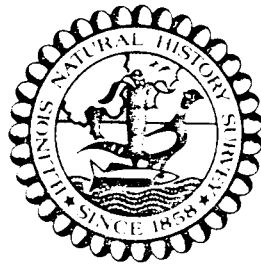


ILLINOIS NATURAL HISTORY SURVEY

JOB COMPLETION REPORT
SURVEYS AND INVESTIGATIONS PROJECTS
As Required By
FEDERAL AID IN WILDLIFE RESTORATION ACT

ILLINOIS



Section of Wildlife Research

Federal Aid Project No. W-49-R(32)
Study XII: Raccoon Investigations
Job No. 5: Cooperative raccoon collections

By
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8 August 1985

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JOB COMPLETION REPORT
SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-49-R-32

STUDY NO.: XII

JOB NO.: 5

JOB TITLE: Cooperative raccoon collections

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 29 seasons. Four trips were made to the furhouse and 400 raccoons examined. Except for the percentage of young-of-the-year, which was at or near the lowest found in 30 seasons; the percentage of nulliparous adults among all adult females, which was the highest during the 30 years; the low number of young per parous female (the number was lower in the 1963-64 season); and the highest percentage of raccoons taken by hunters for any year since records were kept (1972-73), most of the data collected fell within the range of data collected at the same furhouse beginning with the 1955-56 season. There is no obvious explanation for the high percentage of nulliparous adults among all adult females. Perhaps the lower percentage of adults that bred in 1984 contributed to the low percentage of young-of-the-year animals in the harvest. The average number of dark placental scars per group (average litter size) was among the lowest found (3.31) in the 30-year period. This low average litter size would also contribute to the low percentage of young-of-the-year raccoons in the harvest. There is no obvious reason for the low average litter size; however, this figure is relatively uniform. The average for the 30 years is 3.55. All sex and age categories for the 1984-85 season had body weights

that were close to a pound heavier than the 30-year average. All raccoons taken by trappers in 1984-85 were heavier than average and body weights of all groups except juvenile females were higher than body weights of animals taken by hunters. There was only a slight difference in body weights of juvenile females taken by hunters and trappers. If the data collected are indices to major changes in the population, they do not indicate such changes in the raccoon population in west central Illinois. However, the average litter size and percentage of juveniles in the harvest should be watched closely to see if they remain low or return to previous levels. These data probably would not reflect a major change in the population until the year after the change occurred. The harvest in 1984-85 increased 32.6% from that for 1983-84, but the harvest in 1983-84 was the lowest recorded since the 1976-77 season. The average pelt value declined 41.56% from 1981-82 through 1983-84--\$22.50 in 1981-82, \$14.55 in 1982-83, and \$13.15 in 1983-84--but increased to \$17.25 in 1984-85. Illinois raccoon populations probably have not declined drastically during this period, with the decline in harvest in 1983-84 probably a result of declining pelt values and extremely cold weather after the middle of December in 1983 and the increase in harvest in 1984-85 a result of better weather and somewhat higher pelt prices. Except for the third week in November and the first week in December when average daily temperatures were 5°F and 3°F, respectively, below normal, the average daily temperatures ranged from 1°F to 27°F above normal during the raccoon hunting

and trapping season in 1984-85. Young-of-the-year raccoons comprised 58.50% of the raccoons examined in 1984-85, there were 3.77 young per parous female, females comprised 49.25% of the harvest, and the mean litter size for the 1984 breeding season was 3.31, which was one of the lowest found during the 30-year study. The average litter size for 1983 was the highest for the 30 years of this study. Adult males comprised 40.10% of the male harvest in 1984-85; nearly 9% above the 30-year average. Parous females comprised 31.31% of all females in the 1984-85 sample. The 30-year average was 27.83% parous females. Juvenile males averaged 12.28 pounds and juvenile females 10.87 pounds. Adult males weighed an average of 17.36, parous adult females 14.86, and nulliparous adult females 14.91 pounds. Weights vary as much as 1.5 pounds from one year to the next but have shown no trends during the past 30 seasons. Average weights of all groups were higher than average in 1984-85. Hunters harvested 84.13% and trappers 15.62% of the raccoons examined. Road kills comprised only 0.25% (1 raccoon) of the raccoons examined in 1984-85.

JOB COMPLETION REPORT
SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-49-R-32 STUDY NO.: XII JOB NO.: 5

JOB TITLE: Cooperative raccoon collections

OBJECTIVE: To collect data on the sex, age, weights, productivity, and condition of raccoons harvested in west-central Illinois.

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, 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 tape, and, as time permits, programs will be written, data analyzed, reports written, and manuscripts prepared. Each year the data will be summarized in a series of tables and a figure (Tables 1-9, Fig. 1) and presented with the data for the previous years (back to the 1955-56 season).

Small differences--when they occur--in the data in the Tables from similar data presented in previous years are a result of placing the data on discs and tabulating the data by computer instead of by hand. A few corrections in interpretation of the data were made before entering them on the discs. Other minor differences result from rounding errors and from errors made by hand tabulation.

The raccoon hunting season was almost the same in 1984-85 as in the four previous seasons. The hunting season in the Northern Zone was 15 November - 13 January for the four previous seasons and 13 November 1984 - 13 January 1985. The hunting season in the Southern Zone was 25 November - 23 January for the previous four seasons and 25 November 1984 - 23 January 1985. The raccoon trapping season was about the same in 1984-85 as in the four previous seasons. The trapping season in the Northern Zone was 15 November - 29 December for the four previous seasons and 13 November - 29 December 1984. The raccoon trapping season in the Southern Zone was 25 November - 8 January for the four previous seasons and 25 November - 8 January 1985.

FINDINGS AND ANALYSIS:

1984-85 Hunting and Trapping Season

During 4 trips to the furhouse from 26 November 1984 through 7 January 1985, 400 raccoons were examined. The percentage young-of-the-year in the harvest, the young per parous female in the harvest, and the average litter size were all below average in 1984-85. The percentage of nulliparous adult females among adult females was higher than average. The percentage of young-of-the-year females (57.07%) was below average (66.38%) for the 30 years of this study and was considerably lower than in 1983-84 (66.18%) (Table 1). Young-of-the-year females comprised 48.29% of all young examined; a figure that is higher than the 30-year average, and well within the range of previous years. Parous females comprised 31.31% of the female harvest; a figure somewhat higher than the 30-year average. Adult males comprised 40.10% of the males examined in 1984-85 (Table 2). This figure was 8.86% above the 30-year mean and was 5.19% higher than in 1983-84. Young-of-the-year raccoons comprised 58.50% of all raccoons examined in 1984-85 compared with the 30-year average of 67.60% young-of-the-year. The overall sex ratio (49.25% females) was 1.20% below the 30-year average, 48.05% (Table 3). The average litter size (3.31) was 0.24 below the 30-year average, 3.55 (Table 4) and near the lowest found during this study.

Mean body weight of juvenile males in 1984-85 was 12.28 lb (Table 5) compared with 12.46 lb in 1983-84 and the 30-year average of 11.39 lb. Body weights of all age and sex groups were higher than the 30-year average in 1984-85, and all males had the highest weights for the 30-year study. The higher than average body weights found in 1984-85 are believed to be a result of mild weather early in the season. Thus, more raccoons were taken early in the season when body weights were higher. Also, the trapping

season closed 29 December 1984. In some earlier seasons, several raccoons were taken during mild weather in January when average weights are lower than they are early in the season. The mean litter size (3.31, Table 4) was among the lowest found during the entire study. Hunters accounted for 84.13% of the raccoons examined; the highest percentage for any year since records were kept (1972-73). Other data showed no substantial differences from the 30-year averages. Thus, if these data are indices to population changes--such as overharvest--they do not indicate major changes in the raccoon populations in west-central Illinois. We should watch the average litter size, percentage of young, and young-of-the-year for parous female to see if the lower figures in 1984-85 were the start of a trend.

Harvest figures for the 1984-85 season (Table 7) were 32.59% higher than for the 1983-84 season, but were 9.97% lower than the average number (299,883) for the 1978-79--1983-84 seasons. The hunting seasons in the Northern and Southern zones in Illinois were almost the same in 1984-85 than they were for the previous 4 seasons. Thus, even though the number of raccoon pelts bought by furbuyers increased by about 10% in 1984-85 it seems apparent that there was no overharvest of Illinois raccoons in 1984-85.

Age Composition

Young-of-the-year animals comprised 57.07% of the females examined (Table 1). This figure was a substantial decrease over the 66.18% seen in 1983-84 and the 30-year average of 66.38%. Parous adults comprised 31.31% of the females, which was higher than the 26.47% found in 1983-84 and the 30-year average of 27.83%. Nulliparous adults (11.62%) were the highest found during the entire study. The 30-year average was 5.98% (Table 1).

Young-of-the-year males (59.90%) were 5.19% lower than in 1983-84 and were 8.86% lower than the 30-year (68.76%) average (Table 2). Of the 400 raccoons examined for age, 58.50% were young-of-the-year animals; 7.07% lower than the 65.57% observed in 1983-84 and 9.10% lower than the 30-year average of 67.60%. There were 3.77 young-of-the-year per parous female among the raccoons examined during the 1984-85 season. The 30-year average was 5.36 young per parous female. 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 30-year average of dark placental scars per uterus--believed to represent the average litter size--was 3.55 (Table 4).

Sex Ratios

Females comprised 49.25% (Table 3) of the raccoons examined at Perardi Bros. Fur and Wool, Inc., during the 1984-85 season. This was an increase of 4.66% from 44.59% in 1983-84 and was 1.20% above the 30-year average (48.05%). Of the 232 young-of-the-year raccoons examined in 1984-85, 48.29% were females (Table 1); a figure slightly higher than the 30-year average of 46.37%. Females comprised 51.20% of the adult raccoons examined during the past season (Table 2); a figure that is 7.39% higher than the 43.81% found in 1983-84 and 1.77% higher than the 30-year average of 49.43%.

Placental Scars

Some of my earlier work has shown that placental scars persists 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 1984 breeding season, as determined from single groups of scars and dark groups of placental scars when pale and dark groups were both present, was 3.31, which was one of the lowest found during this study (Table 4, Fig. 1). The 30-year average litter size determined in this manner was 3.55. If all visible scars in each uterus were combined, the average number of scars per uterus with 1 or more scars was 4.48 in 1984-85 (Table 4) and the 30-year mean was 4.37.

Body Weight

Weights of raccoons examined in west-central Illinois during the past 30 seasons have varied as much as 2.84 lb from year to year depending on age and sex (Table 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, but extremely cold weather after the middle of December 1983 and in January 1984 resulted in little harvest of raccoons during this time in west-central Illinois. Thus, a large majority of the

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, Champaign, Illinois 61820.

The data for the 1955-56 through the 1984-85 seasons have been placed on discs and tape so that the data can be analyzed by computer, when the programs have been written.

REFERENCES CITED:

- Hubert, G.F., Jr. 1981. Fur harvest survey, 1980-81. Illinois Dep. Conserv. P-R Proj. Rep. W-49-R-28, Study XV, Job 3. 26pp.
- _____. 1982. Fur harvest survey, 1981-82. Illinois Dep. Conserv. P-R Proj. Rep. W-49-R-39, Study XV, Job 3. 25pp.
- _____. 1983. Fur harvest survey, 1982-83. Illinois Dep. Conserv. P-R Proj. Rep. W-49-R-30, Study XV, Job 3. 24pp.
- _____. 1984. Fur harvest survey, 1983-84. Illinois Dep. Conserv. Federal Aid Proj. No. W-49-R-31, Study XV, Job No. 3. 22pp.
- _____. 1985. Fur harvest survey, 1984-85. Illinois Dep. Conserv. Federal Aid Proj. No. W-49-R-32, Study XV, Job No. 3. In preparation.
- Sanderson, Glen C., and G.F. Hubert, Jr. 1981(1980). Selected demographic characteristics of Illinois (U.S.A.) raccoons (Procyon lotor). Pages 487-513 in J.A. Chapman and D. Pursley, eds. Worldwide Furbearer Conf. Proc., Forstburg, MD, Vol. 1:1-652.

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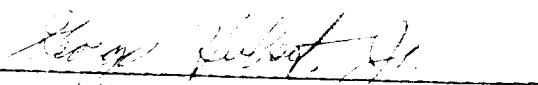
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Table 1. Age composition of female raccoons examined at Perardi Bros. Fur and Wool Co., Inc., Farmington, Fulton County, Illinois.

Season	Young-of-the-year (percent)	Parous Adults (percent)	Nulliparous Adults (%)	Young-of-the-year (percent females)	Yg/Parous f
1955-56	58.14 (25) ^a	41.86 (18)	(0)	32.50 (77)	4.28
1956-57	62.77 (86)	29.20 (40)	8.03 (11)	39.63 (217)	5.42
1957-58	71.91 (64)	24.72 (22)	3.37 (3)	49.23 (130)	5.91
1958-59	78.22 (97)	18.55 (23)	3.22 (4)	46.63 (208)	9.04
1959-60	67.30 (142)	27.49 (58)	5.21 (11)	47.02 (302)	5.21
1960-61	67.42 (178)	31.44 (83)	1.14 (3)	51.90 (343)	4.13
1961-62	66.67 (240)	28.33 (102)	5.00 (18)	48.19 (498)	4.88
1962-63	66.07 (294)	29.21 (130)	4.72 (21)	44.75 (657)	5.05
1963-64	63.72 (72)	28.32 (32)	7.96 (9)	49.66 (145)	4.53
1964-65	70.52 (177)	23.50 (59)	5.98 (15)	49.86 (355)	6.02
1965-66	64.28 (180)	32.86 (92)	2.86 (8)	49.59 (363)	3.94
1966-67	75.00 (108)	19.44 (28)	5.56 (8)	50.70 (213)	7.61
1967-68	67.57 (125)	26.49 (49)	5.94 (11)	45.13 (277)	5.65
1968-69	64.54 (162)	31.88 (80)	3.58 (9)	47.23 (343)	4.29
1969-70	65.16 (159)	27.87 (68)	6.97 (17)	42.86 (371)	5.46
1970-71	71.08 (177)	21.69 (54)	7.23 (18)	46.34 (382)	7.07
1971-72	67.03 (122)	24.72 (45)	8.24 (15)	46.21 (264)	5.87
1972-73	62.63 (181)	31.14 (90)	6.23 (18)	48.92 (370)	4.11
1973-74	60.45 (133)	32.73 (72)	6.82 (15)	38.33 (347)	4.82
1974-75	63.16 (180)	30.88 (88)	6.95 (17)	48.13 (374)	4.25
1975-76	70.26 (137)	23.08 (45)	6.67 (13)	45.82 (299)	6.64
1976-77	70.29 (168)	25.10 (60)	4.60 (11)	47.19 (356)	5.93
1977-78	78.83 (189)	19.14 (49)	7.03 (18)	49.09 (385)	7.86
1978-79	63.11 (154)	25.41 (62)	11.48 (28)	49.68 (310)	5.00
1979-80	69.14 (177)	28.52 (73)	2.34 (6)	51.60 (343)	4.70
1980-81	68.14 (154)	24.34 (55)	7.52 (17)	46.52 (331)	6.02
1981-82	56.82 (125)	35.45 (78)	7.73 (17)	44.33 (282)	3.62
1982-83	58.06 (108)	33.87 (63)	8.06 (15)	40.90 (264)	4.19
1983-84	66.18 (90)	26.47 (36)	7.35 (10)	45.00 (200)	5.56
1984-85	57.07 (113)	31.31 (62)	11.62 (23)	48.29 (232)	3.77
Total or 30-yr Mean	66.38 (4,317)	27.83 (1,816)	5.98 (389)	46.37 (9,239)	5.36

^a 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 (%)			
Yg/ Parous F	1955-56	71.23 (52) ^a	28.77 (21)	66.38 (116)	46.15 (39)
	1956-57	68.23 (131)	31.77 (61)	65.96 (329)	45.54 (112)
	1957-58	75.86 (66)	24.14 (21)	73.86 (176)	54.35 (46)
	1958-59	68.94 (111)	31.06 (50)	72.98 (285)	35.06 (77)
4.28	1959-60	73.06 (160)	26.94 (59)	70.23 (430)	53.91 (128)
5.42					
5.91	1960-61	62.74 (165)	37.26 (98)	65.08 (527)	46.74 (184)
9.04	1961-62	62.77 (258)	37.22 (153)	64.59 (771)	43.96 (273)
5.21	1962-63	73.33 (363)	26.67 (132)	69.89 (940)	53.36 (283)
	1963-64	58.87 (73)	41.13 (51)	61.18 (237)	44.57 (92)
4.13	1964-65	74.17 (178)	25.83 (62)	72.30 (491)	54.41 (136)
4.88					
5.05	1965-66	62.24 (183)	37.76 (111)	63.24 (574)	47.39 (211)
4.53	1966-67	65.62 (105)	34.38 (55)	70.06 (304)	39.56 (91)
6.02	1967-68	69.72 (152)	30.28 (66)	68.73 (403)	47.62 (126)
	1968-69	69.35 (181)	30.65 (80)	66.99 (512)	52.66 (169)
3.94	1969-70	72.60 (212)	27.40 (80)	69.22 (536)	51.52 (165)
7.61					
5.65	1970-71	77.07 (205)	22.93 (61)	74.17 (515)	54.14 (133)
4.29	1971-72	73.20 (142)	26.80 (52)	70.21 (376)	53.57 (112)
5.46	1972-73	66.08 (189)	33.92 (97)	64.35 (575)	52.68 (205)
	1973-74	73.79 (214)	26.21 (76)	68.04 (510)	53.87 (163)
7.07	1974-75	64.67 (194)	35.33 (106)	63.93 (585)	49.76 (211)
5.87					
1.11	1975-76	72.32 (162)	27.68 (62)	71.36 (419)	48.33 (120)
1.82	1976-77	70.68 (188)	29.32 (78)	70.50 (505)	47.65 (149)
.25	1977-78	68.29 (196)	31.70 (91)	70.90 (543)	42.41 (158)
	1978-79	68.42 (156)	31.58 (72)	65.68 (472)	55.55 (162)
.64	1979-80	68.03 (166)	31.97 (78)	68.60 (500)	50.32 (157)
.93					
.86	1980-81	68.60 (177)	31.40 (81)	68.39 (484)	52.94 (153)
.00	1981-82	66.24 (157)	33.76 (80)	61.71 (457)	54.28 (175)
70	1982-83	71.56 (156)	28.44 (62)	65.35 (404)	55.71 (140)
	1983-84	65.09 (110)	34.91 (59)	65.57 (305)	43.81 (105)
02	1984-85	59.90 (121)	40.10 (81)	58.50 (400)	51.20 (166)
62					
19	Total or				
56	30-yr				
77	Mean	68.76 (4,924)	31.24 (2,236)	67.60 (13,682)	49.43 (4,441)

^a 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	73	42.52
1956-57	145	192	43.03
1957-58	89	87	50.57
1958-59	126	161	43.90
1959-60	211	219	49.07
1960-61	269	263	50.56
1961-62	364	411	46.97
1962-63	448	495	47.51
1963-64	125	124	50.20
1964-65	251	240	51.12
1965-66	281	294	48.87
1966-67	145	160	47.54
1967-68	193	218	46.96
1968-69	255	261	49.42
1969-70	263	292	47.39
1970-71	249	266	48.35
1971-72	182	194	48.40
1972-73	289	286	50.26
1973-74	222	290	43.36
1974-75	290	300	49.15
1975-76	195	224	46.54
1976-77	239	266	47.33
1977-78	256	287	47.15
1978-79	244	228	51.69
1979-80	244	256	51.20
1980-81	226	258	46.69
1981-82	220	237	48.14
1982-83	186	218	46.04
1983-84	136	169	44.59
1984-85	198	202	49.25
Total or 30-yr Mean	6,607	7,151	48.05

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 ^a	Dark ^b	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	23	10	23	31	80	3.10	3.48	4.83
1959-60	57	25	57	50	204	2.00	3.58	4.46
1960-61	77	33	77	87	250	2.64	3.25	4.33
1961-62	74	26	74	59	265	2.27	3.58	4.38
1962-63	122	41	122	108	409	2.63	3.35	4.24
1963-64	31	11	31	25	98	2.27	3.16	3.97
1964-65	56	21	56	52	197	2.48	3.52	4.45
1965-66	81	26	81	81	303	3.12	3.74	4.74
1966-67	28	6	28	13	103	2.17	3.68	4.14
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	54	11	54	35	191	3.18	3.54	4.18
1971-72	42	7	42	17	153	2.43	3.64	4.05
1972-73	75	12	75	36	258	3.00	3.44	3.92
1973-74	70	14	70	54	247	3.86	3.53	4.30
1974-75	87	21	87	52	312	2.48	3.59	4.18
1975-76	44	15	44	45	161	3.00	3.66	4.68
1976-77	56	18	56	53	210	2.94	3.75	4.70
1977-78	48	13	48	32	167	2.46	3.48	4.14
1978-79	60	20	60	43	214	2.15	3.57	4.28
1979-80	73	28	73	71	253	2.54	3.46	4.44
1980-81	54	24	54	54	179	2.25	3.31	4.31
1981-82	75	31	75	75	269	2.42	3.59	4.59
1982-83	61	23	61	58	203	2.52	3.33	4.28
1983-84	36	11	36	32	145	2.91	4.03	4.92
1984-85	62	21	62	73	205	3.48	3.31	4.48
Total or 30-yr Mean	1,704	524	1,704	1,384	6,056	2.64	3.55	4.37

^a Presumably from the previous breeding season.

^b Presumably from the most recent breeding season.

Table 7. Average values and numbers of Illinois raccoon pelts, from 1968-69 through 1984-85. ^a

Season	Average Value	Average Number Harvested
1968-69	\$ 3.11	49,429
1969-70	2.44	62,949
1970-71	1.35	52,866
1971-72	2.95	68,174
1972-73	5.37	85,536
1973-74	7.36	181,776
1974-75	8.03	No Data
1975-76	14.00	310,593
1976-77	17.17	187,377
1977-78	18.00	237,315
1978-79	27.25	292,728
1979-80	25.50	381,006
1980-81	19.40	314,777 (Hubert 1981)
1981-82	22.50	314,963 (Hubert 1982)
1982-83	14.55	292,189 (Hubert 1983)
1983-84	13.15	203,633 (Hubert 1984)
1984-85	17.25	269,991 (Hubert 1985)

^a Data from Sanderson and Hubert (1980), except as noted.

Table 8. Average body weights (lb) of raccoons killed by hunters, trappers, and roadkills and examined at Perard Bros. Fur and Wool Co., Inc., Farmington, Illinois--1972-73 and 1974-75 through 1984-85.

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)	14.54 (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)
1979-80	10.49 (128)	10.12 (33)	8.18 (4)	18.00 (66)	16.95 (12)	(0)	10.56 (138)	9.92 (37)	7.70 (1)
1980-81	11.78 (137)	11.37 (34)	9.95 (4)	17.49 (69)	17.14 (13)	(0)	11.29 (109)	11.31 (37)	10.98 (4)
1981-82	11.41 (119)	10.79 (36)	9.40 (1)	17.05 (64)	17.37 (15)	12.80 (1)	10.69 (96)	10.55 (31)	(0)
1982-83	12.69 (136)	11.99 (20)	(0)	18.16 (48)	17.98 (14)	(0)	11.96 (82)	10.84 (24)	(0)
1983-84	12.42 (89)	12.72 (20)	10.90 (1)	17.84 (46)	17.59 (10)	(0)	11.74 (69)	11.83 (24)	(0)
1984-85	12.13 (104)	13.71 (14)	12.50 (1)	17.19 (68)	18.24 (13)	(0)	10.91 (92)	10.78 (21)	(0)
Mean of Means	11.33 (1,491)	11.25 (352)	9.74 (23)	16.97 (712)	16.50 (166)	15.56 (9)	10.65 (1,239)	10.33 (375)	9.74 (22)

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)	12.01 (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)
1979-80	14.87 (50)	15.20 (23)	(0)	14.98 (5)	15.00 (2)	(0)	12.42 (387)	12.00 (107)	8.08 (5)
1980-81	15.66 (42)	15.12 (13)	(0)	14.05 (13)	14.68 (6)	(0)	13.41 (370)	12.80 (103)	10.46 (8)
1981-82	14.50 (49)	14.57 (29)	(0)	15.34 (11)	13.00 (6)	(0)	12.84 (339)	12.62 (117)	11.10 (2)
1982-83	15.56 (43)	15.69 (20)	(0)	15.25 (13)	12.80 (2)	(0)	13.79 (322)	13.64 (80)	(0)
1983-84	15.39 (25)	16.34 (7)	12.40 (4)	15.68 (4)	16.10 (2)	15.50 (1)	13.61 (233)	13.66 (63)	12.65 (6)
1984-85	14.74 (51)	15.12 (10)	(0)	14.85 (19)	15.20 (4)	(0)	13.38 (334)	13.99 (62)	12.50 (1)
Mean of Means	14.46 (525)	14.55 (190)	12.85 (8)	13.82 (143)	13.85 (42)	15.50 (1)	12.62 (4,110)	12.36 (1,125)	11.38 (63)

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 1984-85 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)	26.57 (18)	1.59 (1)	72.17 (83)	24.35 (28)	3.48 (4)
1975-76	76.34 (300)	23.16 (91)	0.51 (2)	83.33 (35)	16.67 (7)	0.00 (0)	72.00 (90)	28.00 (35)	0.00 (0)
1976-77	83.03 (416)	15.37 (77)	1.60 (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 (356)	19.61 (90)	1.74 (8)	76.79 (43)	23.22 (13)	0.00 (0)	76.82 (116)	19.87 (30)	3.31 (5)
1979-80	76.60 (383)	22.40 (112)	1.00 (5)	68.49 (50)	31.51 (23)	0.00 (0)	78.41 (138)	21.02 (37)	0.57 (1)
1980-81	76.46 (367)	21.67 (104)	1.88 (10)	76.36 (42)	23.64 (13)	0.00 (0)	72.00 (108)	24.67 (37)	3.33 (5)
1981-82	73.85 (336)	25.71 (117)	0.44 (2)	62.82 (49)	37.18 (29)	0.00 (0)	75.40 (95)	24.60 (31)	0.00 (0)
1982-83	80.00 (324)	20.00 (81)	0.00 (0)	68.25 (43)	31.75 (20)	0.00 (0)	77.78 (84)	22.22 (24)	0.00 (0)
1983-84	76.72 (234)	21.31 (65)	1.96 (6)	69.44 (25)	19.44 (7)	11.11 (4)	74.19 (69)	25.81 (24)	0.00 (0)
1984-85	84.13 (334)	15.62 (62)	0.25 (1)	83.61 (51)	16.39 (10)	0.00 (0)	81.42 (92)	18.58 (21)	0.00 (0)
Mean of Means	77.52 (4,109)	21.25 (1,123)	1.23 (67)	73.82 (529)	24.60 (186)	1.56 (9)	75.80 (1,271)	22.94 (380)	1.27 (23)

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)	19.00 (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	75.00 (45)	23.33 (14)	1.67 (1)	77.42 (120)	21.94 (34)	0.64 (1)	90.91 (10)	9.09 (1)	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)
1979-80	83.54 (66)	16.46 (13)	0.00 (0)	75.30 (125)	22.29 (37)	2.41 (4)	66.67 (4)	33.33 (2)	0.00 (0)
1980-81	84.15 (69)	15.85 (13)	0.00 (0)	77.97 (138)	19.77 (35)	2.26 (5)	62.50 (10)	37.50 (6)	0.00 (0)
1981-82	79.45 (63)	18.99 (15)	1.26 (1)	76.28 (119)	23.08 (36)	0.64 (1)	62.50 (10)	37.50 (6)	0.00 (0)
1982-83	77.42 (48)	22.58 (14)	0.00 (0)	86.62 (136)	13.38 (21)	0.00 (0)	86.67 (13)	13.33 (2)	0.00 (0)
1983-84	79.66 (47)	20.34 (12)	0.00 (0)	80.91 (89)	18.18 (20)	0.91 (1)	57.14 (4)	28.57 (2)	14.29 (1)
1984-85	83.95 (68)	16.05 (13)	0.00 (0)	87.40 (104)	11.76 (14)	0.84 (1)	82.61 (19)	17.39 (4)	0.00 (0)
Mean of Means	79.95 (717)	18.93 (168)	1.04 (9)	79.75 (1,466)	19.02 (369)	1.23 (25)	72.39 (126)	26.41 (40)	1.19 (1)

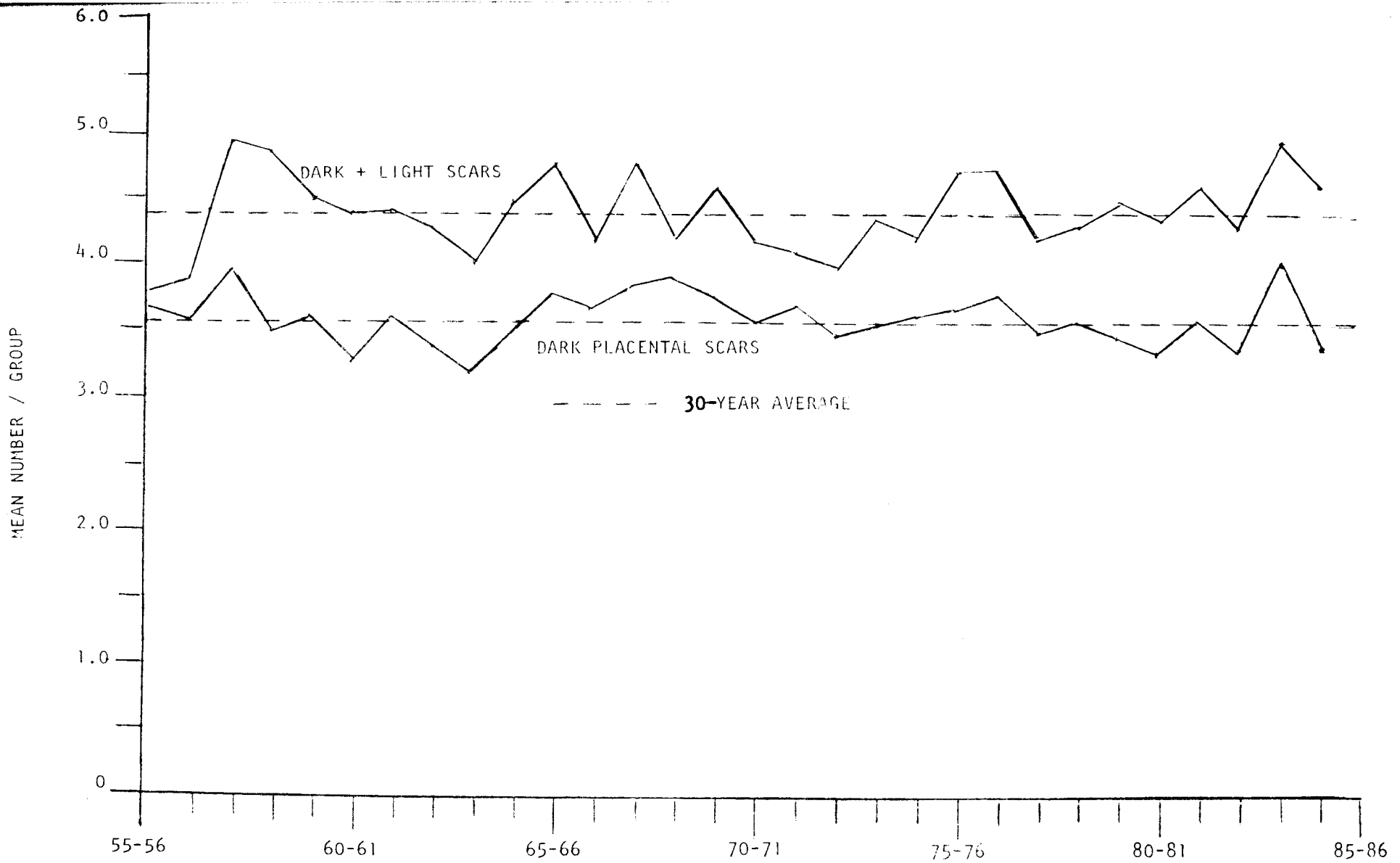


Fig. 1. Average number of placental scars observed per parous female examined at Perardi Bros. Furhouse, Farmington, Illinois--1955-56 through 1984-85 seasons. "Dark" scars represent uteri with only one group of scars whether dark or light and the dark scars when both light and dark scars were present 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.