

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

Report No. 2948  
July 25, 1983

BOBCAT SURVEY - 1982-83

by

Thomas M. Cooley, Stephen M. Schmitt, and Paul D. Friedrich

Introduction

Pressure by concerned organizations and the Convention on International Trade in Endangered Species (CITES) has caused the Fish and Wildlife Service to compile comprehensive data on some furbearers. This documentation is necessary to verify the stability of populations and to justify continued harvesting and exportation of pelts.

During the winter of 1982-83, the Wildlife Division collected bobcats (Felis rufus) from hunters and trappers to increase the knowledge of this species, and to evaluate possible field techniques for sex and age determination.

Skinned bobcat carcasses were obtained from hunters and trappers throughout Michigan, and the following determinations made: sex, age, weight, dental measurements, physical condition, stomach contents, parasites present and reproductive history. This information was summarized for each region.

Materials and Methods

Each skinned bobcat carcass was weighed, sex determined, and various dental measurements taken (Appendix I). A complete necropsy examination was performed with each organ system being examined and any abnormalities recorded. A lower canine was used to estimate age by cementum layer counts following the method of Crowe (1975). Physical condition estimates were made by examining kidney fat (Riney 1955).

Reproductive history was established by ovarian inspection and by classification of corpora lutea (C.L.) condition (Crowe 1975). Ovaries were preserved in Mossman's AFA Fixative and the total number of C.L. determined by thin sectioning (1-3 mm) the ovaries. The remaining female reproductive tract was frozen for future examination of placental scars.

Adult parasites found during examination of the carcass were identified and some were preserved in 10% formalin for future identification. A 2-4 gm fecal sample was preserved in 10% formalin, and later examined by the sugar flotation method for identification of parasites (eggs and larvae). Stomach contents were examined and identified.



## Results and Discussion

There appeared to be a correlation between sex and weight of bobcats in both regions, with males weighing more than females of the same age (Tables 3 and 9). There was, however, an overlap in the weights between age classes. The dental measurements (Tables 4 and 10) also showed this correlation.

### Region I

The sex ratio of the bobcats examined from Region I (Table 1) was 100:82 (33:27), males to females. This ratio of slightly greater numbers of males to females agreed with the findings of Erickson (1955), Hoppe (1980), and Cooley et al. (1981, 1982). The percentage of young-of-the-year submitted was down for the second year in a row, falling from 40% in 1980-81, to 35% in 1981-82, and to 30% in 1982-83. The age groups 0 to 3 years for the third year in a row made up nearly 80% of the total animals submitted. The young-of-the-year and yearling age classes occurred most frequently in the sample.

Although the sample size was small, the C.L. counts (Table 2) were in general agreement with figures from the previous 2 years. Nearly 40% (4 of 11) of the 1-2 year age class animals exhibited evidence of having cycled twice in one breeding season. This was the third consecutive year that this phenomena has been seen in the Region I bobcats.

The kidney fat index (Table 5) was higher in all but one of the 0 to 4 year age and sex classes during the 1982-83 sampling. The mild winter probably was responsible for this difference. Only 4 (6.67%) of the bobcats examined were free of parasites (Table 6). Nearly three quarters of the bobcats had tapeworms of the genera Taenia and Spirometra and over 50% had ascarids of the genus Toxocara. The prevalence of the tapeworms was nearly the same as last year, but considerably higher than in the 1980-81 collection. The ascarid figures were markedly reduced from last year (79%), but close to the 1980-81 figures (46%). Five other genera of parasites were identified in the bobcats this year.

### Region II

The sex ratio of bobcats examined from Region II (Table 7) was moderately skewed toward males: 100:65 (20:13). This was fairly consistent with the previously mentioned studies, but was considerably less than last year's ratio 100:35 (20 males:7 females). Only 18% of the animals were young-of-the-year, with age groups 1 to 6 years being nearly equally represented in the sample (9-15%).

The small number of female carcasses submitted precluded extensive analysis of C.L. counts (Table 8). It did appear that there were adequate numbers of C.L. to represent 3-5 C.L./ovulation (per year). There was a single yearling female that had 8 C.L. present, indicative of a heat period recycling.

The kidney-fat index (Table 11) was moderately to slightly lower than last year. Most of the values were within 15% of last year's figures.

Over 30% of the bobcats from Region II were free of parasites (Table 12). This was the highest percentage of parasite-free cats seen during the 3-year sampling period (19% in 1980-81 and 11% in 1981-82). Tapeworms (Spirometra sp. and Taenia sp.) were the most prevalent parasites seen (42%), while ascarids (Toxocara sp) were in 39% of the cats, nearly half as prevalent as last year (74%).



Four other genera of parasites were identified in the bobcats this year.

#### Management Application

The collection and examination of bobcat carcasses provided additional baseline information. The development of new sexing techniques using dental measurements may allow for easier data collection in the future. This data, in conjunction with future information, will allow the Wildlife Division to develop a management model and hopefully assure Michigan trappers and hunters the opportunity to harvest and export this furbearing species in the future.

#### Acknowledgements

We thank the bobcat trappers and hunters for their voluntary cooperation and the biologists and technicians for gathering the bobcat carcasses and submitting them for examination. Thanks is also extended to Jan Miller who assisted in the preparation of this report.

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Table 1. Estimated age ratio of Region I bobcats

Age	Number	Sex		Percent of Total
		M	F	
0-1	18	10	8	30.00
1-2	17	6	11	28.33
2-3	12	8	4	20.00
3-4	6	5	1	10.00
4-5	2	0	2	3.33
5-6	1	0	1	1.67
6-7	1	1	0	1.67
7-8	1	1	0	1.67
8-9	0	0	0	-
9-10	1	1	0	1.67
Adult	1	1	0	1.67
Totals	60	33	27	100.00

Table 2. Reproductive data analysis of female bobcats in Region I

Age	No. of Corpora Lutea/Set of Ovaries
0-1	0
1-2	3-8 (3,3,3,4,4,5,5,6,7,7,8)
2-3	8-12 (8,10,12,12)
3-4	11
4-5	13,17
5-6	11
6-7	-
7-8	-
8-9	-
9-10	-
Adult	-

Table 3. Mean weight (lbs.) and range of Region I bobcats  
(skinned carcasses)

Age	Male	Female
0-1	10.3 (5.3-15.4)	10.3 (7.1-14.8)
1-2	19.8 (12.9-25.0)	15.9 (12.1-19.1)
2-3	23.4 (17.4-26.3)	17.0 (15.0-18.9)
3-4	23.5 (19.2-27.3)	19.2
4-5	-	14.2 (12.4-16.0)
5-6	-	19.1
6-7	28.8	-
7-8	21.0	-
8-9	-	-
9-10	27.6	-
Adult	21.5	-

Table 4. Mean and range of canine tooth measurements of Region I bobcats

Age	Sex	Total Canine Length (mm)	Maximum Canine Root (mm)	
			Width	Thickness
0-1	M	26.72 (20.80-32.00)	7.60 (6.80-8.14)	5.74 (5.32-6.21)
0-1	F	26.16 (16.90-28.90)	6.77 (6.20-7.37)	5.09 (4.60-5.65)
1-2	M	32.90 (32.00-34.60)	8.05 (7.76-8.26)	6.24 (5.87-6.92)
1-2	F	29.68 (25.80-31.50)	7.02 (6.75-7.38)	5.21 (5.00-5.48)
2-3	M	32.61 (31.5-35.0)	7.89 (7.40-8.75)	5.99 (5.62-6.50)
2-3	F	29.80 (28.9-30.7)	6.94 (6.60-7.37)	5.20 (4.88-5.57)
3-4	M	31.66 (30.6-32.5)	8.07 (7.69-8.42)	5.98 (5.80-6.30)
3-4	F	29.60	7.55	5.43
4-5	M	-	-	-
4-5	F	27.65 (26.20-29.10)	7.05 (6.83-7.26)	5.63 (5.40-5.85)
5-6	M	-	-	-
5-6	F	29.60	7.25	5.35
6-7	M	33.40	8.24	6.30
6-7	F	-	-	-
7-8	M	32.00	7.71	6.05
7-8	F	-	-	-
8-9	M	-	-	-
8-9	F	-	-	-
9-10	M	25.00	8.80	6.60
9-10	F	-	-	-
Adult	M	*	*	*
Adult	F	-	-	-

\*Headless



Table 5. Kidney fat index and range of Region I bobcats

<u>Age</u>	<u>Sex</u>	<u>Kidney Fat Index</u>
0-1	M	50.4 (8-129)
0-1	F	63.9 (34-89)
1-2	M	24.8 (12-34)
1-2	F	54.7 (19-156)
2-3	M	53.0 (14-87)
2-3	F	43.0 (29-77)
3-4	M	51.8 (37-77)
3-4	F	39.0
4-5	M	-
4-5	F	46.0 (32-60)
5-6	M	-
5-6	F	19.0
6-7	M	88.0
6-7	F	-
7-8	M	27.0
7-8	F	-
8-9	M	-
8-9	F	-
9-10	M	62.0
9-10	F	-
Adult	M	32.0
Adult	F	-

Table 6. Parasites in Region I bobcats

<u>Type of Parasite</u>	<u>Bobcats Affected</u>	<u>Percent of Occurrence</u>
None	4	6.67
Tapeworms*	44	73.33
Ascarids**	32	53.33
<u>Trichuris</u>	1	1.67
<u>Coccidia</u>	11	18.33
<u>Capillaria</u>	8	13.33
<u>Acanthocephalids</u>	0	0.00
<u>Aelurostrongylus</u> sp.	1	1.67
<u>Ancylostoma</u> sp.	0	0.00
<u>Spirocerca</u> sp.	0	0.00
<u>Physaloptera</u> sp.	1	1.67
Unidentified larvae	1	1.67

\* 29 Spirometra, 25 Taenia, 6 Unspecified\*\* 20 Toxocara, 12 Unspecified

Table 7. Estimated age ratio of Region II bobcats

Age	Number	Sex		Percent of Total
		M	F	
0-1	6	4	2	18.18
1-2	5	2	3	15.15
2-3	5	3	2	15.15
3-4	5	4	1	15.15
4-5	3	0	3	9.09
5-6	3	2	1	9.09
6-7	0	0	0	-
7-8	1	1	0	3.03
8-9	1	1	0	3.03
9-10	0	0	0	-
10-11	1	1	0	3.03
Adult	3	2	1	9.09
Total	33	20	13	100.00

Table 8. Reproductive data analysis of female bobcats in Region II

Age	No. of Corpora Lutea/Set of Ovaries
0-1	0
1-2	2-8 (2,3,8)
2-3	9 (9,9)
3-4	14
4-5	13-16 (13,14,16)
5-6	11
6-7	-
7-8	-
8-9	-
9-10	-
10-11	-
Adult	-

Table 9. Mean weight (lbs.) and range of Region II bobcats (skinned carcasses)

Age	Male	Female
0-1	13.3 (11.2-15.0)	10.1 (7.1-13.0)
1-2	19.0 (18.4-19.5)	14.0 (11.5-16.9)
2-3	21.3 (15.8-26.0)	15.4 (14.7-16.0)
3-4	23.0 (21.0-25.0)	14.3
4-5	-	16.1 (15.0-18.4)
5-6	20.9 (20.6-21.1)	18.2
6-7	-	-
7-8	24.8	-
8-9	22.8	-
9-10	-	-
10-11	32.5	-
Adult	19.4 (18.0-20.8)	12.8

Table 10. Mean and range of canine tooth measurements of Region II bobcats

Age	Sex	Total Canine Length	Maximum Canine Root (mm)	
			Width	Thickness
0-1	M	30.03(28.60-31.40)	7.51(6.80-8.00)	5.94(5.57-6.12)
0-1	F	24.15(18.80-29.50)	6.65(6.40-6.85)	4.88(4.25-5.50)
1-2	M	32.45(32.20-32.70)	7.97(7.77-8.17)	5.90(5.70-6.09)
1-2	F	29.67(28.80-30.20)	6.87(6.68-7.22)	5.15(4.96-5.50)
2-3	M	32.90(31.70-34.60)	8.19(7.60-8.65)	6.12(5.54-6.55)
2-3	F	30.00(29.60-30.40)	6.88(6.65-7.10)	5.13(5.00-5.25)
3-4	M	32.65(32.00-34.00)	7.80(7.55-8.10)	6.05(5.95-6.10)
3-4	F	31.00	6.90	5.21
4-5	M	-	-	-
4-5	F	29.40(28.20-30.20)	6.95(6.50-7.50)	5.10(4.72-5.50)
5-6	M	33.10(33.00-33.20)	8.28(8.16-8.40)	6.37(6.33-6.40)
5-6	F	32.40	7.11	5.62
6-7	M	-	-	-
6-7	F	-	-	-
7-8	M	28.40	7.90	6.16
7-8	F	-	-	-
8-9	M	36.20	8.66	6.26
8-9	F	-	-	-
9-10	M	-	-	-
9-10	F	-	-	-
10-11	M	30.80	8.93	6.90
10-11	F	-	-	-
Adult	M	*	*	*
Adult	F	*	*	*

\*Headless



Table 11. Kidney fat index and range of Region II bobcats

<u>Age</u>	<u>Sex</u>	<u>Kidney Fat Index</u>
0-1	M	88.0 (67-109)
0-1	F	99.0 (71-127)
1-2	M	77.5 (48-107)
1-2	F	56.0 (14-81)
2-3	M	54.7 (30-70)
2-3	F	52.0 (29-75)
3-4	M	73.0 (61-91)
3-4	F	67.0
4-5	M	-
4-5	F	67.0 (44-83)
5-6	M	93.5 (79-108)
5-6	F	131.0
6-7	M	-
6-7	F	-
7-8	M	57.0
7-8	F	-
8-9	M	75.0
8-9	F	-
9-10	M	-
9-10	F	-
10-11	M	239.0
10-11	F	-
Adult	M	73.5 (37-110)
Adult	F	53.0

Table 12. Parasites in Region II bobcats

<u>Type of Parasite</u>	<u>Bobcats Affected</u>	<u>Percent of Occurrence</u>
None	10	30.30
Tapeworms*	14	42.42
Ascarids**	13	39.39
<u>Trichuris</u>	0	0.00
<u>Coccidia</u>	4	12.12
<u>Capillaria</u>	2	6.06
<u>Acanthocephalids</u>	0	0.00
<u>Aelurostrongylus</u> sp.	1	3.03
<u>Ancylostoma</u> sp.	0	0.00
<u>Spirocerca</u> sp.	0	0.00
<u>Physaloptera</u> sp.	0	0.00
<u>Uncinaria</u> sp.	1	3.03
Unidentified Strongyle	2	6.06

\* 4 Spirometra, 4 Taenia, 8 Unspecified\*\* 8 Toxocara, 5 Unspecified

## APPENDIX I.

## 1982-83 BOBCAT DATA - REGION I

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Root (mm)	Width	Thickness
1	Gogebic	45N42W4	11-03-82	052	80	Trapped	F	3½	19.2	Sticks	Negative	Coccidia	39	11	29.6	7.55	5.43	
	Houghton	47N36W3	11-03-82	122	77	"	F	½	7.1	Sticks & Hare remains	Ascarids, Taenia	Coccidia	49	0	16.9	6.20	4.60	
	Houghton	47N36W3	11-03-82	123	92	"	F	2½	15.8	Sticks	Spirometra	Negative	37	10	29.7	7.37	5.16	
	Keweenaw	57N33W26	11-01-82	077	101	"	F	4½	12.4	Sticks	Taenia, Spirometra	Coccidia, Spirometra	32	12	29.1	6.83	5.40	
2	Dickinson	40N29W35	10-26-82	202	41	"	F	5½	19.1	Rabbit remains	Spirometra, Taenia	Negative	19	11	29.6	7.25	5.35	
	Dickinson	44N29W33	10-27-82	203	45	"	M	1½	25.0	Wood	Negative	Negative	28	-	32.6	8.05	6.92	
	Dickinson	40N28W25	11-16-82	229	67	Shot	F	2½	18.2	Carriion	Tape	Negative	29	12	30.7	7.12	5.57	
	Dickinson	40N27W19	01-04-83	256	79	Trapped	M	2½	23.9	Hair	Taenia	Negative	53	-	32.4	8.15	6.40	
	Iron	42N32W27	12-23-82	214	7	"	F	½	8.5	Meat, Plastic, Intestines	Ascarid	Negative	52	0	24.5	6.80	4.95	
	Iron	45N37W8	11-03-82	267	49	"	M	7½	21.0	Sticks	Negative	Coccidia	27	-	32.0	7.71	6.05	
	Iron	44N32W16	11-06-82	268	50	"	M	Ad*	21.5	Sticks, Feathers	Negative	Spirometra	32	-	*	*	*	
	Iron	43N33W2	01-03-83	272	8	"	F	4½	16.0	Rabbit remains	Negative	Capillaria, Taenia, Coccidia	60	17	26.2	7.26	5.85	
	Iron	43N33W1	01-04-83	273	6	"	F	½	9.9	Empty	Tapes	Negative	34	0	28.3	6.48	4.80	
	Iron	46N34W20	01-08-83	274	4	"	M	3½	24.0	Sticks, Hair	Negative	Negative	44	-	30.6	8.42	6.30	
	Iron	42N32W27	01-22-83	275	96	"	M	3½	19.2	Sticks	Ascarids, Spirometra	Negative	51	-	31.7	7.85	6.06	

\*Headless

## 1982-83 BOBCAT DATA - REGION I

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Root (mm)	Width	Thickness
2	Iron	45N32W27	01-28-83	277	72	Trapped	F	1½	15.9	Porcupine remains	Taenia Spirometra	Spirometra	34	3	30.4	7.15	5.25	
	Iron	45N33W4	02-09-83	278	71	"	M	½	11.0	Sticks	Ascarids, Taenia, Spirometra	Ascarids, Taenia, Spirometra	8	-	31.0	8.05	6.02	
	Iron	45N37W	12-09-82	Unk	10	"	M	3½	27.3	Sticks	Toxocara	Negative	50	-	32.4	8.17	5.95	
	Menominee	34N27W4	10-26-82	207	48	"	M	2½	17.4	Sticks	Ascarids, Spirometra	Spirometra	25	-	31.8	7.71	5.65	
	Menominee	39N25W6	01-29-83	221	73	"	M	½	12.3	Sticks	Spirometra	Negative	27	-	32.0	8.14	6.21	
	Menominee	39N25W4	01-30-83	222	69	"	F	½	10.8	Sticks, Deer remains	Ascarids	Toxocara	63	0	26.5	6.91	5.05	
	Menominee	35N25W12	11-01-82	250	46	"	M	2½	23.0	Wood	Ascarids, Spirometra	Negative	53	-	31.5	7.65	5.77	
	Menominee	41N26W29	12-05-82	253	5	"	F	1½	12.1	Empty	Tapes	Taenia	23	5	28.8	6.86	5.05	
	Menominee	39N25W9	02-21-83	257	76	"	M	3½	22.4	Sticks	Taenia	Spirometra	77	-	30.8	7.69	5.80	
	Menominee	38N27W23	01-03-83	301	3	"	M	½	13.6	Hair, Vegetation	Negative	Negative	68	-	27.2	6.80	5.32	
	Menominee	41N26W29	11-30-82	467	42	"	M	2½	21.8	Sticks	Tapes	Negative	59	-	32.6	7.63	5.83	
	Menominee	39N26W23	12-16-82	472	47	"	M	1½	18.2	Sticks	Ascarids, Taenia, Spirometra	Toxocara, Coccidia, Spirometra	22	-	34.6	8.22	6.19	
3	Delta	42N19W22	10-30-82	024	88	"	M	1½	18.0	Sticks	Ascarids, Taenia	Coccidia, Taenia, Toxocara, Capillaria	26	-	32.0	7.89	6.00	



## 1982-83 BOBCAT DATA - REGION I

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Root (mm)	
																Width	Thickness
3	Delta	40N23W16	02-26-83	450	43	Trapped	F	1½	17.3	Rabbit	Taenia, Spirometra, Ascarids	Toxocara	35	3	30.3	7.00	5.48
	Delta	41N19W23	11-24-82	465	53	"	M	9½	27.6	Rabbit remains	Taenia, Spirometra, Ascarids	Spirometra, Toxocara, Coccidia	62	-	25.0	8.80	6.60
	Delta	40N23W16	12-14-82	471	44	"	F	1½	18.3	Rabbit	Tapes, Ascarids	Toxocara	45	7	29.0	6.98	5.05
	Delta	40N19W5	02-08-83	497	51	"	F	2½	18.9	Rabbit	Tapes	Negative	29	12	28.9	6.60	4.88
	Delta	41N22W6	02-13-83	499	78	Road kill	M	3½	18.9	Hair	Ascarids	Toxocara, Capillaria	81	-	31.4	7.68	5.86
	Delta	41N18W16	01-09-83	537	9	"	F	1½	18.0	Sticks, Bark	Tapes	Negative	52	5	30.4	7.38	5.31
	Delta	-	-	Unk	62	Unk	M	½	17.4	Sticks	Taenia, Spirometra, Ascarids	Toxocara	129	-	31.5	7.76	6.18
	Delta	-	-	Unk	61	Unk	F	½	11.2	Sticks	Ascarids, Spirometra	Toxocara	89	0	27.5	7.37	5.65
	Delta	-	-	Unk	60	Unk	M	1½	12.9 **	Blood clot	Ascarids, Spirometra, Taenia	Toxocara	12	-	32.3	8.10	5.87
	Delta	-	-	Unk	59	Unk	F	1½	15.3	Sticks	Ascarids, Taenia	Negative	110	3	25.8	6.84	5.00
	Delta	-	-	Unk	58	Unk	M	½	5.8	Hair & meat	Ascarids	Toxocara	16	-	23.2	7.90	5.80
	Delta	-	-	Unk	57	Unk	F	1½	14.7 ***	-	-	Toxocara, Physaloptera	-	6	31.4	6.97	5.25

\*\*Part of leg missing  
\*\*\*Partially eviscerated

## 1982-83 BOBCAT DATA - REGION I

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Root (mm)	
																Width	Thickness
3	Delta	-	-	Unk	56	Unk	M	½	8.2	Rabbit remains	Ascarids, Taenia	Toxocara, Trichuris, Coccidia	24	-	27.5	7.36	5.70
	Delta	-	-	Unk	55	Unk	F	½	14.8	Rabbit hair	Ascarids	Toxocara	87	0	28.9	6.60	5.08
	Delta	-	-	Unk	54	Unk	F	½	9.0	Deer hair	Ascarids, Spirometra	Toxocara	74	0	28.5	6.53	4.96
	Marquette	45N30W10	10-25-82	201	40	Shot	M	½	5.3	Deer hair, Squirrel remains	Ascarids, Taenia	Capillaria	17	-	20.8	7.60	5.56
	Marquette	46N29W15	01-18-83	381	52	Trapped	F	½	11.0	Sticks	Negative	Capillaria	63	0	28.2	7.25	5.60
4	Alger	49N14W11	10-30-82	563	93	"	M	½	10.2	Porcupine fur, and Sticks	Ascarids, Spirometra	Toxocara	64	-	21.3	7.46	5.50
	Alger	49N14W11	10-31-82	565	98	"	M	½	9.1	Sticks & Hair	Ascarids, Spirometra	Toxocara	34	-	24.0	7.20	5.40
	Chippewa	45N1W26	10-26-82	501	68	"	M	1½	21.3	Sticks	Spirometra, Ascarids	Negative	34	-	32.4	7.76	5.93
	Chippewa	45N2E5	10-27-82	502	75	"	M	3½	24.4	Beaver remains	Taenia	Negative	37	-	32.5	8.21	5.81
	Chippewa	41N7E20	12-23-82	601	25	Shot	F	1½*	19.1 *	Empty	Tapes, Ascarids	Toxocara, Spirometra, Capillaria	156	4	*	*	*
	Luce	48N10W6	10-31-82	566	74	Trapped	F	1½	17.7	Deer hair & Sticks	Ascarids, Taenia, Spirometra	Coccidia	26	7	31.5	7.15	5.46

\*Headless

## 1982-83 BOBCAT DATA - REGION I

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Width (mm)	Root Thickness (mm)
4	Mackinac	43N1W24	10-31-82	503	87	Trapped	M	2½	24.8	Sticks, Hair	Taenia, Spirometra	Toxocara	14	-	35.0	8.75	6.50
	Mackinac	42N7W6	02-12-83	587	82	"	M	2½	26.3	Hare & Deer remains	Negative	Negative	87	-	31.7	7.64	5.62
	Mackinac	39N1W2	02-12-83	1092	23	Hit with a stick	F	1½	9.8	Empty	Negative	Negative	10	6	30.8	7.07	5.12
	Schoolcraft District 4	46N14W18	10-25-82	561	86	Trapped	F	1½	15.1	Sticks	Ascarids	Spirometra	47	4	30.6	7.07	5.14
	District 4	-	-	618	94	Unk	M	1½	23.1	Empty	Negative	Aleuro-strongylus	27	-	33.5	8.26	6.54
	District 4	-	-	Unk	90	Unk	M	½	10.5	Sticks	Spirometra	Negative	117	-	28.7	7.71	5.74
	District 4	-	-	Unk	84	Unk	M	2½	23.8	Empty	Taenia, Spirometra	Capillaria	73	-	32.6	7.40	5.90
	District 4	-	-	Unk	81	Unk	F	2½	15.0	Porcupine remains	Taenia	Negative	77	8	29.9	6.67	5.20
	District 4	-	-	Unk	70	Unk	M	2½	26.3	Hare & Deer Hair	Ascarids, Taenia, Spirometra	Capillaria, Coccidia, Unidentified larvae	60	-	33.3	8.22	6.25
	U.P.	-	-	Unk	11	Unk	M	6½	28.8	Hair, Blood	Toxocara	Capillaria	88	-	33.4	8.24	6.30
	U.P.	-	-	Unk	89	Unk	F	1½	11.7	Small amt. of fluid	Taenia, Spirometra	Toxocara	19	8	28.6	6.75	5.06

## 1982-83 BOBCAT DATA - REGION II

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Width (mm)	Root Thickness (mm)
5	Alpena	31N6E28	02-26-83	971	39	Shot	M	½	15.0	Deer hair	Spirometra	Negative	99	-	30.3	8.00	6.05
	Charlevoix	-	03-03-83	Unk	102	Road kill	F	½	13.0	Black squirrel	Ascarids, Spirometra	Toxocara	69	3	29.0	6.70	5.40
	Cheboygan	34N1E13	01-26-83	881	27	Shot	M	Ad	18.0	Hare, Hair & Remains	Negative	Negative	37	*	*	*	*
	Cheboygan	33N1W8	01-30-83	1007	95	Shot	M	3½	22.2	Empty	Negative	Negative	91	-	32.2	8.10	5.95
	Cheboygan	33N1W12	01-26-83	1009	91	Shot	F	2½	16.0	Song bird & Hare remains	Negative	Capillaria, Coccidia	29	9	30.4	7.10	5.25
	Cheboygan	34N1E17	01-12-83	1053	18	Shot	F	½	7.1	Hare hair	Tapes	Coccidia	71	0	18.8	6.40	4.25
	Cheboygan	35N2W14	01-24-83	1061	83	Shot	F	1½	11.5	Sticks, Blood	Taenia, Ascarids	Toxocara, Taenia, Capillaria	14	8	30.0	6.68	5.00
	Cheboygan	33N1E5	01-27-83	1062	26	Shot	M	5½	21.1	Deer hair	Tapes	Aleuro-strongylus	108	-	33.2	8.40	6.40
	Cheboygan	34N1W34	01-28-83	1064	97	Shot	M	2½	22.1	Deer hair	Ascarids	Toxocara	70	-	32.4	7.60	5.54
	Cheboygan	33N1W11	02-15-83	1072	100	Shot	F	4½	15.0	Hair	Negative	Negative	44	16	30.2	7.50	5.50
	Cheboygan	33N1W11	02-10-83	1095	17	Shot	M	½	11.2	Deer, Hare hair	Negative	Negative	77	-	28.6	6.80	5.57
	Cheboygan	34N1E30	02-09-83	1097	24	Shot	F	Ad	12.8	Deer hair	Negative	Coccidia, Spirometra, Taenia	53	20	*	*	*
	Emmet	39N4W29	01-18-83	1057	16	Shot	M	1½	18.4	Black squirrel	Tapes	Coccidia	48	-	32.2	7.77	5.70
	Montmorency	31N1E29	02-07-83	732	21	Shot	F	4½	15.0	Porcupine Grouse feathers	Ascarids	Negative	74	13	28.2	6.88	5.07

\*Headless



## 1982-83 BOBCAT DATA - REGION II

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Root (mm)	Width	Thickness
5	Otsego	31N1W27	02-05-83	730	19	Shot	F	1½	16.9	Empty	Tapes, Ascarids	Negative	81	3	30.2	7.22	5.50	
	Otsego	31N1W22	02-06-83	731	20	Shot	F	3½	14.3	Porcupine quills & hair	Negative	Negative	67	14	31.0	6.90	5.21	
	Otsego	31N1W27	01-23-83	948	15	Shot	M	5½	20.6	Rodent or Rabbit hair	Ascarids	Toxocara	79	-	33.0	8.16	6.33	
	Otsego	31N1W24	01-22-83	949	14	Shot	M	3½	23.7	Deer hair & muscle	Tapes, Ascarids	Toxocara	78	-	34.0	8.00	6.10	
	Presque Isle	35N3E24	02-25-83	854	66	Unk	M	Ad	20.8	Rabbit	Ascarids	Toxocara	110	-	*	*	*	
	Presque Isle	37N2E	12-11-82	1000	22	Shot	M	7½	24.8	Deer hair	Tapes	Negative	57	-	28.4	7.90	6.16	
	Presque Isle	36N2E22	02-07-83	1096	85	Shot	M	1½	19.5	Hair & Meat	Ascarids, Taenia, Spirometra	Negative	107	-	32.7	8.17	6.09	
	Presque Isle	33N3E13	01-14-83	1165	38	Shot	F	5½	18.2	Sticks	Negative	Negative	131	11	32.4	7.11	5.62 **	
	District 5	-	Unk	1024	99	Unk	F	1½	13.7	Sticks, Hair	Ascarids	Toxocara	73	2	28.8	6.70	4.96	
7	Alcona	28N8E25	09-30-82	701	30	Road kill	M	1½	18.0	Mucous	Ascarids	Toxocara	29	-	30.6	7.84	6.25	
	Alcona	27N6E26	01-01-83	702	28	Shot	F	½	13.0	Deer hair & Meat	Ascarids	Toxocara	127	0	29.5	6.85	5.50	
	Alcona	25N9E16	12-28-82	703	36	Caught in minn set	F	½	3.8	Empty	Negative	Capillaria, Spirometra	22	0	13.9	5.55	3.90	

\*Headless

\*\*One ovary malformed, C.L. are all old

## 1982-83 BOBCAT DATA - REGION II

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Root (mm)	Width	Thickness
7	Alcona	27N6E26	01-08-83	704	33	Shot	M	10½	32.5	Deer hair	Ascarids	Negative	239	-	30.8	8.93	6.90	
	Alcona	26N6E10	01-08-83	705	34	Shot	M	3½	21.0	Deer hair	Tapes	Negative	61	-	32.4	7.55	6.07	
	Alcona	27N8E15	01-09-83	707	35	Shot	M	8½	22.8	Sticks	Negative	Negative	75	-	36.2	8.66	6.26	
	Alcona	26N6E11	02-06-83	708	29	Shot	M	2½	26.0	Deer hair & Meat	Ascarids, Tapes	Taenia	64	-	34.6	8.32	6.28	
	Alcona	25N9E29	02-08-83	709	64	Shot	F	2½	14.7	Rodent remains	Negative	Negative	75	9	29.6	6.65	5.00	
	Alcona	27N8E1	05-05-83	712	103	Road kill	M	½	9.9	Deer hair	Negative	Negative	56	-	29.6	7.30	5.82	
	Alcona	26N6E4	01-13-83	749	32	Shot	M	½	12.9	Empty	Tapes	Strongyle eggs	109	-	29.8	7.26	6.02	
	Alcona	26N6E4	01-13-83	750	31	Shot	M	½	13.9	Porcupine remains	Ascarids	Toxocara, Strongyle eggs	67	-	31.4	7.97	6.12	
	Crawford	25N3W18	04-18-83	Unk	104	Road kill	F	½	11.9	Mucous	Ascarids, Tapes	Negative	64	3	29.8	7.07	5.26	
	Ogemaw	23N3E19	11-19-82	Unk	2	Illegal kill	M	1½	20.3	Grass	Taenia	Taenia, Capillaria, Spirometra	60	-	31.7	7.65	5.90	
	Oscoda	25N2E8	01-09-83	754	12	Shot	M	3½	25.0	Deer remains	Negative	Negative	62	-	32.0	7.56	6.09	
	Oscoda	25N2E8	01-16-83	755	13	Shot	F	4½	18.4	Porcupine remains	Negative	Uncinaria	83	14	29.8	6.50	4.72	
	Oscoda	26N1E27	10-07-82	Unk	65	Road kill	F	2½	11.0	Empty	Tapes	Negative	20	11	28.5	6.14	4.71	
	Oscoda	26N3E24	01-19-83	Unk	37	Road kill	F	1½	16.5	Deer & Rodent hair	Ascarids	Negative	48	5	28.3	6.60	4.62	

\* 1 leg partially eaten

\*\* Part of right rear leg missing

\*\*\* Left front leg missing

## 1982-83 BOBCAT DATA - REGION II

District	County	Township Range Section	Date Harvested	Seal Number	Lab Number	How taken	Sex	Age	Wt. (lbs) (skinned)	Stomach Contents	Parasites	Fecal Exam	Kidney fat Index	Corpora Lutea	Total Canine Length (mm)	Maximum Canine Root (mm)	Width	Thickness
7	District 7	-	Unk	Unk	63	Unk	M	2½	15.8	Sticks	Negative	Negative	30	-	31.7	8.65	6.55	
8	Midland	14N2W14	09-08-82	751	1	Road kill	M	1½	18.7	Empty	Ascarids, Tapes	Toxocara	44	-	33.0	7.30	5.57	

\*Hindquarters chewed

