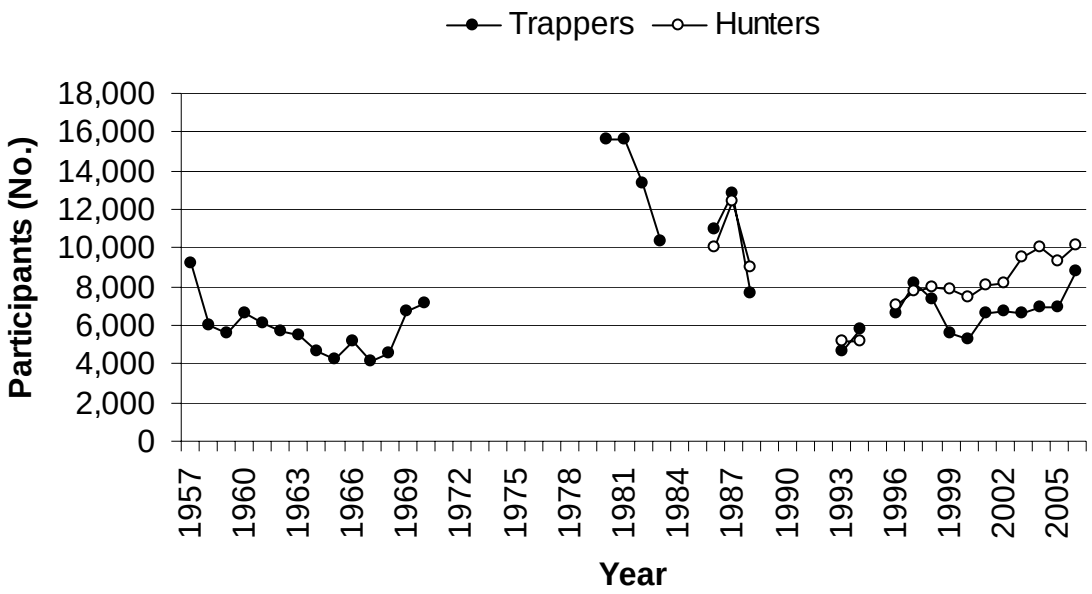


Figure 4. Estimated number of trappers and hunters in Michigan, 1957-2006. Estimates included only license buyers that actually trapped or hunted furbearers (any species). Data were not available for all years.

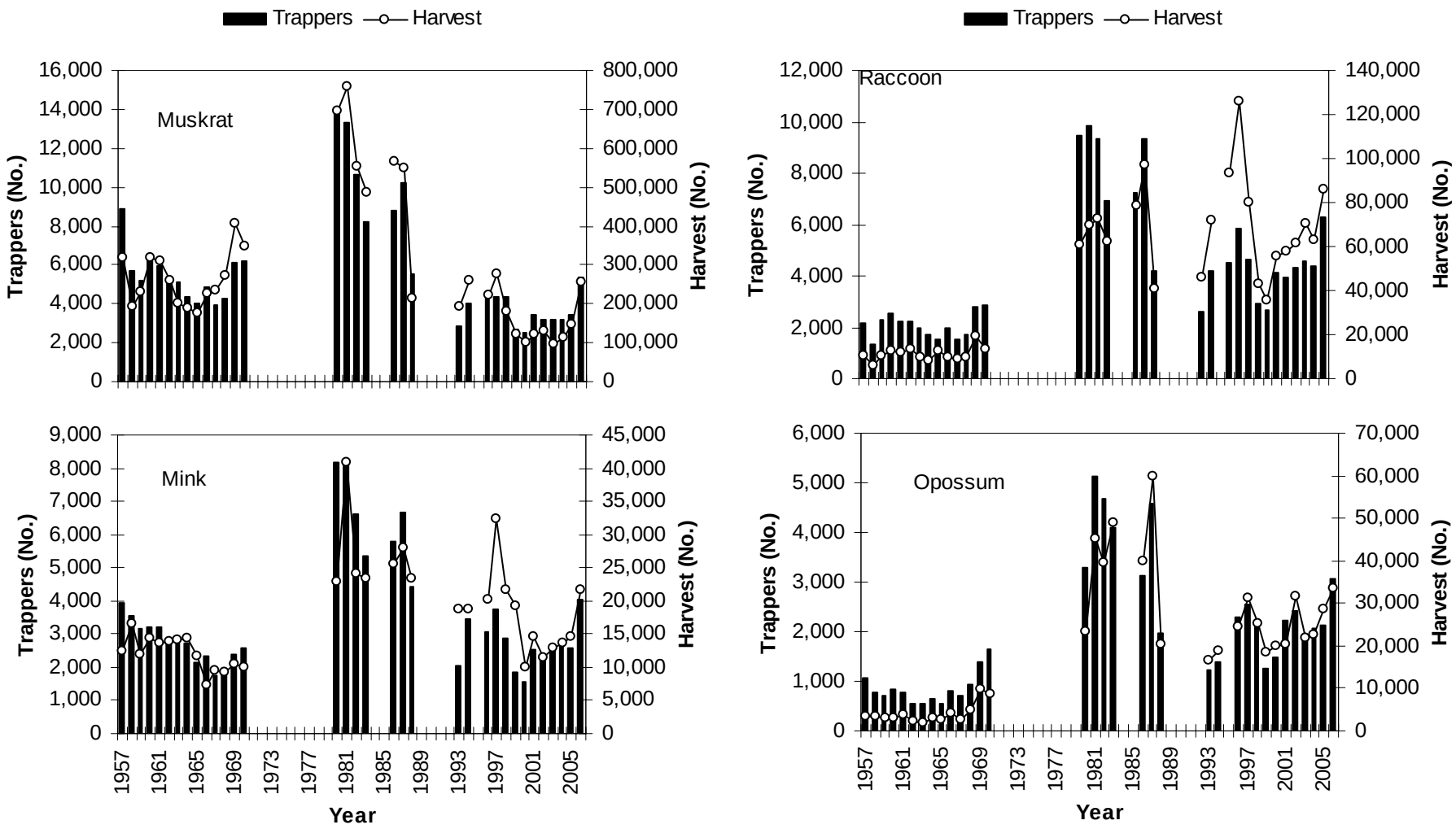
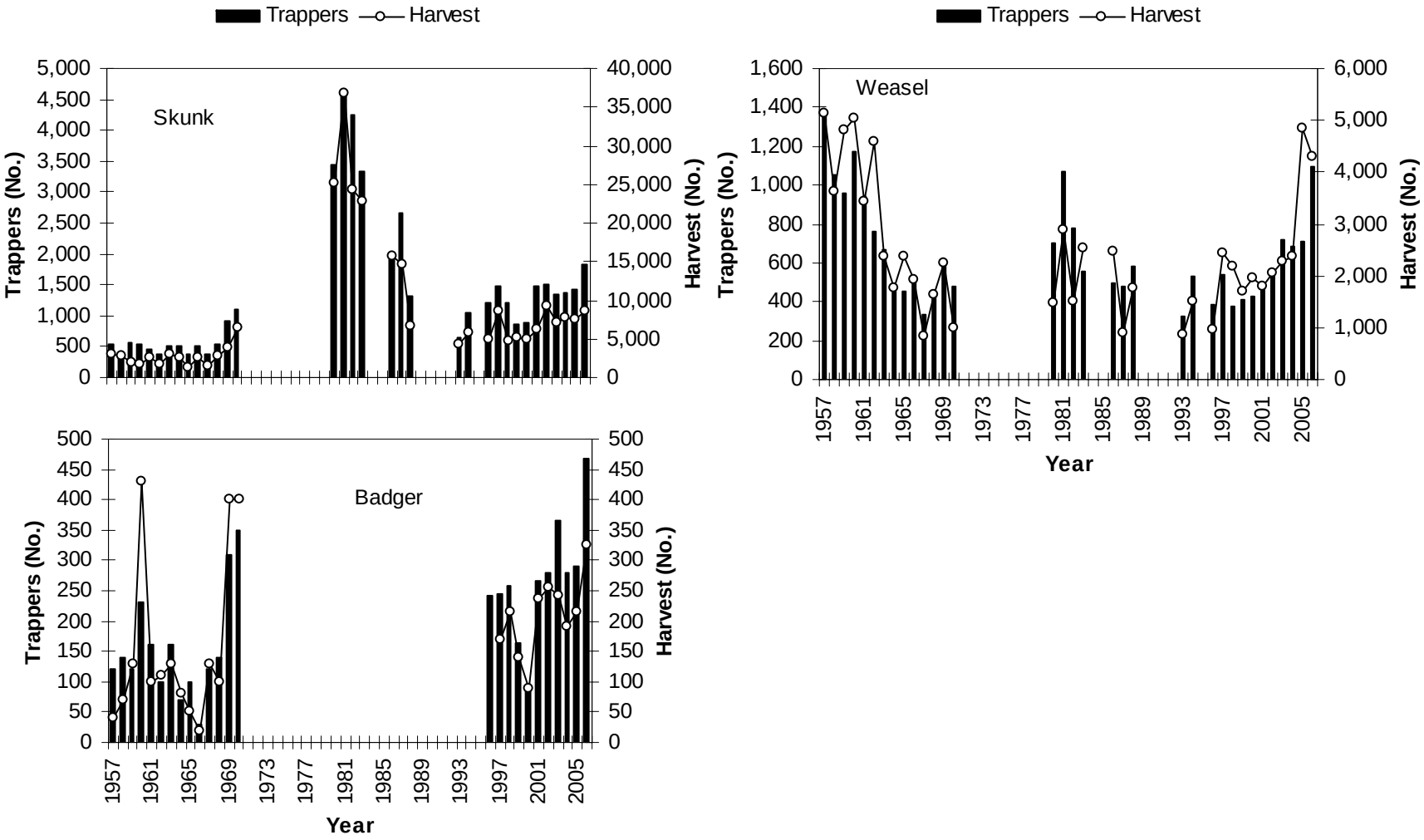


Figure 5. Estimated furbearer harvest by trappers and the number of trappers in Michigan estimated from mail harvest surveys, 1957-2006. Mail survey questionnaires were sent to a random sample of Trapping license buyers during 1957-1969. The sample also included Sportsman's license buyers in 1970-1972. During 1980-1983, the sample included Trapping and Senior Hunting license buyers. During 1986-2006, the sample was selected from people buying either Resident Fur Harvester, Senior Fur Harvester, Junior Fur Harvester, Military Fur Harvester, or Nonresident Fur Harvester licenses. The sample also included Senior Hunting license buyers during 1986-1988. Starting in 1996, samples also included people buying Resident Fur Harvester (trap only) and Junior Fur Harvester (trap only) licenses. Data were not available for all years.



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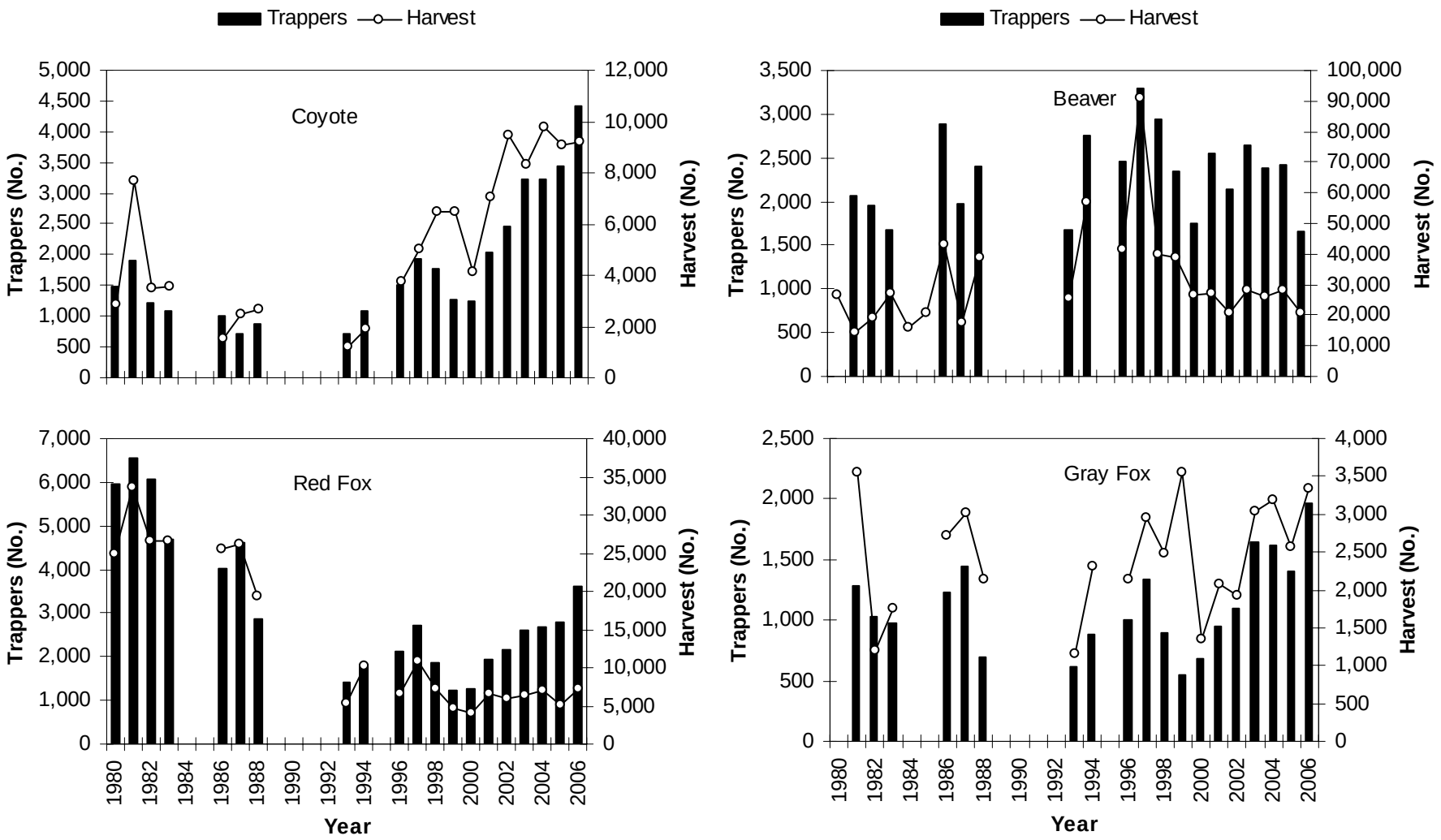

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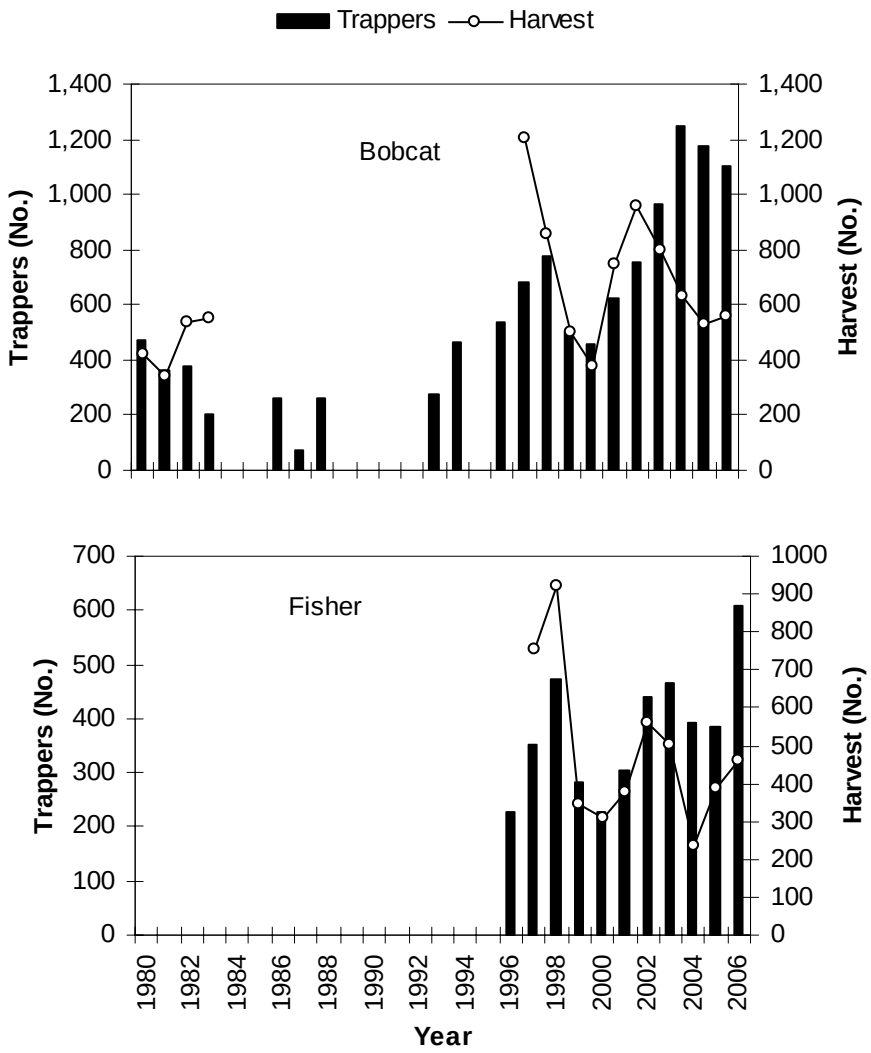

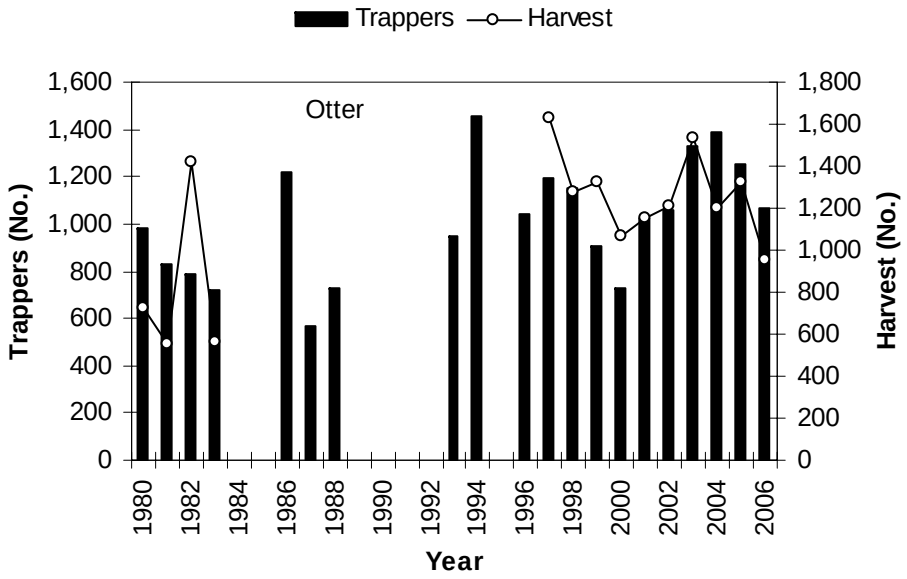

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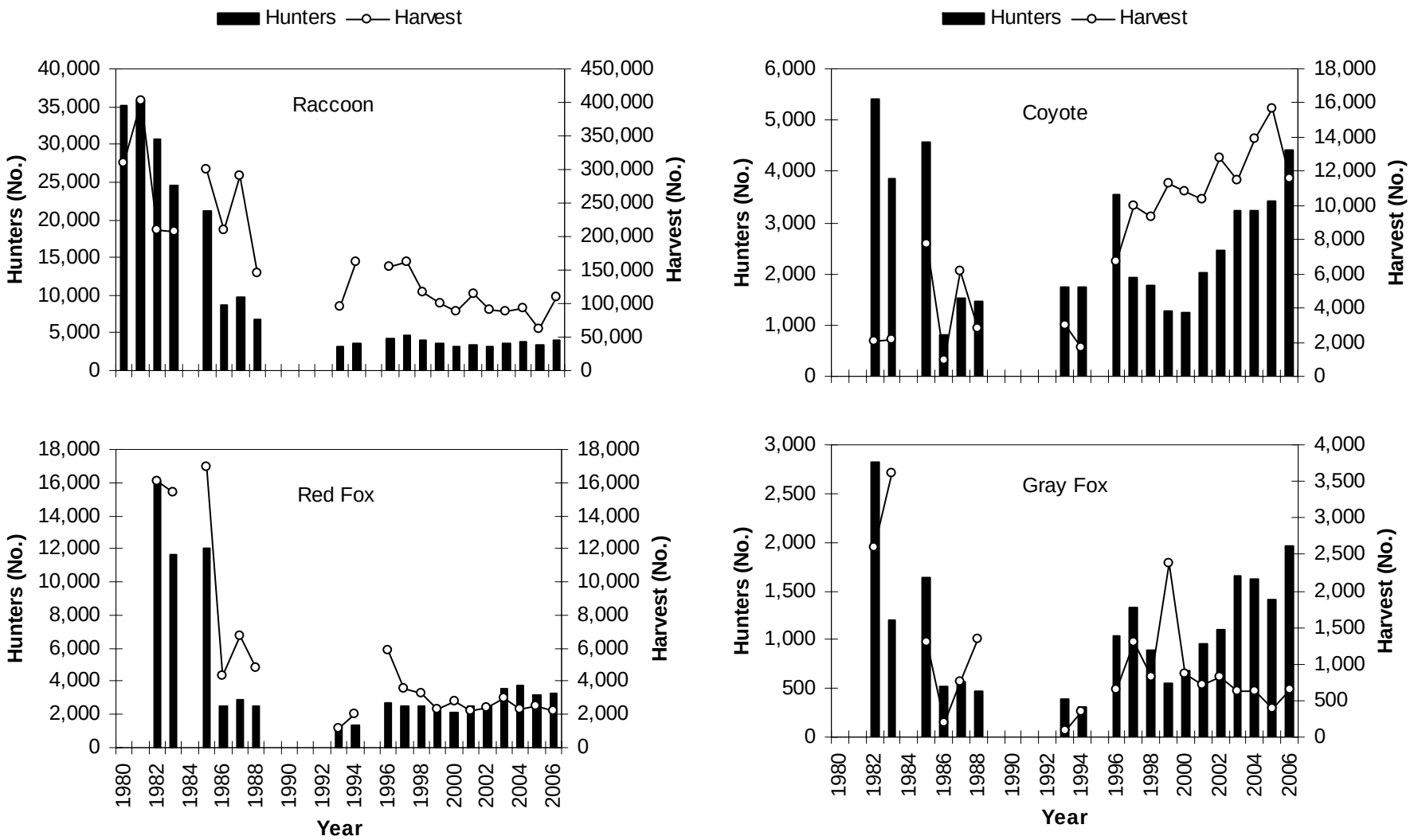
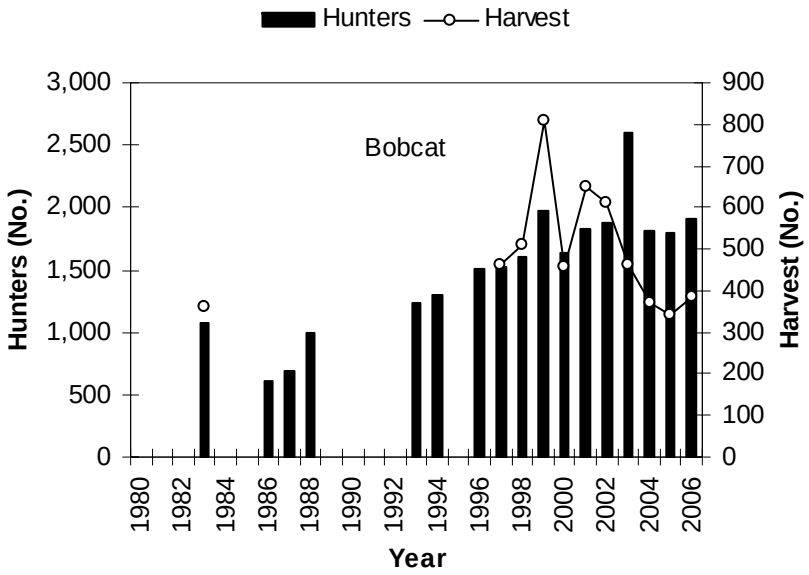


Figure 7. Estimated furbearer harvest by hunters and the number of hunters in Michigan estimated from mail harvest surveys, 1980-2006. The mail survey was sent to a random sample of people buying either small game licenses, Senior Hunting licenses, or Sportsman's licenses during 1980-1985. During 1986-2006, the sample was selected from people buying either Resident Fur Harvester, Senior Fur Harvester, Junior Fur Harvester, Military Fur Harvester, or Nonresident Fur Harvester licenses. The sample also included Senior Hunting license buyers during 1986-1988. Starting in 1996, samples also included people buying Resident Fur Harvester (trap only) and Junior Fur Harvester (trap only) licenses. Data were not available for all years.



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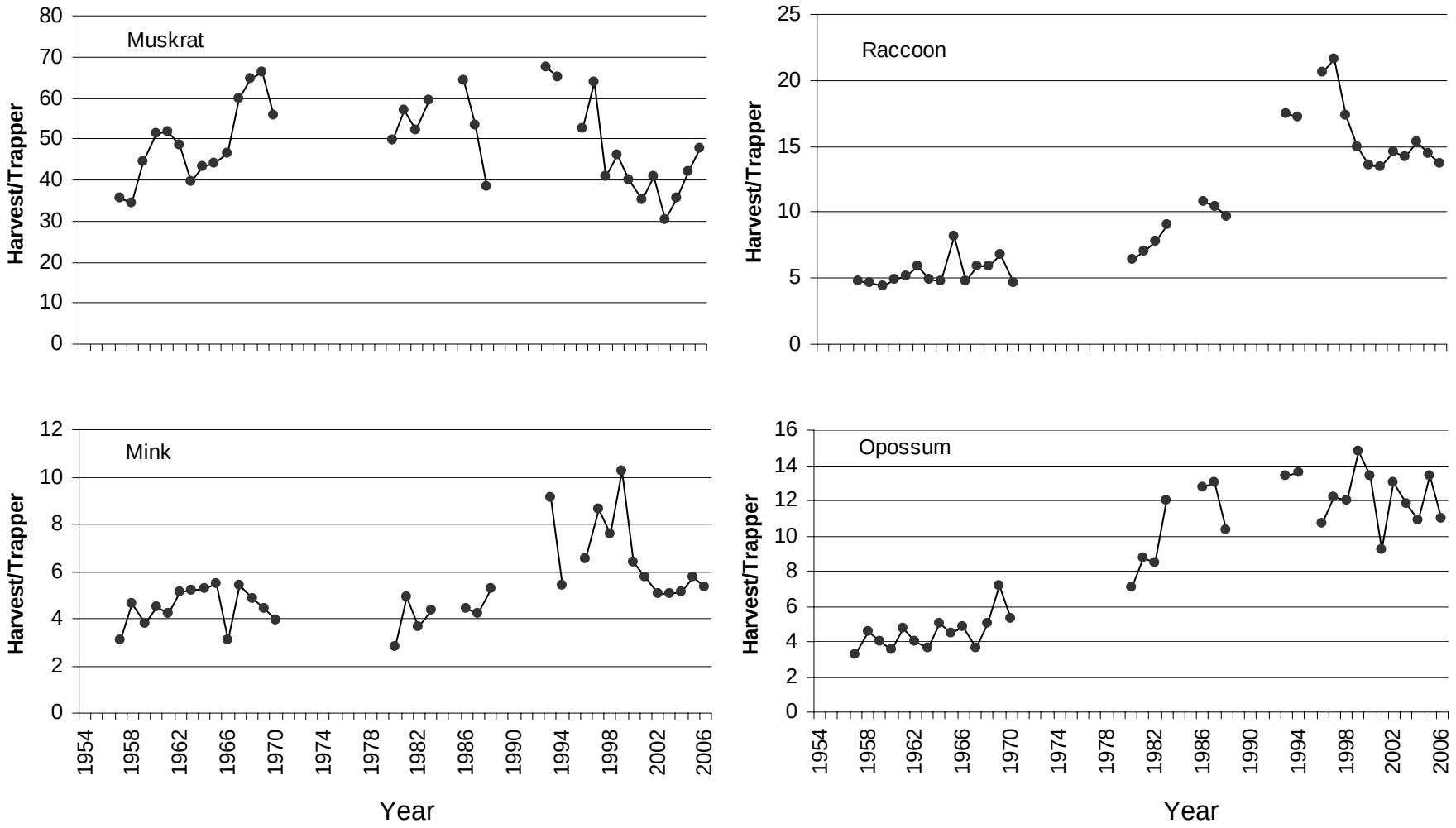
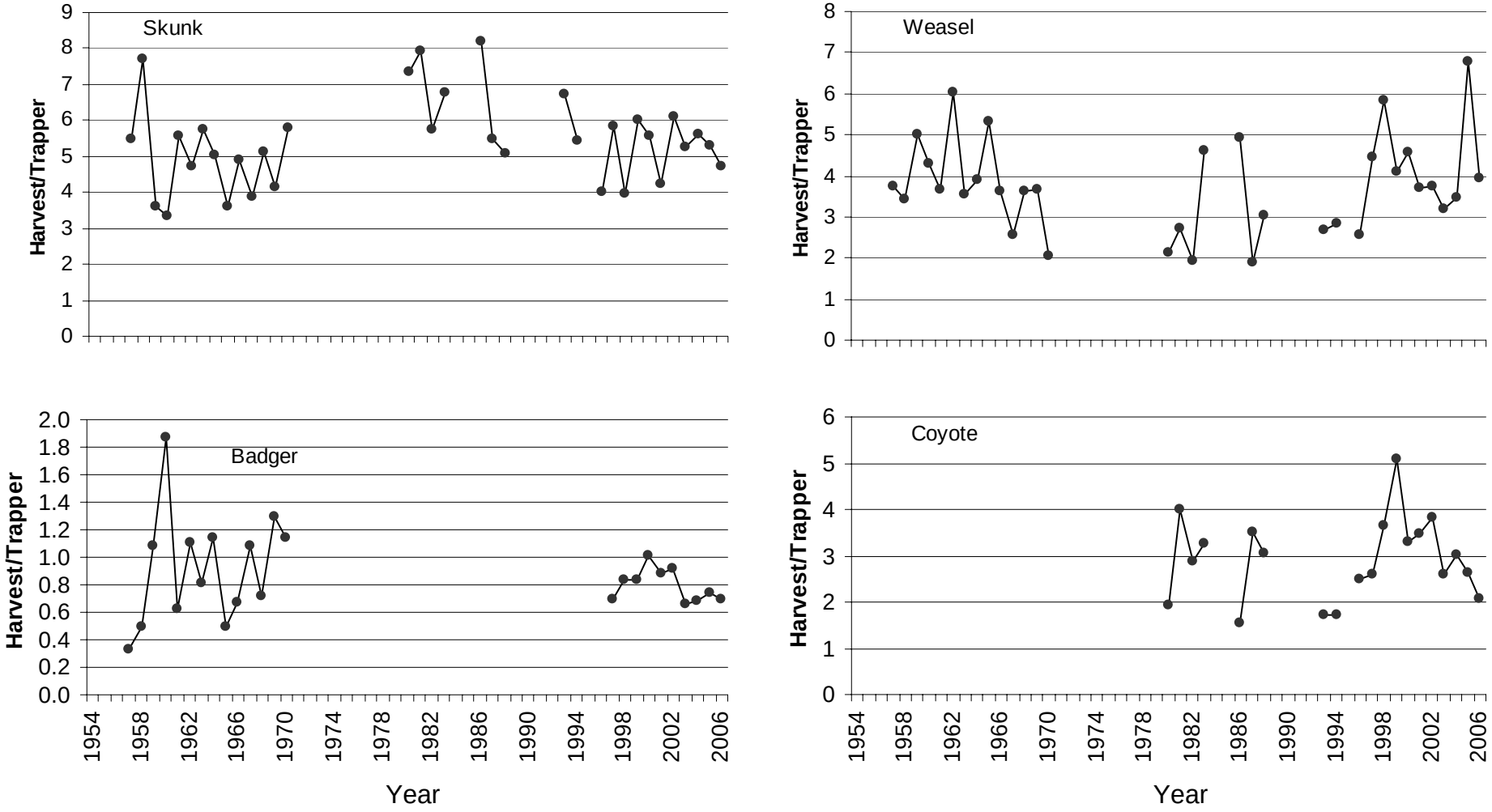


Figure 8. Estimated mean number of furbearers harvested annually by trappers in Michigan estimated from mail harvest surveys, 1954-2006. Data were not available for all years.



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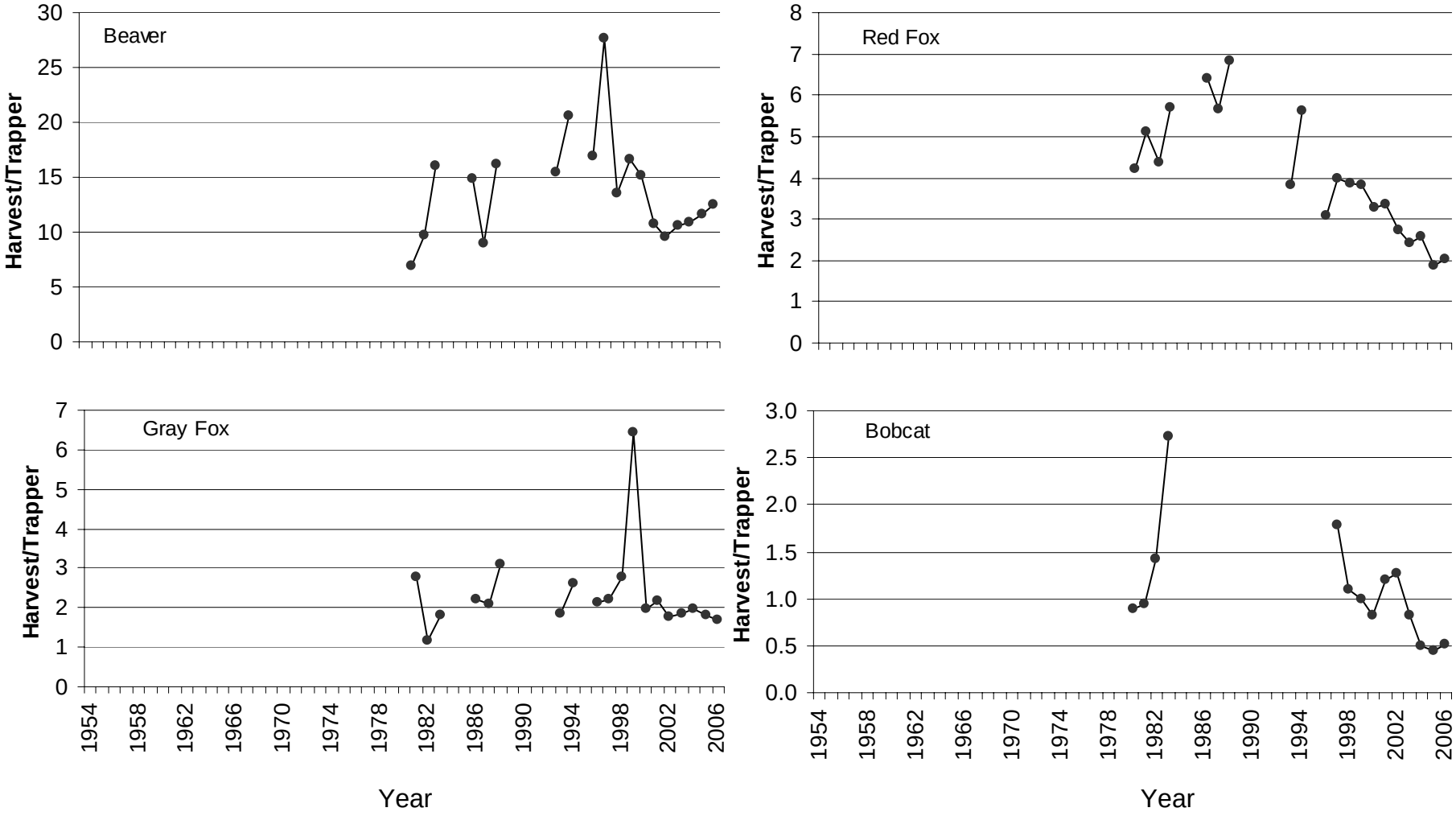

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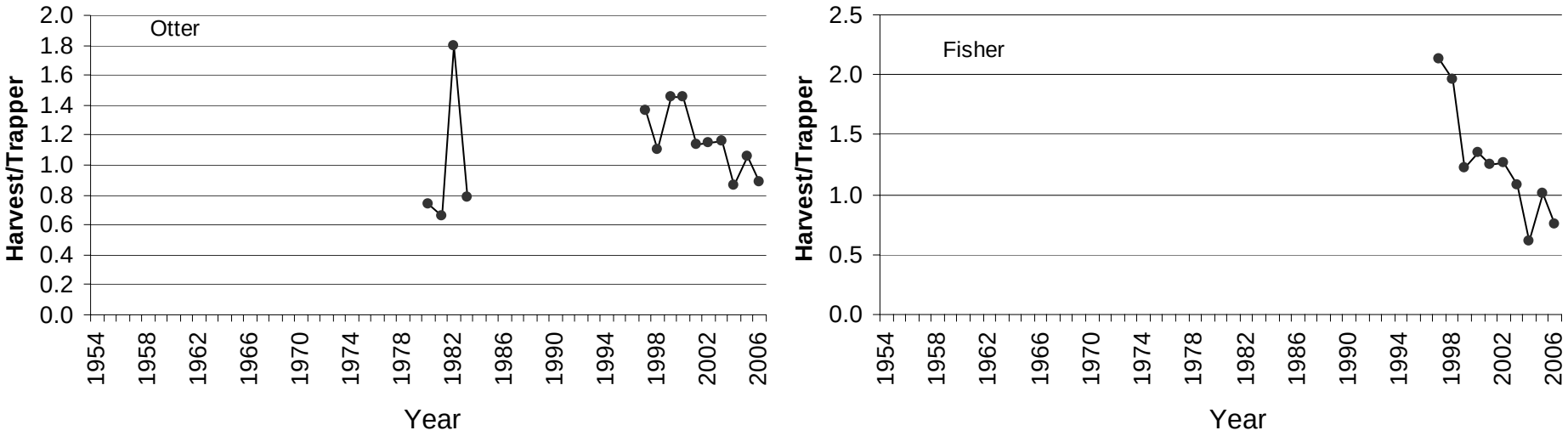

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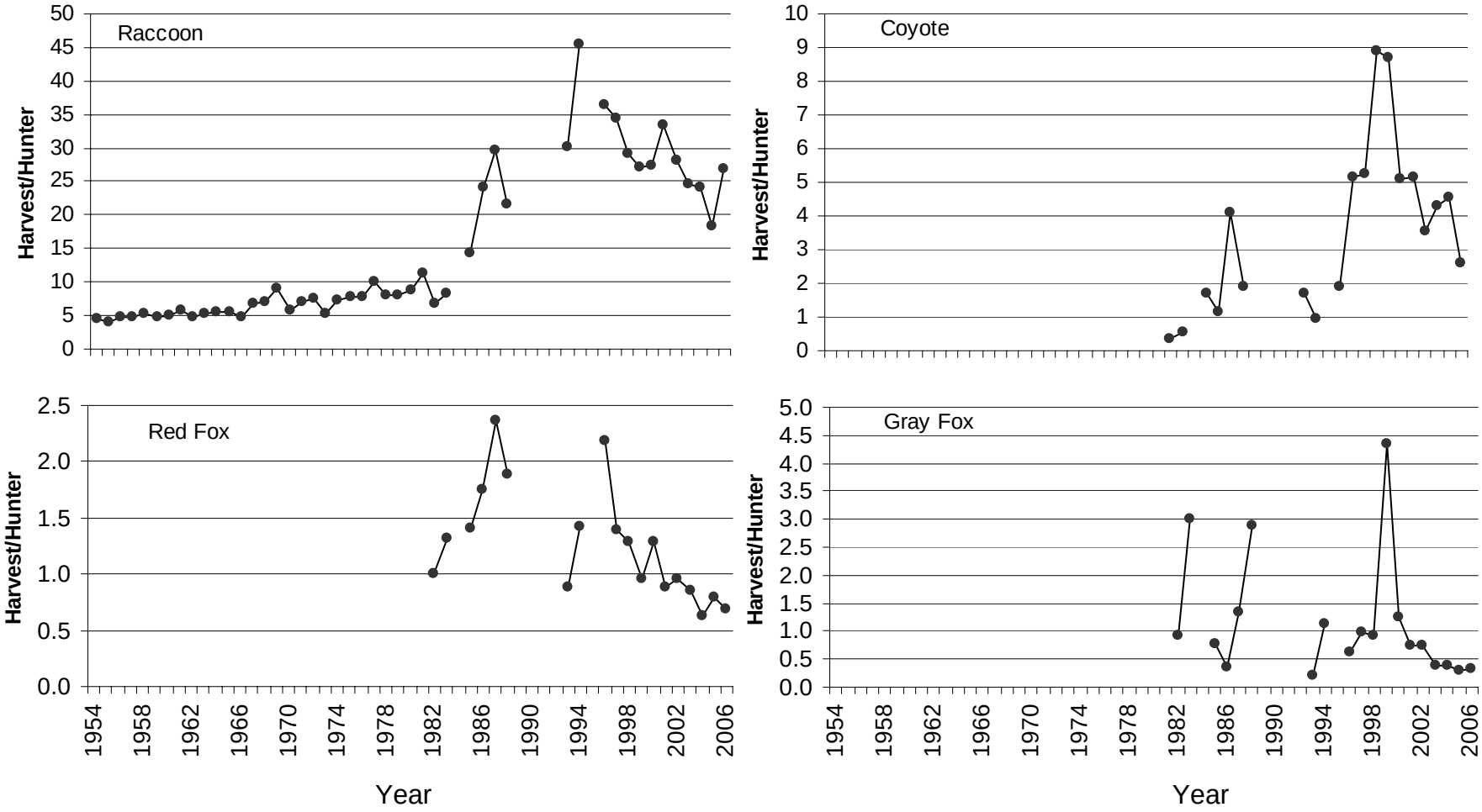
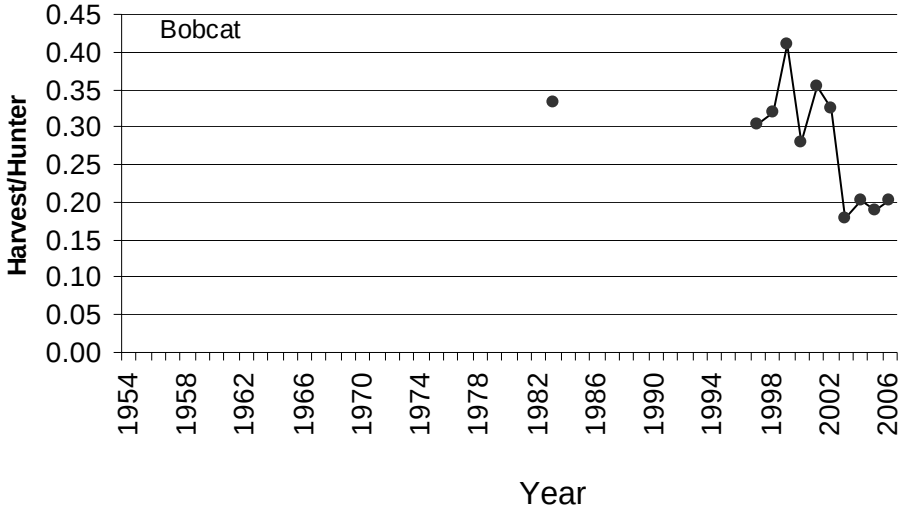


Figure 9. Estimated mean number of furbearers harvested annually by hunters in Michigan estimated from mail harvest surveys, 1954-2006. Data were not available for all years.



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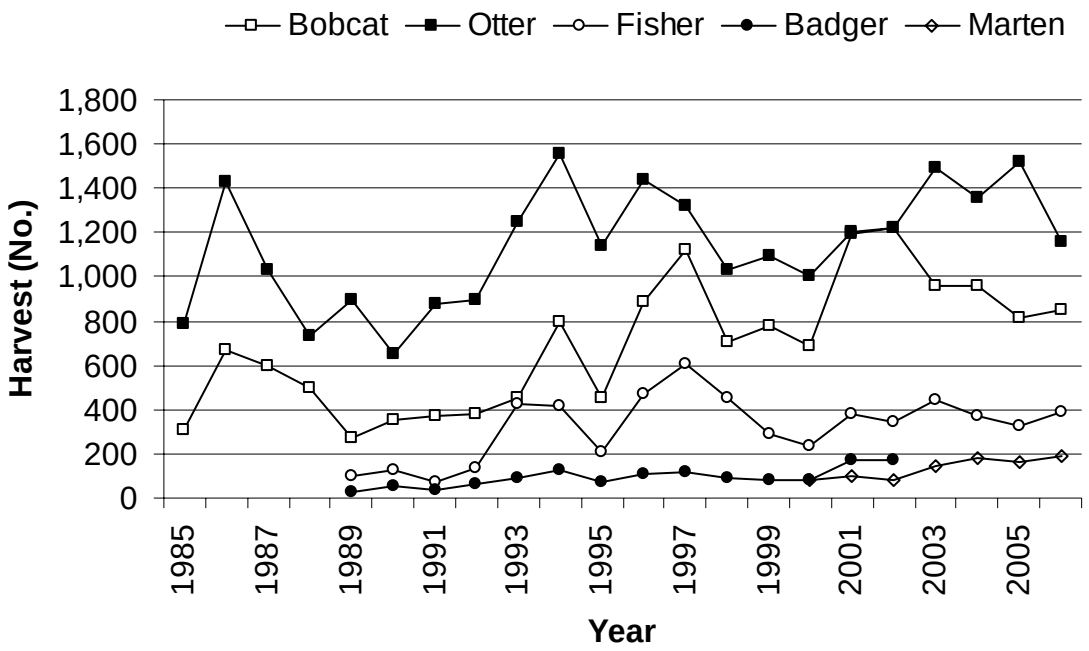

Figure 10. Number of bobcat, otter, fisher, badger, and marten registered by furtakers in Michigan, 1985-2006. Badger and fisher seasons were established in 1989, and marten season started in 2000. Totals for 2006 were preliminary. Beginning in 2003, badger were no longer registered.

Table 1. Trapping and hunting seasons when furbearing animals could be harvested in Michigan during 2006 seasons.[a]

Season, species, and area	Season dates
Trapping seasons[b]	
Muskrat and Mink	
UP	October 25 – January 31
NLP	November 1 – January 31
SLP	November 10 – January 31
Raccoon	
UP and NLP	October 15 – January 31
SLP	November 1 – January 31
Fox and Coyote	
Statewide	October 15 – March 1
Bobcat	
UP	October 25 – March 1
Badger	
UP and NLP	October 15 – November 14
SLP	November 1 – March 1
Fisher and Marten	
UP	December 1 – 15
Beaver and Otter[c]	
UP	October 25 – April 15
NLP	November 1 – April 15
SLP	November 10 – March 31
Hunting seasons	
Bobcat	
UP	December 1 – March 1
NLP (northern portion)	January 1 – March 1
NLP (southern portion)	January 1 – February 1
Fox	
Statewide	October 15 – March 1
Raccoon	
Statewide	October 1 – January 31
Coyote	
Statewide[d]	July 15 – April 15

[a]No closed season for opossum, weasel, and skunk.
[b]Nonresidents may trap from November 15 through the regular season closing date, except for beaver. The opening date for nonresident beaver trapping varied by area.
[c]Resident seasons only.
[d]Season closed during firearm deer season (November 15-30) in the UP.

Table 2. Number of fur harvester licenses sold and people receiving and returning harvest questionnaire, 2003-2006.

	Year			
Item	2003	2004	2005	2006
Licenses sold	20,623	21,466	21,680	24,149
Individuals buying licenses[a]	20,405	21,228	21,406	23,844
Questionnaires mailed	8,000	4,000	3,998	4,000
Non-deliverable questionnaires	145	70	66	79
Questionnaires returned	5,575	2,879	2,637	2,580
Questionnaires returned (%)[b]	71	73	67	66

[a]A person was counted only once, regardless of how many licenses they purchased. License types included Fur Harvester, Junior Fur Harvester, Senior Fur Harvester, Non-resident Fur Harvester, Military Fur Harvester, Resident Fur (trap only), and Junior Fur (trap only).
[b]Response rate adjusted to exclude non-deliverable questionnaires.

Table 3. Estimated number of fur harvester license buyers who trapped or hunted furbearers in Michigan, 2004-2006.

	2004		2005		2006		
Activity	Estimate	95% CL	Estimate	95% CL	Estimate	95% CL	Change (%)
Trapped							
Number	6,923	336	6,959	357	8,793	418	26*
%	33	2	33	2	37	2	4*
Hunted							
Number	10,071	360	9,333	379	10,183	430	9*
%	47	2	44	2	43	2	-1
Trapped or hunted[a]							
Number	13,638	347	13,234	372	15,051	420	14*
%	64	2	62	2	63	2	1
Trapped only							
Number	3,567	267	3,902	295	4,868	350	25*
%	17	1	18	1	20	1	2
Hunted only							
Number	6,716	335	6,275	348	6,258	381	<1
%	32	2	29	2	26	2	-3
Trapped and hunted							
Number	3,356	264	3,058	267	3,925	323	28*
%	16	1	14	1	16	1	2

[a]A person was counted only once, although they may have both trapped and hunted furbearers.
*Non-overlapping 95% confidence intervals indicated estimates differed significantly (P<0.005).

Table 4. Estimated number of participants, harvest, and days afield during Michigan furbearer seasons, 2005 and 2006.

Species and season	Participants (No.)				Harvest (No.)				Days afield (No.)			
	Year		95% CL[a]	Change (%)	Year		95% CL[a]	Change (%)	Year		95% CL[a]	Change (%)
	2005	2006			2005	2006			2005	2006		
Trapping												
Mink	2,560	4,024	326	57*	14,660	21,572	4,423	47	70,944	115,934	14,777	63*
Raccoon	4,362	6,261	382	44*	63,117	85,739	11,484	36*	117,469	175,782	16,841	50*
Opossum	2,133	3,053	288	43*	28,626	33,413	5,527	17	64,879	88,680	12,987	37*
Skunk	1,413	1,815	231	28	7,476	8,590	2,156	15	45,482	53,349	13,608	17
Weasel	714	1,099	181	54*	4,835	4,315	1,341	-11	23,578	31,617	7,667	34
Red fox	2,796	3,603	312	29*	5,192	7,299	1,583	41	71,645	100,264	12,489	40*
Gray fox	1,404	1,966	239	40*	2,567	3,328	844	30	39,856	55,678	9,342	40
Coyote	3,430	4,428	338	29*	9,086	9,185	1,774	1	93,249	126,756	14,477	36*
Bobcat[b]	1,177	1,103	41	-6	528	560	40	6	26,884	32,285	1,896	20*
Beaver[c]	2,417	1,665	40	-31*	28,049	20,912	1,348	-25	59,630	48,640	2,350	-18
Muskrat	3,472	5,322	362	53*	146,301	254,301	50,630	74*	92,967	151,603	16,844	63*
Otter[c]	1,256	1,071	39	-15	1,327	948	58	-29*	35,684	26,290	1,616	-26
Fisher[d]	383	608	23	59*	387	462	33	19	3,829	6,759	323	77*
Badger	290	467	122	61	214	326	103	53	5,890	8,612	3,312	46
Hunting												
Raccoon	3,384	4,102	325	21*	62,376	110,651	19,611	77*	65,929	84,565	12,007	28
Red fox	3,213	3,262	296	2	2,534	2,258	589	-11	45,003	44,770	8,264	-1
Gray fox	1,491	1,723	224	16	398	646	229	62	18,409	23,994	6,297	30
Coyote	7,205	7,561	404	5	15,650	11,609	2,191	-26	96,325	102,163	11,980	6
Bobcat[b]	1,802	1,903	47	6*	340	386	28	13	20,374	19,188	881	-6
Trapping and hunting combined												
Raccoon	6,733	8,865	419	32*	125,494	196,390	23,283	56*	183,398	260,347	21,090	42*
Red fox	5,275	5,969	375	13	7,726	9,557	1,725	24	116,648	145,034	15,534	24*
Gray fox	2,636	3,223	296	22*	2,965	3,974	898	34	58,265	79,672	11,534	37*
Coyote	9,084	9,991	428	10*	24,736	20,793	2,914	-16	189,573	228,919	19,499	21*
Bobcat[b]	2,677	2,772	45	4*	868	946	47	9	47,259	51,473	2,033	9*

[a]95% CL for the 2006 estimate.
[b]Estimates from separate mail harvest survey (Frawley et al. 2007). See Table 5 for the number of animals registered.
[c]Estimates from separate mail harvest survey (Frawley 2007c). See Table 5 for the number of otter registered.
[d]Estimates from separate mail harvest survey (Frawley 2007a). See Table 5 for the number of animals registered.
*Non-overlapping 95% confidence intervals indicated estimates differed significantly (P<0.005).

Table 5. Number of bobcat, otter, fisher, badger and marten registered by furtakers in Michigan, 1985-2006.

	Species							
	Bobcat (by method of capture)							
Year	Hunting	Trapping	Unknown	Total	Otter	Fisher[a]	Badger[a,b]	Marten[c]
1985	193	100	14	307	791			
1986	268	390	11	669	1,431			
1987	315	277	5	597	1,030			
1988	327	170	0	497	731			
1989	178	91	0	269	896	99	28	
1990	266	85	0	351	654	125	52	
1991	292	79	0	371	878	68	35	
1992	276	104	0	380	896	140	63	
1993	285	163	0	448	1,251	425	90	
1994	373	422	0	795	1,552	417	124	
1995	311	138	1	450	1,137	208	75	
1996	463	420	0	883	1,438	471	109	
1997	347	771	0	1,118	1,323	609	117	
1998	331	375	0	706	1,028	455	91	
1999	434	343	0	777	1,097	291	82	
2000	379	307	0	686	1,006	236	85	85
2001	464	728	0	1,192	1,203	381	174	97
2002	482	741	0	1,223	1,219	348	173	85
2003	340	621	0	961	1,496	442		149
2004	321	637	0	958	1,358	368		184
2005	309	508	0	817	1,519	322		164
2006[d]	336	514	0	850	1,158	389		192

[a]Badger and fisher seasons were established in 1989.
[b]Furtakers no longer were required to register badgers beginning in 2003.
[c]Marten season was established in 2000.
[d]Preliminary totals.

Table 6. Estimated coyote and fox trappers using foothold traps or snares to capture coyote and fox in Michigan during the 2006 season.

	Furtakers		Proportion of coyote and fox trappers	
Traps used	No.	95% CL	%	95% CL
Foothold traps	4,440*	338	92	2
Snares	1,383	203	29	4
Either foothold traps or snares	4,823*	349	100	0
Foothold traps only	3,439*	306	71	4
Snares only	383	109	8	2
Both foothold traps and snares	1,000	175	21	3

*Non-overlapping 95% confidence intervals indicated estimates differed significantly (P<0.005).

Table 7. Estimated number of trappers using foothold traps and snares to catch coyote and fox, trapping effort, mean number of traps set per day, number of animals captured, and number of animals escaping from traps in Michigan during 2006 season.

	Trappers		Trapping effort (day)		Traps set per day		Animals caught		Animals that escaped	
Type of trapper	No.	95% CL	No.	95% CL	Mean	95% CL	No.	95% CL	No.	95% CL
Using foothold traps to catch coyote	3,824*	319	94,800*	11,307	9.5	1.1	7,337	1,641	2,696	606
Using foothold traps to catch fox	3,443*	306	85,348*	10,761	9.3	1.2	9,353	2,066	1,332	419
Using snares to catch coyote	1,302	198	31,504	6,234	11.4	3.8	2,399	798	1,474	713
Using snares to catch fox	806	157	19,573	4,852	12.8	6.0	725	363	796	566

*Non-overlapping 95% confidence intervals indicated estimates differed significantly (P<0.005).

Table 8. Proportion of active furtakers in 2006 that were interested in participating trapper education course.

Group and course	Very likely %	Very likely 95% CL	Somewhat likely %	Somewhat likely 95% CL	Not very likely %	Not very likely 95% CL	Not at all likely %	Not at all likely 95% CL	Not sure %	Not sure 95% CL	No answer %	No answer 95% CL
Trappers												
Internet-based course	23	3	21	2	13	2	23	3	8	2	12	2
Classroom course	30	3	27	3	13	2	17	2	9	2	5	1
Hunters												
Internet-based course	20	2	19	2	12	2	22	2	9	2	18	2
Classroom course	20	2	23	2	13	2	20	2	9	2	14	2
Furtakers[a]												
Internet-based course	21	2	19	2	12	2	23	2	9	1	16	2
Classroom course	23	2	23	2	13	2	20	2	9	1	11	1

[a]Trappers and hunters combined.

Table 9. Number of active furtakers in 2006 that were interested in participating trapper education course.

Group and course	Very likely No.	Very likely 95% CL	Somewhat likely No.	Somewhat likely 95% CL	Not very likely No.	Not very likely 95% CL	Not at all likely No.	Not at all likely 95% CL	Not sure No.	Not sure 95% CL	No answer No.	No answer 95% CL
Trappers												
Internet-based course	2,064	244	1,856	233	1,140	187	1,994	241	674	145	1,065	180
Classroom course	2,617	272	2,340	258	1,113	184	1,485	210	786	156	451	118
Hunters												
Internet-based course	2,037	241	1,967	239	1,255	194	2,211	253	897	165	1,816	232
Classroom course	2,083	246	2,328	258	1,361	201	2,037	244	929	168	1,444	207
Furtakers[a]												
Internet-based course	3,304	298	3,117	293	1,922	238	3,726	317	1,328	200	10,448	432
Classroom course	3,733	316	3,712	314	2,119	248	3,186	297	1,407	205	9,687	427

[a]Trappers and hunters combined.

Table 10. Proportion of furtakers active in Michigan during 2006 that expressed interest in pursuing furbearers in Wisconsin.

Group and species that would be sought	Very likely		Somewhat likely		Not very likely		Not at all likely		Not sure		No answer	
	%	95% CL	%	95% CL	%	95% CL	%	95% CL	%	95% CL	%	95% CL
Trappers												
Bobcat	2	1	4	1	12	2	69	3	7	2	5	1
Fisher	2	1	4	1	12	2	70	3	6	1	6	1
Otter	3	1	4	1	12	2	70	3	7	2	5	1
Other furbearers	4	1	5	1	12	2	68	3	6	1	5	1
Hunters												
Bobcat	3	1	6	1	11	2	61	3	7	1	12	2
Fisher	2	1	3	1	13	2	62	3	6	1	14	2
Otter	2	1	3	1	12	2	63	3	7	1	14	2
Other furbearers	4	1	6	1	12	2	59	3	7	1	12	2
Furtakers												
Bobcat	3	1	5	1	11	1	64	2	7	1	10	1
Fisher	2	1	3	1	12	1	65	2	7	1	11	1
Otter	2	1	3	1	12	1	65	2	7	1	11	1
Other furbearers	4	1	5	1	12	1	62	2	7	1	10	1

Table 11. Number of furtakers active in Michigan during 2006 that expressed interest in pursuing furbearers in Wisconsin.

Group and species that would be sought	Very likely		Somewhat likely		Not very likely		Not at all likely		Not sure		No answer	
	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL	No.	95% CL
Trappers												
Bobcat	214	82	355	106	1,022	177	6,087	379	654	143	460	119
Fisher	186	77	357	106	1,054	180	6,139	380	561	133	497	124
Otter	232	86	329	102	1,024	177	6,142	380	588	136	478	122
Other furbearers	328	102	480	123	1,055	179	5,947	376	570	134	413	113
Hunters												
Bobcat	335	103	584	135	1,166	188	6,166	381	727	150	1,204	190
Fisher	155	70	324	101	1,329	200	6,339	384	653	143	1,383	203
Otter	164	71	305	98	1,261	195	6,398	385	663	144	1,392	203
Other furbearers	447	119	639	141	1,242	194	5,994	377	663	144	1,198	189
Furtakers												
Bobcat	477	123	863	163	1,713	225	10,133	430	1,145	187	9,513	426
Fisher	290	96	530	129	1,891	236	10,324	431	1,080	182	9,728	427
Otter	335	103	474	122	1,852	233	10,392	431	1,072	181	9,719	427
Other furbearers	655	143	922	168	1,837	232	9,890	429	1,061	180	9,479	425