



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

Report No. 3218
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RIVER OTTER SURVEY - 1993-1994 ^[1]

by

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Introduction

In order to allow export of river otter (*Lutra canadensis*) under the Convention on International Trade in Endangered Species (CITES), the Fish and Wildlife Service compiles data on the harvest and status of river otter. This is the fourteenth consecutive year of the otter survey in Michigan (Cooley et al. 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993). The data has been used as documentation to verify the stability of populations and to allow continued harvest and exportation of pelts.

During the winter of 1993-94, the Wildlife Division collected river otter from trappers. Skinned otter carcasses were donated by trappers throughout Michigan, and sex and age was determined. The data were summarized for the state (Appendix I).

Materials & Methods

The sex of each skinned otter carcass was determined and a lower canine tooth removed. Age was estimated by radiographing the tooth to determine the width of the pulp cavity (Kuehn and Berg 1982, personal communication) and by counting cementum annuli in longitudinal thin sections of the tooth root (Stephenson 1977).

Results and Discussion

Due to the small usable sample size (49 examined from a harvest of 1,217 animals), the data for the river otter was summarized on a statewide basis (Table 1). The sex ratio of the submitted otter was 58:100 (18:31) males to females. The most prominent age class represented was the 0-1 year-old class with 37% of the examined animals in this category. The 0-3 year-old age classes comprised 80% (39/49) of the total animals examined.

Management Application

The collection and examination of carcasses provided additional information on otter. These data, in conjunction with future information, will allow the Wildlife Division to develop a management model and to help assure Michigan trappers the opportunity to harvest and export this furbearing species in the future.

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Table 1. Estimated age and sex ratio of Michigan otter 1993-94 (all Regions).

Age	Number	Male	Female	Percent of Total
0-1	18	5	13	36.7
1-2	13	7	6	26.5
2-3	8	2	6	16.3
3-4	6	1	5	12.2
4-5	2	1	1	4.1
5-6	1	1	0	2.0
6-7	1	1	0	2.0
Totals	49	18	31	100

APPENDIX I.

1993-94 OTTER DATA

Region	District	County	Location			Date			Seal #	Age Est.	Sex
			Twp.	Rng.	Sec.	Mo.	Da.	Yr.			
I	1	Baraga	49N	34W	20	11	6	93	9301691	5.5	M
I	1	Houghton	54N	34W	07	11	12	93	9300065	0.5	F
I	1	Houghton	55N	34W	06	12	20	93	9300056	3.5	F
I	1	Houghton	52N	35W	28	11	17	93	9300049	0.5	M
I	1	Houghton	54N	34W	07	10	30	93	9300064	0.5	M
I	1	Houghton	53N	36W	21	3	18	94	9300085	4.5	M
I	2	Iron	44N	31W	22	10	29	93	9300530	2.5	F
I	2	Iron	44N	31W	22	10	29	93	9300529	1.5	M
I	2	Iron	45N	37W	13	12	8	93	9300303	1.5	M
I	2	Menominee	37N	25W	19	11	6	93	9300624	0.5	F
I	3	Delta	41N	21W	21	4	2	94	9300612	1.5	F
I	3	Delta	39N	23W	12	4	11	94	9300617	2.5	F
I	3	Delta	43N	23W	06	11	18	93	9300590	3.5	F
I	3	Marquette	46N	27W	01	11	9	93	9300551	0.5	F
I	3	Marquette	43N	26W	12	4	16	94	9300491	0.5	F
I	3	Marquette	45N	26W	30	4	8	94	9300493	1.5	F
I	3	Marquette	42N	25W	22	4	11	94	9300492	2.5	M
I	4	Alger	48N	14W	19	11	26	93	9300747	0.5	F
I	4	Alger	48N	15W	26	11	24	93	9300748	1.5	F
I	4	Chippewa	46N	06W	22	10	29	93	9300798	0.5	F
I	4	Chippewa	43N	02E	19	12	12	93	9300777	0.5	F
I	4	Chippewa	42N	02E	01	4	15	94	9301910	1.5	F
I	4	Chippewa	46N	03W	24	11	13	93	9300763	2.5	F
I	4	Chippewa	48N	07W	14	12	10	93	9300822	3.5	F
I	4	Chippewa	45N	07W	29	4	6	94	9301860	6.5	M
I	4	Mackinac	43N	01W	06	12	20	93	9300826	0.5	M
I	4	Schoolcraft	45N	14W	30	10	27	93	9300801	0.5	F
I	4	Schoolcraft	46N	15W	23	11	9	93	9300808	4.5	F
II	5	Antrim	30N	09W	11	11	16	93	9301161	0.5	F
II	5	Montmorency	32N	04E	16	12	24	93	9300942	2.5	F
II	5	Otsego	29N	03W	36	12	7	93	9301553	3.5	F
II	6	Kalkaska	25N	08W	35	1	22	94	9301133	2.5	M
II	6	Lake	17N	11W	08	12	19	93	9301687	1.5	F
II	6	Lake	17N	11W	08	4	14	94	9301903	1.5	M
II	6	Osceola	18N	09W	28	3	16	94	9301788	1.5	M
II	7	Clare	20N	06W	10	3	18	94	9301544	2.5	F
II	7	Clare	20N	04W	22	3	22	94	9301545	1.5	M
II	7	Crawford	27N	04W	23	2	1	94	9301560	0.5	F
II	7	Ogemaw	21N	01E	34	4	2	94	9301653B	1.5	F
II	7	Oscoda	25N	02E	08	11	18	93	9301593	1.5	M
II	7	Roscommon	21N	04W	06	1	5	94	9301524	0.5	F

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Region	District	County	Location			Date			Seal #	Age Est.	Sex
			Twp.	Rng.	Sec.	Mo.	Da.	Yr.			
III	9	Mecosta	15N	08W	24	12	26	93	9301761	0.5	F
III	9	Mecosta	14N	08W	02	2	22	94	9301786	0.5	F
III	9	Mecosta	16N	09W	08	3	9	94	9300870	0.5	M
III	9	Mecosta	16N	09W	08	3	9	94	9300862	1.5	M
III	9	Mecosta	14N	07W	06	1	5	94	9301686	3.5	M
III	9	Montcalm	10N	08W	12	11	20	93	9301693	2.5	F
III	9	Montcalm	11N	10W	18	12	14	93	9301703	3.5	F
III	9	Montcalm	09N	08W	29	1	24	94	9301709	0.5	M

