

Results of a Mail Survey to
Persons who Accidentally Caught Martens
in Minnesota from 1977-79.
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Carrol L. Henderson, Nongame Supervisor

Introduction

During 1978 and 1979 it became apparent that there had been a significant increase in the number of pine martens (Martes americana) in northeast Minnesota. The number of sightings increased, and the number of pelts turned in to the Minnesota Department of Natural Resources (MDNR) rose from 23 in 1978 to over 65 in 1979. These pelts were from animals trapped incidental to the taking of other furbearers. Martens are fully protected in Minnesota in accordance with provision MCR 100.27 Subdivision 1.

Gunderson and Beer (1953), Stenlund (1954), Gunderson (1955), and Mech and Rogers (1977) have previously reported on the gradual recovery of martens in Minnesota since 1953. In a status report (MDNR files) provided to the U.S. Department of Interior in 1976, the MDNR commented that this increase has apparently been caused by maturing forest conditions and improving conifer habitat that has taken place since the logging era. Also, because of economic conditions and the protection provided to public forests, marten habitat appears secure for the foreseeable future.

This increase has further been verified by a mail survey of 35 northern Minnesota trappers who accidentally caught martens in 1977 and 1978. A copy of the letter and questionnaire sent to the trappers is included in Appendix I.

The questionnaire was sent in July of 1979 and followed up with two subsequent mailings. Thirty of the 35 trappers responded, for a return rate of 85.7 percent.

RESULTS

Ten trappers who reported catching martens had trapped in Cook County, seven had trapped in Lake County, two trappers trapped in both Lake and Cook counties, nine trapped in St. Louis County, one trapped in Koochiching County, and one survey was unspecified.

Trappers were asked to mark with an "X" those townships in which they had taken martens in the last one or two years. Copies of state highway maps with township grids were provided with each questionnaire. Some trappers also marked townships where they had either seen martens or their sign. Figure 1 is a distribution map of those townships in which trappers have either observed martens or their sign or have trapped martens for the 1977-78 and 1978-79 trapping seasons. One trapper indicated he had taken a marten in the "Basswood Lake" area, but the location could not be assigned to a township.

Martens were therefore present in at least one township in Koochiching County, twenty townships in St. Louis County, seven townships in Lake County, and 34 townships in Cook County. The total area enclosed by these locations is about 6300 square miles.

Trappers were asked what species of furbearer their traps were set for when martens were taken. The results are given in Table 1.

Table 1. Species for which traps were set when martens were taken.

Fisher:	26
Red Fox:	14
Mink:	11
Coyote:	1
Bobcat and Lynx:	4
Weasel:	1

There were a wide variety of sets which resulted in the taking of martens. This suggests that they are adapted to exploiting a wide variety of habitats and food sources. Fisher sets were primarily cubby and hanging bait sets. Other sets were bait sets with dead deer scraps and fish, tree branch sets and scent posts. Red fox sets were primarily dirt hole sets with and without bait, and some martens were caught in fox scent post sets.

Martens were caught in a variety of mink sets which indicate they frequent water edges for aquatic types of food. Mink sets included blind dry (trail) sets, traps in hollow logs, rock hut sets, pocket sets along streams, and other baited water sets. Traps set for cats were cubby sets and hanging bait sets.

One trapper even reported catching martens in rat traps set for weasels.

Habitat and Proximity of Human Development

Trappers reported a wide variety of habitats in which martens were taken. Eighteen persons mentioned martens being taken in swampy habitats--including spruce, cedar, balsam, and older swamps. Spruce swamps were mentioned in eleven instances.

Table II. Habitat Types in which Martens were Reported Taken, 1977-79.

<u>Swamps</u>	<u>Number of Persons who mentioned this habitat</u>
Spruce	11
Spruce-balsam	2
Cedar	4
Alder	1
Subtotal	18
<u>Upland Pine Forest</u>	
"Pine"	9
Jack Pine	4
Norway Pine	2
White Pine	2
	17
<u>Upland Hardwoods & Mixed Forest</u>	
Aspen	5
Birch	2
Mixed Hardwoods	7
	14

Upland pine forests of jack pine, Norway pine, and white pine were mentioned by seventeen persons. Aspen and birch forests and mixed hardwoods were described by fourteen people as the sites where martens were taken.

Four persons commented that martens were taken along lakeshores, and seven trappers referred to taking martens on "high ground," a rock ridge, near rocky cliffs, and hilly areas. Other mention was made of martens frequenting wind-falls and the edges of large burns.

Twenty trappers referred to the proximity of human habitation from where martens were taken. Two trappers caught martens within one-half mile of permanent

homes and summer cabins; four persons caught martens from three-fourths of a mile to four miles from human residences, and eleven trappers caught martens five or more miles from human habitation. Three trappers who had caught several martens referred to catching them in every situation from near cabin areas to wilderness areas.

How to Avoid Taking Martens

Twenty-nine trappers unanimously agreed that it is not possible to avoid taking marten while trapping for other furbearers. Two persons recommended that trappers learn to recognize marten sign and avoid those areas while trapping other furbearers. If sets are in an area with marten sign, avoid using squirrel as bait. By using #2 traps for fox and fisher, and 1½ coil springs for fox, martens can frequently be caught and released unharmed. Larger traps can cause leg injuries.

One Cook County trapper wrote that he developed a shroud to put over the trap and marten which allows marten to be released unharmed if their injuries are not serious.

Protected Status

Six trappers recommended that martens continue to be protected and 19 wrote that the law should allow for regulated taking of martens. Three of the comments recommending a continued closed season on martens were from trappers in St. Louis and Koochiching counties. Three trappers in Lake County recommended a continued closed season.

Recommendations for a Marten Season

A full spectrum of recommendations were made for a marten season by those trappers who felt a season was justified. A majority, 18, felt the marten season should be concurrent with the fisher season. Four persons suggested a season limit of three, three persons recommended a season limit of five, and one person recommended a season limit of two. One trapper recommended no limit.

Other suggestions were to provide for accidental taking of martens, to run the marten season from freeze-up through the end of the mink season, to hold fisher and marten seasons every other year, to open the season when the fox season opens and close it at the end of the fisher season, and to have a one month season.

Conclusions

It is readily apparent that the number of martens in northeast Minnesota has shown a significant increase in the last several years and this increase is apparent in the number of martens accidentally trapped by persons seeking fisher, red fox, mink, coyote, cats, and even weasels.

The martens are found in many different habitats and are very difficult to avoid catching. Some accidentally caught martens are being turned into MDNR personnel for a pelting fee, which in 1978 amounted to about \$8.50 apiece. Many martens which are caught unharmed are released by trappers, but unfortunately there are also many injured martens which are apparently disposed of because of the legal complications of getting a pelting fee for a protected species.

To avoid this waste of an important renewable natural resource and the waste of the biological data that could be obtained from legally registered animals it is worth considering the feasibility of a limited season.

The fact that so many trappers, 85.7 per cent, responded to this survey indicates that they feel that this is a problem that needs to be acknowledged by the MDNR and handled in a positive way.

Probably the most acceptable proposal based on current information would be a restrictive season that would allow mainly for taking of marten that would have been caught anyway but not encourage excessive harvest. Last year at the MDNR fur auction the martens only brought \$20.00 apiece so the pelt price would not be a major incentive for catching them. A season should probably be restricted to Lake and Cook counties during the fisher season framework, December 1 to January 31. The season bag limit should be two.

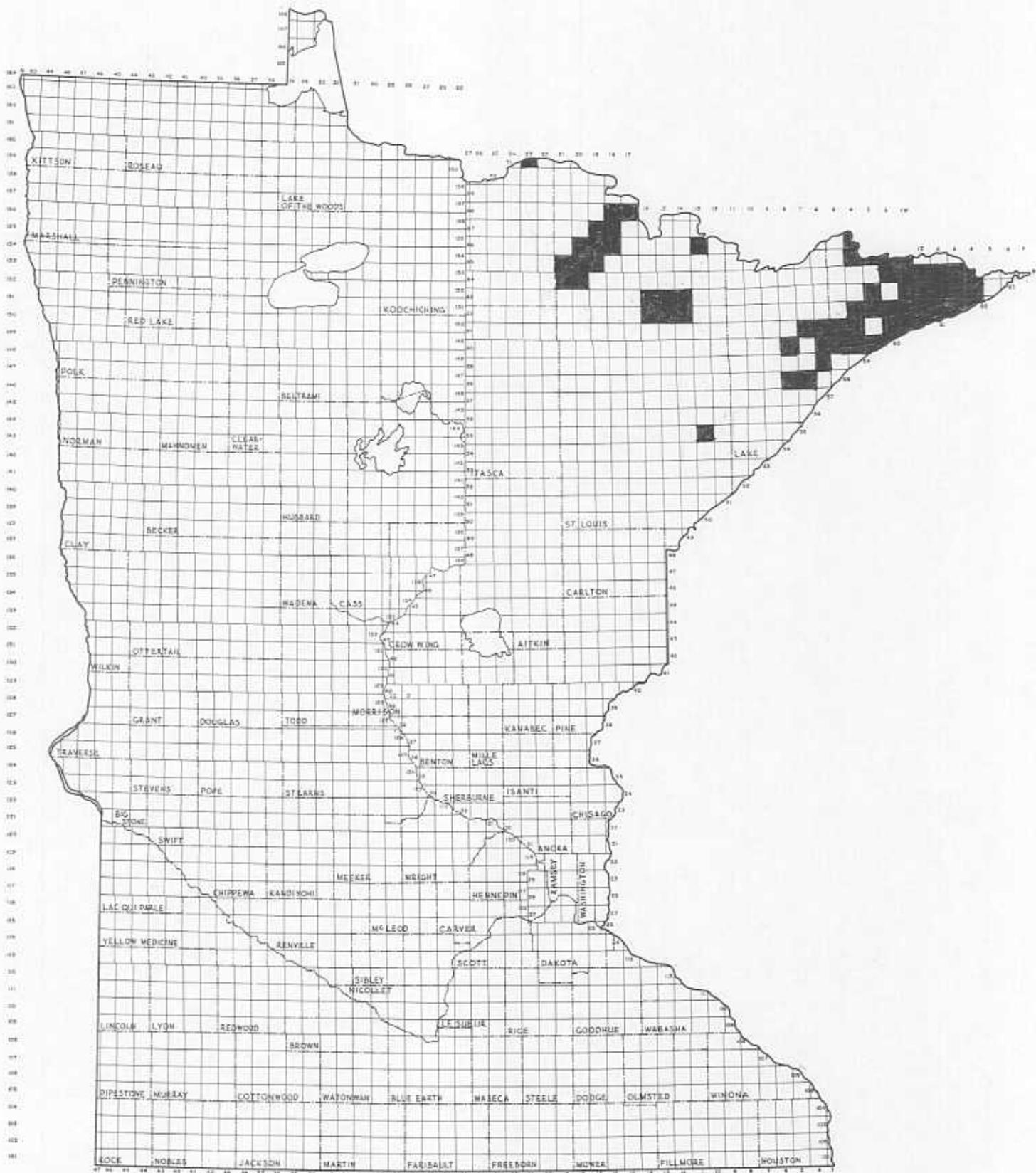


Figure 1. Location, by township, of accidental marten catches, marten sightings, and marten sign by 30 trappers for the 1977-78 and 1978-79 trapping seasons.