STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
WILDLIFE DIVISION
LANSING, MICHIGAN 48909

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FISHER SURVEY - 1985, 1986, 1987

by

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Introduction

Several fishers (Martes pennanti) that were killed by motor vehicles or accidentally trapped during the fall of 1985, spring, fall and winter of 1986, and winter of 1987 were examined. Due to a lack of knowledge on this furbearing species in Michigan, we collected data consistent with previous fisher surveys (Cooley et al. 1982, 1986) but omitted information that was not essential (skeletal and dental measurements) to the study.

Intact and skinned fisher carcasses were submitted by biologists from Districts 1, 2, and 3. The following determinations were made on each animal: sex, age, weight, stomach contents, parasites present, and productivity.

Materials and Methods

Each skinned fisher carcass was weighed to the nearest tenth of a pound and the sex of the animal determined. A complete necropsy examination was performed, with each organ system being examined and any abnormalities recorded. Age was estimated by sectioning a lower canine tooth for cementum layer counts (Strickland, et al. 1982).

Productivity was determined by ovarian inspection and by classification of corpora albicantia (C.A.) or corpora rubra (C.R.) present. The total number of C.A. or C.R. were determined by thin sectioning (1-3 mm) the ovaries.

A 2 to 4 gram fecal sample was preserved in 10% formalin and examined by the sugar flotation method for parasite egg identification. Stomach contents were identified and recorded.

Results and Discussion

In spite of the small sample size, we did see some trends that will help with the analysis of any future collections.

The fisher is a species which exhibits sexual dimorphism, with the females markedly smaller than the males.

Tooth sectioning permitted an accurate age estimation. Younger age classes were more susceptible to being trapped, with 22 of the 29 (76%) animals examined being 1.5 years old or younger. The sexes were equally represented in the examined animals (16 males, 13 females).

Most of the animals were accidental trapping victims, so the stomach contents were probably not indicative of the animal's natural diet.

Parasite levels were low and there were very few species seen. Capillaria sp. were seen in 18 of the 29 animals, Coccidia were seen in 4 animals, and Taenia sp. was seen once.

Only one of the females (3.5 years old) exhibited corpora albicantia or corpora rubra in the ovaries. She was killed in early February and had 3 corpora in the ovaries.

Management Implications

Information gathered this year and in the future will help develop alternative strategies for the management of fisher in Michigan.

Acknowledgements

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Literature Cited

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Strickland, M. A., C. W. Douglas, M. K. Brown, and G. R. Parsons. 1982. Determining the age of fisher from cementum annuli of the teeth. N.Y. Fish and Game Jour. 29(1):90-94.

REGION I FISHER

Dist.	County	Town/ Range	Date Harvested	Lab #	How Taken	Sex	Age Est. Canine Annuli	Weight (lbs) Skinned	Weight (lbs) Whole Body	Stomach Contents	Parasites	Fecal Exam	Corpora albicantia or Corpora rubra	Comments
1	Baraga	Unknown	10/30/86	86-725	Trapped	M	0.5	7.2	9.9	mud & debris	Negative	Capillaria	-	
	Houghton	Unknown	10/29/86	86-726	Trapped	M	0.5	7.7	10.6	fish & plastic	Negative	Capillaria	-	
	Houghton	Unknown	10/29/86	86-727	Trapped	M	2.5	8.2	10.8	muscle	Negative	Negative	-	
	Houghton	Unknown	12/86	1	Trapped	M	0.5	8.2	10.6	carrion	Negative	Capillaria	-	
	Ontonagon	Unknown	12/17/86	3	Trapped	M	3.5	8.0	10.4	sticks, dirt	Negative	Capillaria	-	
	Ontonagon	Unknown	2/26/87	23	Trapped & Shot	M	3.5	9.0	12.0	carrion	Negative	Capillaria	-	
	Dist. 1	Unknown	Unknown	6	Trapped	F	0.5	4.4	5.7	dirt	Negative	Coccidia	0	
	Dist. 1	Unknown	11/5/86	8	Trapped	F	0.5	4.1	5.9	muscle (rabbit)	Negative	Coccidia	0	
	Dist. 1	Unknown	11/7/86	9	Trapped	F	0.5	3.2	4.5	sticks, dirt	Negative	Capillaria	0	
	Dist. 1	Unknown	11/7/86	10	Trapped	F	0.5	3.8	5.2	fisher paw	Negative	Capillaria	0	
	Dist. 1	Unknown	Unknown	12	Road Kill	M	1.5	7.6	9.8	fat	Negative	Negative	-	
2	Iron	45N31W	1/5/87	11	Trapped	F	1.5	4.0	5.1	sticks	Negative	Negative	0	tail missing
	Iron	42N32W	1/87	14	Trapped	M	5.5	8.6	11.1	fish, dirt	Negative	Negative	-	
	Iron	42N32W	1/87	15	Trapped	M	0.5	8.2	10.2	deer hair, dirt, sticks	Negative	Negative	-	
	Iron	43N33W	1/87	17	Trapped	M	1.5	9.8	-	hair, dirt, sticks	Negative	Capillaria Coccidia	-	
	Iron	43N33W	1/87	18	Trapped	F	3.5	4.0	-	rabbit, dirt	Tapeworms	Capillaria Taenia	0	
	Iron	Unknown	2/9/87	20	Trapped	F	3.5	3.8	4.9	bird foot, dirt, stones	Negative	Negative	3	
	Iron	Unknown	11/85	86-693	Trapped	M	1.5	7.3	9.9	dirt, sticks	Negative	Capillaria	-	
	Iron	Unknown	10/85	86-694	Trapped	M	1.5	8.0	10.4	muscle	Negative	Negative	-	
	Dist. 2	Unknown	1/21/87	19	Trapped	F	0.5	4.6	5.7	carrion	Negative	Coccidia Capillaria	0	
	Dist. 2	Unknown	-	22	Trapped	F	0.5	4.4	-	paw remains	Negative	Capillaria	0	
3	Marquette	42N26W	12/8/86	21	Trapped	M	0.5	7.6	-	paw remains	Negative	Capillaria	-	
	Marquette	Unknown	5/16/86	86-724	Trapped	F	1.0	3.7	4.5	fish	Negative	Capillaria	0	
Upper Peninsula														
	Unknown	Unknown	12/15/86	2	Trapped	M	1.5	5.6	7.5	black fluid	Negative	Capillaria	-	
	Unknown	Unknown	12/15/86	4	Trapped	F	1.5	3.7	4.8	empty	Negative	Capillaria	0	
	Unknown	Unknown	Unknown	5	Trapped	F	1.5	3.4	4.5	sticks, dirt	Negative	Capillaria	0	
	Unknown	Unknown	11/11/86	7	Trapped	M	2.5	9.0	11.9	carrion, fish	Negative	Negative	-	
	Unknown	Unknown	11/5/86	13	Trapped	M	1.5	10.3	13.0	red squirrel	Negative	Negative	-	
	Unknown	Unknown	2/2/87	16	Trapped	F	0.5	4.5	5.4	carrion	Negative	Capillaria	0	