

DNR



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of Natural Resources  
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# 1988-89 MICHIGAN FURBEARER HARVEST

## INTRODUCTION

Estimates of furbearer harvest are important indicators of the relative abundance of furbearing mammals. Harvest estimates, as well as hunter and trapper numbers, are used as points of reference for the regulation of hunting and trapping seasons.

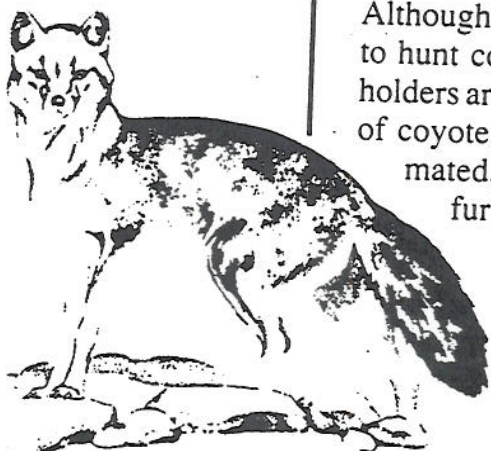
The Michigan Department of Natural Resources (MDNR) uses two methods to obtain furbearer harvest data: 1) self administered questionnaires and 2) mandatory registration reports of otter and bobcat.

Estimates derived from the furbearer hunting and trapping questionnaire are the result of two separate postal mail surveys. Questionnaires are sent to a randomly selected sample of those having purchased either a Fur Harvester, Junior Fur Harvester, or Non-resident Fur Harvester license. A second survey consists of a reduced random sample of Senior Hunting license holders. Senior license holders also have authority to hunt and trap furbearers in Michigan.

All bobcat and otter takes are required to be presented to the MDNR to be registered and sealed; these data are presented in this report. However, estimates of bobcat and otter trapper/hunter numbers and their effort are derived from mail questionnaires.

Although not licensed to trap, Sportsperson license holders are permitted to hunt coyotes, opossum, skunks, and weasels. Sportsperson license holders are not surveyed for their hunting results. Consequently, the take of coyote, opossum, skunk, and weasel by hunters may be underestimated. Comprehensive Lifetime License holders, who also have furbearer hunting and trapping privileges, are not surveyed.

Estimates of furbearer harvest during the 1986-87, 1987-88, and 1988-89 seasons are presented as well as the estimated number of trappers and hunters, and their average take.



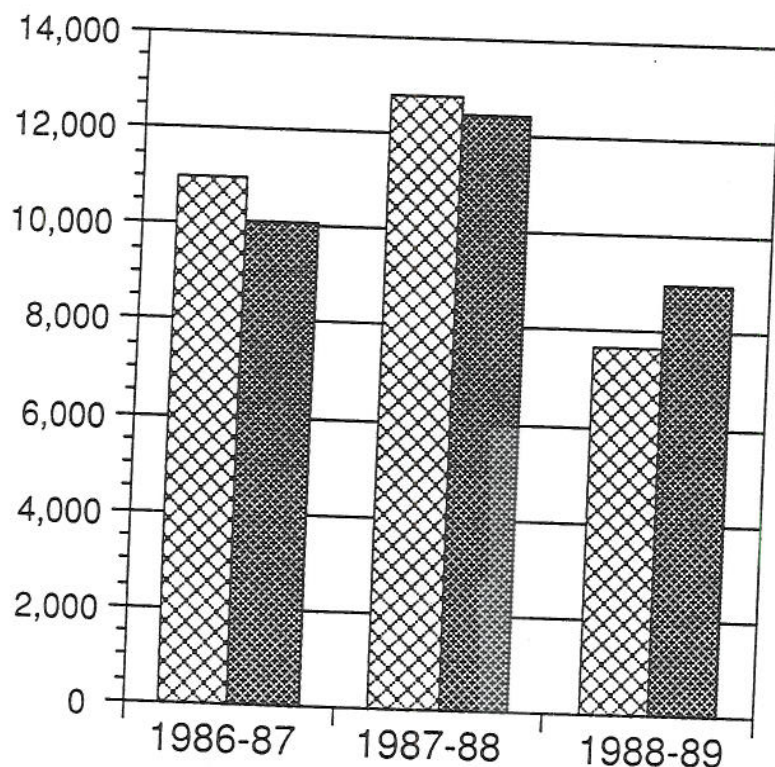
## METHOD

At the end of the 1988-89 fur harvester season 1,980 license buyers were mailed a questionnaire asking for the results of their hunting and trapping efforts. Those who failed to respond to the original mailing were sent up to four reminders (Appendix A). A total of 1,421 questionnaires were returned. Concurrently, 886 senior license holders were sent questionnaires of which 796 responded.

Fur harvesters were asked to report on their take and hunting/trapping effort for the following species: muskrat (*Ondatra zibethica*), mink (*Mustela vison*), raccoon (*Procyon lotor*), opossum (*Didelphis marsupialis*), striped skunk (*Mephitis mephitis*), weasels (*Mustela sp.*), red fox (*Vulpes fulva*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), beaver (*Castor canadensis*), and river otter (*Lutra canadensis*).

Figure 1

### Estimated Number of Trappers and Hunters (1986-87 through 1988-89)



Trappers  
Hunters

## RESULTS

In 1988-89, the numbers of both hunters and trappers were down from the previous season (Figure 1). The number of individual trappers (6,700) declined 41 percent compared to last year, while the number of hunters (7,650) pursuing furbearers dropped 30 percent. This was the first time since the issuance of Furharvester licenses (1986) that hunters outnumbered trappers.

Three years of trapping/hunting responses from past fur harvest questionnaires (Table 1) indicate that the majority of raccoon, coyote, and bobcat are taken by hunters, while trappers consistently take a greater number of mink, opossum, skunk, weasel, and fox. The only legal means of take for muskrat, beaver and otter is trapping.

In general, fewer trappers took fewer numbers of furbearers during the 1988-89 seasons compared to the previous year; only increased numbers of beaver, weasels, and coyotes were trapped (Table 2). Decreased harvest was also reported by hunters (Table 3). The only significant increase in harvest was recorded for gray fox; although hunter takes of weasels and bobcat were up slightly.



Table 1

# Comparison of Furbearer Hunting and Trapping Harvests 1986-87 through 1988-89 seasons

	1986-87			1987-88			1988-89		
	Percentage taken by		Total Harvest	Percentage taken by		Total Harvest	Percentage taken by		Total Harvest
	Hunters	Trappers		Hunters	Trappers		Hunters	Trappers	
MUSKRAT	NP	100	565,080	NP	100	548,630	NP	100	214,340
BEAVER	NP	100	42,920	NP	100	17,640	NP	100	38,680
OTTER*	NP	100	1,420	NP	100	1,020	NP	100	710
MINK	2	98	26,140	9	91	30,770	3	97	24,030
RACCOON	73	27	288,820	75	25	387,470	78	22	185,660
OPOSSUM	20	80	49,650	19	81	73,760	20	80	25,420
SKUNK	2	98	15,980	6	94	15,460	4	96	7,040
WEASEL	2	98	2,510	8	92	990	5	95	1,860
RED FOX	15	85	29,990	20	80	33,010	20	80	24,260
GRAY FOX	6	94	2,910	20	80	3,770	39	61	3,490
COYOTE	38	62	2,470	71	29	8,680	51	49	5,500
BOBCAT*	40	60	650	53	47	590	66	34	500

NP = Hunting not permitted.

\* Otter and Bobcat harvests are based on registration reports.

Figure 2

# **Average Harvest by Trapper for four major furbearers**

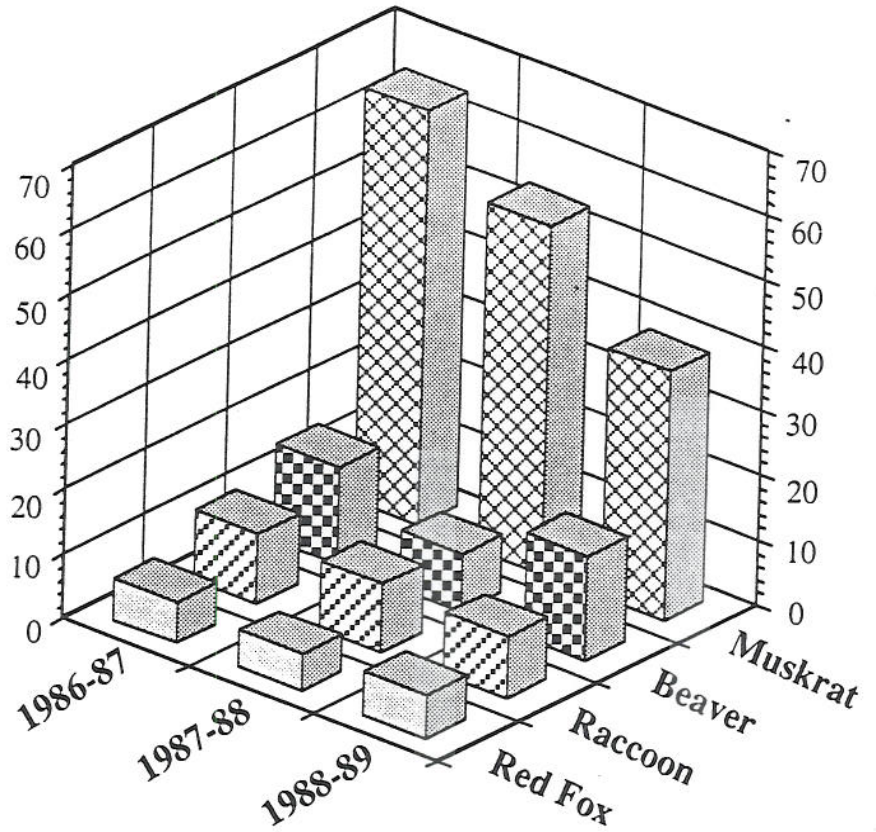


Figure 3

# **Average Harvest by Hunter for four major furbearers**

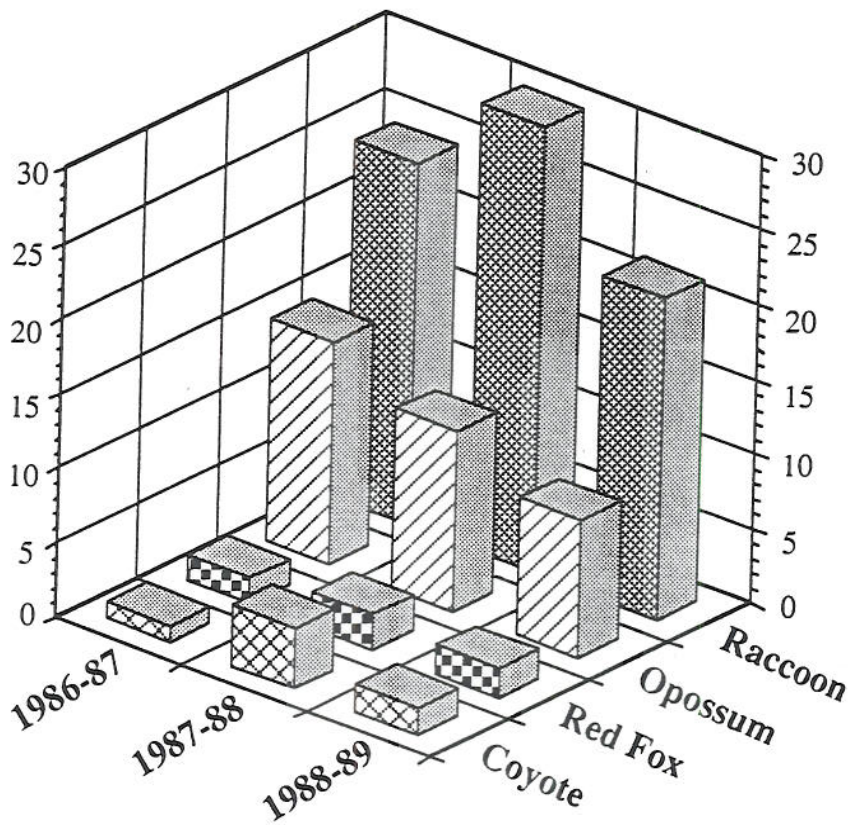




Table 2

## 1988-89 FURBEARER TRAPPING RESULTS

with comparison to 1986-87 and 1987-88 seasons

	Number of Trappers			Number Harvested			Days of Trapping Effort		
	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89
MUSKRAT	8,800	10,250	5,570	565,080	548,630	214,340	262,910	283,920	131,350
BEAVER	2,880	1,980	2,400	42,920	17,640	38,680	88,930	48,320	58,480
OTTER	1,220	570	730	1,420	1,020	710	36,110	12,380	16,620
MINK	5,800	6,680	4,440	25,520	28,000	23,280	170,940	184,700	109,160
RACCOON	7,260	9,320	4,190	78,780	96,790	40,420	199,260	229,490	105,720
OPOSSUM	3,130	4,590	1,980	39,950	59,690	20,430	106,060	144,700	52,710
SKUNK	1,910	2,650	1,330	15,640	14,540	6,740	70,360	78,900	34,170
WEASELS	500	480	580	2,460	910	1,770	19,310	15,170	10,170
RED FOX	4,010	4,630	2,850	25,620	26,260	19,460	110,370	124,790	65,210
GRAY FOX	1,230	1,440	690	2,720	3,020	2,140	40,260	40,930	17,870
COYOTE	1,000	710	880	1,540	2,490	2,690	29,180	16,070	15,430
BOBCAT	260	70	260	390	280	170	8,420	1,260	6,850

Table 3

## 1988-89 FURBEARER HUNTING RESULTS

with comparison to 1986-87 and 1987-88 seasons

	Number of Hunters			Number Harvested			Days of Hunting Effort		
	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89
MINK	400	380	180	620	2,770	750	3,550	5,820	2,790
RACCOON	8,700	9,790	6,750	210,040	290,680	145,240	236,450	259,080	161,740
OPOSSUM	650	1,170	540	9,700	14,070	4,990	21,390	34,620	11,690
SKUNK	130	350	160	340	920	300	1,810	2,440	2,880
WEASELS	40	80	90	50	80	90	350	190	520
RED FOX	2,500	2,860	2,550	4,370	6,750	4,800	48,120	40,430	35,460
GRAY FOX	520	560	470	190	750	1,350	8,750	6,220	8,050
COYOTE	820	1,510	1,470	930	6,190	2,810	14,200	16,140	14,540
BOBCAT	610	690	990	260	310	330	8,380	4,900	7,940

## Summary of Survey Results

License Sales	1986-87	1987-88	1988-89
Fur Harvester	16,015	19,464	14,602
Junior Fur Harvester	1,848	2,206	1,783
Non-resident Fur Harvester	26	24	17
Senior Hunt	<u>64,019</u>	<u>66,968</u>	<u>69,227</u>
TOTAL	81,908	88,662	85,629

### Survey of Fur Harvester\* License Buyers

Questionnaires sent	2,056	2,529	1,980
Questionnaires returned	1,536	1,570	1,421
Non-deliverable	83	110	124
Non-response	437	849	435
Percent of delivered questionnaires returned	78%	65%	77%
Estimated trappers	9,880	11,400	6,710
Estimated hunters	9,040	10,930	7,650

### Survey of Senior Hunting License Buyers

Questionnaires sent	842	845	886
Questionnaires returned	757	662	796
Non-deliverable	34	33	38
Non-response	51	150	52
Percent of delivered questionnaires returned	94%	81%	94%
Estimated trappers	1,100	1,420	960
Estimated hunters	1,020	1,530	1,330

\* Includes Fur Harvester, Junior Fur Harvester, and Nonresident Fur Harvester license buyers.

