

2018 MARTEN AND FISHER HARVEST SURVEY

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ABSTRACT

A survey was completed to determine the number of harvest tag holders who set traps for marten and fisher, the number of animals caught, the types of traps used, and the number of days spent trapping. In 2018, 6,016 furtakers obtained a harvest tag to trap marten or fisher, compared to 5,671 tag holders in 2017 (6% increase). About 11% of the tag holders set traps specifically for marten (637 trappers) and 11% set traps for fisher (670). Trappers spent about 3,912 days targeting marten, captured 438, and registered 391 marten. Trappers pursuing other species caught an additional 32 marten but released 27 of these marten alive and registered 5 of the non-target fisher. The number of trappers targeting marten (637 versus 550 trappers in 2017) and their trapping effort (3,912 versus 4,428 days in 2017) did not change significantly between 2017 and 2018. In contrast, the number of marten registered increased significantly by 113% between 2017 and 2018 (396 versus 186 in 2017). Trapper effort per registered marten decreased significantly by 59% between 2018 and 2017 (10.0 versus 24.3 days in 2017). An estimated 670 trappers spent 4,278 days targeting fisher, captured 299, and registered 222 fisher. Trappers pursuing other species caught 100 additional fisher and registered 2 of the non-target fisher. The number of trappers seeking fisher increased significantly by 29% between 2017 and 2018, but their trapping effort did not change significantly. The number of fisher registered by all trappers increased significantly by 50% between 2017 and 2018, and trapper effort per registered fisher decreased significantly by 39% between 2018 and 2017 (19.3 versus 31.5 days in 2017).



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INTRODUCTION

The Natural Resources Commission and Department of Natural Resources (DNR) have the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Harvest surveys are important management tools used to help accomplish this statutory responsibility. The main objectives of this harvest survey were to determine the number of trappers who set traps for marten (*Martes americana*) and fisher (*Martes pennanti*), the types of traps used, the number of days trapped, and the number of animals captured.

Efforts to restore the American marten and fisher have been successful throughout the Upper Peninsula (UP) (Williams et al. 2007). As a result, the first modern fisher trapping season was initiated in 1989, and the first modern marten trapping season was initiated in 2000.

In 2018, the marten and fisher trapping season was December 7-16 (10 days) in the entire UP, except for Drummond Island, Pictured Rocks National Lakeshore, and Seney National Wildlife Refuge (Table 1). In order to trap either marten or fisher, trappers were required to obtain a free harvest tag and a Fur Harvester License. Trappers had to be a resident of Michigan, 8 years of age or older, to obtain a kill tag. Harvest tags were available from May 1 through the last day of the trapping season (December 16). Trappers were limited to two animals, of which only 1 could be a fisher. The maximum allowable harvest (i.e., bag limit) of marten increased from one to two in 2018, and the season length for both marten and fisher decreased from 15 to 10 days (Table 1). Successful trappers were required to register all harvested fisher and marten at a DNR office by December 19, 2018. Although all trappers harvesting a marten or fisher were required to register their animals at a DNR office, this survey does not present the information collected from registered animals. Regulations mandated any fisher or marten captured in excess of the limit or outside of the season (i.e., incidental captures) must be released alive by trappers. If these incidental captures could not be released alive, trappers were required to transfer the incidental catches to the DNR. Trappers could use body-gripping (e.g., conibear) traps, foothold traps, and live restraining cage traps to capture marten and fisher.

METHODS

A questionnaire (Appendix A) was sent to a randomly selected sample of 5,000 people that obtained a marten or fisher harvest tag in 2018 (N = 6,016 tag holders). Trappers receiving the questionnaire were asked to report if they set traps for marten or fisher, number of days spent afield (i.e., effort), number of marten and fisher caught and released alive, and number of marten and fisher registered (registration estimates included incidentally caught animals that were not returned to the trapper). The number of days spent afield was reported as the number of days in which a trapper had at least one trap set. Trappers were asked to report whether any marten and fisher captured were taken in traps set for them or taken in traps set for another species. Active trappers were asked to indicate their impression of the status of the marten and fisher populations in the county where they primarily trapped (i.e., absent, stable, increasing, or decreasing). Trappers were also asked to rate how weather conditions affected the primary trap types they set. Weather conditions were rated as either excellent, above average, average, below average, or very poor. Successful trappers were asked to indicate

how they intended to use the pelt from the animals they kept. Possible answers included: sold to fur buyer, sold at fur auction, sold to taxidermist, sold to a private individual, kept for personal use, or other.

Questionnaires were mailed to 5,000 randomly selected harvest tag holders during mid-January 2019, and up to two follow-up questionnaires were mailed to nonrespondents. To extrapolate from the tag holders that returned their questionnaire to all people obtaining harvest tags, estimates were calculated using a simple random sampling design (Cochran 1977).

A 95% confidence limit (CL) was calculated for each estimate. In theory, the 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 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. Because it is very difficult to measure these biases, estimates were not adjusted for these possible biases.

Statistical tests are used routinely to determine the likelihood that the differences among estimates are larger than expected by chance alone. The overlap of 95% confidence intervals was used to determine whether estimates differed. Non-overlapping 95% confidence intervals were equivalent to stating that the difference between the means was larger than would be expected 95 out of 100 times if the study had been repeated (Payton et al. 2003).

RESULTS AND DISCUSSION

In 2018, 6,016 trappers obtained a harvest tag to trap either marten or fisher, compared to 5,671 tag holders in 2017 (6% increase). Men obtained most of the marten and fisher harvest tags (5,696). Women obtained 311 harvest tags, and the sex of nine tag holders was unknown. Of the 5,000 people receiving the questionnaire, 2,416 responded (49% adjusted response rate). Questionnaires could not be delivered to 73 harvest tag holders.

In previous years, questionnaires were sent to all tag holders; however, only 5,000 tag holders were sent a questionnaire in 2018. A sampling design was selected in 2018 because it was cheaper to conduct a smaller survey, and the precision associated with the estimates were comparable to estimates derived from a survey sent to all tag holders.

Marten

About 11% of the tag holders set traps specifically for marten (637 trappers, Table 2). About 46 \pm 5% of these trappers successfully captured at least one marten. The trappers targeting marten spent 3,912 days trapping ($\bar{x} = 6.1 \pm 0.4$ days/trapper), captured 438 marten (47 released alive), and registered 391 marten (Table 3). Trappers targeting other species caught 32 marten (27 released alive) and registered 5 incidental catches. Among trappers seeking marten, the greatest numbers of marten were captured in Marquette (100), Chippewa (87), Iron (40), and Gogebic (37) counties.

Because the bag limit for marten increased from one to two and the season length decreased from 15 to 10 days in 2018 (Table 1), comparisons of estimates among years may not be directly comparable. The number of trappers targeting marten (637 versus 550 trappers in 2017) and their overall trapping effort did not change significantly (3,912 versus 4,428 days in 2017, Figure 1) between 2017 and 2018. However, the average number of days spent trapping marten declined significantly by 24% between 2017 and 2018 (8.1 days per trapper in 2017 versus 6.1 days in 2018). In addition, the number of marten registered by all trappers (including trappers targeting marten and trappers that caught non-target marten) increased significantly by 113% between 2017 and 2018 (396 versus 186 marten in 2017, Figure 1). Some of the increase in harvest in 2018, compared to 2017, was likely the result of increasing the bag limit from one to two marten in 2018 (Table 1). Among trappers targeting marten, the mean number of days of effort per registered marten was 10.0 ± 1.6 days in 2018, which was 59% lower than the 2017 estimate (24.3 days, Figure 2).

The correlation between trapping effort and pelt prices (Pearson product-moment correlation coefficient [r] = 0.49, the probability of obtaining this result [P] = 0.03) was significant, but the correlation between the number of trappers and pelt prices was not significant (r = 0.30, P = 0.21). The mean number of days of effort per registered marten was also not significantly correlated with the mean value of marten pelts during 2000-2018 (r = 0.25, P = 0.29) (Figure 3).

Most trappers used body-gripping type traps (e.g., conibears) to capture marten (86 \pm 3%), although foothold traps also were used frequently (31 \pm 4%). Among trappers using body-gripping traps, the mean number of traps set per day was 5.4 \pm 0.5. The average number of body-gripping traps set per trapper in 2018 was not significantly different than the average set in 2017 (4.7 \pm 0.4). Among trappers using foothold traps, the mean number of foothold traps set per day was 3.6 \pm 0.4. The average number of foothold traps set per trapper in 2018 was not significantly different than the average set in 2017 (3.6 \pm 0.4).

Most marten trappers (54%) indicated that the weather conditions during the season were near average conditions (Table 4). In contrast, about 25% of trappers felt that weather conditions were better than average and 17% thought that conditions were worse than average.

Twenty-six percent of marten trappers ($\pm 4\%$) believed marten numbers were increasing in the county where they trapped most often, while $38 \pm 5\%$ thought marten numbers were stable, $5 \pm 2\%$ thought marten were declining, $3 \pm 2\%$ indicated marten were not present, and $28 \pm 4\%$ did not comment on the status of marten.

Successful trappers indicated that most (63%) marten pelts would be sold (Table 5), and most of the pelts would be sold either at a fur auction (34%) or to fur buyer (24%). About 36% of the marten pelts would be kept for personal use (e.g., pelt tanned or used for taxidermy mount) by the trapper that caught them.

Fisher

Because the fisher season length decreased from 15 to 10 days in 2018 (Table 1), comparisons of estimates may not be directly comparable among years. About 11% of the

marten and fisher tag holders set traps for fisher (670 trappers, Table 1). About $34 \pm 4\%$ of these trappers successfully captured a fisher. Trappers targeting fishers spent 4,278 days trapping (6.4 \pm 0.3 days/trapper), captured 299 fisher (77 released alive), and registered 222 fisher (Table 6). Trappers targeting other species caught 100 additional fisher (97 released alive) and registered 2 incidental catches. Among trappers seeking fisher, the greatest numbers of fisher were captured in Marquette (50), Schoolcraft (47), and Iron (37) counties.

Between 2017 and 2018, the number of trappers targeting fisher increased significantly by 29% (670 versus 517 trappers in 2017), but their overall trapping effort was not significantly different (4,278 versus 4,585 days in 2017, Figure 4). In contrast, the average number of days spent trapping fisher declined significantly by 28% between 2017 and 2018 (8.9 days per trapper in 2017 versus 6.4 days in 2018). The number of fisher registered by all trappers (including trappers targeting fisher and trappers that caught non-target fisher) increased significantly by 50% between 2017 and 2018 (224 versus 149 fisher in 2017, Figure 4). Among trappers targeting fisher, the mean number of days of effort per registered fisher was 19.3 ± 2.8 days in 2018, which decreased significantly by 39% from the number of days per registered fisher in 2017 (31.5 days, Figure 5).

The correlations between the number of trappers and pelt prices (r = 0.45, P = 0.03) and between trapping effort and pelt prices (r = 0.57, P < 0.01) during 1997-2018 were significant. However, the mean number of days of effort per registered fisher was not significantly correlated with the mean value of fisher pelts (r = 0.22, P = 0.33; Figure 6).

Most trappers used body-gripping traps (e.g., conibears) to capture fisher (86 \pm 3%), although foothold traps also were used frequently (32 \pm 4%). Among trappers using body-gripping traps, the mean number of body-gripping traps set per day was 5.0 \pm 0.5 traps. The average number of body-gripping traps set per trapper in 2018 was not significantly different than the average set in 2017 (4.7 \pm 0.4). Among trappers using foothold traps, the mean number of foothold traps set daily was 3.6 \pm 0.4 traps. The average number of foothold traps set per trapper in 2018 was not significantly different than the average set in 2017 (3.6 \pm 0.4).

Most fisher trappers (55%) indicated that the weather conditions during the season were near average conditions (Table 4). In contrast, about 26% felt that weather conditions were better than average and 18% thought that conditions were worse than average.

Twenty-three percent of fisher trappers ($\pm 4\%$) believed fisher numbers were increasing in the county where they trapped most often, while $40 \pm 5\%$ thought fisher numbers were stable, $6 \pm 2\%$ thought they were declining, $2 \pm 1\%$ indicated fisher were absent, and $29 \pm 4\%$ did not comment on the status of fisher.

Successful trappers indicated that most (54%) fisher pelts would be sold (Table 5), and most of the pelts would be sold either to fur buyer (28%) or at a fur auction (22%). About 43% of the fisher pelts would be kept for personal use (e.g., pelt tanned or used for taxidermy mount) by the trapper that caught them.

ACKNOWLEDGEMENTS

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Table 1. Marten and fisher trapping season dates and bag limits in the Upper Pennisula of Michigan (excluded Drummond Island), 2000-2018.

- who high	(CAGIGGEG BIGIT	iniona iolana),	Season			
	Season	Season	length	Marten	Fisher	Combined
Year	start	end	(days)	bag limit	bag limit	bag limit
2000	12/01/2000	12/11/2000	11	1	3 ^a	4
2001	12/01/2001	12/11/2001	11	1	3 ^a	4
2002	12/01/2002	12/11/2002	11	1	3 ^a	4
2003	12/01/2003	12/15/2003	15	1	3 ^a	4
2004	12/01/2004	12/15/2004	15	1	3 ^a	4
2005	12/01/2005	12/15/2005	15	1	3 ^a	4
2006	12/01/2006	12/15/2006	15	1	3 ^a	4
2007	12/01/2007	12/15/2007	15	1	3 ^a	4
2008	12/01/2008	12/15/2008	15	1	3 ^a	4
2009	12/01/2009	12/15/2009	15	1	3 ^a	4
2010	12/01/2010	12/15/2010	15	1	3 ^a	4
2011	12/01/2011	12/15/2011	15	1	1	1 ^b
2012	12/01/2012	12/15/2012	15	1	1	1 ^b
2013	12/01/2013	12/15/2013	15	1	1	1 ^b
2014	12/01/2014	12/15/2014	15	1	1	1 ^b
2015	12/01/2015	12/15/2015	15	1	1	1 ^b
2016	12/01/2016	12/15/2016	15	1	1	1 ^b
2017	12/01/2017	12/15/2017	15	1	1	1 ^b
2018	12/07/2018	12/16/2018	10	2	1	2 ^c

^aThe UP was divided into two management units during 2000-2010. Unit A included all of Baraga, Gogebic, Iron and Ontonagon counties and parts of Dickinson, Houghton, and Marquette counties. Unit B included the remainder of the Upper Peninsula, except Drummond Island, Pictured Rocks National Lakeshore, and Seney National Wildlife Refuge. Only one fisher could be taken in Unit B.

Table 2. Estimated harvest tag holders that attempted to trap marten or fisher in Michigan during 2018 season.

Species sought by tag holders	%	95% CL ^a	Total	95% CL ^a
Trapped for only marten	2	<1	139	28
Trapped for only fisher	3	1	172	31
Trapped for both marten and fisher	8	1	498	51
Trapped for either marten or fisher	13	1	809	63
Trapped for marten ^b	11	1	637	57
Trapped for fisher ^c	11	1	670	58

^a95% confidence limits.

^bThe season limit for the entire UP (excluded Drummond Island, Pictured Rocks National Lakeshore, and Seney National Wildlife Refuge) was one marten per person or one fisher per person.

^cCombined bag limit for the entire UP (excluded Drummond Island, Pictured Rocks National Lakeshore, and Seney National Wildlife Refuge) was 2 marten and fisher but only 1 could be a fisher.

bSum of trappers that trapped only marten and trappers that trapped both marten and fisher.

^cSum of trappers that trapped only fisher and trappers that trapped both marten and fisher.

Table 3. Estimated number of trappers, trapping effort, marten captured (including all incidental catches and releases), marten released alive, and marten registered (including incidental

catches) during the 2018 Michigan trapping season.

Type of	1116 2010	5 IVIICITIQ	Trap			rten	Ma	rten	N/	larten
trapper and	Trapp	ers	effort			ured ^a		ed alive		istered ^b
area trapped		95% CL	Total	95% CL	Total	95% CL	Total	95% CL	Total	95% CL
Trappers that se										
Alger	60	18	289	105	32	22	7	8	25	15
Baraga	32	14	152	74	25	16	7	11	17	11
Chippewa	87	22	453	132	87	29	0	0	87	29
Delta	42	16	242	100	5	5	0	0	5	5
Dickinson	12	8	67	50	0	0	0	0	0	0
Gogebic	30	13	189	89	37	22	5	8	32	17
Houghton	32	14	164	72	30	18	0	0	30	18
Iron	77	21	423	130	40	18	0	0	40	18
Keweenaw	20	11	90	56	12	10	0	0	12	10
Luce	47	16	291	108	12	8	0	0	12	8
Mackinac	40	15	249	102	10	9	0	0	10	9
Marquette	110	25	632	156	100	37	25	20	75	26
Menominee	7	7	42	46	0	0	0	0	0	0
Ontonagon	40	15	237	98	20	14	2	4	17	11
Schoolcraft	60	18	378	127	20	11	0	0	20	11
Unknown	10	8	12	14	7	8	0	0	7	8
Subtotald	637		3,912	418	438	68	47	26	391	58
Trappers that ca			•						001	00
Alger	5	5	NA	NA	5	5	5	5	0	0
Baraga	2	4	NA	NA	2	4	2	4	0	0
Chippewa	0	0	NA	NA	0	0	0	0	0	0
Delta	0	0	NA	NA	0	0	0	0	0	0
Dickinson	Ö	0	NA	NA	0	0	Ö	0	0	0
Gogebic	2	4	NA	NA	5	8	5	8	0	0
Houghton	0	0	NA	NA	0	0	0	0	0	0
Iron	0	0	NA	NA	0	0	0	0	0	0
Keweenaw	0	0	NA	NA	0	0	0	0	0	0
Luce	0	0	NA	NA	0	0	0	0	0	0
Mackinac	2	4	NA	NA	2	4	0	0	2	4
Marquette	5	5	NA	NA	15	17	15	17	0	0
Menominee	0	0	NA	NA	0	0	0	0	0	0
Ontonagon	2	4	NA	NA	2	4	0	0	2	4
Schoolcraft	0	0	NA	NA	0	0	0	0	0	0
Unknown	0	0	NA	NA	0	0	0	0	0	0
LP ^c	0	0	NA	NA	0	0	0	0	0	0
Subtotal ^d	20	11	NA	NA	32	20	27	20	5	5
Grand total ^d	642		3,912	418	471	74	75	35	396	58
^a All marten removed fro						74	7.5	33	530	30

^aAll marten removed from traps, including all incidental catches and releases.

blncluded incidentally caught marten that were not returned to the trapper.

^cCounties in the Lower Peninsula.

^dNumber of trappers does not add up to totals because trappers could trap in more than one county. Column totals for trapping effort and capture may not equal statewide totals because of rounding errors.

Table 4. The trappers' rating of weather conditions during the marten and fisher trapping

season in Michigan, 2018.

	Marten	trappers	Fisher trappers		
Weather conditions	%	95% CL ^a	%	95% CL ^a	
Excellent	11	3	12	3	
Above average	14	3	14	3	
Average	54	5	55	5	
Below average	13	3	13	3	
Very poor	4	2	5	2	
Unknown	4	2	1	1	

^a95% confidence limits.

Table 5. The estimated number of marten and fisher pelts used for various purposes in Michigan, 2018.

	Marter	n pelts	Fisher pelts		
Fate of pelt	Total	95% CL ^a	Total	95% CL ^a	
Sold to a fur buyer	95	28	62	20	
Sold at fur auction	134	35	50	17	
Sold to taxidermist	15	11	5	5	
Sold to a private individual	5	5	5	5	
Kept for personal use	142	34	97	24	
Other	2	4	0	0	
Unknown	2	4	5	5	

a95% confidence limits.

Table 6. Estimated number of trappers, trapping effort, fisher captured (including all incidental catches and releases), fisher released alive, and fisher registered (including incidental

catches) by trappers during the 2018 Michigan trapping season.

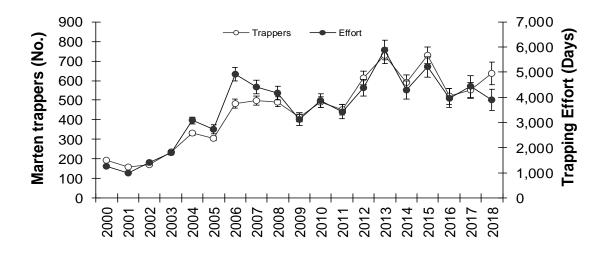
Type of	рстэ чи	ing the	Trapp		Fish		Fish	er	Fis	her
trapper and	Trapp	ers	effort (captui		released			tered ^b
county		95%		95%		95%		95%		95%
trapped	Total	CL°	Total	CL ^c	Total	CL ^c	Total	CL ^c	Total	CL°
Trappers that se										
Alger	55	18	309	112	32	16	5	8	27	14
Baraga	15	9	82	58	10	8	0	0	10	8
Chippewa	70	20	393	127	15	11	0	0	15	11
Delta	45	16	279	108	2	4	0	0	2	4
Dickinson	35	14	184	87	7	7	0	0	7	7
Gogebic	32	14	199	91	25	15	7	11	17	10
Houghton	30	13	162	77	22	17	7	11	15	9
Iron	82	22	491	145	37	22	12	14	25	12
Keweenaw	15	9	60	45	7	7	2	4	5	5
Luce	35	14	209	90	2	4	0	0	2	4
Mackinac	40	15	234	99	5	5	0	0	5	5
Marquette	105	24	618	155	50	24	17	14	32	14
Menominee	62	19	413	134	25	13	5	5	20	11
Ontonagon	32	14	209	94	10	9	2	4	7	7
Schoolcraft	70	20	423	134	47	27	17	20	30	13
Unknown	7	7	12	14	0	0	0	0	0	0
Subtotal ^d	670	58	4,278	437	299	55	77	33	222	36
Trappers that ca	aptured	fisher ir	n traps se	t to cate	ch anoth	er spec	cies			
Alger	5	5	NA	NA	15	16	15	16	0	0
Baraga	2	4	NA	NA	5	8	5	8	0	0
Chippewa	2	4	NA	NA	2	4	2	4	0	0
Delta	2	4	NA	NA	10	15	10	15	0	0
Dickinson	0	0	NA	NA	0	0	0	0	0	0
Gogebic	5	5	NA	NA	10	12	10	12	0	0
Houghton	0	0	NA	NA	0	0	0	0	0	0
Iron	5	8	NA	NA	7	11	5	8	2	4
Keweenaw	2	4	NA	NA	2	4	2	4	0	0
Luce	2	4	NA	NA	2	4	2	4	0	0
Mackinac	0	0	NA	NA	0	0	0	0	0	0
Marquette	7	7	NA	NA	30	32	30	32	0	0
Menominee	2	4	NA	NA	5	8	5	8	0	0
Ontonagon	0	0	NA	NA	0	0	0	0	0	0
Schoolcraft	10	8	NA	NA	10	8	10	8	0	0
Unknown	0	0	NA	NA	0	0	0	0	0	0
Subtotal ^d	37	15	NA	NA	100	49	97	49	2	4
Grand total ^d	692	59	4,278	437	398	75	174	60	224	36

^aAll fisher removed from traps, including all incidental catches and releases.

blncluded incidentally caught fisher that were not returned to the trapper.

^{°95%} confidence limits.

^dNumber of trappers does not add up to statewide total because trappers could trap in more than one county. Column totals for trapping effort and capture may not equal statewide totals because of rounding errors.



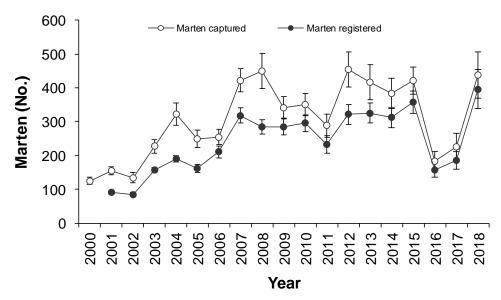


Figure 1. Estimated number of trappers, trapping effort (days), and number of marten captured and registered in Michigan, 2000-2018. Registration total was not estimated in 2000. Beginning in 2006, the estimates of marten captured and registered included incidental animals that the trapper was not allowed to keep; estimates from previous years excluded incidental animals. Estimates of trappers and effort included only trappers specifically targeting martens, but estimates of marten captured and registered included the take by all trappers (i.e., included marten taken by trappers not targeting marten).

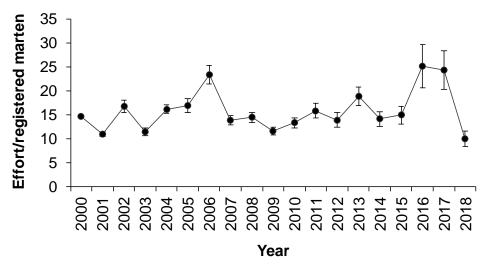


Figure 2. Estimated mean number of days required to harvest a marten in Michigan during 2000-2018. Vertical bars represent the 95% confidence interval. Estimates of effort/registered marten included only trappers targeting martens.

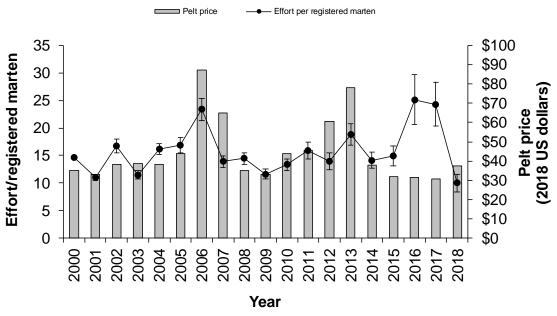
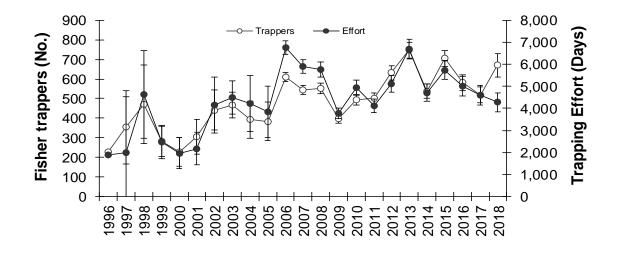


Figure 3. Estimated mean number of days required to harvest a marten in Michigan and the mean pelt value during 2000-2018. Vertical bars represent the 95% confidence interval. Pelt prices were the mean of values reported from Minnesota (Abraham and Dexter 2018). Pelt price were adjusted for inflation and reported in 2018 dollars. Estimates of effort/registered marten included only trappers targeting marten.



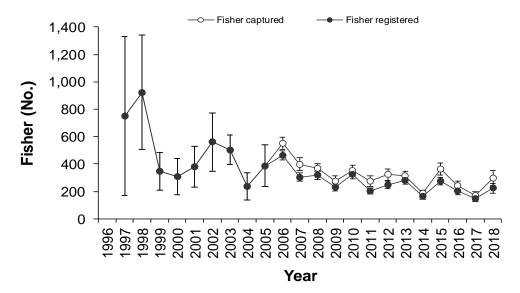


Figure 4. Estimated number of trappers, trapping effort (days), and number of fisher captured and registered in Michigan, 1996-2018. Estimates of trappers and effort included only trappers targeting fishers, but estimates of fisher captured and registered included the take by all trappers (i.e., included fisher taken by trappers not targeting fisher).

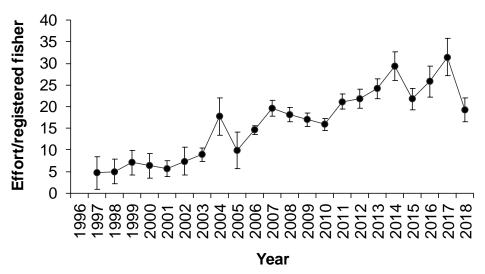


Figure 5. Estimated mean number of days required to harvest a fisher in Michigan during 1997-2018. Vertical bars represent the 95% confidence interval. Estimates of effort/registered fisher included only trappers targeting fishers.

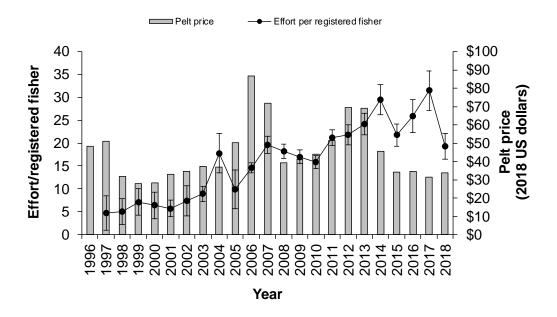


Figure 6. Estimated mean number of days required to harvest a fisher in Michigan and the mean pelt value during 1996-2018. Vertical bars represent the 95% confidence interval. Pelt prices were the mean of values reported from Minnesota (Abraham and Dexter 2018) and Wisconsin (Dhuey 2018). Pelt price were adjusted for inflation and reported in 2018 dollars. Estimates of effort/registered fisher included only trappers targeting fishers.

Appendix A. 2018.	The questionn	aire sent to pec	ple who obtain	ed a marten or fi	sher harvest t	ag in



MICHIGAN DEPARTMENT OF NATURAL RESOURCES, WILDLIFE DIVISION PO Box 30030 Lansing MI 48909-7530

2018 MARTEN AND FISHER HARVEST REPORT This information is requested under authority of Part 435, 1994 PA 451, M.C.L. 324.43539.



It is im	It is important that you complete and return this questionnaire even if you did not trap or capture a marten or fisher.								
1. Did you place traps for <u>marten</u> during the 2018 season (December 7-16)?									
¹ ☐ Ye	¹ Yes ² No, Skip to question number 5.								
2. If you attempted to trap marten during the 2018 <u>marten</u> season, please complete the following table.									
COUNTY TRAPPED FOR MARTEN (List each county that you trapped for marten.)	NUMBER OF DAYS TRAPPED FOR MARTEN	NUMBER OF MARTEN CAUGHT AND RELEASED (Count only martens you released alive from your traps.)	NUMBER OF MARTEN CAUGHT AND REGISTERED (Count all marten that were registered including incidental catches that were not returned to you.)						
3. How many of the following traps did you set for marten in 2018? (For each type, record the average number used per day.) Foothold Conibear Other (Please specify									
4. What is the status	3	n the area (county) you trapp	ped most often in 2018?						
¹ Increasing	² Dec	reasing ³ Stable ⁴	☐ Not present 5 ☐ Not sure						
 Did you incidentally catch any marten while trapping for other species that you have not already reported in Question #2. 									
¹ ☐ Yes	² No,	Skip to question number 7.							
6. If you answered yes in the previous question, please report the location and number of incidental martens you captured. Please do not report marten already reported in question #2.									
COUNTY WHERE INCIDENTAL MARTEN CAUGHT (List each county that you caught an incidental marten.)		NUMBER OF INCIDENTAL MARTEN CAUGHT AND RELEASED (Count only incidental martens you released alive from your traps.)	NUMBER OF INCIDENTAL MARTEN CAUGHT AND REGISTERED (Count incidental marten that were registered including catches that were not returned to you.)						

7.	Did you place t	raps for <u>fish</u> e	er during the 2018 season (De	ecember 7-16)?					
	¹ ☐ Yes ² ☐ No, skip to question #11.								
8.	 If you attempted to trap fisher during the 2018 <u>fisher</u> season, please complete the following table. 								
	COUNTY TRAPPED FOR FISHER (List each county that you trapped for fisher.) NUMBER OF DAYS TRAPPED FOR FISHER		NUMBER OF FISHER CAUGHT AND RELEASED (Count only fishers you released alive from your traps.)	NUMBER OF FISHER CAUGHT AND REGISTERED (Count all fisher that were registered including incidental catches that were not returned to you.)					
	(For each type, I	record the ave	traps did you set for <u>fisher</u> in erage number used per day.) Foothold Conibear Other (Please specify)					
10			in the area (county) you trap						
11	¹ ☐ Increasir Did you incider	_	reasing ³ Stable ⁴ [ny fisher while trapping for o	☐ Not present 5 ☐ Not sure					
	not already rep	orted in Que	stion #8.	•					
12	Yes If you answered of incidental fis question #8.	d yes in the p	Skip to question #13. previous question, please rep tured. Please do not report f	ort the location and number isher already reported in					
	COUNTY W INCIDENTAL CAUGI (List each of that you caudincidental fi	FISHER HT county ight an	NUMBER OF INCIDENTAL FISHER CAUGHT AND RELEASED (Count only incidental fisher you released alive from your traps.)	NUMBER OF INCIDENTAL FISHER CAUGHT AND REGISTERED (Count incidental fisher that were registered including catches that were not returned to you.)					
,									
13	13. If you trapped, how would you rate the weather conditions for the primary types of traps you set during the 2018 season? Report separately for marten and fisher.								
	For Marten: 1 Excellent 2 Above Average 3 Average 4 Below Average 5 Very Poor								
14	For Fisher: 1 Excellent 2 Above Average 3 Average 4 Below Average 5 Very Poor 14. If you captured a marten or fisher, please describe how you used (or plan to use) the animal? Please record the number of marten and fisher used for each category.								
		her Number Number Number Number Number	r sold to local fur buyer r sold at fur auction r sold to taxidermist r sold to a private individual	ple, tanned hide or taxidermy mount)					

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