



STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
WILDLIFE
LANSING, MICHIGAN 48909-7944

Report No.3420
June 2004

AMERICAN MARTEN SURVEY - 2003^[1]

by

Thomas M. Cooley, Stephen M. Schmitt, Paul D. Friedrich and David P. Bostick


Introduction

The American marten (*Martes americana*) historically was found throughout Michigan. Extensive logging and uncontrolled trapping pressure eliminated them from much of their native range. Restoration of martens to suitable habitat began in the mid-1950's with wild animals obtained from Ontario. These animals were released in the western and central Upper Peninsula and the northern Lower Peninsula. Intrastate translocations occurred in the late 1980's to supplement existing populations.

The restoration efforts were successful, and in March 1999, the marten was removed from the state's threatened species list. In 2000, it was determined that the Upper Peninsula marten population had become sufficiently abundant to allow a limited trapping season. The season was open from December 1 - 11, and the bag limit was one marten. The entire Upper Peninsula except for Drummond Island and the Pictured Rock National Lakeshore was opened to trapping. Trappers were required to obtain a free marten trapping permit and to purchase a Fur Harvester License. Trappers were required to register harvested martens within 5 days of their being trapped. These regulations remained in effect for 2001 and 2002. In 2003, the season was open from December 1 - 15 and the registration period changed to 3 days after the end of the season (December 18). This is the fourth consecutive year of the American Marten survey in Michigan (Cooley et. al. 2001, 2002 and 2003).

Trappers were required to submit to the Michigan Department of Natural Resources (DNR) the marten carcasses for examination and the pelts for sealing. This year, 131 of the 149 (87.9%) legally trapped and registered martens were examined at the Rose Lake Wildlife Disease Laboratory.

Printed by Authority of 1994 PA 451	
Total number of Copies Printed.....	50
Cost Per Copy:	\$0.21
Total Cost:	\$10.50



^[1] A contribution of Federal Aid in Wildlife Restoration, Michigan Project W-147-R.

Materials & Methods

Skinned American marten carcasses or heads were submitted by trappers and field personnel to the Rose Lake Wildlife Disease Laboratory. The sex of each marten was determined by examining the carcass and the size of the canine tooth. Age was estimated by radiographing a lower canine tooth to determine the width of the pulp cavity (Kuehn and Berg 1981) and by counting cementum annuli in longitudinal thin sections of the tooth root (Strickland et al. 1982).

Results and Discussion

There was a registered harvest of 149 American martens. Of the 131 martens submitted for examination, 103 (78.6%) were males and 28 (21.4%) were females. Juvenile martens were easily identified by the large size of the pulp cavity in radiographs of their canine teeth and by the lack of cementum annuli. Of the legally trapped martens submitted for examination, 64.1% (84 of 131) were 1.5 years old or younger (Table 1). Last year's marten harvest consisted of 59.7% (43 of 72) yearlings and juveniles.

Management Implications

Ideally, harvest levels are determined from estimates of population size. Since it is neither practical nor possible to accurately count most species of wildlife, managers must often use indices of population status. Annual harvest statistics provide one index or measure of the population most vulnerable to trapping.

Acknowledgments

We thank the trappers and DNR personnel for submitting marten carcasses and heads for examination. Thanks is also extended to Melinda Rath, Julie Rose, and Kristine Brown for assisting in analysis and to Sheree Kershaw for assisting in the preparation of this report.

Literature Cited

- Cooley, T. M., S. M. Schmitt, P. D. Friedrich, and T. F. Reis. 2001. American Marten Survey – 2000. Wildl. Div. Rep. No. 3350. 5 pp.
- _____, _____, _____, _____. 2002. American Marten Survey - 2001, Wildl. Div. Rep. No. 3381. 6pp.
- _____, _____, _____, _____. 2003. American Marten Survey - 2002, Wildl. Div. Rep. No. 3403. 4pp.
- Kuehn, D. W. and W. E. Berg. 1981. Use of radiographs to identify age classes of Fisher. J. Wildl. Manage. 45:1009-1010.
- Strickland, M.A., C. W. Douglas, M. Novak, N. P. Hunzinger. 1982. Marten. Pages 599-612 in J. A. Chapman and G. A. Feldhamer, eds. Wild Mammals of North America: biology, management, and economics. John Hopkins Univ. Press, Baltimore, Md.

Equal Rights for Natural Resource Users

The Michigan Department of Natural Resources (MDNR) provides equal opportunities for employment and access to Michigan's natural resources. Both State and Federal laws prohibit discrimination on the basis of race, color, national origin, religion, disability, age, marital status, or sex under the Civil Rights Acts of 1964, as amended, (MI PA 453 and MI PA 220, Title V of the Rehabilitation Act of 1973 as amended, and the Americans with Disabilities Act). If you believe that you have been discriminated against in any program, activity or facility, or if you desire additional information, please write the MDNR, HUMAN RESOURCES, PO BOX 30028, LANSING MI 48909-7528, or the MICHIGAN DEPARTMENT OF CIVIL RIGHTS, STATE OF MICHIGAN PLAZA BUILDING, 1200 6TH STREET, DETROIT MI 48226, or the OFFICE FOR DIVERSITY AND CIVIL RIGHTS, US FISH AND WILDLIFE SERVICE, 4040 NORTH FAIRFAX DRIVE, ARLINGTON, VA 22203.

For information or assistance on this publication, contact: MDNR, WILDLIFE DIVISION, P.O.BOX 30444, LANSING, MI 48909-7944, <http://www.michigan.gov/dnr>. This publication is available in alternative formats upon request. TTY: Michigan Relay Center 1-800-649-3777

Table 1. Sex and age distribution of marten harvest, December 1 - 15, 2003

AGE	MALES	FEMALES	TOTAL	%
0.5	54	14	68	51.9
1.5	11	5	16	12.2
2.5	15	4	19	14.5
3.5	8	2	10	7.6
4.5	7	2	9	6.9
5.5	6	1	7	5.3
6.5	1		1	0.8
9.5	1		1	0.8
TOTAL	103	28	131	100