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

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BOBCAT SURVEY - 1981-82

by

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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 1981-82, the Wildlife Division undertook collection of hunter and trapper harvested bobcats (Felis rufus) in order to increase knowledge of this species and to evaluate possible field techniques for sex and age determination.

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

Materials and Methods

Each skinned bobcat carcass was weighed and the sex of the animal determined. Various skeletal and dental measurements were 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, mandibular and femur fat (Purol 1977, Riney 1955).

Reproductive history was established by ovarian inspection and by classification of corpora lutea (C.L.) condition (Crowe 1975). Female reproductive tracts were preserved in Mossman's AFA Fixative and the total number of C.L. determined by thin sectioning (1-3 mm) of the ovaries.

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

Results and Discussion

The material analyzed for physical condition estimates varied in reliability. Kidney fat (Tables 6 and 13) and femur marrow fat levels were significant and measurable whereas mandibular marrow fat levels were not. The mandible appears to be a poor location for fat deposition.

There appears to be a correlation between the sex and weight of the bobcats in both regions with males weighing more than females of the same age (Tables 3 and 10). There is, however, an overlap in the weights between age classes. The skeletal (Tables 4 and 11) and dental measurements (Tables 5 and 12) may also show this correlation, but the data will be analyzed at a later date.

Region I

The sex ratio of the bobcats examined from Region I (Table 1) was 41:28, males to females, agreeing with the findings of Erickson (1955), Hoppe (1980), and Cooley et al. (1981). The young-of-the-year percentage was down slightly from last year, but the age groups 0 to 3 years again made up over 80% of the total animals harvested and submitted. The yearling age class was greatest in occurrence.

Because of the small sample size, the C.L. counts (Table 2) may not be reflective of the population. However, nearly 40 percent of the 1-2 year age class animals showed evidence of having cycled twice in one breeding season. This is the second year in a row that this phenomena has been seen in the Region I bobcats.

Only 1.4% of the bobcats examined were free from parasites (Table 7). Over three quarters of the bobcats had tapeworms of the genera Taenia and Spirometra and/or ascarids of the genus Toxocara. Both of these rates of infection are considerably higher than last year's collection (Cooley et al. 1981).

Region II

The sex ratio of the bobcats examined from Region II (Table 8) was skewed heavily towards males (20:7). This is a much higher figure than has been reported before. Over forty percent of the animals were young-of-the-year, and nearly 75 percent were in the age classes 0-3 years.

Because of the small number of females submitted it is difficult to conclude much from the C.L. counts (Table 9), but it does not appear that there has been a heat period recycling.

Eleven percent of the bobcats from Region II were free of parasites (Table 14). As was seen last year, the highest incidence of infection (74%) was seen with the ascarids (Toxocara sp.), while the tapeworms (Spirocerca sp. and Taenia sp.) were next highest with 33%.

Management Application

The collection and examination of bobcat carcasses provided additional baseline information. The development of new sexing and aging techniques 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

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Table 1. Estimated age ratio of Region I bobcats

Age	Number	Sex M	Sex F	Percent of Total
½	24	13	11	34.78
1½	25	12	13	36.23
2½	9	6	3	13.04
3½	2	2	0	2.90
4½	4	4	0	5.80
5½	0	-	-	-
6½	0	-	-	-
7½	1	1	0	1.45
8½	2	1	1	2.90
9½	1	1	0	1.45
Adult	1	1	0	1.45
TOTALS	69	41	28	100.00

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

Age	No. of Corpora Lutea/Set of Ovaries
½	0
1½	3-10
2½	8-11
3½	---
4½	---
5½	---
6½	---
7½	---
8½	25

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

Age	Male	Female
0-1	10.6 (6.0-15.4)	8.2 (5.0-15.1)
1-2	23.5 (18.0-27.2)	12.7 (7.7-16.0)
2-3	22.0 (15.3-25.4)	15.4 (11.5-20.1)
3-4	26.2 (23.1-29.3)	---
4-5	26.3 (22.2-29.4)	---
5-6	---	---
6-7	---	---
7-8	22.7	---
8-9	17.5	17.6
9-10	21.5	---
Adult	26.5	---

Table 4. Mean skeletal measurements of Region I bobcats (skinned carcasses)

Age & Sex	Body Length (mm)	Skull Length (mm)	Skull Width (mm)	Hind Ft. Length (mm)	Mandible Length (mm)
0-1 M	616.16(550-650)	115.08(109-121)	77.62(74-83)	158.83(149-168)	73.54(69-78)
0-1 F	570.47(535-620)	107.30(100-113)	73.00(70-78)	142.44(125-157)	68.70(64-76)
1-2 M	712.43(685-810)	137.42(128-142)	93.42(86-97)	176.67(165-185)	88.83(82-93)
1-2 F	689.62(670-710)	121.77(119-127)	82.38(76-88)	157.55(144-171)	80.31(76-88)
2-3 M	763.28(740-810)	140.00(136-147)	95.67(92-100)	169.50(150-180)	90.67(86-94)
2-3 F	710.00(690-740)	126.00(122-131)	87.67(84-95)	163.67(157-170)	84.33(77-88)
3-4 M	805.00(800-810)	144.00(138-150)	99.50(95-104)	175.00(170-180)	92.50(88-97)
3-4 F	---	---	---	---	---
4-5 M	795.00(785-805)	141.25(136-144)	98.25(96-100)	172.50(160-184)	97.00(93-106)
4-5 F	---	---	---	---	---
5-6 M	---	---	---	---	---
5-6 F	---	---	---	---	---
6-7 M	---	---	---	---	---
6-7 F	---	---	---	---	---
7-8 M	775.00	133.00	96.00	155.00	89.00
7-8 F	---	---	---	---	---
8-9 M	760.00	NA	94.00	NA	NA
8-9 F	725.00	127.00	92.00	NA	86.00
9-10 M	765.00	140.00	101.00	170.00	93.00
9-10 F	---	---	---	---	---
Adult M	800.00	NA	NA	NA	NA
Adult F	---	---	---	---	---

Table 8. Estimated age ratio of Region II bobcats

Age	Number	Sex M	Sex F	Percent of Total
0-1	11	9	2	40.8
1-2	6	3	3	22.2
2-3	3	2	1	11.1
3-4	1	1	0	3.7
4-5	3	2	1	11.1
5-6	0	0	0	0
6-7	2	2	0	7.4
Adult	1	1	0	3.7
TOTALS	27	20	7	100.0

Table 9. Reproductive data analysis of female bobcats in Region II

Age	No. of Corpora Lutea/Set of Ovaries
0-1	0
1-2	3-6
2-3	9
3-4	---
4-5	---
5-6	---
6-7	---
Adult	---

Table 10. Mean weight (lbs.) of Region II bobcats (skinned carcasses)

Age	Male	Female
0-1	12.78 (4.5-18.8)	10.35 (9.9-10.8)
1-2	22.07 (19.8-24.5)	14.33 (13.1-16.8)
2-3	21.65 (20.2-23.1)	15.10
3-4	28.40	---
4-5	26.60	10.10 (eviscerated)
5-6	---	---
6-7	---	---
Adult	25.10 (decapitated)	---

Table 11. Mean skeletal measurements of Region II bobcats (skinned carcasses)

Age and Sex		Body Length (mm)	Skull Length (mm)	Skull Width (mm)	Hind Ft. Length (mm)	Mandible Length (mm)
0-1	M	623.33(490-700)	115.67(94-127)	77.33(69-81)	156.14(148-165)	72.00(58-77)
0-1	F	605.00(570-640)	113.50(110-117)	77.00(73-81)	140.00	72.50(69-76)
1-2	M	750.00(730-760)	136.33(131-139)	92.33(91-95)	171.00(165-177)	88.00(86-90)
1-2	F	690.00(670-720)	121.67(118-127)	82.00(80-85)	154.50(153-156)	78.33(76-81)
2-3	M	760.00	135.00(133-137)	91.50(89-94)	168.00(167-169)	90.00
2-3	F	680.00	114.00	84.00	NA	NA
3-4	M	790.00	145.00	99.00	172.00	97.00
3-4	F	---	---	---	---	---
4-5	M	810.00(790-830)	147.00	101.00	170.00	94.00(93-95)
4-5	F	690.00	124.00	86.00	155.00	84.00
5-6	M	---	---	---	---	---
5-6	F	---	---	---	---	---
6-7	M	762.50(760-765)	137.00(135-139)	94.50(94-95)	NA	90.50(90-91)
6-7	F	---	---	---	---	---
Adult	M	NA	NA	NA	NA	NA

1981-82 BOBCAT DATA

Region I

District	County	Date Harvested	Seal No.	Lab No.	How Taken	Sex	Age	Wt. (lbs.) (skinned)	Stomach Contents	Parasites	Fecal Examination	Kidney Fat Index	Mandibular Fat (%)	Femur Fat (%)	Corpora Lutea	Lab No.	Body Length (mm)	Skull Length (mm)	Skull Width (mm)	Hind Foot Length (mm)	Mandible Length (mm)	Canine Root Length (mm)	Maximum Canine Root (mm) Width	Maximum Canine Root (mm) Thickness	Canine Gumline (mm) Width	Canine Gumline (mm) Thickness	Pulp Cavity at Gumline (mm) Width	Pulp Cavity at Gumline (mm) Thickness
1	Baraga	11-05-81	1221	17	Trapped	M	½	8.8	Sticks	Negative	TO, SP, PH	25	6.61	---	---	17	610	112	78	155	72	8.00	7.75	5.00	NA	4.20	NA	3.50
	Baraga	11-09-81	1222	18	Trapped	F	½	6.8	Sticks, fur	Negative	TO, SP	33	5.93	---	0	18	570	105	71	147	67	11.00	6.20	4.85	5.90	4.60	4.80	3.50
	Baraga	02-01-82	01016	64	Trapped	F	½	8.6	Blood	Tapes	Negative	86	44.74	67.86	0	64	600	107	72	148	67	17.00	6.32	5.16	6.10	5.05	3.15	2.35
	Houghton	11-13-81	1228	22	Trapped	F	1½	15.1	Sticks	Tapes	TO, SP, AN	42	19.97	---	3	22	700	127	83	160	81	18.55	7.25	5.30	6.55	5.00	1.65	1.25
	Keewenaw	10-27-81	1276	11	Trapped	M	1½	14.6	Fur	Tapes, Ascarids	TO	36	12.41	---	---	11	685	128	86	165	82	19.49	7.41	5.65	7.35	5.45	2.40	1.55
2	Dickinson	12-22-81	108	35	Trapped	F	2½	20.1	Empty	Tapes	TO, SP	37	50.32	---	8	35	740	131	95	170	88	19.33	7.71	5.80	7.05	5.45	1.35	1.20
	Dickinson	10-30-81	101	23	Trapped	M	½	8.9	Sticks, fur	Tapes	SP	20	1.75	---	---	23	620	115	78	155	73	11.00	7.90	5.60	7.70	5.70	6.50	4.40
	Dickinson	11-01-81	161	25	Trapped	M	2½	20.0	Empty	Negative	TO	19	49.16	---	---	25	770	140	94	180	92	19.46	7.81	5.90	7.60	5.65	2.05	1.40
	Dickinson	10-28-81	148	21	Trapped	F	1½	14.8	Sticks	Tapes, Ascarids	TO, SP	34	37.10	---	10	21	675	122	93	150	82	17.87	6.83	5.20	6.55	5.10	1.80	1.30
	Dickinson	10-28-81	147	16	Trapped	M	1½	23.2	Sticks	Tapes, Ascarids	TO	22	48.22	---	---	16	760	138	95	179	91	19.84	7.66	6.05	7.55	5.90	2.05	1.60
	Dickinson	11-17-81	104	13	Shot	M	½	15.4	Hair, meat, rabbit fur	Negative	TO, SP	41	5.27	---	---	13	645	121	83	168	76	15.00	7.65	5.40	7.35	5.30	5.50	3.40
	Dickinson	11-11-81	103	12	Trapped	M	1½	22.5	Sticks	Tapes, Ascarids	TO	30	23.89	---	---	12	790	139	93	170	87	20.08	7.66	5.78	7.40	5.55	1.75	1.30
	Dickinson	02-19-82	1509	53	Trapped	F	1½	7.7 (dehydrated)	Empty	Negative	TO, CA	10	2.51	0.10	7	53	700	123	83	164	80	15.60	6.65	5.16	6.50	5.20	1.40	1.35
	Iron	10-27-81	146	8	Trapped	F	1½	12.4	Sticks	Negative	TO, SP	15	23.07	---	7	8	680	120	83	144	80	18.22	6.63	5.12	6.40	4.95	1.60	1.50
	Iron	11-05-81	152	9	Trapped	F	1½	16.0	Sticks, fur	Tapes	Negative	60	42.45	---	4	9	680	119	82	NA	79	17.20	7.08	4.74	6.60	4.75	1.55	1.30
	Iron	11-14-81	154	14	Trapped	M	2½	24.5	Sticks	Negative	TO, SP	81	40.20	---	---	14	760	137	100	165	92	21.11	8.56	6.25	7.20	5.70	1.26	1.00
	Iron	11-15-81	155	4	Trapped	F	1½	11.1	Empty	Tapes	TO, TA	21	19.74	---	3	4	670	122	82	152	76	19.95	7.26	5.45	6.45	5.20	2.00	1.30
	Iron	11-28-81	156	2	Trapped	F	2½	14.7	Sticks	Tapes	SP	11	14.38	---	8	2	700	125	84	164	88	17.59	7.22	5.25	6.70	5.15	1.20	0.95
	Iron	11-30-81	158	10	Trapped	F	1½	13.8	Blood	Tapes	TO	19	33.71	---	6	10	690	120	76	170	78	18.48	7.14	5.52	6.75	5.40	1.80	1.40
	Iron	12-29-81	159	36	Trapped	F	½	5.0	Empty	Tapes	Negative	9	9.81	---	0	36	500	100	70	125	64	5.50	6.90	4.60	6.30	4.65	5.30	3.60
	Iron	12-29-81	195	33	Trapped	F	½	7.1	Sticks, plastic, meat	Negative	CA, CO	32	17.84	---	0	33	535	101	71	135	64	11.50	6.81	4.50	6.60	4.35	5.20	3.00
	Iron	01-27-82	197	97	Trapped	F	½	6.6	Sticks	Tapes	Negative	31	---	55.69	0	97	560	105	72	NA	68	11.90	6.82	5.40	6.70	5.30	4.80	3.45
	Iron	02-22-82	198	101	Trapped	M	½	9.1	Rabbit fur, sticks	Ascarids	Negative	34	---	65.76	---	101	610	116	77	NA	75	16.40	8.37	6.05	7.85	5.95	5.10	3.20
	Menominee	11-10-81	169	39	Trapped	M	½	11.2	Deer hair, rodent tail	Tapes, Ascarids	CA	58	26.59	---	---	39	645	116	78	167	76	15.40	7.80	5.60	7.20	5.60	5.50	3.90
	Menominee	11-20-81	1356	19	Trapped	F	1½	8.5	Empty	Tapes	SP, CA	8	.52	---	4	19	710	120	84	171	88	15.86	7.00	5.11	6.75	5.15	2.00	1.50
	Menominee	12-02-81	1358	20	Trapped	M	½	9.1	Sticks, deer hair	Tapes	TO, TA	19	9.07	---	---	20	600	112	78	161	71	7.00	8.04	5.35	7.30	5.40	6.30	4.45
	Menominee	12-30-81	110	34	Trapped	F	1½	15.6	Sticks, deer hair	Negative	TO, CO	57	81.43	---	5	34	690	120	85	160	81	17.20	6.85	5.28	6.45	5.05	1.30	1.15
	Menominee	12-28-81	163	37	Trapped	M	1½	27.2	Deer remains	Ascarids, Tapes	TA	83	79.90	---	---	37	770	142	97	181	88	19.59	8.15	5.93	7.10	5.60	1.95	1.50
	Menominee	01-17-82	2544	55	Trapped	F	1½	12.0 (dehydrated)	Blood	Ascarids	TO	41	65.98	---	3	55	690	123	81	164	80	15.64	7.27	5.21	7.10	5.20	1.85	1.65
	Menominee	03-13-82	1602	100	Trapped	F	½	5.0	Sticks, blood	Negative	CA	12	.26	---	0	100	600	110	74	145	71	13.25	6.74	5.17	6.65	5.20	4.35	3.00
	Menominee	03-13-82	1603	99	Trapped	M	2½	15.3	Sticks, blood	Ascarids	TO, SP	11	51.10	---	---	99	740	136	92	172	87	16.20	7.20	5.35	7.05	5.35	1.05	1.20
	District 2	---	Unk.	24	---	M	1½	24.9	Sticks	Ascarids	TO	41	47.60	---	---	24	770	137	93	181	90	17.27	8.36	6.71	8.00	6.55	3.00	2.00
	District 2	---	Unk.	102	---	M	½	6.0	Empty	Tapes	CO	19	6.00	---	---	102	550	109	74	145	69	11.40	7.55	5.10	7.25	5.00	6.10	4.10
3	Delta	11-22-81	1351	6	Trapped	F	½	9.8	Empty	Tapes, Ascarids	TO, CA, SP	70	5.82	---	0	6	590	113	74	150	69	13.00	7.52	5.30	7.50	5.40	6.20	4.00
	Delta	12-05-81	1384	58	Shot	F	8½	17.6	Fur, needles	Tapes, Ascarids	CO	73	28.46	---	25	58	725	127	92	NA	86	15.16	6.90	5.04	6.85	5.05	0.85	1.00
	Delta	11-01-81	161	26	Trapped	M	1½	25.9	Deer hair	Tapes, Ascarids	SP	66	38.43	---	---	26	810	141	94	185	92	18.54	7.93	5.56	7.30	5.30	1.85	1.25
	Delta	12-09-81	1147	41	Shot	M	Adult	26.5	Deer remains	Negative	SP	77	NA	---	---	41	800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Delta	12-19-81	1363	5	Trapped	M	9½	21.5	Sticks, fur	Tapes	TO	19	76.86	---	---	5	765	140	101	170	93	17.37	8.07	6.06	7.45	5.90	0.95	1.00
	Delta	12-18-81	1365	7	Trapped	M	2½	23.7	Black squirrel remains	Ascarids	TO, CO, SP	20	64.88	---	---	7	760	140	97	150	93	20.72	8.05	6.18	7.90	5.95	1.75	1.35
	Delta	01-03-82	1314	57	Trapped	M	½	9.1 (dehydrated)	Carrion--tissue, viscera	Tapes, Ascarids	TO, CO	28	6.60	---	---	57	570	114	77	160	72	14.40	7.70	5.90	7.45	5.70	5.25	3.60
	Delta	01-30-82	1388	60	Trapped	F	½	5.2 (dehydrated)	Empty	Ascarids	TO	13	---	0.28	0	60	560	NA	74	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Delta	09-17-81	Unk.	63	Road kill	M	4½	28.0	Rodent hair	Tapes	Negative	47	61.70	---	0	63	800	143	98	163	106	18.50	7.63	5.97	7.25	5.75	0.90	1.15
	Delta	02-13-82	1508	56	Trapped	M	3½	29.3	Hair, sticks	Ascarids	TO	46	42.30	84.12	---	56	810	150	104	190	97	17.80	8.38	6.32	7.75	6.20	1.40	1.25
	Delta	02-27-82	1511	51	Trapped	M	7½	22.7	Feathers	Negative	SP, TR	69	84.98	84.58	---	51	775	133	96	155	89	15.27	8.40	6.28	8.40	6.25	0.95	1.05
	Delta	02-01-82	1390	95	Trapped	M	8½	17.5	Deer & rabbit remains	Ascarids	TO	34	51.34	---	---	95	760	NA	94	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Marquette	01-31-82	1503	50	Trapped	F	½	6.2	Rodent hair	Tapes, Ascarids	TO, TA, CO	25	6.96	---	0	50	570	107	75	135	71	15.25	6.14	5.01	6.00	4.90	3.65	2.65
	Marquette	11-11-81	1293	15	Trapped	M	3½	23.1	Sticks	Tapes	SP	33	18.23	---	---	15	800	138	95	170	88	19.78	7.57	6.12	6.80	5.65	1.25	1.15
	Marquette	11-27-81	1357	3	Trapped	M	½	12.4	Meadow vole--hair & feathers	Tapes	SP, TR, CO	29	9.14	---	---	3	650	120	79	165	75	14.00	8.50	5.05	8.15	5.00	8.70	3.50
	Marquette	01-02-82	1369	61	Trapped	M	½	10.9	Feathers, deer hair	Ascarids	TO	30	4.80	---	---	61	610	113	76	149	72	12.50	8.40	6.00	7.90	5.65	6.15	3.95
	Marquette	01-06-82	1315	54	Trapped	M	½	12.3	Hair	Tapes, Ascarids	TO, TA	57	11.91	---	---	54	650	118	80	170	78	17.00	8.52	6.41	7.80	6.40	5.45	4.00
	Marquette	01-24-82	1307	52	---	F	½	13.4	Sticks	Ascarids	SP, CO	148	31.17	---	0	52	620	117	78	157	76	14.30	7.19	5.55	6.95	5.50	4.35	2.85
	Marquette	02-82	Unk.	59	---	F	2½	11.5 (dehydrated)	Carrion	Ascarids	TO, SP	19	33.74	---	11	59	590	122	84	157	77	16.00	6.80	5.19	6.85	5.00	1.30	1.45
	Marquette	03-18-82	1513	96	Trapped	M	1½	21.9	Deer hair	Tapes	SP	39	---	65.23	---	96	770	140	95	173	93	14.90	7.45	6.00	7.40	5.90	2.20	1.80
4	Chippewa	02-08-82	38	83	Trapped	M	2½	23.1	Black squirrel	Ascarids	CA, CO	58	---	74.29	---	83	740	NA	93	172	86	14.20	8.02	5.80	7.75	5.70	1.60	1.35
	Chippewa	03-14-82	55	73	Shot	M	1½	25.5	Deer hair, squirrel remains	Ascarids	TO	72	---	68.99	---	73	780	140	96	174	88	16.52	8.15	5.85	7.70	5.80	1.30	1.25
	Chippewa	03-13-82	40	90	Shot	M	1½	26.3	Empty	Tapes, Ascarids	Negative	142	---	62.99	---	90	780	138	94	175	90	17.30	8.20	5.00	8.00	5.90	1.90	1.25
	Luce	10-29-81	1190	48	Shot	M	2½	25.4	Deer remains	Tapes	TO	48	41.51	---	---	48	810	147	98	178	94	19.35	8.40	6.56	7.85	6.35	1.70	1.15
	Mackinac	10-25-81	1135	38	Trapped	M	1½	18.0	Sticks	Tapes	TA, CA	25	35.52	---	---	38	700	137	93	173	87	19.56	7.91	5.94	6.95	5.45	2.05	1.45
	Mackinac	01-11-82	1167	85	Shot	M	½	10.8	Deer hair	Negative	Negative	21	---	58.77	---	85	630	114	75	156	74	14.50	7.85	6.00	7.30	5.85	5.55	4.05
	Mackinac	02-13-82	1027	74	Trapped	F	½	9.2	Mass of material	Tapes, Ascarids	Negative	123	---	74.38	0	74	570	108	72	140	70	13.60	8.30	4.85	6.20	4.85	4.10	2.85
	Mackinac	02-13-82	1025	82	Trapped	M	½	10.4	Sticks	Ascarids	Negative	125	---	82.43	---	82	620	116	76	155	73	15.45	8.00	5.61	7.40	5.50	4.90	3.10
	Mackinac	02-13-82	1026	87	Trapped	F	1¼	14.0	Deer hair	Ascarids	TO, CA	74	---	77.15	5	87	710	124	80	148	79	16.40	8.27	4.84	6.05	4.75	0.90	1.20
	Mackinac	01-12-82	35	42	Trapped	F	1½	13.9	Empty	Ascarids, Tapes, Lungworms	TA, CO	18	38.28	---	6	42	670	122	88	150	81	13.75	7.51	5.49	7.25	5.40	2.15	1.65
	Dist. 4	01-08-82	Unk.	72	---	F	1½	13.6	Hair	Tapes, Ascarids	SP	69	---	77.39	5	72	700	121	81	NA	79	14.77	6.60	4.85	6.40	4.80	1.70	1.45
	U.P.	---	Unk.	27	---	M	4½	22.2	Sticks	Tapes	SP	23	39.89	---	---	27	790	136	99	183	93	18.71	8.58	6.15	7.80	5.95	1.15	1.10
	U.P.	---	Unk.	28	---	M	1½	20.4	Sticks, deer hair, bones	Tapes	SP, TO	36	14.47	---	---	28	765	135	91	179	89	17.92	8.06	5.88	7.50	5.70	2.65	1.60
	U.P.	---	Unk.	29	---	M	1½	23.4	Sticks	Tapes	SP, CO	33	12.23	---	---	29	785	138	94	185	89	16.71	8.20	5.74	7.75	5.55	2.50	1.35
	U.P.	---	Unk.	30	---	M	4½	25.9	Sticks, hair	Negative	SP	46	35.61	---	---	30	785	142	96	184	95	17.42	7.77	6.24	7.25	5.85	0.95	1.15
	U.P.	---	Unk.	31	---	M	4½	29.4	Sticks, grass, deer hair, bones	Tapes, Ascarids	SP, TO	113	24.74	---	---	31	805	144	100	160	94	20.31	8.01	6.42	7.45	6.00	3.95	1.75

1981-82 BOBCAT DATA

Region II

ict	County	Date Harvested	Seal No.	Lab No.	How Taken	Sex	Age	Wt. (lbs.) (skinned)	Stomach Contents	Parasites	Fecal Examination	Kidney Fat Index	Mandibular Fat (%)	Femur Fat (%)	Corpora Lutea	Lab No.	Body Length (mm)	Skull Length (mm)	Skull Width (mm)	Hind Foot Length (mm)	Mandible Length (mm)	Canine Root Length (mm)	Maximum Canine Root (mm) Width	Thickness	Canine Gumline (mm) Width	Thickness	Pulp Cavity at Gumline (mm) width	Thickness
	Alpena	01-02-82	343	44	Shot	M	½	13.7	Deer hair	Negative	Negative	106	15.61	---	---	44	650	119	80	160	77	15.10	8.30	6.11	6.00	6.20	5.90	4.00
	Alpena	01-19-82	313	46	Shot	M	Adult	29.1 (decapitated)	Porcupine quills	Tapes, Ascarids	TO, TA, CA	97	NA	---	---	46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Alpena	02-28-82	332	69	Shot	M	¼	16.8	Deer hair	Tapes	CO	127	---	71.69	---	69	700	122	81	165	NA	17.50	7.47	5.99	7.50	6.00	4.20	3.10
	Cheboygan	01-29-82	1010	47	Shot	M	½	24.5	Grouse feet	Tapes, Ascarids	TO	108	43.20	---	---	47	760	139	95	177	90	19.75	8.60	6.50	8.20	6.35	2.25	1.60
	Cheboygan	01-17-82	1096	77	Shot	F	¼	9.9	Empty	Ascarids	TO, TR	100	---	73.73	0	77	570	110	73	140	69	14.20	6.50	4.93	6.20	4.70	4.25	2.75
	Cheboygan	01-15-82	1097	71	Shot	F	¼	16.9	Deer hair	Ascarids	TO	94	---	74.25	3	71	720	127	85	156	83	17.33	7.32	5.40	6.90	5.35	1.35	1.25
	Cheboygan	01-17-82	1091	84	Shot	M	¾	28.4	Deer remains	Negative	TO	102	---	70.57	---	84	790	145	99	172	97	18.60	8.35	6.98	8.20	6.75	1.05	1.15
	Cheboygan	01-18-82	1037	70	Shot	M	½	12.9	Deer hair	Negative	Negative	90	---	52.76	---	70	610	117	79	148	72	14.90	7.64	5.69	7.15	5.50	4.50	3.15
	Cheboygan	01-18-82	1039	81	Shot	M	¼	12.8	Deer hair	Ascarids	Negative	NA	---	58.67	---	81	650	117	79	165	73	15.45	7.52	5.65	7.10	5.45	4.85	3.45
	Cheboygan	01-30-82	1014	67	Shot	M	6½	NA	Blood, hair, porcupine quills	Ascarids	Negative	71				67	760	139	99	NA	91	17.60	8.05	6.20	7.90	6.20	1.25	0.95
	Montmorency	01-01-82	344	79	Shot	M	½	11.2	Empty	Ascarids	TO	99	---	69.77	---	79	630	115	76	153	72	14.50	7.47	5.53	7.10	5.45	5.15	3.70
	Otsego	11-23-81	301	40	Trapped-exposure	M	½	4.5	Vegetation	Ascarids, Tapes	TO	20	11.92	---	---	40	490	94	59	NA	58	1.00	5.80	4.30	5.80	4.20	5.60	3.80
	Presque Isle	01-07-82	1005	76	Shot	M	1½	21.9	Empty	Ascarids	Negative	93	---	71.84	---	76	760	139	97	165	88	17.55	7.81	6.10	7.50	6.05	1.60	1.40
	Presque Isle	01-07-82	1004	66	Shot	M	4½	28.6	Deer hair	Ascarids	CO	109	---	72.71	---	66	790	NA	NA	170	93	15.80	7.65	5.80	7.60	5.75	0.95	1.10
	Presque Isle	01-13-82	346	45	Shot (partly eviscerated)	F	4½	10.1	Deer hair	NA	Strongyle type-poss. from deer	NA	47.53	---	NA	45	690	124	88	155	84	15.50	7.01	5.42	6.90	5.40	0.85	1.00
	Presque Isle	01-13-82	348	49	Shot	M	½	13.5	Deer remains	Tapes	Negative	68	6.16	---	---	49	670	127	81	155	77	16.50	7.84	6.10	7.60	5.90	5.00	2.90
	Presque Isle	01-08-82	1012	65	Shot	M	¾	NA	Deer hair	Tapes	Negative	77	23.94	---	---	65	620	112	77	NA	73	16.25	7.46	5.46	6.70	5.40	4.20	2.90
	Presque Isle	01-10-82	1013	66	Shot	M	4½	NA	Sticks	Ascarids	Negative	122	66.06	---	---	66	630	147	101	NA	95	15.65	8.00	6.65	8.10	6.50	1.25	1.20
	Presque Isle	01-15-82	1015	68	Shot	M	6½	NA	Empty	Negative	Negative	76	---	---	---	68	765	135	94	NA	90	16.45	7.54	5.70	7.45	5.60	0.95	1.20
	Presque Isle	01-08-82	1030	75	Shot	M	2½	23.1	Empty	Tapes, Ascarids	Negative	62	---	61.90	---	75	760	137	89	167	90	15.65	8.35	6.10	8.00	5.90	1.50	1.10
	Presque Isle	02-23-82	1017	92	Shot	M	¼	14.6	Empty	Ascarids	Negative	129	---	68.38	---	92	620	118	78	147	74	15.20	7.40	5.52	7.00	5.55	5.00	3.75
	Presque Isle	02-23-82	1018	89	Shot	M	2½	20.2	Empty	Ascarids	Negative	49	---	---	---	89	760	133	94	169	90	15.70	7.48	5.70	7.10	5.60	1.60	1.25
	Benzie	11-15-81	3272	43	Shot	F	2½	15.1	Deer hair	Ascarids	Negative	68	NA	---	9	43	680	114	84	NA	NA	15.70	5.78	4.60	5.50	4.50	1.10	0.80
	Wexford	10-12-81	Not sealed	32	Road kill	F	1½	13.1	Red & black squirrels, small rodent	Ascarids	SP	29	44.01	---	5	32	680	116	81	153	76	16.11	6.22	4.73	5.80	4.60	1.35	1.10
	Alcona	01-02-82	2705	80	Shot	F	½	10.8	Empty	Ascarids	CO	98	---	72.33	0	80	640	117	81	NA	76	17.15	6.90	5.44	6.65	5.25	3.50	2.90
	Roscommon	12-10-81	Not sealed	94	Illegal kill	M	1½	19.8	Feathers, hair	Ascarids	TO, CA	80	---	70.15	---	94	730	137	91	NA	86	16.50	6.11	5.85	7.90	5.80	2.40	1.50
	Dist. 7	Unknown	Not sealed	93	Illegal kill	F	1½	13.1	Rodent hair	Ascarids, Tapes	CO, SP	41	---	52.52	6	93	670	120	80	NA	78	16.10	6.93	5.10	6.60	5.00	1.80	1.45

1981-82 BOBCAT DATA

Region III

tct	County	Date Harvested	Seal No.	Lab No.	How Taken	Sex	Age	Wt. (lbs.) (skinned)	Stomach Contents	Parasites	Fecal Examination	Kidney Fat Index	Mandibular Fat (%)	Femur fat (%)	Corpora Lutea	Lab No.	Body Length (mm)	Skull Length (mm)	Skull Width (mm)	Hind Foot Length (mm)	Mandible Length (mm)	Canine Root Length (mm)	Maximum Canine Root (mm) Width	Thickness	Canine Gumline (mm) Width	Thickness	Pulp Cavity at Gumline (mm) width	Thickness
	Kent	12-10-81	Not sealed	1	Road kill	M	1½	23.3	Deer hair	Ascarids, Tapes, Fleas	TO	NA	28.06	---	---	1	750	NA	NA	157	90	23.00	9.30	6.30	7.60	6.00	1.90	1.70