

JOB COMPLETION REPORT  
SURVEYS AND INVESTIGATIONS PROJECTS

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ILLINOIS

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Study I: Population Trends and Characteristics

Job No. 12b: Cooperative raccoon investigations

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JOB COMPLETION REPORT  
SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-49-R-26

STUDY NO.: 1

JOB NO.: 12b

JOB TITLE: Cooperative raccoon investigations

ABSTRACT: Raccoons were examined and data collected at Perardi Bros. Fur and Wool, Inc., Farmington, Fulton County, Illinois, as they have been for the past 23 seasons. Five trips were made to the furhouse and 472 raccoons examined. Most of the data collected fell within the range of data collected at the same furhouse beginning with the 1955-56 season. The low average body weights of young-of-the-year animals are probably explained by high pelt prices that cause previously discarded small raccoons to be sold. The high percentage of nulliparous adult females may be explained by adverse weather conditions during the breeding season in 1978. If the data collected are indices to major changes in the population, they do not indicate major changes in the raccoon population in west central Illinois. However, these data probably would not reflect a major change in the population until the year after the change occurred, but the fact that the harvest in 1978-79 increased by nearly 22 percent over that for 1977-78 shows that Illinois raccoon populations had not declined drastically prior to 1978 as some have reported it did. Young-of-the-year raccoons comprised 65.2 percent of the raccoons examined in 1978-79, and females comprised 51.7 percent. The mean litter size for the 1978 breeding season was 3.6. Juvenile males averaged 10.1 pounds and juvenile females 9.6 pounds. Adult males weighed an average of 17.2, parous adult females 15.0, and nulliparous adult females 13.8 pounds. Weights vary as much as 1.5 pounds from one year

to the next but have shown no trends during the past 24 seasons. There were no significant differences in the mean weights of the various age and sex groups of raccoons killed by hunters and those killed by trappers. Hunters harvested 78.6 percent and trappers 19.6 percent of the raccoons examined. Salvaged raccoons killed on roads comprised the remaining 1.7 percent.

JOB COMPLETION REPORT  
SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-49-R-26

STUDY NO.: I

JOB NO.: 12b

JOB TITLE: Cooperative raccoon investigations

OBJECTIVE: To determine the sex and age composition of the annual raccoon harvest in central Illinois, to obtain information on productivity, to analyze the data collected, and to prepare reports.

PROCEDURES: Every other week during the raccoon hunting and trapping season a large furhouse (Perardi Bros. Fur and Wool, Inc., Farmington, Fulton County, Illinois) was visited and data were collected on 100 raccoons brought in by hunters and trappers. Most of the raccoons were caught within 100 miles of Farmington; however, the exact locations of capture were unknown. Animals were selected at random and data collected before and after the raccoons were skinned by employees of the furhouse. The data collected at the furhouse included body weight (nearest 0.1 lb), body length (nearest 5 mm), sex, how caught (hunter, trapper, or killed on road), condition of nipples for females, condition of penis for males, general health (animals with distemper were noted), and toes missing from previous encounters with traps. Specimens collected included one front leg (halfway between the wrist and elbow), penis bone from males, one testis and epididymis from each male, and the uterus and ovaries from each female. In the laboratory the epiphyses and bacula were examined--with other recorded information--to determine age, one testis was weighed, two ovaries were weighed, each epididymis was examined for the presence of sperm, and each uterus was

examined and the number of placental scars counted. All information was recorded in standardized data sheets in a notebook.

Similar data have been collected at this same furhouse beginning with the 1955-56 season. The data for the entire period have been placed on floppy discs, and, as time permits, programs will be written, all data analyzed, reports written, and manuscripts prepared. Each year the data will be summarized in a series of tables and presented with the data for the previous years (back to the 1955-56 season). Analysis of the data is expected during the coming year.

#### FINDINGS AND ANALYSIS:

##### 1978-79 Hunting and Trapping Season

During 5 trips to the furhouse between 20 November 1978 and 22 January 1979, 472 raccoons were examined. Most of the data collected fell within the range of similar data collected from the 1955-56 season through the 1977-78 season; however, a few extremes for the 24-year period were noted in 1978-79. Nulliparous adults comprised 12.30% of all females examined during the past season. The previous high figures for this group was 8.24% of all females examined in 1971-72 and the 24-season average was 5.05%. Females comprised 56.10% of the adults examined in 1978-79 compared with the previous high of 54.92% in 1962-63, and females comprised 51.69% of all raccoons examined in 1978-79 (Table 3) compared with the previous high of 50.35% in 1972-73. The 24-year averages were 48.21% and 47.63%, respectively. Mean body weight of juvenile males in 1978-79 was 10.11 lb (Table 5) compared with the previous low of 10.56 lb in 1977-78 and the 24-year average of 11.32 lb.

Except for the percentage of nulliparous adults among all females, none of the figures showed substantial differences from the 24-year averages. I see no apparent reason, except perhaps the weather, for the increase in the

percentage of nulliparous females in the harvest. Thus, if these data are indices to population changes--such as overharvest--they do not indicate any major changes in the raccoon populations in west central Illinois. If, however, the overharvest occurred during the 1978-79 season, data such as these probably would not reflect the change until the 1979-80 season. Harvest figures for the 1978-79 season (289,000) were approximately 21.8% higher than for the 1977-78 season (Hubert 1979), and this harvest was in spite of generally adverse weather conditions during much of the hunting and trapping season in Illinois in 1978-79. Thus, it seems apparent that an overharvest of Illinois raccoons did not occur in 1977-78.

#### Age Composition

Young-of-the-year animals comprised 62.30% of the females examined (Table 1). This figure was a substantial decrease over the 76.24% seen in 1977-78, but was well within the range of the past 24 seasons and was less than 6% lower than the 24-year average of 68.00%. Parous adults comprised 25.41% of the females, an increase over the 19.37% observed in 1977-78, and only slightly lower than the 24-year mean of 26.94%. Nulliparous adults (12.30%) were well above the previous high of 8.24% in 1971-72 and the 24-year average of 5.05%. A possible explanation for this increase is that the severe weather conditions during the regular 1978 breeding season for the raccoon in Illinois (February) restricted movements of raccoons enough so that a higher than average percentage failed to breed. For example, in February 1978 the statewide average temperature was 13.5 F below normal compared with 1.7 F below normal in 1977 and the statewide average snowfall was 7.0 inches in February 1978 compared with 3.5 inches in February 1977.

Young-of-the-year males (68.42%) were about 1% higher than in 1977-78 and were near the 24-year (68.84%) average (Table 2). Of the 472 raccoons

examined for age, 65.25% were young-of-the-year animals; a decrease from the 71.59% observed in 1977-78 and slightly lower than the 24-year average of 68.45%. There were 4.97 young-of-the-year per parous female among the raccoons examined during the 1978-79 season. The 24-year average was 5.54 young per parous females. These figures do not represent the number of young animals per parous female in the population because young animals are more vulnerable than adults to hunters and trappers. Note that the 24-year average of dark placental scars per uterus--believed to represent the average litter size--was 3.57 (Table 4).

#### Sex Ratios

Females comprised 51.69% (Table 3) of the raccoons examined at Perardi Bros. Fur and Wool, Inc., during the 1978-79 season. This was an increase from 47.29% in 1977-78 and was the highest percentage observed during the 24-year period. The average figure for the 24 years was 47.63% females. Of the 308 young-of-the-year raccoons examined in 1978-79, 49.35% were females (Table 1); a figure only 2% above the 24-year average of 47.38%. Females comprised 56.10% of the adult raccoons examined during the past season (Table 2); the highest figure recorded for the 24-year period. Perhaps the increase in the relative percentage of females in the harvest was a result of severe weather conditions during the latter part of the season (colder than normal and more snow than average), which resulted in a reduced harvest during this period of the season when males are usually harvested in greater relative numbers than they are earlier in the season.

#### Placental Scars

Some of my earlier work has shown that placental scars persist longer in the wild than they do in captivity. Thus, the significance of a group of pale and a group of dark placental scars in the same uterus in a wild female is not clear. They may represent two litters in one year (when the first litter is



resorbed or lost at or near birth) or the pale scars may represent litters from the previous year. It seems reasonably clear that groups of single scars in a uterus and the groups of dark scars--when two groups of scars are present--represent the number of embryos implanted during the most recent breeding season (average litter size).

The mean litter size for the 1978 breeding season, as determined from single groups of scars and dark groups of placental scars when pale and dark groups were both present, was 3.58 (Table 4, Fig. 1). The 24-year average litter size determined in this manner was 3.57. If all visible scars in each uterus were combined, the average number of scars per uterus with 1 or more scars was 4.30 in 1978-79 (Fig. 1) and the 24-year mean was 4.38.

#### Body Weight

Weights of raccoons examined in west-central Illinois during the past 24 seasons have varied as much as 3.8 lb from year to year depending on age and sex (Tables 5 and 6); however, annual variation is usually less than 1.0 lb and the weights have shown no trends. It seems that the annual variations in body weights are largely caused by weather conditions. Unusually mild weather during January will result in a proportionately larger number of raccoons caught during this month when the average weights are lower than they are in November and December. Also, unusually cold weather in December will result in less daily feeding by raccoons and an increased loss of weight.

Young-of-the-year males weighed an average of 10.1 lb (Table 5) compared with 9.6 lb for young-of-the-year females (Table 6). Adult males averaged 17.2 lb (Table 5), parous adult females 13.8 lb, and nulliparous adult females 15.0 lb (Table 6). The 24-season averages were: young-of-the-year males, 11.3 lb; adult males, 16.3 lb; young-of-the-year females 10.5 lb; parous adult females, 14.0 lb; and nulliparous adult females, 13.0 lb.

The average weight for all raccoons is of little or no significant because it varies according to the number in each age and sex group in the total sample.

Adult males and both parous and nulliparous adult females all averaged slightly heavier in 1978-79 than their 24-season average weights (Tables 5 and 6). On the other hand, young-of-the-year males in 1978-79 had the lowest average weight (10.1 lb) of the 24-season period and were 1.2 lb lower than the 24-season average. Average weights for this group in 1976-77 (10.63 lb) and in 1977-78 (10.56 lb) were the second and fourth lowest, respectively, for the 24-season period (in 1963-64 the average weight for this group was 10.58 lb). Average weights of young-of-the-year females for 1976-77 (9.78 lb), 1977-78 (9.85 lb), and 1978-79 (9.65 lb) were, respectively, third, fourth, and second lowest for the 24-season period. Average weight for this group in 1955-56 was 9.54 lb (Table 6). Because adult weights were slightly above average during the 1978-79 season, it seems that something other than weather conditions was responsible for the low average weights of young-of-the-year raccoons. It is probable that the high average pelt values during the past 3 seasons has resulted in hunters and trappers bringing in a higher percentage of the very small raccoons than they have in past seasons. For example, in 1978-79 5 of 307 (1.63%) young-of-the-year male and female raccoons weighed 5.0 lb or less, whereas in 1968-69 3 of 342 (0.88%) young-of-the-year raccoons weighed 5.0 lb or less. In 1968-69 Illinois furbuyers paid an average of \$3.11 for raccoon pelts (Table 7), and probably refused to purchase raccoons that weighed less than 5 lb, whereas in 1978-79, when the average price for raccoon pelts was \$27.25 (Hubert 1979) a raccoon weighing 5 lb might bring from \$4 to \$8.

Juvenile males killed by hunters weighed an average of 10.0 lb compared with 10.2 lb for juvenile males killed by trappers (Table 8). Adult males taken by hunters averaged 17.4 lb and those taken by trappers 16.4 lb. Juvenile females from hunters weighed 9.6 lb compared with 9.7 lb for juvenile females

from trappers. Parous adult females killed by hunters weighed an average of 14.9 lb each and those killed by trappers 14.4 lb. During 6 recent seasons, more than 2,000 raccoons killed by hunters weighed an average of 12.0 lb each compared with 11.6 lb for nearly 600 raccoons killed by trappers (Table 8). A preliminary analysis of the data for 5 recent seasons (not including 1978-79) indicates no significant differences between raccoons taken by hunters and those taken by trappers.

#### Harvest by Hunters and Trappers

Hunters took 78.6 percent and trappers 19.6 percent of the raccoons examined; raccoons killed by cars comprised the remaining 1.7 percent. During 6 recent seasons, hunters accounted for 77.0 percent and trappers for 21.4 percent of the raccoons and cars for 1.7 percent. There were few differences in the various age and sex groups. Cars accounted for 1.9 percent of the juvenile females, 1.7 percent of the adult males, and 1.3 percent each of the parous adult females and the juvenile males. No nulliparous adult females were killed by cars and brought to the furhouse (Table 9).

Although the data have not been analyzed, it appears that with the recent increases in pelt values (Table 7), hunters and cars may be accounting for a slightly increased percentage of the raccoons sold. For example, in 1972-73 when the average pelt value was \$5.37, hunters, trappers, and cars, respectively, accounted for 70.9, 28.0, and 1.0 percent of the raccoons examined, whereas in 1978-79, when the average pelt value was \$27.25, the same groups accounted for 78.6, 19.6, and 1.7 percent, respectively.

#### RECOMMENDATIONS:

The study should continue for at least 1 more year to allow for completion of the analysis of the data collected during the past 24 seasons.

## DATA AND REPORTS:

Original data and related reports in this investigation are on file in the Section of Wildlife Research, Illinois Natural History Survey, Natural Resources Building, Urbana, Illinois 61801.

The data for the 1955-56 through the 1978-79 seasons have been placed on discs so that the data can be analyzed by computer, when the programs have been written.

## REFERENCES CITED:

Hubert, G.F., Jr. 1977. Fur harvest survey 1976-77. Illinois Department of Conservation, Surveys and Investigations Projects, No. W-49-R(24). 8pp.

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Table 1. Age composition of female raccoons examined at Perardi Bros. Fur and Wool Co., Inc., Farmington, Fulton County, Illinois.

Season	Young-of-the-year (percent)	Parous Adults (percent)	Nulliparous Adults (%)	Young-of-the-year (percent females)	Yg/Parous ♀
1955-56	68.52 ( 37) <sup>a</sup>	31.48 ( 17)	( 0)	44.58 ( 83)	4.88
1956-67	65.71 ( 92)	29.28 ( 41)	5.00 ( 7)	40.53 (227)	5.54
1957-58	72.41 ( 63)	24.14 ( 21)	3.45 ( 3)	48.46 (130)	6.19
1958-59	78.57 ( 99)	18.25 ( 23)	3.17 ( 4)	47.37 (209)	9.09
1959-60	67.77 (143)	28.44 ( 60)	3.79 ( 8)	47.99 (298)	4.97
1960-61	70.36 (178)	28.46 ( 72)	1.18 ( 3)	51.30 (347)	4.82
1961-62	65.96 (248)	30.32 (114)	3.72 (14)	50.10 (495)	4.34
1962-63	66.36 (286)	28.77 (124)	4.87 (21)	45.54 (628)	5.06
1963-64	68.46 ( 81)	30.51 ( 36)	0.85 ( 1)	51.92 (156)	4.33
1964-65	67.96 (157)	24.68 ( 57)	7.36 (17)	47.00 (334)	5.86
1965-66	64.29 (178)	32.14 ( 86)	3.57 (10)	50.00 (356)	4.14
1966-67	74.83 (107)	19.58 ( 28)	5.59 ( 8)	50.71 (211)	7.54
1967-68	68.65 (127)	25.94 ( 48)	5.41 (10)	45.85 (277)	5.77
1968-69	64.54 (162)	31.88 ( 80)	3.58 ( 9)	47.37 (342)	4.28
1969-70	65.45 (161)	27.64 ( 68)	6.91 (17)	43.40 (371)	5.46
1970-71	71.37 (177)	21.77 ( 54)	6.85 (17)	50.42 (351)	6.50
1971-72	67.03 (122)	24.72 ( 45)	8.24 (15)	46.56 (262)	5.82
1972-73	62.20 (181)	30.93 ( 90)	6.87 (20)	48.92 (370)	4.11
1973-74	60.09 (137)	32.89 ( 75)	7.02 (16)	39.03 (351)	4.68
1974-75	60.84 (174)	33.22 ( 95)	5.94 (17)	47.15 (369)	3.88
1975-76	70.85 (141)	22.61 ( 45)	6.53 (13)	46.08 (306)	6.80
1976-77	71.19 (168)	24.15 ( 57)	4.66 (11)	47.00 (356)	6.24
1977-78	76.24 (193)	19.37 ( 49)	4.35 (11)	50.39 (383)	7.82
1978-79	62.30 (152)	25.41 ( 62)	12.30 (30)	49.35 (308)	4.97
Total or Mean	68.00 (3,564)	26.94 (1,447)	5.05 (282)	47.38 (7,520)	5.54

<sup>a</sup>Numbers in parentheses indicate sample sizes.

Table 2. Age composition of raccoons examined at Perardi Bros. Fur and Wool Co., Inc., Farmington, Fulton County, Illinois.

Season	Males		All Raccoons Young-of-the- year (%)	Percentage of adults that are females
	Young-of-the- year (%)	Adults (%)		
1955-56	73.02 ( 46) <sup>a</sup>	26.98 ( 17)	70.94 (117)	50.00 ( 34)
1956-57	68.88 (135)	31.12 ( 61)	67.56 (336)	44.04 (109)
1957-58	72.83 ( 67)	27.17 ( 25)	72.62 (179)	48.98 ( 49)
1958-59	69.18 (110)	30.82 ( 49)	73.33 (285)	35.53 ( 76)
1959-60	72.09 (155)	27.91 ( 60)	69.95 (426)	53.12 (128)
1960-61	61.45 (169)	38.54 (106)	65.72 (528)	44.50 (191)
1961-62	61.60 (247)	38.40 (154)	63.71 (777)	45.39 (282)
1962-63	74.19 (342)	25.81 (119)	70.40 (892)	54.92 (264)
1963-64	59.52 ( 75)	40.48 ( 51)	63.93 (156)	42.04 ( 88)
1964-65	73.75 (177)	26.25 ( 63)	70.91 (471)	54.01 (137)
1965-66	62.46 (178)	37.54 (107)	63.68 (559)	47.29 (203)
1966-67	65.00 (104)	35.00 ( 56)	69.64 (303)	39.13 ( 92)
1967-68	69.12 (150)	30.88 ( 67)	68.91 (402)	46.40 (125)
1968-69	69.23 (180)	30.77 ( 80)	66.93 (511)	52.66 (169)
1969-70	71.92 (210)	28.08 ( 82)	68.96 (538)	45.72 (538)
1970-71	71.31 (174)	28.69 ( 70)	71.34 (492)	50.35 (141)
1971-72	72.92 (140)	27.08 ( 52)	70.05 (374)	53.57 (112)
1972-73	66.08 (189)	33.92 ( 97)	64.12 (577)	53.14 (207)
1973-74	73.79 (214)	26.21 ( 76)	67.76 (518)	54.49 (167)
1974-75	64.78 (195)	35.21 (106)	62.86 (587)	51.38 (218)
1975-76	72.69 (165)	27.31 ( 62)	71.83 (426)	48.33 (120)
1976-77	70.68 (188)	29.32 ( 78)	70.92 (502)	46.58 (146)
1977-78	67.38 (190)	32.62 ( 92)	71.59 (535)	39.47 (152)
1978-79	68.42 (156)	31.58 ( 72)	65.25 (472)	56.10 (164)
Total or Mean	68.84 (3,956)	31.15 (1,802)	68.45 (10,963)	48.21 (3,912)

<sup>a</sup>Numbers in parentheses indicate sample sizes.

Table 3. Sex ratios of raccoons examined at Perardi Bros. Fur and Wool Co., Inc., Farmington, Fulton County, Illinois.

Season	Number Females	Number Males	Percent Females
1955-56	54	63	46.15
1956-57	140	190	42.42
1957-58	87	92	48.60
1958-59	126	159	44.21
1959-60	211	215	49.53
1960-61	269	275	49.45
1961-62	360	404	47.12
1962-63	442	487	47.47
1963-64	120	129	48.19
1964-65	231	240	49.04
1965-66	280	295	48.70
1966-67	143	160	47.19
1967-68	185	217	46.02
1968-69	251	260	49.12
1969-70	246	292	45.72
1970-71	247	244	50.30
1971-72	182	194	48.40
1972-73	290	286	50.35
1973-74	225	290	43.69
1974-75	286	301	48.72
1975-76	199	227	46.71
1976-77	236	266	47.01
1977-78	253	282	47.29
1978-79	244	228	51.69
Total or Mean	5,307	5,796	47.63

Table 4. Placental scars in raccoon uteri collected at Perardi Bros. Fur and Wool Co., Inc., Farmington, Fulton County, Illinois.

Season	Number of Parous Uteri	No. Groups of Scars		Total Number of Scars		Mean Litter Size		Mean No. Visible Scars/Uterus
		Pale <sup>a</sup>	Dark <sup>b</sup>	Pale	Dark	Pale	Dark	
1955-56	16	1	16	2	58	2.00	3.62	3.75
1956-57	29	4	29	9	103	2.25	3.55	3.86
1957-58	18	7	18	18	71	2.57	3.94	4.94
1958-59	22	10	22	31	77	3.10	3.50	4.91
1959-60	56	25	56	49	203	1.96	3.62	4.50
1960-61	77	34	77	91	250	2.26	2.74	4.43
1961-62	76	29	76	63	275	2.17	3.62	4.45
1962-63	122	40	122	102	415	2.55	3.40	4.24
1963-64	31	10	31	23	100	2.30	3.22	3.97
1964-65	56	20	56	50	201	2.50	3.59	4.48
1965-66	81	25	81	79	302	2.59	3.73	4.70
1966-67	28	6	28	14	103	2.33	3.68	4.18
1967-68	49	16	49	45	188	2.81	3.84	4.76
1968-69	80	9	80	22	311	2.44	3.89	4.16
1969-70	66	19	66	52	249	2.74	3.77	4.56
1970-71	53	11	53	35	191	3.18	3.60	4.26
1971-72	42	7	42	17	153	2.43	3.64	4.05
1972-73	75	12	75	36	254	3.00	3.39	3.87
1973-74	70	14	70	54	248	3.86	3.54	4.31
1974-75	87	21	87	52	313	2.48	3.60	4.20
1975-76	44	15	44	45	160	3.00	3.64	4.66
1976-77	56	18	56	57	200	3.17	3.57	5.35
1977-78	48	13	48	32	167	2.46	3.48	4.14
1978-79	60	20	60	43	215	2.15	3.58	4.30
Total or Mean	1,342	386	1,342	1,021	4,807	2.64	3.58	4.38

<sup>a</sup>presumably from the previous breeding season.

<sup>b</sup>presumably from the most recent breeding season.



Table 5. Mean body weights (lb) of male raccoons weighed at Perardi Bros. Fur and Wool Co., Inc., Farmington, Illinois.

Season	Young-of-the-year	Adults	All Males	All Raccoons
1955-56	10.70 ( 41) <sup>a</sup>	14.40 ( 36)	12.43 ( 77)	11.62 (130)
1956-57	11.66 (132)	15.95 ( 59)	12.99 (191)	12.44 (327)
1957-58	12.10 ( 60)	17.33 ( 20)	13.41 ( 80)	12.77 (159)
1958-59	11.34 (107)	16.11 ( 48)	12.82 (155)	12.16 (278)
1959-60	11.08 (145)	16.06 ( 57)	12.48 (202)	11.94 (418)
1960-61	11.19 (157)	17.11 ( 95)	13.42 (252)	12.65 (512)
1961-62	11.12 (247)	15.38 (154)	12.75 (401)	12.19 (777)
1962-63	11.57 (342)	17.18 (119)	13.02 (461)	12.46 (892)
1963-64	10.58 ( 75)	16.19 ( 51)	12.85 (126)	12.30 (244)
1964-65	10.98 (175)	16.45 ( 63)	12.43 (238)	11.92 (465)
1965-66	11.47 (178)	16.10 (107)	13.21 (285)	12.52 (559)
1966-67	11.57 (103)	16.97 ( 56)	13.46 (159)	12.53 (302)
1967-68	12.15 (150)	16.59 ( 65)	13.49 (215)	12.84 (398)
1968-69	11.55 (180)	17.06 ( 80)	13.25 (260)	12.66 (511)
1969-70	11.23 (209)	15.31 ( 82)	12.38 (291)	11.81 (537)
1970-71	12.46 (205)	17.96 ( 59)	13.96 (264)	13.09 (510)
1971-72	12.28 (140)	17.22 ( 52)	13.62 (192)	12.90 (374)
1972-73	11.26 (188)	15.62 ( 96)	12.73 (284)	12.15 (574)
1973-74	11.36 (213)	15.29 ( 76)	12.40 (289)	12.39 (501)
1974-75	11.22 (195)	15.73 (106)	12.81 (301)	12.23 (585)
1975-76	11.39 (158)	16.46 ( 60)	12.78 (218)	11.95 (408)
1976-77	10.63 (188)	16.16 ( 77)	12.24 (265)	11.57 (499)
1977-78	10.56 (189)	16.26 ( 92)	12.42 (281)	11.56 (535)
1978-79	10.11 (155)	17.18 ( 72)	12.35 (227)	11.91 (470)
Total or Mean	11.32 (3,932)	16.34 (1,782)	12.90 (5,714)	12.27 (10,965)

<sup>a</sup>Numbers in parentheses indicate sample sizes.

Table 6. Mean body weights (lb) of female raccoons weighed at Perardi Bros. Fur and Wool Co., Inc., Farmington, Illinois.

Season	Young-of-the-year	Parous	Nulliparous Adults	All Females
1955-56	9.54 ( 37) <sup>a</sup>	12.53 ( 16)	( 0)	10.44 ( 53)
1956-57	10.88 ( 90)	13.46 ( 39)	11.78 ( 7)	11.67 (136)
1957-58	11.37 ( 56)	14.08 ( 20)	13.20 ( 3)	12.12 ( 79)
1958-59	10.78 ( 96)	13.70 ( 23)	11.12 ( 4)	11.34 (123)
1959-60	10.41 (143)	13.58 ( 65)	12.19 ( 8)	11.43 (216)
1960-61	10.52 (175)	15.01 ( 72)	13.37 ( 3)	11.91 (260)
1961-62	10.68 (248)	13.39 (114)	13.10 ( 14)	11.59 (376)
1962-63	10.67 (286)	14.32 (124)	13.84 ( 21)	11.87 (431)
1963-64	10.96 ( 81)	13.31 ( 36)	15.00 ( 1)	11.71 (118)
1964-65	10.23 (155)	13.80 ( 56)	14.02 ( 16)	11.38 (227)
1965-66	10.47 (178)	14.36 ( 86)	13.67 ( 10)	11.81 (274)
1966-67	10.73 (107)	14.07 ( 28)	12.54 ( 8)	11.49 (143)
1967-68	11.03 (125)	14.65 ( 48)	12.94 ( 10)	12.09 (183)
1968-69	11.08 (162)	14.00 ( 80)	12.59 ( 9)	12.06 (251)
1969-70	10.08 (161)	13.42 ( 68)	11.95 ( 17)	11.13 (246)
1970-71	11.36 (176)	15.03 ( 54)	15.76 ( 16)	12.45 (246)
1971-72	11.11 (122)	14.78 ( 45)	12.64 ( 15)	12.14 (182)
1972-73	10.17 (180)	14.11 ( 90)	13.03 ( 20)	11.59 (290)
1973-74	10.67 (132)	16.18 ( 64)	11.39 ( 16)	12.39 (212)
1974-75	10.29 (173)	13.92 ( 95)	12.21 ( 16)	11.61 (284)
1975-76	10.41 (133)	13.35 ( 42)	13.18 ( 11)	11.24 (186)
1976-77	9.78 (167)	13.70 ( 56)	11.81 ( 11)	10.81 (234)
1977-78	9.85 (194)	13.03 ( 49)	13.00 ( 11)	10.60 (254)
1978-79	9.65 (152)	14.96 ( 61)	13.75 ( 30)	11.49 (243)
Total or Mean	10.53	14.03	12.96	11.60

<sup>a</sup>Numbers in parentheses indicate sample sizes.

Table 7. Average values of Illinois raccoon pelts, from 1968-69 through 1978-79.

Season	Average Value	
1968-69	\$ 3.11	From reporting retail furbuyers
1969-70	2.44	From reporting retail furbuyers
1970-71	1.35	From reporting retail furbuyers
1971-72	2.95	From reporting retail furbuyer
1972-73	5.37	From reporting retail furbuyers
1973-74	3.46	From reporting retail furbuyers
1974-75	8.03	From reporting retail furbuyers
1975-76	14.00	Hubert (1977)
1976-77	17.17	Hubert (1977)
1977-78	18.00	Hubert (1978)
1978-79	27.25	Hubert (1979)

Table 8. Average body weights (lb) of raccoons killed by hunters, trappers, and roadkills and examined at Perardi Bros. Fur and Wool Co., Inc., Farmington, Illinois--1972-73 and 1974-75 through 1978-79.

Season	Juvenile Males			Adult Males			Juvenile Females		
	Hunters	Trappers	DOR	Hunters	Trappers	DOR	Hunters	Trappers	DOR
1972-73	11.31 (113)	11.21 ( 36)	14.90 ( 2)	15.65 ( 60)	15.57 ( 23)	15.55 ( 2)	9.93 (112)	10.58 ( 41)	10.80 ( 1)
1974-75	11.24 ( 91)	11.40 ( 32)	12.50 ( 1)	15.71 ( 49)	14.99 ( 15)	14.95 ( 2)	10.46 ( 83)	10.14 ( 24)	10.30 ( 4)
1975-76	11.44 (120)	10.93 ( 34)	8.70 ( 1)	16.57 ( 45)	16.14 ( 14)	17.00 ( 1)	10.17 ( 90)	11.01 ( 35)	( 0)
1976-77	10.76 (154)	9.99 ( 33)	11.20 ( 1)	16.30 ( 67)	15.12 ( 9)	15.60 ( 1)	9.88 (139)	9.56 ( 27)	7.77 ( 3)
1977-78	10.31 (183)	10.58 ( 28)	8.65 ( 6)	16.30 ( 74)	14.65 ( 17)	( 0)	10.56 (116)	7.82 ( 45)	10.88 ( 4)
1978-79	10.02 (117)	10.15 ( 32)	10.00 ( 1)	17.43 ( 56)	16.37 ( 11)	17.45 ( 2)	9.64 (113)	9.67 ( 29)	9.74 ( 5)
Mean of Means	10.85	10.71	10.99	16.33	15.47	16.11	10.11	9.80	9.90

Season	Parous Females			Nulliparous Adult Females			All Raccoons		
	Hunters	Trappers	DOR	Hunters	Trappers	DOR	Hunters	Trappers	DOR
1972-73	13.67 ( 51)	14.86 ( 30)	( 0)	12.74 ( 17)	14.65 ( 4)	( 0)	12.02 (353)	12.69 (134)	14.34 ( 5)
1974-75	13.85 ( 40)	13.64 ( 18)	13.00 ( 1)	12.09 ( 8)	12.00 ( 3)	( 0)	12.22 (271)	12.12 ( 92)	12.08 ( 8)
1975-76	13.78 ( 35)	13.02 ( 7)	( 0)	12.49 ( 10)	14.30 ( 1)	( 0)	12.14 (300)	11.96 ( 91)	12.85 ( 2)
1976-77	13.56 ( 54)	12.65 ( 11)	12.70 ( 2)	11.92 ( 7)	9.63 ( 3)	( 0)	11.73 (421)	10.74 ( 83)	10.78 ( 7)
1977-78	12.94 ( 40)	13.91 ( 9)	13.30 ( 1)	13.28 ( 13)	12.88 ( 4)	( 0)	11.94 (426)	10.42 (103)	8.67 (11)
1978-79	14.94 ( 45)	14.45 ( 13)	( 0)	13.12 ( 23)	15.98 ( 5)	( 0)	11.90 (354)	11.70 ( 90)	11.70 ( 8)
Mean of Means	13.79	13.76	13.00	12.61	13.24	( 0)	11.99	11.60	11.74

Table 9. Percentage of raccoons killed by hunters, trappers, and cars and brought into Perardi Bros. Fur and Wool Co., Inc., Farmington, Illinois, 1972-73 and 1974-75 through 1978-79 seasons.

Season	All Raccoons			Parous Females			Juvenile Females		
	Hunters	Trappers	DOR	Hunters	Trappers	DOR	Hunters	Trappers	DOR
1972-73	70.93 (349)	28.05 (138)	1.02 ( 5)	62.82 ( 49)	37.18 ( 29)	0.00 ( 0)	68.10 (111)	31.29 ( 51)	0.61 ( 1)
1974-75	72.66 (271)	25.20 ( 94)	2.14 ( 8)	69.84 ( 44)	28.57 ( 18)	1.59 ( 1)	72.17 ( 83)	24.35 ( 28)	3.48 ( 4)
1975-76	76.39 (317)	23.13 ( 96)	1.61 ( 2)	80.44 ( 37)	19.57 ( 9)	0.00 ( 0)	73.68 ( 98)	26.32 ( 35)	0.00 ( 0)
1976-77	82.90 (417)	15.51 ( 78)	1.59 ( 8)	84.06 ( 58)	11.59 ( 8)	4.35 ( 3)	81.88 (131)	16.25 ( 26)	1.88 ( 3)
1977-78	80.85 (439)	16.94 ( 92)	2.21 (12)	80.00 ( 40)	18.00 ( 9)	2.00 ( 1)	79.38 (154)	18.56 ( 36)	2.06 ( 4)
1978-79	78.65 (361)	19.61 ( 90)	1.74 ( 8)	76.79 ( 43)	23.22 ( 13)	0.00 ( 0)	76.82 (116)	19.87 ( 30)	3.31 ( 5)
Mean of Means	76.97	21.41	1.72	75.66	23.02	1.32	75.34	22.77	1.89

Season	Adult Males			Juvenile Males			Nulliparous Adult Females		
	Hunters	Trappers	DOR	Hunters	Trappers	DOR	Hunters	Trappers	DOR
1972-73	70.24 ( 59)	27.38 ( 23)	2.38 ( 2)	77.40 (113)	21.23 ( 31)	1.37 ( 2)	80.95 ( 17)	19.0 ( 4)	0.00 ( 0)
1974-75	74.24 ( 49)	22.73 ( 15)	3.03 ( 2)	75.21 ( 91)	23.97 ( 29)	0.83 ( 1)	50.00 ( 4)	50.00 ( 4)	0.00 ( 0)
1975-76	76.39 (317)	23.13 ( 96)	0.48 ( 2)	77.02 (124)	22.36 ( 36)	0.62 ( 1)	84.62 ( 11)	15.38 ( 2)	0.00 ( 0)
1976-77	88.46 ( 69)	10.26 ( 8)	1.28 ( 1)	81.82 (153)	17.65 ( 33)	0.53 ( 1)	71.43 ( 5)	28.57 ( 2)	0.00 ( 0)
1977-78	82.10 ( 78)	17.89 ( 17)	0.00 ( 0)	82.38 (159)	13.99 ( 27)	3.63 ( 7)	72.73 ( 8)	27.27 ( 3)	0.00 ( 0)
1978-79	81.16 ( 56)	15.94 ( 11)	2.90 ( 2)	78.29 (119)	21.05 ( 32)	0.66 ( 1)	84.62 ( 22)	15.38 ( 4)	0.00 ( 0)
Mean of Means	78.76	19.56	1.68	78.69	20.04	1.27	74.06	25.94	0.00 ( 0)

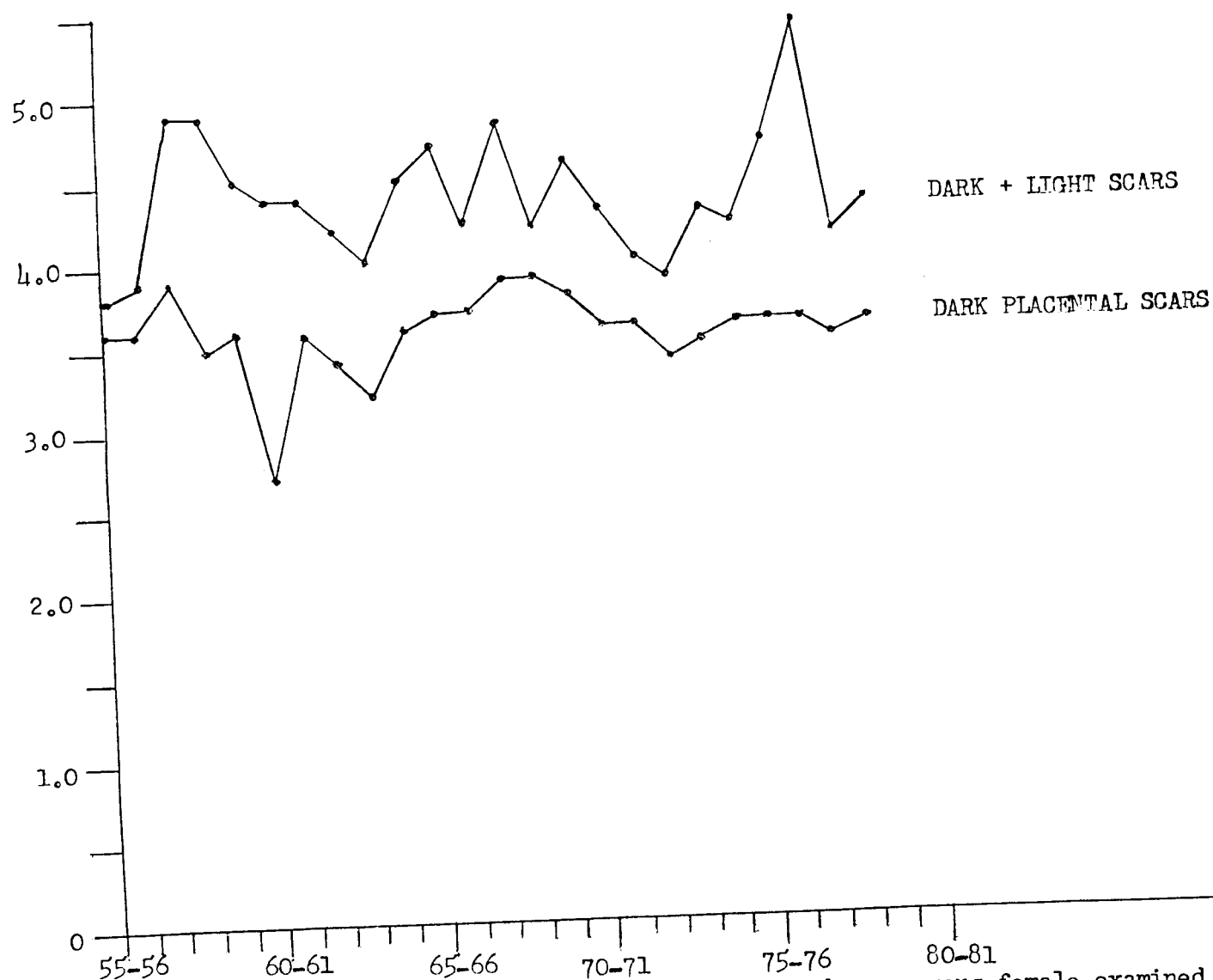


Fig. 1.--Average number of placental scars observed per parous female examined at Perardi Bros. Furhouse, Farmington, Illinois--1955-56 through 1978-79 seasons. "Dark" scars represent uteri with only one group of scars whether dark or light and the dark scars when both light and dark scars were present in the same uterus; the "dark" + light scars" represent all scars visible in the uterus of a parous female. The average number of "dark" scars is believed to represent the average litter size.