State: New Hampshire Grant: F20AF11939

**Grant Type:** Survey and Inventory

Grant Title: NH – WILDLIFE RESEARCH AND MANAGEMENT (W-89-R-21)

Period Covered: July 1, 2022 to June 30, 2023

Purpose/Target Name: PROJECT 6 - FURBEARER RESEARCH AND MANAGEMENT

Objective Name: JOB 1 - HARVEST MORTALITY DATA COLLECTION, ENTRY AND ANALYSIS

**Objective Statement:** To annually gather and analyze annual harvest information from trappers, fur-buyers and wildlife control operators.

**Summary:** Three hundred ninety three (393) trapping licenses were sold for the 2022-2023 (2022) trapping season, 121 over-68 trapping licenses were active. The estimated value of the pelts taken by trappers during the 2021 season was calculated to be \$46,153. The number of licensed trappers decreased, and harvest for most species decreased as well when compared to the 2021 season. Beaver, coyote, otter, fisher, mink, muskrat, red fox and weasel harvests were below their respective 3-year averages while raccoon, gray fox, and skunk where above their respective 3-year averages. The number of trap nights for beaver, coyote, fisher, mink, muskrat, otter and raccoon remained low in comparison to historic numbers while red and gray fox experienced increased effort. All species experienced an increase in pelt values from the 2021-2022 season.

Target date: June 30th annually 2021-2025.

Status of progress: On schedule.

**Deviations:** None.

**Objective Approach:** Annual furbearer harvest data will be collected from licensed trappers and fur-buyers via mandatory annual trapper and fur-buyer reports. Failure to submit said reports is punishable under state law. Otter pelts will be tagged in accordance with state law by conservation officers to allow for export under US programs for CITES, while other species (e.g., fisher) may be tagged depending on data, research, and/or law enforcement considerations. Catch per unit effort data will be generated and will serve as the principal means by which we track population change.

Harvest data will also be collected from licensed Wildlife Control Operators (WCOs). Since July 2003 WCO's have been required by law to be licensed and are required to submit an annual report of furbearer species taken by town. Failure to report results in loss of their license for the next year. While these data are not analyzed in the same fashion as trapping data, the data is factored in to management decision making.

Furbearer carcasses may be collected to allow for the collection of: 1) furbearer population demographic data, 2) heavy metal and/or toxicant samples, and/or 3) trap performance/impact data as part of national trap testing for the formulation of best management practices.

Annual harvest data will be summarized on the basis of 5 furbearer management regions. Catch per unit effort (CPUE) data will be generated by species, region, year, and historic trends will be monitored to detect notable deviations from established norms.

**Results:** Furbearers are taken throughout the state and trapping remains an important management tool in NH. The number of trapping licenses sold has remained low for the last decade including 393 for the 2022 season. For most of our furbearer species the harvest was well distributed across furbearer management regions (Table 1). Pelt values have experienced a dramatic decline since the historic highs of the 1970's. The decline is particularly dramatic when inflation is considered. Table 2 traces harvest and pelt prices from 2011 to present.

Data analysis suggests that furbearer catch per unit effort represents our best indicator of population trends in the state. Therefore in addition to harvest, trappers are required to provide data on the number of traps and trap nights set per species. Effort data has been available since 1994 and facilitates long-term trend analysis. These data are used to calculate trap nights per species per year (Table 3). By using total trapper effort and the total harvest by species, harvest rates are calculated and are reported as catch per 100 trap-nights of effort (Table 4). Statewide catch per unit effort data are summarized in Table 5. Based on the average pelt value of the Maine Trappers Association's winter auction and the total harvest by species, the economic value of the 2022 season harvest was calculated to be \$46,153 (Table 6). Three-year mean harvests and pelt prices are compared to the current year harvests and prices to determine trends. NH Wildlife Control Operators (WCOs) have been required to purchase a license and report their catch since 2003. The 2021 season represents the most recently available WCO data since these reports are not due until June 30 and many come in late. WCOs took significant proportions of several species as nuisance animals. Nuisance opossums, skunks, beavers, and raccoons constituted a significant proportion of the statewide catch (Table 7).

#### Beaver

The 2022 take of 1,175 beaver was down 5.8% from the 2021 season and down 8.5% from the previous 3-year average. The pelt value of \$27.20 was up 81.3% from \$15.00 the previous year and was 122.3% above the previous 3-year average. There was a statewide total of 15,635 trap-nights of effort, which was 6.3% below the previous trap year (Table 3). Catch per 100 trap-nights per WMU is listed in Table 4-a. Table 5 indicates that the statewide catch per 100 trap nights was 7.52 versus 7.48 the previous year. Beaver pelts were valued at \$31,960 to trappers (Table 6). Beavers remain a significant furbearer species in New Hampshire due in part to the diversity of species living in the habitats they create. Beavers provide a significant amount of recreational trapping opportunity and nuisance trapper work.

# Otter

The 2022 otter harvest was 90. This was 18.9% below the previous year's harvest of 111 and 13.2% below the 3-year average. The pelt value at \$33.00 was 83.3% above the previous year and was 31.1% above the previous 3-year average. Trapper effort was 3,422 trap-nights, a decrease of 20.4% from the previous year (Table 3). A season bag limit of 10 otters was established in 1994, and has continued to this day. Catch per 100 trap-nights per WMU is listed in Table 4-g. The mean statewide catch per 100 trap-nights was 2.63, versus 2.58 the previous year (Table 5). Past data analysis suggests that a harvest of 350 otter or more, for several years, could cause a decline in NH's population. The 2022 harvest of 90 is an acceptable harvest. Since 1980 the threshold of 350 has only been attained or surpassed in 1993, 1994, 1996, and 2001.

## Mink

A total of 36 mink were harvested, a decrease of 10% from the previous year and 38.6% below the previous 3-year average. The pelt value of \$8.00 was 53.8% above the previous year and 4.0% below the previous 3-year average. An effort of 2,359 trap-nights was 11.9% below the previous year (Table 3). The mean statewide catch per 100 trap-nights was 1.53 compared to 1.49 the previous year. Trapper effort decreased (Table 3) accompanied by a reduction in take when compared to historic levels (Table 4-e).

# **Muskrat**

Trappers took 207 muskrat, down 37.8% from the previous year's harvest of 333 and 53.0% below the previous 3-year average. The pelt value decreased from \$3.00 to \$2.35, a decrease of 21.7%, and 37.4% below the 3-year average. Trapper effort was 3,985 trap-nights was 23.3% below the previous year. Catch per 100 trap-nights per WMU is listed in Table 4-f. The mean statewide catch per 100 trap-nights was 5.19 versus 6.41 the previous year (Table 5).

# Fisher

The fisher harvest was 19, a decrease of 13.6% from the previous year and 53% below the previous 3-year average. Fisher pelt values were \$35.50, an increase of 31.5% from the previous year, and 31.5% above the previous 3-year average. Trapper effort was 1,975 trap-nights which was 30.9% above the previous year (Table 3). Fisher catch per 100 trap-nights per WMU data is listed in Table 4-c. The average statewide success rate of fisher harvest per 100 trap-nights was 0.96, compared to 1.46 in 2021 (Table 5).

### **Bobcat**

The bobcat season remains closed to trapping and hunting. Trappers report the capture and release of bobcats from their sets. Thirty five bobcats were reported incidentally captured and released while 2 bobcats were reported killed. These reports suggest that bobcats occur over a wide area of the state and that the population may be increasing.

### Raccoon

Trappers took a total of 239 raccoons, an increase of 25.1% from the previous year and 16.4% above the previous 3-year average. The pelt value, was \$9.50 and 22.6% above to previous year. However, the value was 128.0% above the previous 3-year average. Trapper effort was 4,919 trap nights (Table 4-h), down 28.5% from the previous year. The mean statewide raccoon catch rate per hundred trap-nights (Table 5) was 4.86 compared to 2.77 the previous year. Catch rates per WMU are provided in Table 4-h. Trapper interest in raccoons remains very low compared to harvests as high as 5,000 over two decades ago. The mid-Atlantic strain of raccoon rabies continues to be endemic in the state.

# <u>Fox</u>

Trappers took a total of 31 gray fox and 68 red fox. The gray fox harvest was up 244.4% from the previous year and down 31.0% from the previous 3-year average. Gray fox pelt value increased 41.0% to \$21.50 from the previous year and was 47.4% above the previous 3-year average. The red fox harvest increased 106.1% from the previous year and was 42.5% below the previous 3-year average. Red fox pelt value increased 42.0% to \$17.40 and was up 22.1% from the previous 3-year average. Trappers expended 10,122 trap-nights in pursuit of red fox, which was 260.2% above the previous year and gray fox trapper effort was 9,112 trap-nights, an increase of 389.4% from the previous year (Table 3). Catch per unit effort for both fox species decreased from the 2021-22 to the 2022-23 season, from 0.48 to 0.34 for gray fox, and from 1.17 to 0.67 for red fox. See Table 5 and Tables 4-d and 4-i for details regarding fox catch rates.

# Coyote

The coyote take decreased 29.9% from 281 to 197. The trapper take was 44.9% below the previous 3-year average. The pelt value increased 7.1% from \$14.00 to \$15.00. The pelt value was 50.2% below the previous 3-year average. Trapper effort was 12,762 trap-nights, which was down 10.1% from the previous year (Table 3). The mean statewide catch per 100 trap-nights decreased from 1.98 to 1.54 (Table 5). Catch rates per WMU are summarized in Table 4-b. A formal coyote trapping season was established in 2005.

**Conclusions:** Analysis of the harvest data is critical to our understanding of the status of New Hampshire furbearer populations, as well as the influence of trapping on furbearers. Trapping plays a key role in mitigating the effects of some species, especially beaver, on forest lands, crops, roadways, and other human uses of the land. While most people appreciate the presence of these species, their attitudes often abruptly change when they have a negative encounter. Furbearers are a valuable natural resource. Trapping and hunting continues to provide valuable services to the state's citizens.

**Custom Qualitative Indicator/Output:** Annual harvest information from trappers, fur-buyers and wildlife control operators has been gathered and analyzed.

**Recommendations:** We recommend that this job continue as planned because it provides critical information for furbearer management in New Hampshire. Harvest data reports obligate trappers to report on the basis of Wildlife Management Units (WMUs). Extensive efforts have been undertaken by our data managers to refine historic furbearer harvest records on the basis of WMUs.

Patrick Tate Furbearer Project Leader July 17, 2023

Table 1. NEW HAMPSHIRE 2022-23 TOTAL TRAPPER TAKE BY SPECIES AND REGION (INCLUDING INCIDENTAL TAKE)

	<u>Total Trapper Take</u>														
				GRAY											
Region	BEAVER	COYOTE	FISHER	FOX	MINK	MUSKRAT	OPOSSUM	OTTER	RACCOON	RED FOX	SKUNK	WEASEL			
NORTH	151	42	5	3	0	8	0	13	43	3	10	10			
WHITE MTNS	171	51	5	15	21	39	5	16	61	22	14	4			
CENTRAL	309	40	8	14	11	87	21	27	35	27	9	6			
SOUTH WEST	240	32	0	7	6	20	4	23	44	16	5	2			
SOUTH EAST	304	38	1	3	3	72	31	27	78	12	38	1			
TOTAL	1175	203	19	42	41	226	61	106	261	80	76	22			

Table 2. NEW HAMPSHIRE STATEWIDE FURBEARER HARVEST AND PRICE RECORDS (2011-2022)

Part 1: Grey Fox /Red Fox/Lynx/Marten/Mink/Bear/Beaver/Bobcat

			Gray Fox	F	Red Fox		Lynx		Marten		Mink	В	eaver	Е	Bobcat
Season	Number of Licensed		Average		Average	No	Average		Average		Average		Average		Average
(Year)	Trappers	No.	Price	No.	Price		Price	No.	Price	No.	Price	No.	Price	No.	Price
2011	425	114	\$20.02	207	\$23.85	-	-	0	-	247	\$15.22	3229	\$20.20	10	-
2012	474	150	\$33.82	291	\$37.00	-	-	9	-	385	\$16.00	2484	\$22.59	14	-
2013	560	169	\$28.97	257	\$38.00	-	-	4	-	275	\$11.56	2269	\$19.78	5	-
2014	557	76	\$16.00	162	\$20.00	-	-	23	-	257	\$5.55	2044	\$11.93	9	-
2015	548	103	\$11.00	163	\$18.74	-	-	5	-	166	\$7.51	2152	\$12.04	7	-
2016	479	47	\$12.67	98	\$11.69	-	-	4	-	106	\$6.78	1085	\$12.02	1	-
2017	454	56	\$8.60	115	\$21.00	-	-	0	-	87	\$8.00	1140	\$16.00	0	-
2018	463	24	\$14.50	114	\$14.50	-	-	3	-	75	\$9.00	1145	\$15.50	5	-
2019	420	23	\$16.75	132	\$17.50	-	-	1	-	32	\$8.00	1056	\$9.20	3	-
2020	422	33	\$12.50	82	10.75	-	-	0	-	32	\$8.00	893	\$12.00	2	-
2021	416	13	\$15.25	52	\$12.25	-	-	5	-	42	\$5.20	1167	\$15.00	3	-
2022	393	42	\$21.50	80	\$17.40	-	-	-	-	41	\$8.00	1175	\$27.20	2	-

Year = the year when the season opened, even though the seasons cross into a second calendar year.

Table 2. (Cont'd) NEW HAMPSHIRE STATEWIDE FURBEARER HARVEST AND PRICE RECORDS (2011-2022)

Part 2: Muskrat/Otter/Raccoon/Skunk/Weasel/Coyote/Fisher

		Musk	rat		Otter	R	accoon	S	kunk	V	Veasel	(	Coyote		Fisher
	Number of														
Season	Licensed		Average		Average		Average		Average		Average		Average		Average
(Year)	Trappers	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price	No.	Price
2011	425	1698	\$7.94	344	\$64.43	347	\$11.60	166	ı	28	-	410	\$15.86	255	\$47.71
2012	474	1800	\$9.13	285	\$59.43	571	\$8.26	226	\$3.00	91	\$3.00	509	\$22.22	269	\$72.50
2013	560	1658	\$7.10	241	\$38.75	563	\$5.71	144	1	31	-	482	\$20.97	216	\$55.16
2014	557	1383	\$4.59	166	\$22.67	454	\$5.90	74	-	64	-	434	\$14.21	225	\$38.53
2015	548	1420	\$2.30	160	\$31.68	415	\$3.15	156	\$5.00	59	\$1.00	485	\$16.88	132	\$30.07
2016	479	515	\$2.95	143	\$22.00	281	\$2.91	74	\$5.17	19	\$1.75	338	\$13.62	83	\$32.65
2017	454	500	\$3.50	82	\$36.00	230	\$6.00	106	\$4.50	21	-	390	\$20.00	44	\$37.50
2018	463	518	\$3.90	77	\$24.00	218	\$6.50	51	1	59	-	282	\$31.50	42	\$24.00
2019	420	272	\$3.37	101	\$35.00	159	\$0.00	84	1	20	-	322	\$35.00	35	\$35.00
2020	422	327	\$4.00	84	\$20.50	203	\$6.00	63	1	21	-	277	\$23.80	32	\$22.00
2021	416	335	\$3.00	106	\$18.00	206	\$7.75	48	\$8.75	19	\$2.00	277	\$14.00	23	\$27.00
2022	393	226	\$2.35	106	\$33.00	261	\$9.50	76	\$17.00	22	\$2.25	203	\$15.00	19	\$35.50

Year = the year when the season opened, even though the seasons cross into a second calendar year.

Table 3. NEW HAMPSHIRE TRAPPER EFFORT – CALCULATED TRAP-NIGHTS PER SPECIES PER SEASON

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
BEAVER	47103	46994	38962	36996	47630	16632	16478	15430	22245	21066	16678	15635
COYOTE	17082	34955	40108	35744	47182	27196	25591	13766	31870	22860	14198	12762
FISHER	19873	18892	22880	16988	12197	5202	4068	3580	4296	2497	1509	1975
<b>GRAY FOX</b>	8540	14053	18711	10997	13121	10001	5482	1499	8930	1077	1862	9112
MINK	12381	26881	25862	13489	11585	7023	4978	3654	2884	4544	2677	2359
MUSKRAT	30124	37110	32706	29454	26956	9596	7656	8211	6179	3947	5198	3985
OTTER	22192	22631	15531	8467	11135	5279	4956	3017	6144	3189	4301	3422
RACCOON	11304	22897	21233	20647	12725	19867	6254	8440	10077	6845	6883	4919
RED FOX	11524	21721	22830	14439	18972	13895	7051	5731	13076	4867	2810	10122

Note: Only data records with complete take, effort and WMU information have been included in this table.

<sup>\*</sup>These data may differ from that of previous reports due to late data submittals.

Table 4-a. Beaver take, trap nights of effort and catch per 100 trap-nights given as take/effort with catch per 100 trap-nights in parentheses

WMU   2011-12   2012-13   2013-14   2014-15   2015-16   2016-17   2017-18   2018-19   2019-20   2020-21   2021-22   2022-23   A   (15.14)   (6.85)   (11.46)   (14.57)   (15.21)   (12.40)   (10.40)   (13.27)   (5.79)   (3.87)   (14.29)   (17.8)   (18.27)   (18.21)   (12.40)   (10.40)   (13.27)   (5.79)   (3.87)   (14.29)   (17.8)   (18.20)   (													
A	WMU	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
(15.14)	^	84/555	84/1208	72/628	87/597	94/618	32/258	62/596	41/309	32/553	44/1136	30/210	23/129
B         (12.82)         (12.60)         (6.61)         (5.67)         (7.15)         (8.29)         (6.15)         (10.54)         (8.90)         (6.29)         (11.41)         (10.08)           C1         51/298         48/1343         36/117         23/90         26/204         (10.52)         23/144         20/78         21/108         30/99         37/106         22/158           C2         88/838         54/1753         22/398         37/177         59/0051         47/902         35/401         25/613         19/41         43.48         (3.491)         (13.29)           D1         (13.79)         31/288         68/1510         84/1613         56/528         53/462         64/1330         20/180         71/16         68/1016         44/33         45/436           D2         (17.29)         (17.66)         (4.50)         (5.21)         (10.61)         (11.47)         (4.81)         (11.11)         (6.90)         (6.29)         (8.96)         (8.70)         (7.92)         (11.11)         (6.81)         (6.91)         (6.91)         (1.47)         (4.81)         (11.11)         (6.93)         (6.94)         (8.96)         (8.70)         (7.92)         (11.11)         (11.33)         (6.20)         (2.7	А	(15.14)	(6.95)	(11.46)	(14.57)	(15.21)	(12.40)	(10.40)	(13.27)	(5.79)	(3.87)	(14.29)	(17.83)
C1 51/296 48/134 36/1175 23/90 26/204 10/52 23/194 20/78 21/108 30/69 37/106 22/158 C1 (17.11) (36.82) (30.77) (25.56) (12.75) (19.23) (11.86) (25.64) (19.44) (43.48) (34.91) (13.92) (25.64) (19.44) (43.48) (34.91) (13.92) (25.64) (19.44) (43.48) (34.91) (13.92) (25.64) (19.44) (43.48) (34.91) (13.92) (25.64) (19.44) (43.48) (34.91) (13.92) (25.64) (19.44) (43.48) (34.91) (13.92) (25.64) (19.44) (33.86) (36.76) (20.96) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (17.56) (19.39) (19.39) (17.56) (19.39) (17.56) (19.39)	D	95/741	65/516	67/1013	145/2558	126/1762	146/1762	90/1464	57/541	46/517	33/525	47/412	25/248
C1         (17.11)         (35.82)         (30.77)         (25.56)         (12.75)         (19.23)         (11.86)         (25.64)         (19.44)         (43.48)         (34.91)         (13.92)           C2         888638         54.11753         22.2366         37/177         50.3051         47/202         35.401         25/215         32/209         28/116         164.06         58/269           D1         (13.79)         (3.08)         (5.70)         (20.90)         (1.33)         (15.56)         (8.73)         (11.63)         (15.31)         (24.14)         (3.94)         (21.56)           D1         (10.79)         (4.80)         (5.21)         (10.61)         (11.47)         (4.81)         (11.11)         (6.03)         (6.69)         (13.11)         (10.32)           D2         9.2611         76911         126/1357         98/1994         144/1656         63/795         65/585         64/473         88/1994         41/352         50/426         88/100         (7.92)         (11.11)         (13.53)         (6.22)         (11.66)         (8.14)         (11.47)         (4.71)         (4.71)         (4.71)         (4.71)         (4.71)         (4.71)         (4.71)         (4.71)         (4.71)         (4.71) <th>Ь</th> <td>(12.82)</td> <td>(12.60)</td> <td>(6.61)</td> <td>(5.67)</td> <td>(7.15)</td> <td>(8.29)</td> <td>(6.15)</td> <td>(10.54)</td> <td>(8.90)</td> <td>(6.29)</td> <td>(11.41)</td> <td></td>	Ь	(12.82)	(12.60)	(6.61)	(5.67)	(7.15)	(8.29)	(6.15)	(10.54)	(8.90)	(6.29)	(11.41)	
C2 (17.11) (35.82) (30.77) (25.56) (12.75) (19.23) (11.86) (25.64) (19.44) (43.48) (34.91) (13.92) C2 (13.79) (3.08) (5.70) (20.90) (1.93) (15.56) (8.73) (11.63) (15.31) (24.14) (3.94) (21.56) D1 (37.99) (3.08) (5.70) (20.90) (1.93) (15.56) (8.73) (11.63) (15.31) (24.14) (3.94) (21.56) D1 (11.29) (10.76) (4.50) (5.21) (10.61) (11.47) (4.81) (11.11) (6.03) (6.69) (13.11) (10.32) D2 (11.29) (10.76) (4.50) (5.21) (10.61) (11.47) (4.81) (11.11) (6.03) (6.69) (13.11) (10.32) D2 (15.06) (8.34) (9.29) (8.96) (8.70) (7.92) (11.11) (13.53) (6.22) (11.65) (11.74) (6.41) D2 (15.06) (8.34) (9.29) (8.96) (8.70) (7.92) (11.11) (13.53) (6.22) (11.65) (11.74) (6.41) D2 (14.71) (17.34) (6.25) (6.59) (17.96) (11.89) (10.48) (15.08) (4.44) (26.99) (14.71) (17.34) (6.25) (6.59) (17.95) (18.00) (22.41) (11.89) (10.48) (15.08) (4.44) (26.99) (17.03) D2 (22.213159 167.9864 2194250 125/3898 220/3650 82/747 29/266 49/396 95/703 46/471 71/982 79/544 (6.02) (7.99) (3.93) (7.95) (4.32) (6.03) (10.98) (10.90) (12.37) (13.51) (9.77) (7.23) (14.52) D1 (6.02) (7.99) (3.93) (7.95) (4.32) (6.69) (6.69) (6.60) (7.81) (1.69) (2.74) (5.62) (6.86) (6.60) (7.81) (1.69) (2.74) (5.62) (6.86) (6.60) (7.81) (1.69) (2.74) (5.62) (6.86) (6.60) (7.81) (1.69) (2.74) (5.62) (6.86) (6.66) (4.82) (2.11) (1.57) (1.77) (	C1	51/298	48/134	36/117	23/90	26/204	10/52	23/194	20/78	21/108	30/69	37/106	22/158
D1   G13.79    G3.08    G5.70    (20.90    (1.93)   (15.56)   (8.73)   (11.63)   (15.31)   (24.14)   (3.94)   (21.56)	CI	(17.11)	(35.82)	(30.77)	(25.56)	(12.75)	(19.23)	(11.86)	(25.64)	(19.44)	(43.48)	(34.91)	(13.92)
D1   (13.79)   (3.98)   (5.70)   (20.90)   (1.93)   (15.95)   (8.73)   (11.63)   (15.31)   (24.14)   (3.94)   (21.56)	CO		54/1753	22/386	37/177	59/3051	47/302	35/401	25/215	32/209	28/116		
D1	02	(13.79)	(3.08)	(5.70)	(20.90)	(1.93)	(15.56)	(8.73)	(11.63)	(15.31)	(24.14)	(3.94)	(21.56)
Columbridge	D1												
D2	Di		/	(4.50)	(5.21)	(10.61)		/			/	. ,	
Columbridge	D2	92/611	76/911	126/1357	98/1094	144/1656	63/795	65/585	64/473	68/1094	41/352	50/426	
E	DZ		(8.34)	( /	(8.96)	(8.70)	(7.92)		(13.53)	(6.22)		/	/
Columbridge	_		30/173	9/16	11/184			25/88		22/210			
Columbia		(14.71)	(17.34)	(56.25)	(5.98)			(28.41)	(11.89)	(10.48)	_ /		
(5.18)	F												
G   (7.03)										/			
H1	G												
H1		\ /	\ /		· · · · ·	\ /	\ /	, ,		. ,		\ /	
H2   277/2840   194/1979   186/2715   155/2329   138/2866   38/1805   21/244   74/468   92/2713   38/390   86/1775   377/18   (9.75)   (9.80)   (6.85)   (6.66)   (4.82)   (2.11)   (8.61)   (15.81)   (3.39)   (9.74)   (4.85)   (5.15)   (1.05)	H1												
H2	111	\ /	\ /		\ /	\ /	\ /	\ /		\ /	, ,	\ /	
1   223/2019   128/2342   172/4424   99/1022   125/1523   54/729   48/422   67/463   102/1458   71/676   73/459   65/359     1   223/2019   128/2342   172/4424   99/1022   125/1523   54/729   48/422   67/463   102/1458   71/676   73/459   65/359     1   10.5   (5.47)   (3.89)   (9.69)   (8.21)   (7.41)   (11.37)   (14.47)   (7.00)   (10.50)   (15.90)   (18.11)     1   12   125/1545   122/1013   138/2952   109/1018   117/2160   49/1067   47/630   132/1126   82/1155   46/1281   43/614   53/372     1   191/2299   134/3186   93/1214   66/345   84/1023   47/537   39/733   57/553   58/338   32/215   65/638   77/1315     1   191/2299   134/3186   93/1214   66/345   84/1023   47/537   39/733   57/553   58/338   32/215   65/638   77/1315     1   1   1   1   1   1   1   1   1	H2												
Column	112										/		
Column   C	11												
12	11				· · · · ·			/			_ /	. ,	
191/2299   134/3186   93/1214   66/345   84/1023   47/537   39/733   57/553   58/338   32/215   65/638   77/1315     191/2299   134/3186   93/1214   66/345   84/1023   47/537   39/733   57/553   58/338   32/215   65/638   77/1315     191/2299   134/3186   93/1214   66/345   84/1023   47/537   39/733   57/553   58/338   32/215   65/638   77/1315     191/2299   134/3186   93/1214   66/345   84/1023   47/537   39/733   57/553   58/338   32/215   65/638   77/1315     101/2201   352/6580   179/3538   234/3817   211/2702   161/2071   147/2481   245/2448   230/4647   156/3668   84/791   88/1557     101/2202   101/2202   101/2202   161/2071   147/2481   245/2448   230/4647   156/3668   84/791   88/1557     101/2203   130/6076   221/4149   231/3351   264/6069   97/1277   100/2388   144/3564   105/3640   104/1476   126/2307   120/2253     101/2203   143/1831   197/2423   182/8506   223/7153   102/1644   166/2061   165/2447   160/1775   146/2913   130/2218   116/1791     101/2203   143/1831   197/2423   182/8506   223/7153   102/1644   166/2061   165/2447   160/1775   146/2913   130/2218   116/1791     101/2203   143/1831   197/2423   182/8506   223/7153   102/1644   166/2061   165/2447   160/1775   146/2913   130/2218   116/1791     101/2203   143/1831   197/2423   143/1631   120/1441   120/1412   192/5300   235/3394   188/3197     101/2203   101/2203   101/2203   140/16478   137/1/5430   1318/22245   1167/21066   1248/16678   1175/15635     101/2204   101/2209   101/2209   140/2209   140/16478   137/1/5430   1318/22245   1167/21066   1248/16678   1175/15635     101/2204   1248/16678   1175/15635   1248/16678   1175/15635	12												
Sign	- '-					/	/			/		/	
Column   C	.11												
Name	0.	\ /	\ /	\ /	. ,	. ,	. ,	/		. ,	\ /	\ /	. ,
K         409/8542   310/6076   221/4149   231/3351   264/6069   97/1277   100/2388   144/3564   105/3640   104/1476   126/2307   120/2253   120	.12												
K         (4.79)         (5.10)         (5.33)         (6.89)         (4.35)         (7.60)         (4.19)         (4.04)         (2.88)         (7.05)         (5.46)         (5.33)           L         169/2097         143/1831         197/2423         182/8506         223/7153         102/1644         166/2061         165/2447         160/1775         146/2913         130/2218         116/1791           (8.06)         (7.81)         (8.13)         (2.14)         (3.12)         (6.20)         (8.05)         (6.74)         (9.01)         (5.01)         (5.86)         (6.48)           M         530/9218         438/6332         405/6282         271/4775         240/10429         140/2259         107/1893         143/1631         120/1412         192/5300         235/3394         188/3197           (5.75)         (6.92)         (6.45)         (5.68)         (2.30)         (6.20)         (5.65)         (8.77)         (8.50)         (3.62)         (6.92)         (5.88)           ALL         3229/47103         2484/46994         2324/38962         2044/36996         2244/47630         1202/16632         1140/16478         1371/15430         1318/22245         1167/21066         1248/16678         1175/15635           (6.86)	02	\ /			· · · · ·		. ,	\ /		. ,	/	\ /	. ,
L 169/2097 143/1831 197/2423 182/8506 223/7153 102/1644 166/2061 165/2447 160/1775 146/2913 130/2218 116/1791 (8.06) (7.81) (8.13) (2.14) (3.12) (6.20) (8.05) (6.74) (9.01) (5.01) (5.01) (5.86) (6.48) (5.75) (6.92) (6.45) (5.68) (2.30) (6.20) (5.65) (8.77) (8.50) (3.62) (6.92) (5.88) (4.71) (7.23) (6.92) (6.89) (5.92) (5.54) (7.48) (7.52)	K												
L         (8.06)         (7.81)         (8.13)         (2.14)         (3.12)         (6.20)         (8.05)         (6.74)         (9.01)         (5.01)         (5.86)         (6.48)           M         530/9218         438/6332         405/6282         271/4775         240/10429         140/2259         107/1893         143/1631         120/1412         192/5300         235/3394         188/3197           (5.75)         (6.92)         (6.45)         (5.68)         (2.30)         (6.20)         (5.65)         (8.77)         (8.50)         (3.62)         (6.92)         (5.88)           ALL         3229/47103         2484/46994         2324/38962         2044/36996         2244/47630         1202/16632         1140/16478         1371/15430         1318/22245         1167/21066         1248/16678         1175/15635           (6.86)         (5.29)         (5.96)         (5.52)         (4.71)         (7.23)         (6.92)         (8.89)         (5.92)         (5.54)         (7.48)         (7.52)	- '`												/
M         (8.06)         (7.81)         (8.13)         (2.14)         (3.12)         (6.20)         (8.05)         (6.74)         (9.01)         (5.01)         (5.86)         (6.48)           M         530/9218         438/6332         405/6282         271/4775         240/10429         140/2259         107/1893         143/1631         120/1412         192/5300         235/3394         188/3197           (5.75)         (6.92)         (6.45)         (5.68)         (2.30)         (6.20)         (5.65)         (8.77)         (8.50)         (3.62)         (6.92)         (5.88)           ALL         3229/47103         2484/46994         2324/38962         2044/36996         2244/47630         1202/16632         1140/16478         1371/15430         1318/22245         1167/21066         1248/16678         1175/15635           (6.86)         (5.29)         (5.96)         (5.52)         (4.71)         (7.23)         (6.92)         (8.89)         (5.92)         (5.54)         (7.48)         (7.52)													
M (5.75) (6.92) (6.45) (5.68) (2.30) (6.20) (5.65) (8.77) (8.50) (3.62) (6.92) (5.88)  ALL 3229/47103 2484/46994 2324/38962 2044/36996 2244/47630 1202/16632 1140/16478 1371/15430 1318/22245 1167/21066 1248/16678 1175/15635 (6.86) (5.29) (5.96) (5.52) (4.71) (7.23) (6.92) (8.89) (5.92) (5.54) (7.48) (7.52)		, ,	\ /		· · · · ·	. ,	. ,	/		\ /	, ,	\ /	. ,
ALL (6.86) (5.29) (6.45) (5.68) (2.30) (6.20) (5.65) (8.77) (8.50) (3.62) (6.92) (5.88) (6.92) (6.92) (5.88) (6.86) (5.29) (5.96) (5.52) (4.71) (7.23) (6.92) (8.89) (5.92) (5.92) (5.54) (7.48) (7.52)	М				-								
ALL (6.86) (5.29) (5.96) (5.52) (4.71) (7.23) (6.92) (8.89) (5.92) (5.54) (7.48) (7.52)										/	/	/	
(6.86) (5.29) (5.96) (5.52) (4.71) (7.23) (6.92) (8.89) (5.92) (5.54) (7.48) (7.52)	ALI												
Jaka, Only, Jaka with a manifekt take. Affect and MANIL information become included in this take.		. ,								(5.92)	(5.54)	(7.48)	(7.52)

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 4-b. Coyote take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

WMU	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	57/636	67/4731	28/1584	18/1029	34/1820	34/2289	30/4861	19/1117	30/1144	37/1074	13/701	1/125
Α	(8.96)	(1.42)	(1.77)	(1.75)	(1.87)	(1.49)	(0.62)	(1.70)	(2.62)	(3.45)	(1.85)	(0.80)
	23/386	12/516	8/1260	22/987	25/2295	25/2435	53/3998	31/2725	20/6020	67/2923	14/1387	12/375
В	(5.96)	(2.33)	(0.63)	(2.23)	(1.09)	(1.03)	(1.33)	(1.14)	(0.33)	(2.29)	(1.01)	(3.20)
	10/216	8/78	22/445	28/1403	8/105	31/1831	18/194	20/366	12/341	19/414	24/354	4/20
C1	(4.63)	(10.26)	(4.94)	(2.00)	(7.62)	(1.69)	(9.28)	(5.46)	(3.52)	(4.59)	(6.78)	(20.00)
	21/372	12/478	19/538	29/1225	36/3564	25/2481	44/1430	21/670	29/323	31/1297	18/334	19/476
C2	(5.65)	(2.51)	(3.53)	(2.37)	(1.01)	(1.01)	(3.08)	(3.13)	(8.98)	(2.39)	(5.39)	(3.99)
	5/145	28/1388	28/961	36/1450	18/390	47/1036	52/1395	9/95	9/269	13/162	9/138	10/166
D1	(3.45)	(2.02)	(2.91)	(2.48)	(4.62)	(4.54)	(3.73)	(9.47)	(3.35)	(8.02)	(6.52)	(6.02)
	50/572	35/2200	23/1532	39/2191	29/1302	10/628	28/380	16/171	23/541	6/108	37/781	13/498
D2	(8.74)	(1.59)	(1.50)	(1.78)	(2.23)	(1.59)	(7.37)	(9.36)	(4.25)	(5.56)	(4.74)	(2.61)
	14/292	11/432	5/694	9/309	12/440	4/115	7/93	28/452	16/920	18/680	24/2068	30/5155
Е	(4.79)	(2.55)	(0.72)	(2.91)	(2.73)	(3.48)	(7.53)	(6.19)	(1.74)	(2.65)	(1.16)	(0.58)
	1/120	8/350	11/228	5/102	3/165	6/68	7/122	7/94	20/775	23/909	16/589	4/111
F	(0.83)	(2.29)	(4.82)	(4.90)	(1.82)	(8.82)	(5.74)	(7.45)	(2.58)	(2.53)	(2.72)	(3.60)
	74/2347	60/2251	48/2868	36/3008	61/1694	33/732	15/422	22/384	33/736	5/382	16/829	9/498
G	(3.15)	(2.67)	(1.67)	(1.20)	(3.60)	(4.51)	(3.55)	(5.73)	(4.48)	(1.31)	(1.93)	(1.81)
	9/154	30/4670	12/2913	5/380	11/3762	7/708	3/290	4/272	7/484	3/465	1/15	6/308
H1	(5.84)	(0.64)	(0.41)	(1.32)	(0.29)	(0.99)	(1.03)	(1.47)	(1.45)	(0.65)	(6.67)	(1.95)
	15/1257	65/1685	40/4055	24/1170	65/3565	12/1687	16/787	7/255	20/3343	19/1664	18/1723	6/304
H2	(1.19)	(3.86)	(0.99)	(2.05)	(1.82)	(0.71)	(2.03)	(2.75)	(0.60)	(1.14)	(1.04)	(1.97)
	13/1019	28/1878	27/1886	46/4426	34/1787	31/2813	26/1560	26/941	25/3861	34/1774	6/174	4/126
l1	(1.28)	(1.49)	(1.43)	(1.04)	(1.90)	(1.10)	(1.67)	(2.76)	(0.65)	(1.92)	(3.45)	(3.17)
	9/795	39/2307	53/2675	38/1648	23/2195	7/556	9/304	32/954	5/562	5/750	11/231	9/430
12	(1.13)	(1.69)	(1.98)	(2.31)	(1.05)	(1.26)	(2.96)	(3.35)	(0.89)	(0.67)	(4.76)	(2.09)
	2/36	20/1064	10/199	22/458	13/1622	2/672	14/2505	4/799	33/4288	16/2007	11/960	4/288
J1	(5.56)	(1.88)	(5.03)	(4.80)	(0.80)	(0.30)	(0.56)	(0.50)	(0.77)	(0.80)	(1.15)	(1.39)
	35/1916	31/4897	47/5681	23/5593	38/4993	39/3527	27/2170	17/439	41/3361	46/2117	8/730	18/1177
J2	(1.83)	(0.63)	(0.83)	(0.41)	(0.76)	(1.11)	(1.24)	(3.87)	(1.22)	(2.17)	(1.10)	(1.53)
	38/3273	24/1822	68/6175	25/2579	43/7861	18/2143	10/2804	12/2059	12/958	8/1916	15/1099	11/311
K	(1.16)	(1.32)	(1.10)	(0.97)	(0.55)	(0.84)	(0.36)	(0.58)	(1.25)	(0.42)	(1.36)	(3.54)
	13/1058	19/1479	13/2093	9/840	19/1974	19/1081	16/1685	13/1011	17/2746	18/2383	34/1434	8/501
L	(1.23)	(1.28)	(0.62)	(1.07)	(0.96)	(1.76)	(0.95)	(1.29)	(0.62)	(0.76)	(2.37)	(1.60)
	21/2488	12/2729	23/4321	20/6946	28/7648	33/2394	15/591	11/962	12/1198	41/1835	6/651	29/1893
M	(0.84)	(0.44)	(0.53)	(0.29)	(0.37)	(1.38)	(2.54)	(1.14)	(1.00)	(2.23)	(0.92)	(1.53)
	410/17082	509/34955	485/40108	434/35744	500/47182	383/27196	390/25591	299/13766	364/31870	409/22860	281/14198	197/12762
ALL	(2.40)	(1.46)	(1.21)	(1.21)	(1.06)	(1.41)	(1.52)	(2.17)	(1.14)	(1.79)	(1.98)	(1.54)
	1 1 4 241	1 1 1		1 1 A /B 41 1 1 C		o boon inclu	1 1 1 11 1					

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 4-c. Fisher take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

WMU	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	14/580	24/922	15/733	9/657	7/816		1/61	2/35			2/40	1/58
Α	(2.41)	(2.60)	(2.05)	(1.37)	(0.86)	N/A	(1.64)	(5.71)	N/A	N/A	(5.00)	(1.72)
	2/375	5/56	7/105	12/651	5/65	1/63	, ,	5/191	3/285	2/361	4/278	3/90
В	(0.53)	(8.93)	(6.67)	(1.84)	(7.69)	(1.59)	N/A	(2.62)	(1.05)	(0.55)	(1.44)	(3.33)
	1/174	9/290	3/125	10/266	0/60	,	2/126	, ,	, ,	1/1	, ,	, ,
C1	(0.57)	(3.10)	(2.40)	(3.76)	(0.00)	N/A	(1.59)	N/A	N/A	(100)	N/A	N/A
	8/608	10/476	2/201	6/200	0/90	0/4		2/148	0/4	0/4		1/8
C2	(1.32)	(2.10)	(1.00)	(3.00)	(0.00)	(0.00)	N/A	(1.35)	(0.00)	(0.00)	N/A	(12.50)
	0/180	1/8		5/1813				0/42	1/210	2/117	0/30	
D1	(0.00)	(12.50)	N/A	(0.28)	N/A	N/A	N/A	(0.00)	(0.48)	(1.71)	(0.00)	N/A
	0/40	3/146	2/238	4/696	6/402	2/60	1/55	2/72	0/20	1/12	0/14	1/56
D2	(0.00)	(2.05)	(0.84)	(0.57)	(1.49)	(3.33)	(1.82)	(2.78)	(0.00)	(8.33)	(0.00)	(1.79)
	5/418	4/110	6/420	9/1111	9/680	4/134			1/40	0/28		
E	(1.20)	(3.64)	(1.43)	(0.81)	(1.32)	(2.99)	N/A	N/A	(2.50)	(0.00)	N/A	N/A
	4/244	4/239	9/975	9/906	1/159	1/64	0/81	1/173	4/342	1/195	0/118	4/414
F	(1.64)	(1.67)	(0.92)	(0.99)	(0.63)	(1.56)	(0.00)	(0.58)	(1.17)	(0.51)	(0.00)	(0.97)
	25/1103	11/1210	9/2012	16/491	14/1150	9/346	5/285	5/506	8/291	4/74	6/227	3/160
G	(2.27)	(0.91)	(0.45)	(3.26)	(1.22)	(2.60)	(1.75)	(0.99)	(2.75)	(5.41)	(2.64)	(1.88)
	9/772	12/812	6/449	1/375	8/1116	1/492	1/176	1/132	2/180	3/180		
H1	(1.17)	(1.48)	(1.34)	(0.27)	(0.72)	(0.20)	(0.57)	(0.76)	(1.11)	(1.67)	N/A	N/A
	21/2982	26/2083	19/3520	16/1101	11/1143	10/496	5/719	4/147	3/479	2/80	1/122	0/136
H2	(0.70)	(1.25)	(0.54)	(1.45)	(0.96)	(2.02)	(0.70)	(2.72)	(0.63)	(2.50)	(0.82)	(0.00)
	14/1462	7/1244	8/1609	10/1159	6/884	3/202	2/193	1/209	4/399	2/341	0/140	1/87
l1	(0.96)	(0.56)	(0.50)	(0.86)	(0.68)	(1.49)	(1.04)	(0.48)	(1.00)	(0.59)	(0.00)	(1.15)
	3/732	12/1085	8/594	6/462	2/472	2/37	0/108	0/72	2/340	3/158		0/56
12	(0.41)	(1.11)	(1.35)	(1.30)	(0.42)	(5.41)	(0.00)	(0.00)	(0.59)	(1.90)	N/A	(0.00)
	1/126	3/112	3/182	1/164	0/325		2/380	2/170	1/10	3/92	1/90	2/123
J1	(0.79)	(2.68)	(1.65)	(0.61)	(0.00)	N/A	(0.53)	(1.18)	(10.00)	(3.26)	(1.11)	(1.63)
	27/2581	27/3538	16/3075	15/1439	9/616	15/845	9/559	4/525	4/810	0/98	0/148	2/277
J2	(1.05)	(0.76)	(0.52)	(1.04)	(1.46)	(1.78)	(1.61)	(0.76)	(0.49)	(0.00)	(0.00)	(0.72)
	28/1985	29/2469	26/3616	21/1699	9/1134	4/774	3/636	1/458	2/403	0/292	2/80	0/80
K	(1.41)	(1.17)	(0.72)	(1.24)	(0.79)	(0.52)	(0.47)	(0.22)	(0.50)	(0.00)	(2.50)	(0.00)
	21/1604	18/1364	20/1651	22/1149	10/873	18/355	3/311	2/184	3/120	3/78	3/73	0/274
L	(1.31)	(1.32)	(1.21)	(1.91)	(1.15)	(5.07)	(0.96)	(1.09)	(2.50)	(3.85)	(4.11)	(0.00)
	72/3907	64/2728	57/3375	53/2649	41/2212	20/1330	10/378	12/516	5/363	9/386	3/149	1/156
М	(1.84)	(2.35)	(1.69)	(2.00)	(1.85)	(1.50)	(2.65)	(2.33)	(1.38)	(2.33)	(2.01)	(0.64)
	255/19873	269/18892	216/22880	225/16988	138/12197	90/5202	44/4068	44/3580	43/4296	36/2497	22/1509	19/1975
ALL	(1.28)	(1.42)	(0.94)	(1.32)	(1.13)	(1.73)	(1.08)	(1.23)	(1.00)	(1.44)	(1.46)	(0.96)

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 4-d. Gray fox take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

WMU	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
			1/28			2/532		2/168				1/30
Α	N/A	N/A	(3.57)	N/A	N/A	(0.38)	N/A	(1.19)	N/A	N/A	N/A	(3.33)
						2/630					0/670	
В	N/A	N/A	N/A	N/A	N/A	(0.32)	N/A	N/A	N/A	N/A	(0.00)	N/A
	5/198	1/32	5/324		0/40	2/800	2/180		2/1			
C1	(2.53)	(3.13)	(1.54)	N/A	(0.00)	(0.25)	(1.11)	N/A	(200)	N/A	N/A	N/A
	5/178	1/80	11/300		2/200	2/800	3/960					
C2	(2.81)	(1.25)	(3.67)	N/A	(1.00)	(0.25)	(0.31)	N/A	N/A	N/A	N/A	N/A
		1/37		2/36							0/40	
D1	N/A	(2.70)	N/A	(5.56)	N/A	N/A	N/A	N/A	N/A	N/A	(0.00)	N/A
	11/286	1/360	17/719	0/57	1/41	2/248	3/196	3/222				4/492
D2	(3.85)	(0.28)	(2.36)	(0.00)	(2.44)	(0.81)	(1.53)	(1.35)	N/A	N/A	N/A	(0.81)
	3/40	1/4	3/474	2/32	2/42	1/8	2/28	2/18	1/18	2/388	1/6	7/7224
E	(7.50)	(25.00)	(0.63)	(6.25)	(4.76)	(12.50)	(7.14)	(11.11)	(5.56)	(0.52)	(16.67)	(0.10)
		1/12	2/29	1/2	2/15	3/40	7/52	2/56	3/126		2/120	4/150
F	N/A	(8.33)	(6.90)	(50.00)	(13.33)	(7.50)	(13.46)	(3.57)	(2.38)	N/A	(1.67)	(2.67)
	9/698	14/1302	18/1760	14/2597	5/714	2/252	3/233	2/312				4/372
G	(1.29)	(1.08)	(1.02)	(0.54)	(0.70)	(0.79)	(1.29)	(0.64)	N/A	N/A	N/A	(1.08)
	8/522	10/491	7/1066	3/760	2/735	1/28				2/84	1/4	1/30
H1	(1.53)	(2.04)	(0.66)	(0.39)	(0.27)	(3.57)	N/A	N/A	N/A	(2.38)	(25.00)	(3.33)
	5/466	16/481	6/108	6/722	10/1668	3/470	4/98		1/42		2/370	
H2	(1.07)	(3.33)	(5.56)	(0.83)	(0.60)	(0.64)	(4.08)	N/A	(2.38)	N/A	(0.54)	N/A
	3/690	3/178	18/1802	6/308	17/1312	5/1180	11/1120	2/102	8/3600			4/142
l1	(0.43)	(1.69)	(1.00)	(1.95)	(1.30)	(0.42)	(0.98)	(1.96)	(0.22)	N/A	N/A	(2.82)
	4/390	14/1243	7/609	0/150	10/1340	3/273	3/112	6/350	1/290	0/60	1/12	
12	(1.03)	(1.13)	(1.15)	(0.00)	(0.75)	(1.10)	(2.68)	(1.71)	(0.34)	(0.00)	(8.33)	N/A
	2/156	6/105	4/214	2/232	5/622	3/482	3/245		3/28	1/10	1/182	3/144
J1	(1.28)	(5.71)	(1.87)	(0.86)	(0.80)	(0.62)	(1.22)	N/A	(10.71)	(10.00)	(0.55)	(2.08)
	17/1052	39/3840	20/2518	8/2316	4/422	5/1233	5/1198	1/10	8/680	6/71	0/160	
J2	(1.62)	(1.02)	(0.79)	(0.35)	(0.95)	(0.41)	(0.42)	(10.00)	(1.18)	(8.45)	(0.00)	N/A
	11/1340	9/1536	11/1730	11/983	13/3488	4/1340	4/898	3/225	1/360	1/84	1/180	3/168
K	(0.82)	(0.59)	(0.64)	(1.12)	(0.37)	(0.30)	(0.45)	(1.33)	(0.28)	(1.19)	(0.56)	(1.79)
	13/872	10/1485	14/3072	4/1018	4/512	11/1248	6/82	3/36	1/5			
L	(1.49)	(0.67)	(0.46)	(0.39)	(0.78)	(88.0)	(7.32)	(8.33)	(20.00)	N/A	N/A	N/A
	18/1652	23/2867	28/3958	17/1784	24/1970	4/437	0/80		1/3780	3/380	0/118	0/360
М	(1.09)	(0.80)	(0.71)	(0.95)	(1.22)	(0.92)	(0.00)	N/A	(0.03)	(0.79)	(0.00)	(0.00)
	114/8540	150/14053	172/18711	76/10997	101/13121	55/10001	56/5482	26/1499	30/8930	15/1077	9/1862	31/9112
ALL	(1.33)	(1.07)	(0.92)	(0.69)	(0.77)	(0.55)	(1.02)	(1.73)	(0.34)	(1.39)	(0.48)	(0.34)

Table 4-c. Mink take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

WMU	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	12/314	20/548	12/983	7/117	16/532	5/240				1/1	1/56	0/6
Α	(3.82)	(3.65)	(1.22)	(5.98)	(3.01)	(2.08)	N/A	N/A	N/A	(100)	(1.79)	(0.00)
		11/200	6/248	18/1352	5/473	14/106	6/136	11/300	1/98	4/206	1/12	
В	N/A	(5.50)	(2.42)	(1.33)	(1.06)	(13.21)	(4.41)	(3.67)	(1.02)	(1.94)	(8.33)	N/A
	3/60	13/186	8/152	13/145	4/182	0/8	3/314		1/32	4/78	3/8	
C1	(5.00)	(6.99)	(5.26)	(8.97)	(2.20)	(0.00)	(0.96)	N/A	(3.13)	(5.13)	(37.50)	N/A
	16/646	8/300	4/219	6/518	12/624	3/18		2/40			0/28	
C2	(2.48)	(2.67)	(1.83)	(1.16)	(1.92)	(16.67)	N/A	(5.00)	N/A	N/A	(0.00)	N/A
	6/158	1/12	1/30	24/583	3/8	7/704	18/1080	3/178	1/20	34/2700	0/55	
D1	(3.80)	(8.33)	(3.33)	(4.12)	(37.50)	(0.99)	(1.67)	(1.69)	(5.00)	(1.26)	(0.00)	N/A
	17/410	9/151	32/9365	67/2836	20/1669	14/538	3/165	0/36	5/150	3/19	5/144	4/159
D2	(4.15)	(5.96)	(0.34)	(2.36)	(1.20)	(2.60)	(1.82)	(0.00)	(3.33)	(15.79)	(3.47)	(2.52)
		1/52		1/144	1/170	2/14	3/20	7/808	1/6		2/12	1/15
E	N/A	(1.92)	N/A	(0.69)	(0.59)	(14.29)	(15.00)	(0.87)	(16.67)	N/A	(16.67)	(6.67)
	13/508	24/1232	28/1650	8/444	5/352	9/207	15/139	10/145	3/303	0/12	6/176	16/433
F	(2.56)	(1.95)	(1.70)	(1.80)	(1.42)	(4.35)	(10.79)	(6.90)	(0.99)	(0.00)	(3.41)	(3.70)
	25/1048	57/8478	27/1769	19/542	7/495	4/74	4/171	2/374	0/6		5/151	4/101
G	(2.39)	(0.67)	(1.53)	(3.51)	(1.41)	(5.41)	(2.34)	(0.53)	(0.00)	N/A	(3.31)	(3.96)
	8/392	28/869	4/862	7/224	1/140	1/60		1/14		1/208	1/7	1/70
H1	(2.04)	(3.22)	(0.46)	(3.13)	(0.71)	(1.67)	N/A	(7.14)	N/A	(0.48)	(14.29)	(1.43)
	13/1082	28/1536	19/1019	3/498	19/351	4/325		2/11			2/364	0/270
H2	(1.20)	(1.82)	(1.86)	(0.60)	(5.41)	(1.23)	N/A	(18.18)	N/A	N/A	(0.55)	(0.00)
	20/911	17/466	22/1344	10/534	8/439	12/1310	4/296	0/3	1/398	6/336	0/56	0/35
I1	(2.20)	(3.65)	(1.64)	(1.87)	(1.82)	(0.92)	(1.35)	(0.00)	(0.25)	(1.79)	(0.00)	(0.00)
	3/256	18/1151	5/684	3/212	3/526	5/381	1/182	1/91	5/390	2/255		
12	(1.17)	(1.56)	(0.73)	(1.42)	(0.57)	(1.31)	(0.55)	(1.10)	(1.28)	(0.78)	N/A	N/A
	11/530	19/635	11/394	16/1124	14/970	5/362	8/244	11/248	2/362	5/193	8/280	4/279
J1	(2.08)	(2.99)	(2.79)	(1.42)	(1.44)	(1.38)	(3.28)	(4.44)	(0.55)	(2.59)	(2.86)	(1.43)
	43/2691	49/3237	41/2809	20/2335	26/1662	16/1730	9/177	12/194	5/595	6/280	1/189	
J2	(1.60)	(1.51)	(1.46)	(0.86)	(1.56)	(0.92)	(5.08)	(6.19)	(0.84)	(2.14)	(0.53)	N/A
	26/1471	38/4247	21/1339	22/795	17/783	4/69	11/1932	5/1114	4/251	0/86	3/583	3/161
K	(1.77)	(0.89)	(1.57)	(2.77)	(2.17)	(5.80)	(0.57)	(0.45)	(1.59)	(0.00)	(0.51)	(1.86)
	3/162	20/1422	26/1472	4/93	5/1552	1/56	1/88		0/111	0/25		
L	(1.85)	(1.41)	(1.77)	(4.30)	(0.32)	(1.79)	(1.14)	N/A	(0.00)	(0.00)	N/A	N/A
	28/1742	24/2159	14/1523	9/993	4/657	4/821	1/34	8/98	4/162	2/145	2/556	3/830
М	(1.61)	(1.11)	(0.92)	(0.91)	(0.61)	(0.49)	(2.94)	(8.16)	(2.47)	(1.38)	(0.36)	(0.36)
	247/12381	385/26881	281/25862	257/13489	170/11585	110/7023	87/4978	75/3654	33/2884	68/4544	40/2677	36/2359
ALL	(1.99)	(1.43)	(1.09)	(1.91)	(1.47)	(1.57)	(1.75)	(2.05)	(1.14)	(1.50)	(1.49)	(1.53)

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 4-d. Muskrat take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

WMU	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	53/456	116/1436	187/1505	158/4956	298/4410	21/250	52/324	77/677	7/8	38/240	8/60	3/5
Α	(11.62)	(8.08)	(12.43)	(3.19)	(6.76)	(8.40)	(16.05)	(11.37)	(87.50)	(15.83)	(13.33)	(60.00)
	11/313	77/840	41/311	175/2425	78/280	58/312	5/84	7/98		13/200	0/6	
В	(3.51)	(9.17)	(13.18)	(7.22)	(27.86)	(18.59)	(5.95)	(7.14)	N/A	(6.50)	(0.00)	N/A
	, ,	14/170	15/144	, ,	65/561	, ,	11/308	,		4/28	1/6	
C1	N/A	(8.24)	(10.42)	N/A	(11.59)	N/A	(3.57)	N/A	N/A	(14.29)	(16.67)	N/A
	97/3712	101/1497	82/1141	59/914	181/1312	0/42	20/287		15/54	40/140	7/18	3/120
C2	(2.61)	(6.75)	(7.19)	(6.46)	(13.80)	(0.00)	(6.97)	N/A	(27.78)	(28.57)	(38.89)	(2.50)
	79/449	43/348	142/1042	54/1215	6/20	96/1294	112/1665	4/169	19/270	11/22	2/48	1/90
D1	(17.59)	(12.36)	(13.63)	(4.44)	(30.00)	(7.42)	(6.73)	(2.37)	(7.04)	(50.00)	(4.17)	(1.11)
	100/535	43/425	91/5703	166/1701	140/2673	74/680	28/80	32/164	20/108	6/82	41/306	26/153
D2	(18.69)	(10.12)	(1.60)	(9.76)	(5.24)	(10.88)	(35.00)	(19.51)	(18.52)	(7.32)	(13.40)	(16.99)
	1/15	0/100	` '	0/40	2/16	3/13	,	29/412	2/18	3/8	2/44	2/18
Ε	(6.67)	(0.00)	N/A	(0.00)	(12.50)	(23.08)	N/A	(7.04)	(11.11)	(37.50)	(4.55)	(11.11)
	10/266	4/484	21/778	7/208	10/146	7/28	19/93	27/66	1/44	5/16	6/30	10/48
F	(3.76)	(0.83)	(2.70)	(3.37)	(6.85)	(25.00)	(20.43)	(40.91)	(2.27)	(31.25)	(20.00)	(20.83)
	118/1128	166/8009	134/3015	91/1104	67/1541	32/164	30/90	7/15	12/83	13/50	34/93	30/116
G	(10.46)	(2.07)	(4.44)	(8.24)	(4.35)	(19.51)	(33.33)	(46.67)	(14.46)	(26.00)	(36.56)	(25.86)
	45/954	78/1523	22/848	10/322	24/717	18/240	5/22	2/7	1/180	,	13/185	4/72
H1	(4.72)	(5.12)	(2.59)	(3.11)	(3.35)	(7.50)	(22.73)	(28.57)	(0.56)	N/A	(7.03)	(5.56)
	79/1984	127/2596	145/3041	48/4418	26/412	15/490	8/210	4/42	2/38	41/162	13/388	5/552
H2	(3.98)	(4.89)	(4.77)	(1.09)	(6.31)	(3.06)	(3.81)	(9.52)	(5.26)	(25.31)	(3.35)	(0.91)
	73/868	60/606	76/2066	61/1987	66/1414	6/635	6/124	4/109	24/696	9/186	4/58	3/220
<b>I</b> 1	(8.41)	(9.90)	(3.68)	(3.07)	(4.67)	(0.94)	(4.84)	(3.67)	(3.45)	(4.84)	(6.90)	(1.36)
	37/941	13/469	38/1950	8/186	51/864	16/382	31/190	15/448	24/601	30/426	3/100	
12	(3.93)	(2.77)	(1.95)	(4.30)	(5.90)	(4.19)	(16.32)	(3.35)	(3.99)	(7.04)	(3.00)	N/A
	54/815	87/949	36/324	22/414	54/1088	13/292	17/260	14/36	13/99	22/168	16/225	14/515
J1	(6.63)	(9.17)	(11.11)	(5.31)	(4.96)	(4.45)	(6.54)	(38.89)	(13.13)	(13.10)	(7.11)	(2.72)
	260/5590	220/4363	179/3194	123/2991	103/3402	63/2408	59/1285	95/860	109/1940	72/943	40/346	32/334
J2	(4.65)	(5.04)	(5.60)	(4.11)	(3.03)	(2.62)	(4.59)	(11.05)	(5.62)	(7.64)	(11.56)	(9.58)
	158/2892	94/3413	58/1622	72/2039	55/1496	16/595	34/1909	42/2314	22/150	18/239	27/939	8/116
K	(5.46)	(2.75)	(3.58)	(3.53)	(3.68)	(2.69)	(1.78)	(1.82)	(14.67)	(7.53)	(2.88)	(6.90)
	102/2254	100/1418	149/1961	105/1224	35/2158	39/507	31/238	88/944	41/678	22/291	10/59	23/354
L	(4.53)	(7.05)	(7.60)	(8.58)	(1.62)	(7.69)	(13.03)	(9.32)	(6.05)	(7.56)	(16.95)	(6.50)
	421/6952	457/8464	242/4061	224/3310	171/4446	70/1264	32/487	110/1850	51/1212	55/746	106/2287	43/1272
М	(6.06)	(5.40)	(5.96)	(6.77)	(3.85)	(5.54)	(6.57)	(5.95)	(4.21)	(7.37)	(4.63)	(3.38)
	1698/30124	1800/37110	1658/32706	1383/29454	1432/26956	547/9596	500/7656	557/8211	363/6179	402/3947	333/5198	207/3985
ALL	(5.64)	(4.85)	(5.07)	(4.70)	(5.31)	(5.70)	(6.53)	(6.78)	(5.87)	(10.18)	(6.41)	(5.19)

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 4-g. Otter take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

WMU	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
	4/97	3/184	2/65	3/48	2/21	3/32	3/27	2/57	1/6	5/336	4/136	4/152
Α	(4.12)	(1.63)	(3.08)	(6.25)	(9.52)	(9.38)	(11.11)	(3.51)	(16.67)	(1.49)	(2.94)	(2.63)
	,	2/24	3/120	4/264	5/384	8/239	6/450	3/28	3/90	3/336	3/62	1/6
В	N/A	(8.33)	(2.50)	(1.52)	(1.30)	(3.35)	(1.33)	(10.71)	(3.33)	(0.89)	(4.84)	(16.67)
		` ′	` ′	1/9	4/15Ó	2/40	2/188	,	1/14	2/5	0/8	,
C1	N/A	N/A	N/A	(11.11)	(2.67)	(5.00)	(1.06)	N/A	(7.14)	(40.00)	(0.00)	N/A
	12/500	6/216	10/205	` ′	5/537	` '	2/15		,	, ,	, ,	
C2	(2.40)	(2.78)	(4.88)	N/A	(0.93)	N/A	(13.33)	N/A	N/A	N/A	N/A	N/A
	2/218	1/8	1/4	13/1597	1/4	3/30	3/1090	1/14	2/40	1/84	1/18	8/240
D1	(0.92)	(12.50)	(25.00)	(0.81)	(25.00)	(10.00)	(0.28)	(7.14)	(5.00)	(1.19)	(5.56)	(3.33)
	9/134	1/14	8/742	6/253	15/470	6/480	4/90	4/99	9/118	2/109	6/35	6/113
D2	(6.72)	(7.14)	(1.08)	(2.37)	(3.19)	(1.25)	(4.44)	(4.04)	(7.63)	(1.83)	(17.14)	(5.31)
	1/12	5/20	3/14	1/9	1/9	2/12	2/6	, ,	,	,	1/3	1/14
E	(8.33)	(25.00)	(21.43)	(11.11)	(11.11)	(16.67)	(33.33)	N/A	N/A	N/A	(33.33)	(7.14)
	4/279	5/315	4/322	2/236	2/110	5/90	5/70	5/94	4/78	0/5	6/234	9/170
F	(1.43)	(1.59)	(1.24)	(0.85)	(1.82)	(5.56)	(7.14)	(5.32)	(5.13)	(0.00)	(2.56)	(5.29)
	21/746	20/7536	12/940	12/452	3/222	7/130	10/195	1/32	3/32	2/14	9/188	7/98
G	(2.82)	(0.27)	(1.28)	(2.65)	(1.35)	(5.38)	(5.13)	(3.13)	(9.38)	(14.29)	(4.79)	(7.14)
	6/214	1/1	4/300	3/203	3/955	4/140	1/5	, ,	,	2/260	4/367	1/8
H1	(2.80)	(100)	(1.33)	(1.48)	(0.31)	(2.86)	(20.00)	N/A	N/A	(0.77)	(1.09)	(12.50)
	38/1308	28/1340	18/1007	20/483	9/484	8/426	1/28	4/204	3/2221	2/70	11/282	11/732
H2	(2.91)	(2.09)	(1.79)	(4.14)	(1.86)	(1.88)	(3.57)	(1.96)	(0.14)	(2.86)	(3.90)	(1.50)
	15/788	13/1933	9/537	8/233	8/407	11/381	3/27	2/56	2/313	4/50	4/132	6/239
I1	(1.90)	(0.67)	(1.68)	(3.43)	(1.97)	(2.89)	(11.11)	(3.57)	(0.64)	(8.00)	(3.03)	(2.51)
	7/322	14/261	10/1054	5/440	2/500	0/17	2/107	9/571	7/340	6/124	2/100	
12	(2.17)	(5.36)	(0.95)	(1.14)	(0.40)	(0.00)	(1.87)	(1.58)	(2.06)	(4.84)	(2.00)	N/A
	11/659	16/477	10/411	3/372	10/491	16/291	6/416	13/328	6/183	4/80	2/28	7/203
J1	(1.67)	(3.35)	(2.43)	(0.81)	(2.04)	(5.50)	(1.44)	(3.96)	(3.28)	(5.00)	(7.14)	(3.45)
	71/5662	40/4320	26/2313	25/1704	19/3247	18/809	14/1045	28/650	33/1371	16/463	9/190	7/284
J2	(1.25)	(0.93)	(1.12)	(1.47)	(0.59)	(2.22)	(1.34)	(4.31)	(2.41)	(3.46)	(4.74)	(2.46)
	48/6175	39/1418	38/1944	25/1233	25/1703	12/972	8/766	6/170	14/470	11/300	17/912	8/208
K	(0.78)	(2.75)	(1.95)	(2.03)	(1.47)	(1.23)	(1.04)	(3.53)	(2.98)	(3.67)	(1.86)	(3.85)
	35/1325	25/1015	32/1628	19/529	17/1013	22/538	6/138	10/563	21/520	16/479	11/27	6/128
L	(2.64)	(2.46)	(1.97)	(3.59)	(1.68)	(4.09)	(4.35)	(1.78)	(4.04)	(3.34)	(40.74)	(4.69)
	60/3753	66/3549	51/3925	16/402	32/428	19/652	4/293	7/151	10/348	22/474	21/1579	8/827
M	(1.60)	(1.86)	(1.30)	(3.98)	(7.48)	(2.91)	(1.37)	(4.64)	(2.87)	(4.64)	(1.33)	(0.97)
	344/22192	285/22631	241/15531	166/8467	163/11135	146/5279	82/4956	95/3017	119/6144	98/3189	111/4301	90/3422
ALL	(1.55)	(1.26)	(1.55)	(1.96)	(1.46)	(2.77)	(1.65)	(3.15)	(1.94)	(3.07)	(2.58)	(2.63)

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 4-h. Raccoon take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

WMU         2011-12         2012-13         2013-14         2014-15         2015-16         2016-17         2017-18         2018-19         2019-20         2020-21         202           0/14         32/635         43/1300         27/581         42/250         16/1426         12/143         10/212         2/70         3/14         7/           A         (0.00)         (5.04)         (3.31)         (4.65)         (16.80)         (11/2)         (8.39)         (4.72)         (2.86)         (21.43)         (8.           2/30         37/1021         38/1085         50/1876         3/688         39/1147         33/739         34/1457         11/40         7/76         20/0           B         (6.67)         (3.62)         (3.50)         (2.67)         (0.45)         (3.40)         (4.47)         (2.33)         (27.50)         (9.21)         (1.           C1         (20.00)         (7.14)         (25.00)         (6.10)         (2.10)         (1.60)         (66.67)         (100)         N/A         (37.50)         (60           C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)	3 12/142 3) (8.45) 143 10/304 5) (3.29) 0 2/120 00) (1.67) 7 18) N/A 2 21/172 08) (12.21) 15 20/526 7) (3.80) 20 26/376
A         (0.00)         (5.04)         (3.31)         (4.65)         (16.80)         (1.12)         (8.39)         (4.72)         (2.86)         (21.43)         (8.           2/30         37/1021         38/1085         50/1876         3/668         39/1147         33/739         34/1457         11/40         7/76         20/1           B         (6.67)         (3.62)         (3.50)         (2.67)         (0.45)         (3.40)         (4.47)         (2.33)         (27.50)         (9.21)         (1.           2/10         2/28         1/4         5/82         3/143         6/376         2/3         2/2         3/8         6/6           C1         (20.00)         (7.14)         (25.00)         (6.10)         (2.10)         (1.60)         (66.67)         (100)         N/A         (37.50)         (60           14/358         10/434         18/232         6/384         9/285         17/916         11/51         12/35         3/5         8/15         7/7           C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)         (41         9/4         9/4         10	3) (8.45) 143 10/304 5) (3.29) 0 2/120 00) (1.67) 7 18) N/A 2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376
B   2/30   37/1021   38/1085   50/1876   3/668   39/1147   33/739   34/1457   11/40   7/76   20/768   (6.67)   (3.62)   (3.50)   (2.67)   (0.45)   (3.40)   (4.47)   (2.33)   (27.50)   (9.21)   (1.20.00)   (7.14)   (25.00)   (6.10)   (2.10)   (1.60)   (66.67)   (100)   N/A   (37.50)   (60.00)   (3.40)   (4.47)   (2.33)   (27.50)   (9.21)   (1.20.00)   (7.14)   (25.00)   (6.10)   (2.10)   (1.60)   (66.67)   (100)   N/A   (37.50)   (60.00)   (3.31)   (2.30)   (7.76)   (1.56)   (3.16)   (1.86)   (21.57)   (34.29)   (60.00)   (53.33)   (41.20)   (4.216)   (4.29)   N/A   N/A   (3.33)   (20.00)   (18.18)   (100)   (2.38)   (100)   (2.38)   (100)   (1.85)   N/A   (14.29)   N/A   N/A   (3.33)   (20.00)   (18.18)   (100)   (2.38)   (100)   (1.27)   (1.27)   (1.27)   (1.27)   (1.27)   (1.27)   (1.27)   (1.28)   (1.27)   (1.28)   (1.27)   (1.28)   (1.	143 10/304 5) (3.29) 0 2/120 00) (1.67) 7 18) N/A 2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376
B         (6.67)         (3.62)         (3.50)         (2.67)         (0.45)         (3.40)         (4.47)         (2.33)         (27.50)         (9.21)         (1.           2/10         2/28         1/4         5/82         3/143         6/376         2/3         2/2         3/8         6/6           C1         (20.00)         (7.14)         (25.00)         (6.10)         (2.10)         (1.60)         (66.67)         (100)         N/A         (37.50)         (60           14/358         10/434         18/232         6/384         9/285         17/916         11/51         12/35         3/5         8/15         7/           C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)         (41           D1         (1.85)         N/A         (14.29)         N/A         N/A         (3.33)         (20.00)         (18.18)         (100)         (2.38)         (10           15/233         8/598         28/309         23/1805         40/121         14/399         5/137         2/6         9/71         5/14         10/         10/         10/         4/14         10/	5) (3.29) 0 2/120 00) (1.67) 7 18) N/A 2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376
C1         2/10         2/28         1/4         5/82         3/143         6/376         2/3         2/2         N/A         3/8         6/7           C1         (20.00)         (7.14)         (25.00)         (6.10)         (2.10)         (1.60)         (66.67)         (100)         N/A         (37.50)         (60           14/358         10/434         18/232         6/384         9/285         17/916         11/51         12/35         3/5         8/15         7/           C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)         (41           4/216         2/14         1/4         4/120         1/5         2/11         2/2         1/42         9/           D1         (1.85)         N/A         (14.29)         N/A         N/A         (3.33)         (20.00)         (18.18)         (100)         (2.38)         (10           15/233         8/598         28/309         23/1805         40/121         14/399         5/137         2/6         9/71         5/14         10/           10         (6.44)         (1.34)         (9.06)         (	0 2/120 00) (1.67) 7 18) N/A 2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376
C1         2/10         2/28         1/4         5/82         3/143         6/376         2/3         2/2         NA         3/8         6/6           C1         (20.00)         (7.14)         (25.00)         (6.10)         (2.10)         (1.60)         (66.67)         (100)         N/A         (37.50)         (60           14/358         10/434         18/232         6/384         9/285         17/916         11/51         12/35         3/5         8/155         7/7           C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)         (41           4/216         2/14         N/A         N/A         (3.33)         (20.00)         (18.18)         (100)         (2.38)         (10           15/233         8/598         28/309         23/1805         40/121         14/399         5/137         2/6         9/71         5/14         10/           D2         (6.44)         (1.34)         (9.06)         (1.27)         (33.06)         (3.51)         (3.65)         (33.33)         (12.68)         (35.71)         (3         (3         (3.51)         (3.65) <td< td=""><td>0 2/120 00) (1.67) 7 18) N/A 2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376</td></td<>	0 2/120 00) (1.67) 7 18) N/A 2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376
14/358         10/434         18/232         6/384         9/285         17/916         11/51         12/35         3/5         8/15         7/           C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)         (41           L         4/216         2/14         4/120         1/5         2/11         2/2         1/42         9/           D1         (1.85)         N/A         (14.29)         N/A         N/A         (3.33)         (20.00)         (18.18)         (100)         (2.38)         (10           15/233         8/598         28/309         23/1805         40/121         14/399         5/137         2/6         9/71         5/14         10/           D2         (6.44)         (1.34)         (9.06)         (1.27)         (33.06)         (3.51)         (3.65)         (33.33)         (12.68)         (35.71)         (3.           E         N/A         (3.43)         N/A         N/A         (7.56)         N/A         (12.50)         (6.76)         (13.04)         (5.20)         (6.           F         (4.80)         (2.89)         (3.24)	7
C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)         (41           4/216         2/14         2/14         N/A         4/120         1/5         2/11         2/2         1/42         9/           D1         (1.85)         N/A         (14.29)         N/A         N/A         (3.33)         (20.00)         (18.18)         (100)         (2.38)         (10           15/233         8/598         28/309         23/1805         40/121         14/399         5/137         2/6         9/71         5/14         10/           D2         (6.44)         (1.34)         (9.06)         (1.27)         (33.06)         (3.51)         (3.65)         (33.33)         (12.68)         (35.71)         (3.           E         N/A         (3.43)         N/A         N/A         (7.56)         N/A         (12.50)         (6.76)         (13.04)         (5.20)         (6.           F         (4.80)         (2.89)         (3.24)         (5.15)         (0.00)         (8.70)         (14.17)         (10.29)         (0.17)         (0.85)         (3.           G         (2.12	N/A           2         21/172           98)         (12.21)           15         20/526           7)         (3.80)           20         26/376
C2         (3.91)         (2.30)         (7.76)         (1.56)         (3.16)         (1.86)         (21.57)         (34.29)         (60.00)         (53.33)         (41           4/216         2/14         2/14         N/A         4/120         1/5         2/11         2/2         1/42         9/           D1         (1.85)         N/A         (14.29)         N/A         N/A         (3.33)         (20.00)         (18.18)         (100)         (2.38)         (10           15/233         8/598         28/309         23/1805         40/121         14/399         5/137         2/6         9/71         5/14         10/           D2         (6.44)         (1.34)         (9.06)         (1.27)         (33.06)         (3.51)         (3.65)         (33.33)         (12.68)         (35.71)         (3.           E         N/A         (3.43)         N/A         N/A         (7.56)         N/A         (12.50)         (6.76)         (13.04)         (5.20)         (6.           F         (4.80)         (2.89)         (3.24)         (5.15)         (0.00)         (8.70)         (14.17)         (10.29)         (0.17)         (0.85)         (3.           G         (2.12	2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376
H216         2/14         2/14         A/120         1/5         2/11         2/2         1/42         9/2           D1         (1.85)         N/A         (14.29)         N/A         N/A         (3.33)         (20.00)         (18.18)         (100)         (2.38)         (10           15/233         8/598         28/309         23/1805         40/121         14/399         5/137         2/6         9/71         5/14         10/19           D2         (6.44)         (1.34)         (9.06)         (1.27)         (33.06)         (3.51)         (3.65)         (33.33)         (12.68)         (35.71)         (3.           E         N/A         (3.43)         N/A         N/A         (7.56)         N/A         (12.50)         (6.76)         (13.04)         (5.20)         (6.           6/125         12/415         17/524         10/194         0/3         4/46         17/120         7/68         1/576         7/828         8/2           F         (4.80)         (2.89)         (3.24)         (5.15)         (0.00)         (8.70)         (14.17)         (10.29)         (0.17)         (0.85)         (3.           G         (2.12)         (5.93)         (1.95) <td>2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376</td>	2 21/172 98) (12.21) 15 20/526 7) (3.80) 20 26/376
15/233	15 20/526 7) (3.80) 20 26/376
Table 15/233   S/598   28/309   23/1805   40/121   14/399   5/137   2/6   9/71   5/14   10/15/24   10/15/24   18/238   6/48   20/296   24/184   23/442   26/25/25/25/25/25/25/25/25/25/25/25/25/25/	7) (3.80) 20 26/376
E         N/A         (3.43)         N/A         N/A         (7.56)         N/A         (12.50)         (6.76)         (13.04)         (5.20)         (6.76)           6/125         12/415         17/524         10/194         0/3         4/46         17/120         7/68         1/576         7/828         8/2           F         (4.80)         (2.89)         (3.24)         (5.15)         (0.00)         (8.70)         (14.17)         (10.29)         (0.17)         (0.85)         (3.           10/471         29/489         25/1285         22/263         23/1116         24/635         5/140         2/344         0/120         1/84         2           G         (2.12)         (5.93)         (1.95)         (8.37)         (2.06)         (3.78)         (3.57)         (0.58)         (0.00)         (1.19)         (50           5/137         62/3778         17/1516         12/554         11/354         2/150         1/360         3/100         2/93         6/288         12/           H1         (3.65)         (1.64)         (1.12)         (2.17)         (3.11)         (1.33)         (0.28)         (3.00)         (2.15)         (2.08)         (10           25/1095 <td>20 26/376</td>	20 26/376
E         N/A         (3.43)         N/A         N/A         (7.56)         N/A         (12.50)         (6.76)         (13.04)         (5.20)         (6.76)           6/125         12/415         17/524         10/194         0/3         4/46         17/120         7/68         1/576         7/828         8/2           F         (4.80)         (2.89)         (3.24)         (5.15)         (0.00)         (8.70)         (14.17)         (10.29)         (0.17)         (0.85)         (3.           10/471         29/489         25/1285         22/263         23/1116         24/635         5/140         2/344         0/120         1/84         2           G         (2.12)         (5.93)         (1.95)         (8.37)         (2.06)         (3.78)         (3.57)         (0.58)         (0.00)         (1.19)         (50           5/137         62/3778         17/1516         12/554         11/354         2/150         1/360         3/100         2/93         6/288         12/           H1         (3.65)         (1.64)         (1.12)         (2.17)         (3.11)         (1.33)         (0.28)         (3.00)         (2.15)         (2.08)         (10           25/1095 <td></td>	
6/125         12/415         17/524         10/194         0/3         4/46         17/120         7/68         1/576         7/828         8/2           F         (4.80)         (2.89)         (3.24)         (5.15)         (0.00)         (8.70)         (14.17)         (10.29)         (0.17)         (0.85)         (3.           10/471         29/489         25/1285         22/263         23/1116         24/635         5/140         2/344         0/120         1/84         2           G         (2.12)         (5.93)         (1.95)         (8.37)         (2.06)         (3.78)         (3.57)         (0.58)         (0.00)         (1.19)         (50           5/137         62/3778         17/1516         12/554         11/354         2/150         1/360         3/100         2/93         6/288         12/           H1         (3.65)         (1.64)         (1.12)         (2.17)         (3.11)         (1.33)         (0.28)         (3.00)         (2.15)         (2.08)         (10           25/1095         45/1776         28/1236         35/1806         14/350         9/345         4/315         7/111         3/107         12/172         15           H2         (2.2	9) (6.91)
F         (4.80)         (2.89)         (3.24)         (5.15)         (0.00)         (8.70)         (14.17)         (10.29)         (0.17)         (0.85)         (3.           10/471         29/489         25/1285         22/263         23/1116         24/635         5/140         2/344         0/120         1/84         2           G         (2.12)         (5.93)         (1.95)         (8.37)         (2.06)         (3.78)         (3.57)         (0.58)         (0.00)         (1.19)         (50           5/137         62/3778         17/1516         12/554         11/354         2/150         1/360         3/100         2/93         6/288         12/           H1         (3.65)         (1.64)         (1.12)         (2.17)         (3.11)         (1.33)         (0.28)         (3.00)         (2.15)         (2.08)         (10           25/1095         45/1776         28/1236         35/1806         14/350         9/345         4/315         7/111         3/107         12/172         15           H2         (2.28)         (2.53)         (2.27)         (1.94)         (4.00)         (2.61)         (1.27)         (6.31)         (2.80)         (6.98)         (21	
10/471         29/489         25/1285         22/263         23/1116         24/635         5/140         2/344         0/120         1/84         2           G         (2.12)         (5.93)         (1.95)         (8.37)         (2.06)         (3.78)         (3.57)         (0.58)         (0.00)         (1.19)         (50           5/137         62/3778         17/1516         12/554         11/354         2/150         1/360         3/100         2/93         6/288         12/           H1         (3.65)         (1.64)         (1.12)         (2.17)         (3.11)         (1.33)         (0.28)         (3.00)         (2.15)         (2.08)         (10           25/1095         45/1776         28/1236         35/1806         14/350         9/345         4/315         7/111         3/107         12/172         15           H2         (2.28)         (2.53)         (2.27)         (1.94)         (4.00)         (2.61)         (1.27)         (6.31)         (2.80)         (6.98)         (21	12 7/99
G         (2.12)         (5.93)         (1.95)         (8.37)         (2.06)         (3.78)         (3.57)         (0.58)         (0.00)         (1.19)         (50           5/137         62/3778         17/1516         12/554         11/354         2/150         1/360         3/100         2/93         6/288         12/           H1         (3.65)         (1.64)         (1.12)         (2.17)         (3.11)         (1.33)         (0.28)         (3.00)         (2.15)         (2.08)         (10           25/1095         45/1776         28/1236         35/1806         14/350         9/345         4/315         7/111         3/107         12/172         15           H2         (2.28)         (2.53)         (2.27)         (1.94)         (4.00)         (2.61)         (1.27)         (6.31)         (2.80)         (6.98)         (21	1) (7.07)
5/137         62/3778         17/1516         12/554         11/354         2/150         1/360         3/100         2/93         6/288         12/150           H1         (3.65)         (1.64)         (1.12)         (2.17)         (3.11)         (1.33)         (0.28)         (3.00)         (2.15)         (2.08)         (10           25/1095         45/1776         28/1236         35/1806         14/350         9/345         4/315         7/111         3/107         12/172         15           H2         (2.28)         (2.53)         (2.27)         (1.94)         (4.00)         (2.61)         (1.27)         (6.31)         (2.80)         (6.98)         (21	4/196
H1     (3.65)     (1.64)     (1.12)     (2.17)     (3.11)     (1.33)     (0.28)     (3.00)     (2.15)     (2.08)     (10       25/1095     45/1776     28/1236     35/1806     14/350     9/345     4/315     7/111     3/107     12/172     15       H2     (2.28)     (2.53)     (2.27)     (1.94)     (4.00)     (2.61)     (1.27)     (6.31)     (2.80)     (6.98)     (21	00) (2.04)
H1     (3.65)     (1.64)     (1.12)     (2.17)     (3.11)     (1.33)     (0.28)     (3.00)     (2.15)     (2.08)     (10       25/1095     45/1776     28/1236     35/1806     14/350     9/345     4/315     7/111     3/107     12/172     15       H2     (2.28)     (2.53)     (2.27)     (1.94)     (4.00)     (2.61)     (1.27)     (6.31)     (2.80)     (6.98)     (21	20 19/335
H2 (2.28) (2.53) (2.27) (1.94) (4.00) (2.61) (1.27) (6.31) (2.80) (6.98) (21	00) (5.67)
	71 3/22
10/007 10/014 00/000 10/007 07/010 01/10/0 17/07/	13) (13.64)
12/667 16/314 30/822 16/825 25/913 31/1242 17/271 10/40 13/814 8/465 4/	8 7/55
I1	3) (12.73)
27/653 16/805 4/251 9/560 4/471 1/20 7/99 7/401 2/146 5/2	04 3/180
I2   N/A   (4.13)   (1.99)   (1.59)   (1.61)   (0.85)   (5.00)   (7.07)   (1.75)   (1.37)   (2.	5) (1.67)
3/389 19/143 19/108 18/301 17/573 10/434 10/735 15/301 9/470 5/186 8/8	12 6/203
J1 (0.77) (13.29) (17.59) (5.98) (2.97) (2.30) (1.36) (4.98) (1.91) (2.69) (0.	5) (2.96)
94/2602 99/6338 53/4159 55/3833 59/1366 48/1993 39/1283 26/390 6/25 12/270 7/6	22 14/347
J2   (3.61)   (1.56)   (1.27)   (1.43)   (4.32)   (2.41)   (3.04)   (6.67)   (24.00)   (4.44)   (1.	3) (4.03)
34/1119 48/2402 54/2120 60/2657 66/2362 31/1478 11/589 26/3183 26/2943 24/1309 14/	48 14/584
K (3.04) (2.00) (2.55) (2.26) (2.79) (2.10) (1.87) (0.82) (0.88) (1.83) (1.	7) (2.40)
22/692 24/1168 59/2252 36/1347 54/1102 40/1644 30/522 46/1234 30/2917 29/890 9/-	17 13/61
L (3.18) (2.05) (2.62) (2.67) (4.90) (2.43) (5.75) (3.73) (1.03) (3.26) (7.	0) (04.04)
99/3146 94/2501 129/3462 75/3888 41/2321 22/7045 25/773 18/551 29/1239 34/1596 22/	9) (21.31)
M (3.15) (3.76) (3.73) (1.93) (1.77) (0.31) (3.23) (3.27) (2.34) (2.13) (1.	
347/11304 571/22897 577/21233 454/20647 434/12725 321/19867 230/6254 249/8440 177/10077 190/6845 191/	765 58/1197
ALL (3.07) (2.49) (2.72) (2.20) (3.41) (1.62) (3.68) (2.95) (1.76) (2.78) (2.	765 58/1197 5) (4.85)

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 4-i. Red fox take, trap nights of effort and catch per 100 trap nights given as take/effort with catch per 100 trap nights in parentheses

16839   34/1157   29/1804   26/1413   20/1094   17/1595   9/420   26/1857   49/147   8/1330   34/150   1/3	WM		001010	2010.11	221115	2215 12	2010.17	001=10	001010	2212.22		2224.22	
A	U	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Sizo													1/30
B   (15.00)   (1.39)   (0.55)   (1.12)   (0.85)   (0.69)   (2.00)   (1.24)   (0.88)   (1.04)   (0.13)   (1.2)	Α									\ '-/		/	(3.33)
Si/98   5i/52   3/300													
C1	В		/	\ /	(1.13)	\ /	\ /	\ /	\ /	(0.88)	(1.04)	(0.13)	(12.50)
C2	0.4				<b>.</b>						21/2		
C2   (2.86)   (8.33)   (1.64)   (1.50)   (1.00)   (0.38)   (6.41)   N/A   N/A   N/A   N/A   N/A   N/A   N/A   D2   D1   (2.73)   (2.73)   (3.62)   (3.57)   (3.03)   (0.67)   (4.21)   N/A   N/A   N/A   N/A   (0.00)   N/A   (2.56)   (1.68)   (0.91)   (1.69)   (1.6	C1		/	\ /		\ /	· /	( /	(100)	N/A	N/A	N/A	N/A
D1													
D1   (8.70)   (4.84)   (6.67)   (3.57)   (3.03)   (0.67)   (4.21)   N/A	C2							/	N/A	N/A	N/A		N/A
D2   10.68   0.91   (1.69   10/590   10/261   8/370   5/224   9/196   2/147   11/346   1/30   3/35   3/35   D2   (10.68   0.91)   (1.69   (3.83)   (2.16)   (2.23)   (4.59)   (1.36)   (3.18)   (3.33)   N/A   (0.8   1.7787   1.7878   1.7													
D2	D1						/	\ /				(0.00)	
E N/A (13.64) (1.43) (3.05) (11.11) (12.12) (11.36) (5.71) (0.89) (1.22) (6.12) (0.14) (1.36) (5.71) (0.89) (1.22) (6.12) (0.14) (1.36) (1.25) (1.36) (1.25) (1.36) (1.25) (1.36) (1.25) (1.36) (1.25) (1.36) (1.25) (1.36) (1.25) (1.37) (1.25) (1.36) (1.25) (1.37) (1.25) (1.36) (1.25) (1.37) (1.36) (1.25) (1.25) (1.36) (1.25) (1.37) (1.36) (1.25) (1.25) (1.36) (1.25) (1.38) (1.25) (1.25) (1.38) (1.25) (1.25) (1.38) (1.25) (1.25) (1.38) (1.25) (1.25) (1.38) (1.25)													3/352
E         N/A         (13.64)         (1.43)         (3.05)         (11.11)         (12.12)         (11.36)         (5.71)         (0.89)         (1.22)         (6.12)         (0.1           0/28         1/80         3/72         3/50         0/10         0/10         11/54         6/20         14/433         9/402         6/277         7/15           F         (0.00)         (1.25)         (4.17)         (6.00)         N/A         (0.00)         (20.37)         (30.00)         3.23)         (2.24)         (2.17)         (3.6           25/1142         30/1336         28/1474         21/1465         21/1526         6/228         1/348         8/340         6/220         2/168         8/35           G         (2.19)         (2.25)         (1.90)         (1.43)         (1.38)         (2.63)         (0.29)         (2.35)         (2.73)         (1.19)         N/A         (2.0         1/180 <td< td=""><td>D2</td><td>(10.68)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>(0.85)</td></td<>	D2	(10.68)											(0.85)
Columbridge	_												12/7235
F         (0.00)         (1.25)         (4.17)         (6.00)         N/A         (0.00)         (20.37)         (30.00)         (3.23)         (2.24)         (2.17)         (3.6           25/1142         30/1336         28/1474         21/14526         6/228         1/348         8/340         6/220         2/168         8/38           G         (2.19)         (2.25)         (1.90)         (1.43)         (1.38)         (2.63)         (0.29)         (2.35)         (2.73)         (1.19)         N/A         (2.0           H1         (1.74)         (0.55)         (0.62)         (0.54)         (0.78)         (0.00)         N/A         (0.56)         N/A         N/A         N/A         N/A         N/A         (1.6         4/94         H         (0.97)         (4.21)         (1.82)         (2.19)         (0.34)         (0.89)         (0.87)         (4.76)         (0.81)         N/A         (4.26)         N//           W         0/210         11/1050         11/1474         13/832         26/1747         8/1427         5/830         2/98         2/13828         8/602         2/90         3/22         1/2         (0.83)         (2.25)         (1.11         (0.00)         (0.00)         (0	E					(11.11)						\ /	(0.17)
G (2.19) (2.25) (1.90) (1.43) (1.38) (2.63) (0.29) (2.35) (2.73) (1.19) N/A (2.0 (2.19) (2.25) (1.90) (1.43) (1.38) (2.63) (0.29) (2.35) (2.73) (1.19) N/A (2.0 (2.0 (2.19) (2.25) (1.90) (1.43) (1.38) (2.63) (0.29) (2.35) (2.73) (1.19) N/A (2.0 (2.0 (2.19) (0.55) (0.62) (0.54) (0.78) (0.00) N/A (0.56) N/A N/A N/A N/A N/A (1.6 (6.620 17/404 21/1156 4/183 9/2619 2/224 4/459 2/42 2/246 4/94 (4.24) (0.97) (4.21) (1.82) (2.19) (0.34) (0.89) (0.87) (4.76) (0.81) N/A (4.26) N//A (4.26) N//A (4.21) (1.82) (2.19) (0.34) (0.89) (0.87) (4.76) (0.81) N/A (4.26) N//A (4.26) N//A (4.21) (1.05) (0.75) (1.56) (1.49) (0.56) (0.60) (2.04) (0.55) (1.33) (2.22) (1.1 (0.00) (1.05) (0.75) (1.56) (1.49) (0.56) (0.60) (2.04) (0.55) (1.33) (2.22) (1.1 (1.102) (1.102	_												7/194
G         (2.19)         (2.25)         (1.90)         (1.43)         (1.38)         (2.63)         (0.29)         (2.35)         (2.73)         (1.19)         N/A         (2.0           11/632         15/2720         5/806         6/110         9/1159         0/106         1/180         1/180         N/A         N/	F	( )	/	\ /	\ /		( )	, ,	\ /	\ /	\ /	(2.17)	(3.61)
H1													8/390
H1	G				(1.43)		(2.63)	(0.29)	(2.35)	(2.73)	(1.19)	N/A	(2.05)
H2   6/620													3/182
H2   (0.97)   (4.21)   (1.82)   (2.19)   (0.34)   (0.89)   (0.87)   (4.76)   (0.81)   N/A   (4.26)   N/A   (4	H1					_ /	/	-			N/A		(1.65)
11									· ·				
11         (0.00)         (1.05)         (0.75)         (1.56)         (1.49)         (0.56)         (0.60)         (2.04)         (0.55)         (1.33)         (2.22)         (1.1           1/120         33/1276         18/1304         4/264         7/1280         4/315         22/860         7/994         3/170         5/21           12         (0.83)         (2.59)         (1.38)         (1.52)         (0.55)         (1.27)         N/A         (2.56)         (0.70)         (1.76)         (23.81)         N/A           3/126         5/200         6/248         0/222         0/642         4/524         5/543         3/216         2/1145         8/616         4/412         4/22           J1         (2.38)         (2.50)         (2.42)         (0.00)         (0.00)         (0.76)         (0.92)         (1.39)         (0.17)         (1.30)         (0.97)         (1.72           23/1409         36/4548         20/2632         7/2768         13/1270         15/1688         23/1355         4/29         16/2545         8/538         0/188         12/4           J2         (1.63)         (0.79)         (0.76)         (0.25)         (1.02)         (0.89)         (1.70)         (13.7	H2				\ -/			( /				/	N/A
1/120   33/1276   18/1304   4/264   7/1280   4/315   22/860   7/994   3/170   5/21     12													3/258
12   (0.83)   (2.59)   (1.38)   (1.52)   (0.55)   (1.27)   N/A   (2.56)   (0.70)   (1.76)   (23.81)   N/A   (2.56)   (2.50)   (2.42)   (2.38)   (2.50)   (2.42)   (2.342)   (2.	l1	(0.00)	(1.05)	(0.75)	(1.56)	(1.49)	(0.56)	(0.60)	(2.04)	(0.55)	(1.33)	(2.22)	(1.16)
3/126   5/200   6/248   0/222   0/642   4/524   5/543   3/216   2/1145   8/616   4/412   4/22     J1													
J1         (2.38)         (2.50)         (2.42)         (0.00)         (0.00)         (0.76)         (0.92)         (1.39)         (0.17)         (1.30)         (0.97)         (1.7           23/1409         36/4548         20/2632         7/2768         13/1270         15/1688         23/1355         4/29         16/2545         8/538         0/188         12/4           J2         (1.63)         (0.79)         (0.76)         (0.25)         (1.02)         (0.89)         (1.70)         (13.79)         (0.63)         (1.49)         (0.00)         (2.9           23/2458         28/2528         37/2598         20/1042         10/3152         11/1630         6/1772         14/761         8/497         11/560         2/268         3/12           K         (0.94)         (1.11)         (1.42)         (1.92)         (0.32)         (0.67)         (0.34)         (1.84)         (1.61)         (1.96)         (0.75)         (2.4           16/1238         20/2240         22/3421         8/1304         7/707         6/862         13/186         1/360         1/1         2/6         0/24         5/15           L         (1.29)         (0.89)         (0.64)         (0.61)         (0.99)	12	(0.83)	(2.59)	(1.38)	(1.52)	(0.55)	(1.27)	N/A	(2.56)	(0.70)	(1.76)	(23.81)	N/A
23/1409         36/4548         20/2632         7/2768         13/1270         15/1688         23/1355         4/29         16/2545         8/538         0/188         12/4           J2         (1.63)         (0.79)         (0.76)         (0.25)         (1.02)         (0.89)         (1.70)         (13.79)         (0.63)         (1.49)         (0.00)         (2.9           23/2458         28/2528         37/2598         20/1042         10/3152         11/1630         6/1772         14/761         8/497         11/560         2/268         3/12           K         (0.94)         (1.11)         (1.42)         (1.92)         (0.32)         (0.67)         (0.34)         (1.84)         (1.61)         (1.96)         (0.75)         (2.4           16/1238         20/2240         22/3421         8/1304         7/707         6/862         13/186         1/360         1/1         2/6         0/24         5/15           L         (1.29)         (0.89)         (0.61)         (0.99)         (0.70)         (6.99)         (0.28)         (100)         (33.33)         (0.00)         (3.1           31/1737         36/2896         17/3090         17/1943         24/2065         12/551         5/346					0/222	0/642	4/524	5/543	3/216	2/1145	8/616	4/412	4/225
J2         (1.63)         (0.79)         (0.76)         (0.25)         (1.02)         (0.89)         (1.70)         (13.79)         (0.63)         (1.49)         (0.00)         (2.9           23/2458         28/2528         37/2598         20/1042         10/3152         11/1630         6/1772         14/761         8/497         11/560         2/268         3/12           K         (0.94)         (1.11)         (1.42)         (1.92)         (0.32)         (0.67)         (0.34)         (1.84)         (1.61)         (1.96)         (0.75)         (2.4           16/1238         20/2240         22/3421         8/1304         7/707         6/862         13/186         1/360         1/1         2/6         0/24         5/15           L         (1.29)         (0.89)         (0.64)         (0.61)         (0.99)         (0.70)         (6.99)         (0.28)         (100)         (33.33)         (0.00)         (3.1           31/1737         36/2896         17/3090         17/1943         24/2065         12/551         5/346         3/96         1/28         8/556         3/407         6/55           M         (1.78)         (1.24)         (0.55)         (0.87)         (1.16)         (	J1	(2.38)	(2.50)	(2.42)	(0.00)	(0.00)	(0.76)	(0.92)	(1.39)	(0.17)	(1.30)	(0.97)	(1.78)
23/2458         28/2528         37/2598         20/1042         10/3152         11/1630         6/1772         14/761         8/497         11/560         2/268         3/12           K         (0.94)         (1.11)         (1.42)         (1.92)         (0.32)         (0.67)         (0.34)         (1.84)         (1.61)         (1.96)         (0.75)         (2.4           16/1238         20/2240         22/3421         8/1304         7/707         6/862         13/186         1/360         1/1         2/6         0/24         5/15           L         (1.29)         (0.89)         (0.64)         (0.61)         (0.99)         (0.70)         (6.99)         (0.28)         (100)         (33.33)         (0.00)         (3.1           31/1737         36/2896         17/3090         17/1943         24/2065         12/551         5/346         3/96         1/28         8/556         3/407         6/55           M         (1.78)         (1.24)         (0.55)         (0.87)         (1.16)         (2.18)         (1.45)         (3.13)         (3.57)         (1.44)         (0.74)         (1.0           207/11524         291/21721         257/22830         162/14439         167/18972         115/138		23/1409	36/4548	20/2632	7/2768	13/1270	15/1688	23/1355	4/29	16/2545	8/538	0/188	12/410
K         (0.94)         (1.11)         (1.42)         (1.92)         (0.32)         (0.67)         (0.34)         (1.84)         (1.61)         (1.96)         (0.75)         (2.4           I         16/1238         20/2240         22/3421         8/1304         7/707         6/862         13/186         1/360         1/1         2/6         0/24         5/15           L         (1.29)         (0.89)         (0.64)         (0.61)         (0.99)         (0.70)         (6.99)         (0.28)         (100)         (33.33)         (0.00)         (3.1           31/1737         36/2896         17/3090         17/1943         24/2065         12/551         5/346         3/96         1/28         8/556         3/407         6/55           M         (1.78)         (1.24)         (0.55)         (0.87)         (1.16)         (2.18)         (1.45)         (3.13)         (3.57)         (1.44)         (0.74)         (1.0           207/11524         291/21721         257/22830         162/14439         167/18972         115/13895         115/7051         118/5731         159/13076         78/4867         33/2810         68/10	J2	(1.63)	(0.79)	(0.76)	(0.25)	(1.02)	(0.89)	(1.70)	(13.79)	(0.63)	(1.49)	(0.00)	(2.93)
16/1238         20/2240         22/3421         8/1304         7/707         6/862         13/186         1/360         1/1         2/6         0/24         5/15           L         (1.29)         (0.89)         (0.64)         (0.61)         (0.99)         (0.70)         (6.99)         (0.28)         (100)         (33.33)         (0.00)         (3.1           31/1737         36/2896         17/3090         17/1943         24/2065         12/551         5/346         3/96         1/28         8/556         3/407         6/55           M         (1.78)         (1.24)         (0.55)         (0.87)         (1.16)         (2.18)         (1.45)         (3.13)         (3.57)         (1.44)         (0.74)         (1.0           207/11524         291/21721         257/22830         162/14439         167/18972         115/13895         115/7051         118/5731         159/13076         78/4867         33/2810         68/10			28/2528	37/2598	20/1042	10/3152	11/1630	6/1772	14/761	8/497	11/560	2/268	3/124
L         (1.29)         (0.89)         (0.64)         (0.61)         (0.99)         (0.70)         (6.99)         (0.28)         (100)         (33.33)         (0.00)         (3.1           31/1737         36/2896         17/3090         17/1943         24/2065         12/551         5/346         3/96         1/28         8/556         3/407         6/55           M         (1.78)         (1.24)         (0.55)         (0.87)         (1.16)         (2.18)         (1.45)         (3.13)         (3.57)         (1.44)         (0.74)         (1.0           207/11524         291/21721         257/22830         162/14439         167/18972         115/13895         115/7051         118/5731         159/13076         78/4867         33/2810         68/10	K	(0.94)	(1.11)	(1.42)	(1.92)	(0.32)	(0.67)	(0.34)	(1.84)	(1.61)	(1.96)	(0.75)	(2.42)
31/1737         36/2896         17/3090         17/1943         24/2065         12/551         5/346         3/96         1/28         8/556         3/407         6/55           M         (1.78)         (1.24)         (0.55)         (0.87)         (1.16)         (2.18)         (1.45)         (3.13)         (3.57)         (1.44)         (0.74)         (1.0           207/11524         291/21721         257/22830         162/14439         167/18972         115/13895         115/7051         118/5731         159/13076         78/4867         33/2810         68/10		16/1238	20/2240	22/3421	8/1304	7/707	6/862	13/186	1/360	1/1	2/6	0/24	5/158
M         (1.78)         (1.24)         (0.55)         (0.87)         (1.16)         (2.18)         (1.45)         (3.13)         (3.57)         (1.44)         (0.74)         (1.0           207/11524         291/21721         257/22830         162/14439         167/18972         115/13895         115/7051         118/5731         159/13076         78/4867         33/2810         68/10	L	(1.29)	(0.89)	(0.64)	(0.61)	(0.99)	(0.70)	(6.99)	(0.28)	(100)	(33.33)	(0.00)	(3.16)
207/11524 291/21721 257/22830 162/14439 167/18972 115/13895 115/7051 118/5731 159/13076 78/4867 33/2810 68/10		31/1737	36/2896	17/3090	17/1943	24/2065	12/551	5/346	3/96	1/28	8/556	3/407	6/556
	M	(1.78)	(1.24)		(0.87)	(1.16)	(2.18)	(1.45)	(3.13)	(3.57)	(1.44)	(0.74)	(1.08)
		207/11524	291/21721	257/22830	162/14439	167/18972	115/13895	115/7051	118/5731	159/13076	78/4867	33/2810	68/10122
N =    (1.00)   (1.07)   (1.10)   (1.12)   (0.00)   (0.00)   (1.00)   (2.00)   (1.22)   (1.00)   (1.11)   (0.00)   (1.00)   (	ALL	(1.80)	(1.34)	(1.13)	(1.12)	(88.0)	(0.83)	(1.63)	(2.06)	(1.22)	(1.60)	(1.17)	(0.67)

Note: Only data with complete take, effort and WMU information have been included in this table. \*These data may differ from that of previous reports due to late data submittals.

Table 5. Statewide catch per 100 trap nights of effort for the 2011 – 2022 NH trapping seasons

SPECIES	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
BEAVER	6.86	5.29	5.96	5.52	4.71	7.23	6.92	8.89	5.92	5.54	7.48	7.52
COYOTE	2.4	1.46	1.21	1.21	1.06	1.41	1.52	2.17	1.14	1.79	1.98	1.54
FISHER	1.28	1.42	0.94	1.32	1.13	1.73	1.08	1.23	1	1.44	1.46	0.96
GRAY FOX	1.33	1.07	0.92	0.69	0.77	0.55	1.02	1.73	0.34	1.39	0.48	0.34
MINK	1.99	1.43	1.09	1.91	1.47	1.57	1.75	2.05	1.14	1.5	1.49	1.53
MUSKRAT	5.64	4.85	5.07	4.7	5.31	5.7	6.53	6.78	5.87	10.18	6.41	5.19
OTTER	1.55	1.26	1.55	1.96	1.46	2.77	1.65	3.15	1.94	3.07	2.58	2.63
RACCOON	3.07	2.49	2.72	2.2	3.41	1.62	3.68	2.95	1.76	2.78	2.77	4.86
RED FOX	1.8	1.34	1.13	1.12	0.88	0.83	1.63	2.06	1.22	1.6	1.17	0.67

Note: Only data with complete take, effort and WMU information have been included in this table.

Table 6. NH Pelt Value by Species for the 2022 Season

	PELT VALUE (\$)	NUMBER TRAPPED	TOTAL VALUE (\$)
Beaver	\$27.20	1,175	\$31,960
Otter	\$33.00	106	\$3,498
Mink	\$8.00	41	\$328
Muskrat	\$2.35	226	\$531
Fisher	\$35.50	19	\$675
Raccoon	\$9.50	261	\$2,480
Red Fox	\$17.40	80	\$1,392
Gray Fox	\$21.50	42	\$903
Coyote	\$15.00	203	\$3,045
Weasel	\$2.25	22	\$50
Skunk	\$17.00	76	\$1,292
TOTAL			\$46,153

<sup>\*</sup>Based on statewide NH trapper harvest data and average of in-state Maine fur auction prices paid per pelt.

<sup>\*</sup>These data may differ from that of previous reports due to late data submittals.

Table 7. 2021/2022 NH Furbearer Take by Trappers and Wildlife Control Operators

Species	By Trapper*	By WCO	Total	Percent by WCO	
Beaver	1303	1656	2959	55.96	
Coyote	285	16	301	5.32	
Fisher	23	2	25	8	
Gray Fox	14	7	21	33.33	
Mink	42	3	45	6.67	
Muskrat	344	36	380	9.47	
Opossum	27	101	128	78.91	
Otter	123	36	159	22.64	
Raccoon	216	342	558	61.29	
Red Fox	55	9	64	14.06	
Skunk	45	465	510	91.18	
Weasel	19	6	25	24	

<sup>\*</sup>These data may differ from that of previous reports due to late data submittals.

State: New Hampshire Grant: F20AF11939

**Grant Type:** Survey and Inventory

**Grant Title:** NH – WILDLIFE RESEARCH AND MANAGEMENT (W-89-R-21)

Period Covered: July 1, 2022 to June 30, 2023

Purpose/Target Name: PROJECT 6 - FURBEARER RESEARCH AND MANAGEMENT

Objective Name: JOB 2 - NON-HARVEST MORTALITY DATA COLLECTION, ENTRY AND ANALYSIS

**Objective Statement:** To collect for management purposes, non-harvest data including road kill data, incidental take data, biological samples from carcasses, and demographics data derived from the necropsy of carcasses collected by the furbearer project. Disease, parasite and other health issues potentially impacting furbearer species will be monitored and evaluated.

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**Summary:** Road kill and observation data were collected from reports filed by wildlife biologist, conservation officers, trappers, the general public, and regional Fish and Game staff. This subjective information is used to further evaluate regional and local field conditions in our efforts to formulate season recommendations. Bobcat sighting reports and carcass collection continue to be an integral part of monitoring for that species. Wildlife diseases potentially affecting furbearer populations were evaluated.

Target date: June 30<sup>th</sup> annually 2021-2025.

Status of progress: On schedule.

**Deviations:** None.

**Objective Approach:** Non-hunting mortality may be collected via reports submitted by department staff. Carcasses and/or samples may be collected by staff incidental to pelt tagging or as a result of trapping or incidental mortality. All incidentally killed bobcat and marten carcasses will be systematically collected and delivered to the furbearer biologist for necropsy. Information regarding cause, location and date of death will be provided with each carcass, using existing department forms to include non-harvest mortality forms and special wildlife permits. All carcasses will be examined by the furbearer biologist to assess age, sex, weight, physical condition and reproductive status. All data will be entered into an electronic database for storage and analysis.

A spring turkey hunter survey was established to determine hunter effort and furbearer sightings of eastern coyote, bobcat, fisher, gray fox, and red fox. All data will be entered into an electronic database for storage and analysis.

**Results:** Bobcat carcasses were collected through incidental trapper take, road-kills, and other sources of mortality in an effort to evaluate population health and status (Table 1). A total of 76 bobcats were trapped and/or handled. This included 1 trap mortality, 35 trapped and released, 39 road-killed, 1 shot/agriculture damage, and 0 euthanized. All mortalities were collected and necropsied during the 2022-2023 season (Table 3). However, date of mortality may not have occurred during the 2022 - 2023 season.

Age data for some animals reported in Table 1 will not become available during this grant segment and will subsequently be reported in the next grant segment (Table 2 as an example). This lag is due to the period of time when teeth are collected, submitted to the lab for aging, received and incorportated into data sets.

The spring turkey hunter survey recorded sighing rates (per 100 hunter hours) for bobcat (0.67), eastern coyote (2.11), fisher (0.20), gray fox (0.09), and red fox (1.10; Table 4).

**Conclusions:** Collection of bobcat carcasses continues to provide valuable information on the causes of mortality and sex and age structure of the bobcat population. Increasing sample sizes provide increased confidence in estimates of bobcat productivity and survival. The potential impacts of wildlife diseases on New Hampshire's furbearers are being assessed.

**Custom Qualitative Indicator/Output:** Non-harvest data including road kill, incidental take, biological samples from carcasses, and bobcat demographics data from carcass necropsies have been collected. Diseases, parasites and other furbearer health issues have been monitored and evaluated.

**Recommendations:** Continue to collect and assess bobcat carcasses for use in evaluating bobcat population status and to assess the potential impacts of wildlife diseases and other non-harvest mortality on furbearer species.

Patrick Tate Furbearer Project Leader July 17, 2023

Table 1. Bobcat necropsy results from cats processed during 2022-2023\*

Date Killed	Cause	Sex	Weight (lbs.)	Age	Town	Placental Scars
7/6/2022	Vehicle	Female		1		
7/25/2022	Shot			Х	Dunbarton	
7/23/2022	Vehicle	Male	20.75	1	Lee	
8/2/2022	Vehicle	Female	4	0	Dunbarton	
8/15/2022	Vehicle		4.5	0	Hampton	
8/30/2022	Vehicle	Female	8.5	0	Brentwood	
8/30/2022	Vehicle	Female	8.5	0	Brentwood	
5/29/2022	Vehicle	Male	19.5	1	Strafford	
7/6/2022	Vehicle	Female	14	2	Deerfield	
10/31/2020	Vehicle	Female	18.5	1	Kingston	
7/17/2022	Vehicle	Female	17.5	3	Gilmanton	
8/20/2022	Vehicle	Male	18.75	1	Weare	
10/3/2022	Vehicle	Male		1	Pembroke	
10/9/2022	Vehicle	Male		1	Merrimack	
11/10/2021	Vehicle	Male		0	Derry	
10/13/2022	Vehicle	Female	18	2	Salem	
11/7/2022	Vehicle	Female			Epping	
11/7/2022	Vehicle	Female	8.5		Marlboro	
6/2/2022	Vehicle	Female	14		Swansey	
9/5/2022	Vehicle	Male	23.5		Reg4	
11/7/2022	Vehicle	Female	20.5		Gilmanton	
11/2/2022	Vehicle	Male	28		Raymond	
11/9/2022	Vehicle	Male	29		Seabrook	
11/17/2022	Vehicle	Male	11		North Hampton	
12/7/2022	Vehicle	Male	36		New Durham	
12/8/222	Vehicle	Female	19.5		Merrimack	
12/27/2022	Vehicle	Male	16.5		Hampton	
1/4/2023	Vehicle	Female	18		Norttingham	
1/4/2023	Vehicle	Male	15		Nashua	
1/18/2023	Vehicle	Female			Epping	
2/9/2023	Vehicle	Male	11.5		Hollis	
1/13/2023	Vehicle	Female	14.5		Atkinson	
2/15/2023	Vehicle	Male	13.25		Merrimack	
2/16/2023	Vehicle	Male			Exeter	
2/19/2023	Vehicle	Female			Bedford	
12/19/2022	Trapped	Female	15.50		Danbury	
2/16/2023	Vehicle	Male	20.00		Rumney	
3/23/2023	Vehicle	Male			Stratham	
3/27/2023	Vehicle	Female	19.50		Raymond	
4/13/2023	Vehicle	Male	25.00		Hudson	
4/21/2023	Vehicle	Male	14.50		Goffstown	

<sup>\*</sup> Age data was not availabe for all bobcats listed in this table. Remaining ages will be reported during the next grant segment.

Table 2. Bobcat necropsy results from cats processed during 2021-2022

Date Killed	Cause	Sex	Weight (lbs.)	Age	Town	Placental Scars
7/5/2021	Vehicle	Female	17.25	6	Hampstead	4
8/14/2021	Vehicle	Male		1	Londonderry	
8/16/2021	Vehicle	Male		7	Freedom	
11/21/2020	Unknown	Unknown		4	Greenville	
12/4/2021	Vehicle	Male		1	Dunbarton	
9/15/2021	Vehicle	Female		4	Dummer	2
10/29/2021	Euthanized	Male		1	Franklin	
Unknown	Unknown	Male		Х	Exeter	
11/8/2021	Vehicle	Female		3	Peterborough	2
7/29/2021	Vehicle	Female		1	Newfields	3
12/5/2021	Trapped	Male		0	Lyme	
11/18/2021	Vehicle	Male		2	Reg1	
11/8/2021	Vehicle	Female		0	Stratford	0
11/12/2021	Vehicle	Female		0	Kingston	0
12/14/2021	Shot	Female		0	Wilton	0
7/14/2021	Vehicle	Male		1	Belmont	
6/1/2021	Vehicle	Male		4	Ashland	
10/6/2021	Vehicle	Female		1	Hanover	3
10/17/2021	Vehicle	Male		2	Alexandria	
11/18/2021	Vehicle	Female		3	Reg1	3
9/25/2021	Vehicle	Male		1	Boscawen	
12/14/2021	Vehicle	Female		3	Candia	2
10/3/2021	Vehicle	Female		1	Hopkinton	0
8/9/2021	Vehicle	Female		3	Wentworth	1
11/23/2016	Vehicle	Male		10	Chesterfield	
11/12/2021	Vehicle	Male	20	0	Kingston	
10/13/2021	Vehicle	Male	30	1	Reg 3	
1/16/2022	Vehicle	Male		0	Northwood	
1/24/2022	Vehicle	Male	18.5	0	Concord	
1/25/2022	Vehicle	Female	8.5	0	Bethlehem	0
1/28/2022	Euthanized	Male	6.25	0	Atkinson	
1/10/2022	Vehicle	Female	11.75	0	Rindge	0
12/17/2021	Vehicle	Female	20	1	Deering	0
2/11/2022	Vehicle	Male	12.25	0	Chichester	
2/17/2022	Vehicle	Female	15	0	Epping	0
2/23/2022	Vehicle	Female	13	0	Nashua	2
3/16/2022	Vehicle	Female	24.5	4	Kingston	3
3/4/2022	Vehicle	Female		0	Milford	
3/6/2022	Trapped	Male	25	9	Whitefield	
3/30/2022	Vehicle	Male	18.25	0	Concord	
3/30/2022	Vehicle	Female	11.75	2	Canterbury	1
4/7/2022	Vehicle	Male	31.5	2	Londonderry	
4/8/2022	Natural	Male		1	Pembroke	
4/7/2022	Vehicle	Female	11.25	2	Kingston	0
4/21/2022	Vehicle	Male	18.25	1	Raymond	
5/7/2022	Vehicle	Male	16.75	0	Merrimack	
4/19/2022	Vehicle			Х	Epping	

Table 2. Bobcat necropsy results from cats processed during 2021-2022 (cont.)

5/7/2022	Vehicle	Male	16.75	0	Merrimack	
4/19/2022	Vehicle			Χ	Epping	
5/26/2022	Vehicle			Χ	Hampton Falls	
6/3/2022	Vehicle	Male	21.25	1	Contoocook	

Table 3. New Hampshire bobcat data collected during the period 7/1/22 through 6/30/23.

Trapped	Bobcats	Other Bobcat Sources								
Killed	Released	Illegally killed	Roadkills	Natural Loss	Shot	Agriculture Damage				
1	35	0	39	0	1	0				

Table 4. 2022 Spring Turkey Hunter Furbearer Observation Rate.

YEAR: 2021	#OF	TOTAL	TOTA	OTAL # OBSERVED				MEAN	I # OBSE	RVED			UNITS
	HUNTER	HOURS						PER 1	00 HUN	TER HOUR	S		INCLUDED
REGION	DAYS	OF	RED	GRAY	COYOTE	FISHER	BOBCAT	RED	GRAY	COYOTE	FISHER	BOBCAT	
		EFFORT	FOX	FOX				FOX	FOX				
NORTH	180	605	9	0	20	1	14	1.49	0.00	4.40	0.19	2.09	A,B,C2,D1
WHITE MTN	277	1011	9	0	11	2	3	1.28	0.00	1.08	0.12	0.41	C1,D2,E,F
CENTRAL	905	3158	20	2	46	2	19	0.69	0.04	1.72	0.06	0.69	G,l1,J1,J2
SOUTH													H1,H2,I2,K
WEST	1157	4061	30	6	102	8	22	1.25	0.17	2.79	0.34	0.54	
SOUTH													L,M
EAST	865	3097	29	2	42	6	19	1.19	0.08	1.48	0.17	0.61	
STATEWIDE	3384	11932	97	10	221	19	77	1.10	0.09	2.11	0.20	0.67	ALL

State: New Hampshire Grant: F20AF11939

**Grant Type:** Survey and Inventory

Grant Title: NH – WILDLIFE RESEARCH AND MANAGEMENT (W-89-R-21)

Period Covered: July 1, 2022 to June 30, 2023

Purpose/Target Name: PROJECT 6 - FURBEARER RESEARCH AND MANAGEMENT

Objective Name: JOB 3 - FORMULATION OF POPULATION MANAGEMENT RECOMMENDATIONS

**Objective Statement:** Furbearer season recommendations to achieving furbearer management goals and objectives will be developed and evaluated annually or biennially.

**Summary:** Furbearer trapping and hunting season data for 2022-2023 were evaluated and reported. This segment was a scheduled year for the biennial game management season-setting process, and a complete review of furbearer populations and other management issues was undertaken during this segment. Proposals were developed for the 2023 and 2024 furbearer trapping and hunting seasons, and the department's review process and the state's rule-making process were followed with biologists providing recommendations during review and for potential implementation of those proposals.

Target date: June 30<sup>th</sup> annually 2021-2025.

Status of progress: On schedule.

**Deviations:** None.

**Objective Approach:** Trapping season rules and seasons are reviewed, typically on a biennial basis. Information from preceding trapping seasons is evaluated in conjunction with short and long-term trend information and furbearer population objectives. Initial season recommendations will be developed by the Furbearer Project Leader and reviewed, evaluated and modified as necessary by the Department Game Management Team. Input from regional biologists and law enforcement staff is solicited, initial recommendations are formulated for presentation to the Wildlife Programs Committee and then presented to the Commission. Upon receipt of initial approval, proposals are presented for public input at 3 to 5 public hearings. The Game Management Team revisits the initial proposals taking public comment into consideration, and presents them to the Executive Director and Commission for their final review and approval. Only those costs incurred up to, and including, development of final management recommendations will be charged to this grant.

**Results:** This job was completed during this reporting period. Eastern coyote, red fox, gray fox, and fisher harvest seasons for were re-adopted. Furbearer season recommendations are formulated on a biennial basis.

**Conclusions:** Data generated in this project (Jobs 1 and 2) allows for the formulation of science-based furbearer management recommendations under this job (Job 3).

**Custom Qualitative Indicator/Output:** Annual or biennial season recommendations consistent with achieving furbearer management goals and objectives have been developed and evaluated.

Recommendations:	Catch per unit effort data will continue to serve as our primary index to furbearer population
status. Our existing s	eason-setting framework appears to provide a solid foundation for recommendation
formulation and review	w. Continue this job as planned.

Prepared by:	
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Patrick Tate Furbearer Project Leader July 17, 2023

State: New Hampshire Grant: F20AF11939

**Grant Type:** Survey and Inventory

**Grant Title:** NH – WILDLIFE RESEARCH AND MANAGEMENT (W-89-R-21)

Period Covered: July 1, 2022 to June 30, 2023

Purpose/Target Name: PROJECT 6 - FURBEARER RESEARCH AND MANAGEMENT

Objective Name: JOB 4 - PROFESSIONAL EXCHANGE AND DISSEMINATION OF PROJECT

**INFORMATION** 

**Objective Statement:** To actively communicate with diverse furbearer management stakeholders and the general public interested in furbearer management in New Hampshire. To facilitate peer communication and information exchange. To disseminate information and data generated in the New Hampshire furbearer management project to all interested parties.

**Summary:** Furbearers continue to be a topic of significant public interest. Coyotes, beaver, fisher, wolves, and mountain lions, continually generate significant interest from the public and corresponding media inquiries. Federal Aid reports and furbearer harvest summaries were prepared.

Target date: June 30th annually 2021-2025.

Status of progress: On schedule.

Deviations: None.

**Objective Approach:** Furbearer management project information, goals, and accomplishments will be communicated to the public through a variety of techniques. These will include preparation of annual Federal Aid reports, harvest summaries, magazine articles, web site reports, video productions, newsletter articles, harvest summaries, pamphlets, slide presentations, assorted personal communications and formal group presentations. Television, radio, and newspaper interviews will be given as circumstances warrant. Information may include advocating changes in trapping methods and procedures as recommended through a national Best Management Practices research effort funded by the International Association of Fish and Wildlife Agencies (IAFWA). Professional technical meetings and pertinent workshops will be attended in order to disseminate and receive information relevant to furbearer management experiences and practices.

**Results:** Inquiries regarding furbearer species coming from students, teachers, reporters, naturalists, environmental consultants, and the general public, were answered. The project leader presented information to various public groups, on an approximate monthly basis, depicting current furbearer trends and populations (derived through this Federal Aid Project). Presentations encouraged an understanding of the need for active management, including trapping and hunting of furbearer species. The project leader used this job to share specific information and data generated by this project to consultants and others.

On an approximate weekly basis the project leader provided interviews and/or information to various news media and outlets regarding various aspects of NH's furbearer project. Coyotes, bobcats, wolves, and mountain lions continued to be a common focus of public concern and inquiry. Routine correspondence and e-mail requests for information, sighting reports, or other furbearer related topics were responded to.

On an annual basis the New Hampshire Trappers Association (NHTA) holds a fall rendezvous/business meeting, which is attended by the project leader. Furbearer questions or concerns from the NHTA and other attendees are routinely discussed in an open environment.

On an annual basis the project leader attends the Northeast Fur Resources Technical Committee. Topics discussed included: regional data reporting, fisher populations, CITES- bobcat information, muskrat population dynamics, and an array of other applicable furbearing animal topics.

An annual furbearer summary report was printed in the widely distributed "2022 New Hampshire Wildlife Harvest Summary" (see NH Federal Aid Report W-89-R-21, Project 1, Job 4, Appendix 1). Due to the wide variety of furbearer species and substantial public ignorance regarding their ecology and management, this job remains an integral part of the furbearer project. Specific information from this project are routinely included in the following publications: The New Hampshire Fish and Game (NHF&G) biennial report and Wildlife Journal Magazine, the Annual Fur Regulation Digest, the NHF&G Annual Harvest Report, The Northeast Furbearer Technical Committee Status Report, the CITES annual river Otter/Bobcat Report, and data made available to the news media as reported above.

Federal Aid Reports covering this grant segment were completed as required, in a professional and timely fashion.

**Conclusions:** Public and constituent communication is a critical aspect of furbearer management in our rapidly urbanizing environment. The better informed the public and constituents are, the greater the support for science-based management. Peer communication is another important aspect of successful furbearer management, both in terms of comparing and contrasting data, and also in terms of exchanging ideas and learning from the experiences of others.

**Custom Qualitative Indicator/Output:** Active communication has occurred with furbearer management stake holders and the public. Communication and information exchanges with peers have been facilitated. Information and data generated by the furbearer project has been disseminated to all interested parties.

**Recommendations:** Outreach and communications are essential components of wildlife stewardship. Continue this job as planned.

Prepared by:	
Patrick Tate	
Furbearer Project Leader	

July 17, 2023