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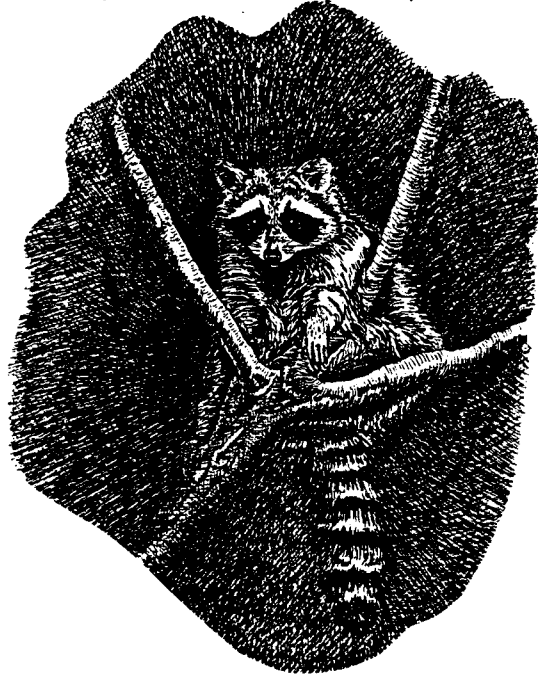
Federal Aid Project No. W-99-R-3

Study XV: Wildlife Harvests

Job No. 3: Trapper harvest survey, 1990-91

By

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JOB COMPLETION REPORT

SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-99-R-3

STUDY XV: Wildlife Harvests

JOB NO. 3: Trapper harvest survey, 1990-91

ABSTRACT: A stratified random sample of 1,199 persons who purchased 1990 series trapping licenses in Illinois was surveyed after the trapping season. The licensees were contacted by first class mail in three mailings. Questionnaires were deliverable to 1,162 (96.91%) recipients from which 984 useable replies were received (84.68% return). Of these, 77.34% were active trappers, i.e. set ≥ 1 traps during the season. Only 2.50% of the active trappers were ineffective, i.e. caught nothing.

The 1990-91 survey covered 10 furbearer species. Findings are presented: 1) on a statewide basis, 2) for each of the 10 wildlife management units in the state, and 3) for the two furbearer management zones currently in use. Data include estimated number and density of effective trappers, estimated total trapper harvest and trapper harvest per unit area, and average season catch. Statewide projections for the number of effective trappers and total trapper harvest (in parentheses) are: muskrat (Ondatra zibethicus) 1,647 (58,243), mink (Mustela vison) 1,011 (3,582), raccoon (Procyon lotor) 1,945 (35,825), opossum (Didelphis marsupialis) 965 (8,578), red fox (Vulpes vulpes) 544 (1,849), gray fox (Urocyon cinereoargenteus) 249 (553), beaver (Castor canadensis) 854 (5,687), striped skunk (Mephitis mephitis) 350 (1,143), weasel (Mustela frenata, M. nivalis) 31 (34), and coyote (Canis latrans) 504 (2,298).

The average trapper was 39.3 years of age and had traps set for 21.9 days (or nights) during the 1990-91 season; 16.3% had attended a trapper education class sponsored by the Illinois Department of Conservation. More than one-half (55.6%) of the effective muskrat trappers caught ≤ 20 muskrats during the season. Most (64.8%) of the effective raccoon trappers harvested from 1 to 15 raccoons for the entire season and 81.0% trapped ≤ 25 . An estimated 90.4% of the trapped catch was sold. Of the 761 active trappers who provided information, 12.4% had sold pelts from ≥ 1 road-killed animals (total 750 animals, 74.1% raccoon) during the 1990-91 season. Furbearers, primarily raccoons, were also hunted by 29.5% of the licensed trappers. The harvest of furbearers by hunting trappers was equivalent to 6.9% of the total trapped catch in the sample.

JOB COMPLETION REPORT

SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-99-R-3

STUDY XV: Wildlife Harvests

JOB NO. 3: Trapper harvest survey, 1990-91

OBJECTIVE: To collect information on the annual trapper harvest of furbearers in Illinois and associated trapper characteristics.

PROCEDURES: A stratified random mail survey of individuals who purchased trapping licenses was the basic technique employed. Mail survey address cards were filled out by license vendors for the first license sold in each book of five resident and non-resident trapping licenses in the 1990 series (total sales estimate 3,023 - 1 August 1991) (Fig. 1). At the same time, the person purchasing the license was provided with an information card which requested him to keep a record of his activities since he might be contacted after the close of the season (Fig. 2). The survey address cards were returned to the Division of Wildlife Resources via business reply mail and were filed according to the licensee's county of residence. For some strata, it was necessary to supplement the mailing list with names from the stubs of trapping licenses sold during the year.

Prior to the close of the muskrat trapping season, a random sub-sample based on the distribution of the 1978-1982 trapping license sales was drawn. The size of the sub-sample was set at 1,200 since this quantity would result in 900 to 1,050 useable replies for adequate reliability at the statewide level. Address cards in the drawn sample were manually marked with serial numbers to enable removal of respondents and undeliverables from the initial and first follow-up mailings.

An initial and two follow-up mailings to non-respondents were made with a different letter of transmittal for each mailing (Figs. 3, 4, 5). Questionnaire cards were numbered to correspond with appropriate address cards and included with each transmittal letter (Fig. 6). First class postage was used for all mailings.

Questionnaires were returned via business reply permit printed on the back of the form. Those received were checked for usability, and the respondents were initially placed into one of two categories: inactive - those who did not set traps for furbearers during the 1990-91 seasons, or active - those who did set one or more traps for furbearers during the 1990-91 seasons. Active trappers were further classified as: effective - those who caught one or more furbearers of the species in question, or ineffective - those who did not catch any furbearers. Next, the county trapped in most, species trapped, and species hunted were numerically coded. Reply data were

transferred directly to computer files at the Investigations and Surveys Program offices, Division of Wildlife Resources, Illinois Department of Conservation, Champaign, Illinois, and stored for subsequent analysis. Mr. Scott Bennett, a consultant at the University of Illinois-Champaign, prepared the data entry and analysis programs.

Reply data for each species surveyed were compiled for the 10 wildlife management units in Illinois (Fig. 7). In addition, confidence limits at the 95% level were calculated by species for the number of effective trappers, average season catch, and total trapper harvest on a statewide basis. The formulas used were described by Cochran (1953) and Snedecor and Cochran (1967). These are as follows:

- a. Number of effective trappers for species:

where N = total license sales

n = number of licensees
in sample

$$\pm 2N \sqrt{\frac{pq}{n}}$$

p = portion of licensees in
sample who effectively
trapped species in question

q = 1-p

- b. Average season catch per effective trapper for species in question:

where n_1 = number of licensees in
sample who effectively
trapped species in
question

$$\pm 1.96 \sqrt{\frac{\frac{(x_i - \bar{x}_i)^2}{n_1 - 1}}{n_1}}$$

x_i = reported season catch
for species in question

- c. Total trapper harvest:

where x = reported season catch for
all licensees responding
to survey

$$\pm 2N \sqrt{\frac{(x - \bar{x})^2}{n - 1}} \frac{1}{n}$$

All calculations assumed there were no differences between the activities of the licensees who returned the questionnaire and those who did not.

FINDINGS AND ANALYSIS:

1990-91 Trapping Seasons

The 1990-91 fur-bearing mammal trapping seasons varied from 35 to 139 days in length (Table 1). The seasons for all species except beaver, red fox, gray fox, and coyote lasted 47 days in the northern management zone and 45 days in the southern zone (Fig. 8). Opening dates were 13 November 1990 and 25 November 1990, respectively. Red fox, gray fox, and coyote could be legally trapped for 35 days in the northern zone and for 45 days in the southern zone starting 25 November 1990. Beaver trapping season was 127 or 139 days in length, depending on zone, and opened concurrently with all other species except fox and coyote in the northern zone. No bag limits were in effect for any furbearer. Special regulations reduced the length of the beaver season to 45 days along the Mississippi River from Interstate 80 north to the JoDaviess County line as a protective measure for river otter (Lutra canadensis).

1990-91 Trapper Mail Survey

The initial mailing of 1,199 questionnaires was made on 28 January 1991. The two follow-up mailings to non-respondents were made on 4 March and 9 April, respectively, and closed out on 15 July 1991. Approximately two days preparation was required for each mailing.

A total of 1,162 (96.91%) licensees in the 1990-91 survey sample was reached by the Postal Service via first class mail. The 37 remaining questionnaires were returned as undeliverable. There were 984 useable replies received from the licensees contacted, representing an 84.68% response on the number delivered. Of these respondents, 761 (77.34%) reported that they set one or more traps for furbearers during the season and were classified as active. A total of 742 (97.50%) active trappers were effective, i.e. caught one or more furbearers, and the remaining 19 (2.50%) were ineffective, i.e. caught nothing. Based on these data, there were an estimated 2,338 active trappers and 2,280 effective trappers in Illinois in 1990-91.

a. Number of days trapped

Active trappers had traps set an average of 21.9 days (or nights) during the 1990-91 season (Fig. 9). The maximum number of days a trapper could have legally trapped was 139. However, only 4.85% of the respondents stated they had traps set for over 45 days, and just 17.72% trapped over 30 days. The vast majority of trapping activity is concentrated during the initial 15 to 30 days of the muskrat, mink, and raccoon seasons. In comparison, Illinois trappers had traps set an average of 23.0 days in 1985-86 (108-day season), 26.6 days in 1986-87 (106-day season), 25.2 days in 1987-88 (106-day season), 22.0 days in 1988-89 (106-day season), 20.0 days in 1989-90 (120-day season) (Hubert 1986, 1987, 1988, 1989; Anderson et al. 1990).

b. Age of Trappers

The average age of active trappers during the 1990-91 season was 39.3 years (Fig. 10). The breakdown by age groups was as follows: 10.39% were ≤ 20 years of

age, 24.88% were 21-30 years, 25.66% were 31-40 years, 14.60% were 41-50 years, 10.00% were 51-60 years, 9.09% were 61-70 years, and 5.38% were >70 years. Or, 2.49% of the active trappers were ≤ 15 years of age, 86.73% were 16-64 years, and 10.78% were ≥ 65 years.

c. Attended Trapper Education Class

Of the 984 respondents who answered question #5, 124 indicated they had attended a trapper education class sponsored by the Illinois Department of Conservation. This finding suggests that 16.29% of the active trappers in Illinois had received instruction via this class as of early 1991.

d. Trapper harvest summary

A statewide summary for the 10 species of furbearers surveyed in 1990-91 is presented in Table 2. The data for each species include the estimated number of effective trappers and their percent of all licensees, average season catch per effective trapper, estimated total trapper harvest, and estimated percent, and total sold. Similar information for each of the 10 species, plus estimated density of effective trappers and furbearers harvested in each of the 10 wildlife management units, is provided in Tables 3 through 12. The original sample sizes from which these data were derived are presented in Table 13 which also provides the percent of effective trappers for each species (season catch of one or more).

Statewide confidence intervals at the 95% level for number of effective trappers, average season catch per effective trapper, and total harvest for each furbearer are given in Table 14. In most instances, those species with the greater number of effective trappers in the sample have smaller limits of variability which result in greater confidence in the projections. In 1990-91, effective raccoon trappers were the most numerous and their projected number varied by only $\pm 4.73\%$. The 95% confidence interval projections for less numerous red fox trappers varied by $\pm 13.60\%$ and for uncommon weasel trappers by $\pm 61.29\%$.

e. Distribution of harvest among effective trappers

The muskrat and raccoon were the two most important furbearers trapped during the 1990-91 season in terms of number of effective trappers, average season catch, and total harvest (Table 2). The reported number of muskrats harvested by 536 effective muskrat trappers ranged from 1 to 554 and averaged 35.37 (Fig. 11). During the season, 55.6% of these trappers harvested ≤ 20 muskrats and 93.0% caught ≤ 100 . All values are within the ranges of those obtained in the nine previous seasons (Hubert 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989; Anderson et al. 1990). Of the effective trappers who responded, 120 (22.39%) stated their catch averaged ≥ 1 muskrats per day for the entire season.

The distribution of harvest among effective raccoon trappers was similar to that for muskrat. The number of raccoons caught by the 633 effective raccoon trappers from whom data were available averaged 18.42 and ranged from 1 to 697 (Fig. 12). Less than the average season catch was taken by 69.7% of these trappers. For the entire season, 64.8% harvested ≤ 15 raccoons and 81.0% trapped ≤ 25 . Only 46 (7.3%) of the effective raccoon trappers reported making an average daily catch of ≥ 1 raccoons throughout the season.

The harvest of the other eight open-season furbearers was distributed among effective trappers much like the muskrat and raccoon harvests (Table 15). For three of these species (gray fox, striped skunk, and weasel), $\leq 15\%$ of the effective trappers made season catches of >5 pelts. For the other species, 15.5% of the effective mink trappers took >5 pelts, 45.2% of the effective opossum trappers took >5 pelts, 17.0% of the effective red fox trappers took >5 pelts, 33.8% of the effective beaver trappers took >5 pelts, and 24.4% of the effective coyote trappers took >5 pelts.

The above data emphasize the inapplicability of bag limits (both daily and seasonal) to furbearer trapping in Illinois. Few trappers are successful in making large seasonal catches. The ones who do are active throughout the season over extensive areas. Reductions in season length offer the most potential for reducing the furbearer harvest by highly successful trappers. Bag limits could potentially increase harvest because of their goal-setting effect.

f. Pelt Sales

Trappers sold an estimated 90.39% of their catch during 1990-91. The proportion of each species sold ranged from a low of 18.18% for weasel to a high of 96.40% for raccoon (Table 2). The fraction of pelts sold in Illinois and out-of-state also varied among species (Table 16). Overall, 82.90% of the marketed portion of the trapped catch was sold in Illinois and 17.10% out-of-state. In comparison, 95.33% of the trapped catch was sold (93.86% in Illinois and 6.14% out-of-state) in 1983-84 (Hubert 1984).

Of the 761 active trappers who participated in this survey, 94 (12.36%) stated they had sold pelts from ≥ 1 road-killed animals during the 1990-91 season. These 94 trappers equate to a total of 289 individuals, and they sold pelts from an estimated 750 road-kills (Table 17). The raccoon was by far the most common species salvaged--240 trappers picked up and sold pelts from 556 raccoons. In comparison, from 0 to 40 trappers sold pelts from 0 to 68 of each of the other species of furbearers. For all species combined, the number of road-killed pelts sold was equal to 2.2% of the trapped pelts sold during the 1990-91 season.

g. Fur hunting by trappers

A total of 290 trappers (29.47% of licensees) reported hunting furbearers with gun and/or dogs in 1990-91 (Table 18). Their total hunting harvest was 2,655 pelts or an average of 9.16 per hunting trapper. This is equivalent to 6.92% of the total trapped catch in the sample. The raccoon was hunted by more trappers than any other species. Next in popularity was the coyote. In 1986-87, 1987-88, 1988-89, and 1989-90, 29.14%, 28.98%, 26.54%, and 25.91%, respectively, of the trappers in Illinois also hunted furbearers (Hubert 1987, 1988, 1989; Anderson et al. 1990). Sampson (1973) reported 33.6% of the trappers in Missouri were fur hunters. Obviously, there is much overlap between the user groups designated as fur trappers and fur hunters.

h. Management zone data summary

Management zone and statewide data summaries for each of the 10 species of furbearers surveyed in 1979-80 (Hubert 1980), 1980-81 (Hubert 1981), 1981-82 (Hubert 1982), 1982-83 (Hubert 1983), 1983-84 (Hubert 1984), 1984-85 (Hubert

1985), 1985-86 (Hubert 1986), 1986-87 (Hubert 1987), 1987-88 (Hubert 1988), 1988-89 (Hubert 1989), 1989-90 (Anderson et al 1990), and 1990-91 are presented in Tables 19 through 28. The data for each species include estimated number and density of effective trappers, average season catch, estimated total trapper harvest, and trapper harvest per unit area. The northern and southern zones listed (Fig. 13) are nearly identical to the zones employed for regulatory management from 1979-80 through 1990-91 (Fig. 8).

RECOMMENDATIONS:

The present (Trapper Harvest) survey probably realizes its best use and reliability for furbearer management as an indicator of trends in trapping pressure, trapper success, trapper harvest, and trapping recreation. Until 1990, this particular survey provided the only regional harvest data available for the trapped portion of the annual furbearer catch. Beginning with the 1990-91 season, a new survey, entitled "Fur Hunter/Trapper Survey", was created. Because the mailing list for this new survey is derived from purchasers of the Illinois Furbearer Stamp, it provides data for both fur hunter and fur trapper activities. Both the Fur Hunter/Trapper Survey and the Trapper Harvest Survey were conducted during the 1990-91 season in order to have a year of overlap in the two data sets. The latter survey will be discontinued in subsequent years.

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DATA AND REPORTS:

Original data and reports in this investigation are on file in the Investigations and Surveys Program offices, Natural Resources Studies Annex, Champaign, Illinois 61820.

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DATE: 13 September 1991

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Table 1. Illinois fur-bearing mammal trapping seasons for 1990-91.

Species	Trapping Season	
	Northern zone	Southern zone
Muskrat, Mink, Raccoon, Opossum, Striped skunk, Weasel	13 Nov - 29 Dec (47) ^a	25 Nov - 8 Jan (45)
Beaver	13 Nov - 31 Mar (139) ^b	25 Nov - 31 Mar (127)
Red Fox, Gray Fox, Coyote	25 Nov - 29 Dec (35)	25 Nov - 8 Jan (45)

^a Numbers in parentheses are season lengths in days.

^b Those portions of Carroll, Whiteside, and Rock Island counties lying west of Illinois Rt. 84 from Interstate 80 north to the JoDaviess county line were open to beaver trapping from 13 Nov.-29 Dec. 1990 only.

Table 2. Summary of statewide data from post-season mail survey of Illinois resident trappers, 1990-91 season (n = 984).

Species	Estimated number of effective trappers	Percent of total licensees	Average season catch	Estimated total trapper harvest	Estimated percent ^a sold	Estimated total sold
Muskrat	1,647	54.48	35.37	58,243	94.56	55,075
Mink	1,011	33.44	3.54	3,582	96.40	3,453
Raccoon	1,945	64.34	18.42	35,825	93.53	33,507
Opossum	965	31.92	8.89	8,578	67.05	5,752
Red fox	544	18.00	3.40	1,849	82.39	1,523
Gray fox	249	8.24	2.22	553	80.56	445
Beaver	854	28.25	6.66	5,687	81.15	4,615
Striped skunk	350	11.58	3.26	1,143	32.52	372
Weasel	31	1.03	1.10	34	18.18	6
Coyote	504	16.67	4.56	2,298	70.32	1,616

^a Based on data from the current (1990-91) report.

Table 3. Summary of muskrat trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 536).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
Northwest Hills	237 (14.39) ^b	2.52	48.10	11,379 (19.54) ^b	121.07
Northeast Moraine	101 (6.13)	1.22	47.09	4,774 (8.20)	57.71
Mississippi Border-North	89 (5.40)	1.13	35.07	3,124 (5.36)	39.81
Mississippi Border-South	163 (9.90)	1.19	18.57	3,023 (5.19)	22.11
Western Prairie/Forest	166 (10.08)	1.15	17.22	2,857 (4.90)	19.81
Central Sand Prairie	55 (3.34)	1.33	77.06	4,261 (7.32)	102.75
Grand Prairie	504 (30.60)	0.96	38.99	19,647 (33.73)	37.33
Southern Plain	243 (14.75)	1.02	31.65	7,681 (13.19)	32.37
Wabash Border	61 (3.70)	0.90	16.95	1,042 (1.79)	15.45
Shawnee Hills	28 (1.70)	0.54	16.44	455 (0.78)	8.72
Statewide	1,647 (100.00)	1.13	35.37	58,243 (100.00)	39.87

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 4. Summary of mink trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 329).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest ^a	Estimated trapper harvest/100 km ²
Northwest Hills	111 (10.98) ^b	1.18	2.44	270 (7.54) ^b	2.87
Northeast Moraine	74 (7.32)	0.89	5.29	390 (10.89)	4.71
Mississippi Border-North	40 (3.96)	0.51	2.31	92 (2.57)	1.17
Mississippi Border-South	92 (9.10)	0.67	3.43	316 (8.82)	2.31
Western Prairie/Forest	86 (8.51)	0.60	2.82	243 (6.78)	1.69
Central Sand Prairie	43 (4.25)	1.04	2.50	108 (3.02)	2.60
Grand Prairie	338 (33.43)	0.64	4.37	1,478 (41.26)	2.81
Southern Plain	166 (16.42)	0.70	2.93	485 (13.54)	2.04
Wabash Border	40 (3.96)	0.59	2.00	80 (2.23)	1.19
Shawnee Hills	21 (2.08)	0.40	5.57	120 (3.35)	2.30
Statewide	1,011 (100.00)	0.69	3.54	3,582 (100.00)	2.45

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 5. Summary of raccoon trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 633).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
Northwest Hills	276 (14.19) ^b	2.94	14.63	4,046 (11.29) ^b	43.05
Northeast Moraine	114 (5.86)	1.38	18.76	2,132 (5.95)	25.77
Mississippi Border-North	154 (7.92)	1.96	29.96	4,602 (12.85)	58.64
Mississippi Border-South	197 (10.13)	1.44	12.48	2,455 (6.85)	17.95
Western Prairie/Forest	255 (13.11)	1.77	26.80	6,833 (19.07)	47.38
Central Sand Prairie	64 (3.29)	1.54	13.14	848 (2.37)	20.45
Grand Prairie	519 (26.68)	0.99	17.71	9,195 (25.67)	17.47
Southern Plain	258 (13.26)	1.09	16.54	4,267 (11.91)	17.98
Wabash Border	74 (3.80)	1.10	13.88	1,023 (2.86)	15.17
Shawnee Hills	34 (1.75)	0.65	12.55	424 (1.18)	8.13
Statewide	1,945 (100.00)	1.33	18.42	35,825 (100.00)	24.52

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 6. Summary of opossum trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 314).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest ^a	Estimated trapper harvest/100 km ²
Northwest Hills	114 (11.82) ^b	1.21	7.32	833 (9.71) ^b	8.86
Northeast Moraine	58 (6.02)	0.70	13.47	786 (9.16)	9.50
Mississippi Border-North	98 (10.17)	1.25	13.06	1,284 (14.97)	16.36
Mississippi Border-South	95 (9.85)	0.69	10.10	962 (11.22)	7.03
Western Prairie/Forest	129 (13.38)	0.89	9.36	1,207 (14.07)	8.37
Central Sand Prairie	22 (2.28)	0.53	5.14	111 (1.29)	2.68
Grand Prairie	249 (25.83)	0.47	7.60	1,892 (22.06)	3.59
Southern Plain	144 (14.94)	0.61	7.62	1,100 (12.83)	4.64
Wabash Border	40 (4.15)	0.59	6.38	255 (2.97)	3.78
Shawnee Hills	15 (1.56)	0.29	9.60	147 (1.71)	2.82
Statewide	964 (100.00)	0.66	8.89	8,577 (100.00)	5.87

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 7. Summary of red fox trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 177).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest ^a	Estimated total trapper harvest/100 km ²
Northwest Hills	55 (10.13) ^b	0.59	5.33	295 (15.95) ^b	3.14
Northeast Moraine	40 (7.37)	0.48	4.54	181 (9.79)	2.19
Mississippi Border-North	43 (7.92)	0.55	3.50	151 (8.17)	1.92
Mississippi Border-South	49 (9.02)	0.36	2.31	114 (6.16)	0.83
Western Prairie/Forest	58 (10.68)	0.40	2.95	172 (9.30)	1.19
Central Sand Prairie	15 (2.76)	0.36	4.00	61 (3.30)	1.47
Grand Prairie	144 (26.52)	0.27	3.38	488 (26.39)	0.93
Southern Plain	111 (20.44)	0.47	2.83	313 (16.93)	1.32
Wabash Border	22 (4.05)	0.33	2.00	43 (2.33)	0.64
Shawnee Hills	6 (1.10)	0.12	5.00	31 (1.68)	0.59
Statewide	543 (100.00)	0.37	3.40	1,849 (100.00)	1.27

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 8. Summary of gray fox trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 81).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapped harvest ^a	Estimated trapper harvest/100 km ²
Northwest Hills	6 (2.42) ^b	0.06	2.00	12 (2.17) ^b	0.13
Northeast Moraine	25 (10.08)	0.30	2.50	61 (11.03)	0.74
Mississippi Border-North	9 (3.63)	0.11	1.00	9 (1.63)	0.11
Mississippi Border-South	25 (10.08)	0.18	1.13	28 (5.06)	0.20
Western Prairie/forest	22 (8.87)	0.15	1.43	31 (5.61)	0.21
Central Sand Prairie	12 (4.84)	0.29	2.00	24 (4.34)	0.58
Grand Prairie	61 (24.60)	0.12	2.10	129 (23.33)	0.25
Southern Plain	55 (22.18)	0.23	3.72	206 (37.25)	0.87
Wabash Border	18 (7.26)	0.27	1.33	25 (4.52)	0.37
Shawnee Hills	15 (6.05)	0.29	1.80	28 (5.06)	0.54
Statewide	248 (100.00)	0.17	2.22	553 (100.00)	0.38

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 9. Summary of beaver trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 278).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest ^a	Estimated trapper harvest/100 km ²
Northwest Hills	141 (16.51) ^b	1.50	6.43	909 (15.98) ^b	9.67
Northeast Moraine	77 (9.02)	0.93	6.48	498 (8.76)	6.02
Mississippi Border-North	52 (6.09)	0.66	8.18	427 (7.51)	5.44
Mississippi Border-South	64 (7.49)	0.47	4.19	270 (4.75)	1.97
Western Prairie/Forest	68 (7.96)	0.47	7.36	498 (8.76)	3.45
Central Sand Prairie	37 (4.33)	0.89	5.25	194 (3.41)	4.68
Grand Prairie	280 (32.79)	0.53	6.04	1,690 (29.72)	3.21
Southern Plain	92 (10.77)	0.39	10.17	937 (16.48)	3.95
Wabash Border	34 (3.98)	0.50	7.27	246 (4.32)	3.65
Shawnee Hills	9 (1.05)	0.17	2.00	18 (0.32)	0.35
Statewide	854 (100.00)	0.58	6.66	5,687 (100.00)	3.89

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 11. Summary of weasel trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 10).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest ^a	Estimated trapper harvest/100 km ²
Northwest Hills	3 (10.00) ^b	0.03	1.00	3 (9.09) ^b	0.03
Northeast Moraine	0 (0.00)	0.00	0.00	0 (0.00)	0.00
Mississippi Border-North	0 (0.00)	0.00	0.00	0 (0.00)	0.00
Mississippi Border-South	3 (10.00)	0.02	1.00	3 (9.09)	0.02
Western Prairie/Forest	3 (10.00)	0.02	1.00	3 (9.09)	0.02
Central Sand Prairie	0 (0.00)	0.00	0.00	0 (0.00)	0.00
Grand Prairie	9 (30.00)	0.02	1.00	9 (27.27)	0.02
Southern Plain	3 (10.00)	0.01	2.00	6 (18.18)	0.03
Wabash Border	6 (20.00)	0.09	1.00	6 (18.18)	0.09
Shawnee Hills	3 (10.00)	0.06	1.00	3 (9.09)	0.06
Statewide	30 (100.00)	0.02	1.10	33 (100.00)	0.02

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 10. Summary of striped skunk trapper and harvest data for wildlife management units in Illinois, 1990-1991, from post-season resident trapper mail survey (n=114).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper ^a harvest	Estimated trapper harvest/100 km ²
Northwest Hills	68 (19.43) ^b	0.72	2.14	144 (12.60) ^b	1.53
Northeast Moraine	34 (9.71)	0.41	4.09	138 (12.07)	1.67
Mississippi Border-North	15 (4.29)	0.19	2.00	31 (2.71)	0.40
Mississippi Border-South	21 (6.00)	0.15	1.86	40 (3.51)	0.29
Western Prairie/forest	37 (10.57)	0.26	4.17	154 (13.47)	1.07
Central Sand Prairie	9 (2.57)	0.22	1.67	15 (1.31)	0.36
Grand Prairie	120 (34.29)	0.23	4.28	513 (44.88)	0.97
Southern Plain	34 (9.71)	0.14	2.45	83 (7.26)	0.35
Wabash Border	12 (3.43)	0.18	2.00	25 (2.19)	0.37
Shawnee Hills	0 (0.00)	0.00	0.00	0 (0.00)	0.00
Statewide	350 (100.00)	0.24	3.26	1,143 (100.00)	0.78

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 12. Summary of coyote trapper and harvest data for wildlife management units in Illinois, 1990-91, from post-season resident trapper mail survey (n = 164).

Wildlife management unit	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest ^a	Estimated trapper harvest/100 km ²
Northwest Hills	43 (8.53) ^b	0.46	2.36	101 (4.40) ^b	1.07
Northeast Moraine	31 (6.15)	0.37	2.30	71 (3.09)	0.86
Mississippi Border-North	37 (7.34)	0.47	5.58	206 (8.96)	2.62
Mississippi Border-South	55 (10.91)	1.40	2.61	144 (6.27)	1.05
Western Prairie/forest	80 (15.87)	1.55	5.88	470 (20.45)	3.26
Central Sand Prairie	24 (4.76)	0.58	4.13	101 (4.40)	2.44
Grand Prairie	120 (23.81)	0.23	5.72	685 (29.81)	1.30
Southern Plain	77 (15.28)	0.32	4.96	382 (16.62)	1.61
Wabash Border	28 (5.56)	0.42	4.44	123 (5.35)	1.82
Shawnee Hills	9 (1.79)	0.17	1.67	15 (0.65)	0.29
Statewide	504 (100.00)	0.35	4.56	2,298 (100.00)	1.57

^a Sum of wildlife management unit totals may not equal statewide total due to rounding error.

^b Numbers in parentheses are percentages of statewide total.

Table 13. Statewide sample sizes for 1990-91 post-season mail survey of Illinois resident trappers (n = 984).

Species	Total effective trappers	Percent effective trappers	Total season catch
Muskrat	536	54.47	18,958
Mink	329	33.43	1,166
Raccoon	633	64.33	11,661
Opossum	314	31.91	2,792
Red fox	177	17.99	602
Gray fox	81	8.23	180
Beaver	278	28.25	1,851
Striped skunk	114	11.59	372
Weasel	10	1.02	11
Coyote	164	16.67	748

Table 14. Estimated number of effective trappers, average season catch, and total trapper harvest by species in Illinois for 1990-91 season based on post-season trapper mail survey (n = 984).

Species	Estimated number of effective trappers		Estimated average season catch		Estimated total harvest	
Muskrat	1,647±	96*	35.37±	4.67*	58,242±	8,751*
Mink	1,011±	91	3.54±	0.54	3,582±	852
Raccoon	1,945±	92	18.42±	2.80	35,824±	5,472
Opossum	965±	90	8.89±	1.65	8,577±	2,579
Red fox	544±	74	3.40±	0.57	1,849±	700
Gray fox	249±	53	2.22±	0.71	533±	615
Beaver	854±	87	6.66±	1.16	5,687±	1,720
Striped skunk	350±	62	3.26±	0.90	1,143±	909
Weasel	31±	19	1.10±	0.20	34±	61
Coyote	504±	72	4.56±	0.98	2,298±	1,170

* 95% confidence interval.

Table 15. Distribution of harvest among effective trappers for 8 species of furbearers in Illinois, 1990-91, from post-season resident trapper mail survey.

Total season catch	Percentage of effective trappers for species							
	Mink (329)*	Opossum (314)	Red fox (177)	Gray fox (81)	Beaver (278)	Striped skunk (114)	Weasel (10)	Coyote (164)
1	43.47	12.42	38.98	59.26	21.22	39.47	90.00	39.63
2	17.63	14.33	18.08	24.69	16.55	28.95	10.00	17.68
3	12.46	14.01	14.12	3.70	11.87	10.53	..	8.54
4	6.69	8.28	6.78	3.70	9.71	3.51	..	6.10
5	4.26	5.73	5.08	..	6.83	5.26	..	3.66
6	3.34	7.64	3.95	2.47	5.76	2.63	..	4.27
7	1.82	3.50	2.82	1.23	2.16	1.75	..	1.83
8	1.22	4.78	1.13	2.47	3.24	..	..	2.44
9	1.52	1.91	1.69	1.23	2.88	0.88	..	3.66
10	0.61	7.01	1.69	..	3.96	2.63	..	1.22
11	0.61	1.27	1.13	..	1.44	..	..	3.05
12	1.22	2.87	1.13	..	2.16	0.88	..	1.22
13	..	1.27	1.13	..	1.08	0.88	..	..
14	1.22	1.91	..	..	1.08	..	..	0.61
15	0.91	3.50	1.13	..	1.08	..	..	0.61
16-20	1.21	2.24	0.56	..	2.88	0.88	..	1.22
21-25	0.91	0.64	..	..	2.16	0.88	..	1.83
>25	0.90	6.70	0.56	1.23	3.96	0.88	..	2.44

* Numbers in parentheses indicate sample size for species.

Table 16. Distribution of pelt sales by trappers for 10 species of furbearers in Illinois, 1990-91 season, from post-season resident trapper mail survey (n=742).

Species	Total Number of Pelts Sold	Pelts Sold in Illinois		Pelts Sold Outside Illinois	
		Number	Percentage	Number	Percentage
Muskrat	17,927	15,988	89.18	1,939	10.82
Mink	1,124	948	84.34	176	15.66
Raccoon	10,907	8,232	75.47	2,675	24.53
Opossum	1,872	1,488	79.49	384	20.51
Red Fox	496	420	84.68	76	15.32
Gray Fox	145	119	82.07	26	17.93
Beaver	1,502	1,004	66.84	498	33.16
Striped skunk	121	115	95.04	6	4.96
Weasel	2	2	100	0	0.00
Coyote	526	387	73.57	139	26.23
Total	34,622	28,703	82.90	5,919	17.10

Table 17. The number of trappers who sold pelts from road-killed animals, and the number of these pelts sold, in Illinois during the 1990-91 season (n = 761).

Species	Trappers		Pelts Sold	
	Number	Percentage	Number	Percentage
Muskrat	0		0	
Mink	37	(1.58) ^a	61	(5.43) ^b
Raccoon	240	(10.27)	556	(2.20)
Opossum	40	(1.71)	68	(2.14)
Red Fox	18	(0.77)	18	(3.63)
Gray Fox	9	(0.38)	12	(6.21)
Beaver	0		0	
Skunk	3	(0.13)	6	(2.48)
Weasel	0		0	
Coyote	12	(0.51)	28	(2.28)
Total	289	(12.36) ^c	750	(4.94)

^aPercentage of active trappers.

^bRelative to the number of trapped pelts sold.

^cTotal is less than the sum of the above values because some of the trappers sold pelts from more than one species.

Table 18. Summary of fur hunting activities of trappers in Illinois, 1990-91 season, from post-season resident trapper mail survey (n = 984).

Species	Number of trappers hunting species	Total number harvested by hunting	Average number harvested by hunting	Estimated percent of all trappers effectively hunting species	Estimated total harvest by all trappers effectively hunting species
Raccoon	149	1,805	12.11	15.14	5,545
Opossum	44	167	3.80	4.47	513
Red fox	59	183	3.10	6.00	562
Gray fox	9	12	1.33	0.91	37
Striped skunk	8	27	3.38	0.81	83
Coyote	129	461	3.57	13.11	1,416
All species	290*	2,655	9.16	29.47	8,157

* Total for all species is less than the sum of the above values because many trappers hunted more than one species.

Table 19. Summary of muskrat trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 730; 747; 696; 691; 646; 641; 555; 671; 676; 542; 571; 536).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	9,224 (62.19) ^a	11.27	39.63 (+6.48) ^b	365,592 (77.10) ^a	446.73
1980-81	8,745 (61.71)	10.69	40.86 (+5.19)	357,305 (75.31)	436.61
1981-82	7,590 (63.79)	9.27	27.69 (+3.05)	210,246 (78.01)	256.90
1982-83	6,316 (61.36)	7.72	35.33 (+4.91)	223,160 (75.86)	272.69
1983-84	4,922 (65.79)	6.01	35.59 (+4.33)	175,148 (82.66)	214.02
1984-85	5,221 (64.27)	6.38	30.43 (+3.67)	158,837 (72.99)	194.09
1985-86	3,319 (59.82)	4.06	31.41 (+5.17)	104,240 (69.37)	127.38
1986-87	4,695 (56.78)	5.74	46.54 (+6.14)	218,464 (65.66)	266.95
1987-88	5,537 (63.17)	6.77	41.61 (+4.85)	230,416 (76.79)	281.55
1988-89	2,653 (61.07)	3.24	32.58 (+8.44)	86,411 (69.31)	105.59
1989-90	1,642 (62.00)	2.01	32.77 (+5.78)	53,819 (70.80)	65.76
1990-91	1,051 (63.81)	1.28	41.65 (+6.76)	43,757 (75.13)	53.46
SOUTHERN ZONE					
1979-80	5,608 (37.81)	8.73	19.37 (+3.07)	108,587 (22.90)	169.04
1980-81	5,426 (38.29)	8.45	21.59 (+4.32)	117,140 (24.69)	182.35
1981-82	4,309 (36.21)	6.71	13.75 (+2.25)	59,266 (21.99)	92.26
1982-83	3,977 (38.64)	6.19	17.85 (+3.29)	71,014 (24.14)	110.55
1983-84	2,560 (34.21)	3.99	14.36 (+2.91)	36,742 (17.34)	57.20
1984-85	2,902 (35.73)	4.52	20.26 (+2.97)	58,778 (27.01)	91.50
1985-86	2,230 (40.18)	3.47	20.65 (+4.08)	46,027 (30.63)	71.65
1986-87	3,573 (43.22)	5.56	31.97 (+5.25)	114,240 (34.34)	177.84
1987-88	3,229 (36.83)	5.03	21.57 (+3.16)	69,644 (23.21)	108.41
1988-89	1,691 (38.93)	2.63	22.63 (+4.30)	38,262 (30.69)	59.56
1989-90	993 (37.49)	1.55	22.09 (+4.03)	21,928 (28.85)	34.14
1990-91	596 (36.19)	0.93	24.30 (+4.56)	14,485 (24.87)	22.55
UNKNOWN					
1989-90	14 (0.53)	..	19.33 (+33.00)	269 (0.35)	..
STATEWIDE					
1979-80	14,832	10.15	31.97 (+4.25)	474,179	324.61
1980-81	14,171	9.70	33.48 (+3.66)	474,445	324.79
1981-82	11,899	8.15	22.65 (+2.17)	269,512	184.50
1982-83	10,293	7.05	28.58 (+3.33)	294,174	201.38
1983-84	7,482	5.12	28.32 (+3.11)	211,890	145.05
1984-85	8,123	5.56	26.79 (+2.61)	217,615	148.97
1985-86	5,549	3.80	27.08 (+3.52)	150,267	102.87
1986-87	8,268	5.66	40.24 (+4.19)	332,704	227.76
1987-88	8,766	6.00	34.23 (+3.36)	300,060	205.41
1988-89	4,344	2.97	28.70 (+5.43)	124,673	85.35
1989-90	2,649	1.81	28.70 (+3.91)	76,016	52.04
1990-91	1,647	1.13	35.37 (+4.67)	58,242	39.87

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

Table 20. Summary of mink trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 419; 501; 471; 445; 439; 410; 324; 418; 410; 310; 309; 329).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated total trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	5,040 (59.19) ^a	6.16	2.86 (+0.43) ^b	14,428 (61.17) ^a	17.63
1980-81	5,559 (58.48)	6.79	3.13 (+0.45)	17,403 (58.49)	21.27
1981-82	5,146 (63.91)	6.29	3.12 (+0.36)	16,029 (64.01)	19.59
1982-83	3,814 (57.53)	4.66	2.92 (+0.39)	11,144 (60.47)	13.62
1983-84	2,942 (57.86)	3.59	2.94 (+0.40)	8,651 (58.67)	10.57
1984-85	3,092 (59.51)	3.78	3.08 (+0.48)	9,521 (60.08)	11.63
1985-86	1,780 (54.94)	2.18	2.37 (+0.41)	4,215 (48.56)	5.15
1986-87	2,784 (54.07)	3.40	2.92 (+0.41)	8,133 (42.23)	9.94
1987-88	3,048 (57.32)	3.72	2.74 (+0.35)	8,338 (52.10)	10.19
1988-89	1,354 (54.52)	1.65	2.47 (+0.39)	3,336 (54.16)	4.08
1989-90	830 (57.92)	1.01	3.16 (+0.52)	2,626 (64.25)	3.21
1990-91	627 (62.02)	0.77	3.76 (+0.73)	2,359 (65.86)	2.88
SOUTHERN ZONE					
1979-80	3,475 (40.81)	5.41	2.63 (+0.41)	9,159 (38.83)	14.26
1980-81	3,947 (41.52)	6.14	3.13 (+0.47)	12,351 (41.51)	19.23
1981-82	2,906 (36.09)	4.52	3.11 (+0.55)	9,013 (35.99)	14.03
1982-83	2,815 (42.47)	4.38	2.59 (+0.36)	7,285 (39.53)	11.34
1983-84	2,143 (42.14)	3.36	2.85 (+0.41)	6,095 (41.33)	9.49
1984-85	2,104 (40.49)	3.28	3.01 (+0.44)	6,327 (39.92)	9.85
1985-86	1,459 (45.06)	2.27	3.06 (+0.54)	4,466 (51.44)	6.95
1986-87	2,366 (45.93)	3.68	4.70 (+1.11)	11,128 (57.77)	17.32
1987-88	2,269 (42.68)	3.53	3.38 (+0.63)	7,666 (47.90)	11.93
1988-89	1,130 (45.48)	1.76	2.50 (+0.40)	2,824 (45.84)	4.40
1989-90	594 (41.45)	0.92	2.44 (+0.41)	1,447 (35.40)	2.25
1990-91	384 (37.98)	0.60	3.18 (+0.76)	1,223 (34.14)	1.90
UNKNOWN					
1989-90	9 (0.63)	..	1.50 (+0.98)	14 (0.34)	..
STATEWIDE					
1979-80	8,515	5.83	2.77 (+0.31)	23,587	16.15
1980-81	9,506	6.51	3.13 (+0.33)	29,754	20.37
1981-82	8,052	5.51	3.11 (+0.30)	25,042	17.14
1982-83	6,629	4.54	2.78 (+0.27)	18,429	12.62
1983-84	5,085	3.48	2.90 (+0.29)	14,746	10.09
1984-85	5,196	3.56	3.05 (+0.33)	15,848	10.85
1985-86	3,239	2.22	2.68 (+0.33)	8,681	5.94
1986-87	5,150	3.53	3.74 (+0.56)	19,261	13.19
1987-88	5,317	3.64	3.01 (+0.34)	16,004	10.96
1988-89	2,484	1.70	2.48 (+0.28)	6,160	4.22
1989-90	1,433	0.98	2.85 (+0.35)	4,087	2.80
1990-91	1,011	0.69	3.54 (+0.54)	3,582	2.45

^a Numbers in parentheses are percentages of statewide totals.
^b 95% confidence interval.

Table 21. Summary of raccoon trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 755; 756; 815; 816; 753; 727; 653; 715; 738; 665; 636; 633).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	9,265 (60.40) ^a	11.32	9.86 (+1.36) ^b	91,338 (64.51) ^a	111.61
1980-81	8,576 (59.79)	10.78	10.44 (+1.70)	89,481 (65.39)	109.34
1981-82	8,411 (60.37)	10.28	9.96 (+1.12)	83,766 (64.30)	102.36
1982-83	7,150 (58.82)	8.74	11.51 (+1.54)	82,316 (65.18)	100.59
1983-84	5,247 (60.16)	6.41	9.55 (+1.26)	50,123 (63.29)	61.25
1984-85	5,564 (60.39)	6.80	13.36 (+1.76)	74,326 (61.82)	90.82
1985-86	3,899 (59.72)	4.76	11.48 (+1.94)	44,787 (63.00)	54.73
1986-87	5,175 (58.74)	6.32	13.79 (+1.60)	71,369 (57.62)	87.21
1987-88	5,771 (60.30)	7.05	14.20 (+1.64)	81,984 (60.93)	100.18
1988-89	3,173 (59.55)	3.88	12.20 (+1.48)	38,708 (57.06)	47.30
1989-90	1,791 (60.71)	2.19	14.82 (+2.26)	26,543 (64.19)	32.43
1990-91	1,263 (64.94)	1.54	19.98 (+4.06)	25,226 (70.41)	30.82
SOUTHERN ZONE					
1979-80	6,075 (39.60)	9.46	8.27 (+1.17)	50,250 (35.49)	78.22
1980-81	5,768 (40.21)	8.98	8.21 (+1.05)	47,361 (34.61)	73.73
1981-82	5,522 (39.63)	8.60	8.42 (+0.98)	46,508 (35.70)	72.40
1982-83	5,005 (41.18)	7.79	8.79 (+1.16)	43,974 (34.82)	68.45
1983-84	3,475 (39.84)	5.41	8.37 (+1.08)	29,073 (36.71)	45.26
1984-85	3,649 (39.61)	5.68	12.58 (+1.77)	45,904 (38.18)	71.46
1985-86	2,629 (40.28)	4.09	10.00 (+1.22)	26,303 (37.00)	40.95
1986-87	3,635 (41.26)	5.66	14.44 (+1.90)	52,500 (42.38)	81.73
1987-88	3,799 (39.70)	5.91	13.83 (+1.75)	52,570 (39.07)	81.84
1988-89	2,156 (40.45)	3.36	13.52 (+1.79)	29,130 (42.94)	45.35
1989-90	1,146 (38.85)	1.78	12.86 (+2.10)	14,733 (35.63)	22.94
1990-91	682 (35.06)	1.06	15.54 (+2.64)	10,599 (29.59)	16.50
UNKNOWN					
1989-90	14 (0.47)	..	5.33 (+4.57)	74 (0.18)	..
STATEWIDE					
1979-80	15,340	10.50	9.23 (+0.94)	141,588	96.93
1980-81	14,344	9.82	9.54 (+1.10)	136,842	93.68
1981-82	13,933	9.54	9.35 (+0.78)	130,274	89.18
1982-83	12,155	8.32	10.39 (+1.03)	126,290	86.45
1983-84	8,722	5.97	9.08 (+0.87)	79,196	54.22
1984-85	9,213	6.31	13.05 (+1.27)	120,230	82.31
1985-86	6,528	4.47	10.89 (+1.26)	71,090	48.67
1986-87	8,810	6.03	14.06 (+1.23)	123,869	84.80
1987-88	9,570	6.55	14.06 (+1.21)	134,554	92.11
1988-89	5,329	3.65	12.73 (+1.14)	67,838	46.44
1989-90	2,950	2.02	14.02 (+1.60)	41,350	28.31
1990-91	1,945	1.33	18.42 (+2.80)	35,825	24.52

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

Table 22. Summary of opossum trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 374; 446; 549; 542; 484; 522; 431; 505; 588; 437; 318; 314).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	3,413	(44.92) ^a	2.68 (+0.38) ^b	9,151	(33.36) ^a
1980-81	3,832	(45.29)	3.60 (+1.12)	13,806	(36.58)
1981-82	5,266	(56.10)	4.34 (+0.53)	22,841	(42.03)
1982-83	4,543	(56.27)	6.13 (+1.03)	27,892	(51.56)
1983-84	3,139	(55.99)	6.32 (+0.98)	19,846	(54.97)
1984-85	4,056	(61.30)	6.84 (+0.94)	27,775	(61.02)
1985-86	2,389	(55.45)	6.04 (+0.99)	14,426	(49.38)
1986-87	3,401	(54.65)	7.53 (+1.00)	25,609	(53.94)
1987-88	4,487	(58.84)	9.15 (+1.09)	41,046	(58.07)
1988-89	2,140	(61.10)	6.33 (+0.85)	13,544	(61.88)
1989-90	891	(60.41)	6.23 (+1.10)	5,553	(61.36)
1990-91	599	(62.07)	9.57 (+2.47)	5,733	(66.83)
SOUTHERN ZONE					
1979-80	4,186	(55.08)	4.37 (+0.62)	18,281	(66.64)
1980-81	4,630	(54.71)	5.17 (+0.66)	23,935	(63.42)
1981-82	4,120	(43.90)	7.65 (+1.11)	31,504	(57.97)
1982-83	3,531	(43.73)	7.42 (+1.02)	26,204	(48.44)
1983-84	2,467	(44.01)	6.59 (+0.94)	16,257	(45.03)
1984-85	2,560	(38.70)	6.93 (+1.05)	17,743	(38.98)
1985-86	1,920	(44.55)	7.70 (+1.47)	14,789	(50.62)
1986-87	2,821	(45.35)	7.75 (+1.12)	21,865	(46.06)
1987-88	3,138	(41.16)	9.45 (+1.42)	29,638	(41.93)
1988-89	1,362	(38.90)	6.12 (+1.11)	8,344	(38.12)
1989-90	584	(39.59)	5.98 (+1.10)	3,498	(38.65)
1990-91	366	(37.93)	7.78 (+1.62)	2,845	(33.17)
UNKNOWN					
1989-90	0	(0.00)	0.00 (+0.00)	0	(0.00)
STATEWIDE					
1979-80	7,599	5.20	3.61 (+0.39)	27,432	18.78
1980-81	8,462	5.79	4.46 (+0.63)	37,741	25.84
1981-82	9,386	6.43	5.79 (+0.59)	54,345	37.20
1982-83	8,074	5.53	6.70 (+0.74)	54,096	37.03
1983-84	5,606	3.84	6.44 (+0.69)	36,103	24.72
1984-85	6,616	4.53	6.88 (+0.70)	45,518	31.16
1985-86	4,309	2.95	6.78 (+0.86)	29,215	20.00
1986-87	6,222	4.26	7.63 (+0.75)	47,474	32.50
1987-88	7,625	5.22	9.27 (+0.87)	70,684	48.39
1988-89	3,502	2.40	6.25 (+0.68)	21,888	14.98
1989-90	1,475	1.01	6.14 (+0.79)	9,050	6.20
1990-91	965	0.66	8.89 (+1.65)	8,578	5.87

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

Table 23. Summary of red fox trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 175; 180; 187; 190; 173; 210; 171; 167; 173; 198; 190; 177).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	2,052 (57.71) ^a	2.51	4.20 (+1.92) ^b	8,616 (68.06) ^a	10.53
1980-81	2,220 (65.00)	2.71	3.02 (+1.64)	6,694 (68.54)	8.18
1981-82	1,932 (60.43)	2.36	2.95 (+0.58)	5,694 (64.53)	6.96
1982-83	1,757 (62.11)	2.15	3.27 (+0.78)	5,742 (66.55)	7.02
1983-84	1,158 (57.80)	1.42	3.05 (+0.81)	3,538 (63.28)	4.32
1984-85	1,635 (61.43)	2.00	3.93 (+1.07)	6,419 (76.82)	7.84
1985-86	910 (53.22)	1.11	4.79 (+1.80)	4,364 (69.54)	5.33
1986-87	1,195 (58.08)	1.46	3.94 (+1.23)	4,714 (67.97)	5.76
1987-88	1,245 (55.49)	1.52	2.43 (+0.53)	3,020 (53.20)	3.69
1988-89	858 (54.04)	1.05	3.50 (+0.87)	3,005 (62.29)	3.67
1989-90	584 (66.29)	0.71	3.57 (+0.84)	2,087 (69.96)	2.55
1990-91	332 (61.03)	0.41	3.85 (+0.85)	1,278 (69.12)	1.56
SOUTHERN ZONE					
1979-80	1,504 (42.29)	2.34	2.69 (+0.82)	4,043 (31.94)	6.29
1980-81	1,195 (35.00)	1.86	2.57 (+1.05)	3,073 (31.46)	4.78
1981-82	1,265 (39.57)	1.97	2.47 (+0.61)	3,130 (35.47)	4.87
1982-83	1,072 (37.89)	1.67	2.69 (+0.66)	2,886 (33.45)	4.49
1983-84	846 (42.20)	1.32	2.42 (+0.63)	2,053 (36.72)	3.20
1984-85	1,026 (38.57)	1.60	1.89 (+0.34)	1,937 (23.18)	3.02
1985-86	800 (46.78)	1.25	2.39 (+0.53)	1,912 (30.46)	2.98
1986-87	863 (41.92)	1.34	2.57 (+0.88)	2,221 (32.03)	3.46
1987-88	999 (44.51)	1.56	2.66 (+0.52)	2,657 (46.80)	4.14
1988-89	729 (45.96)	1.13	2.49 (+0.49)	1,819 (37.71)	2.83
1989-90	292 (33.14)	0.45	3.05 (+0.93)	891 (29.87)	1.39
1990-91	212 (38.97)	0.33	2.70 (+0.58)	571 (30.88)	0.89
UNKNOWN					
1989-90	5 (0.57)	..	1.00 (+0.00)	5 (0.17)	..
STATEWIDE					
1979-80	3,556	2.43	3.56 (+1.17)	12,659	8.67
1980-81	3,415	2.34	2.86 (+1.12)	9,767	6.69
1981-82	3,197	2.19	2.76 (+0.43)	8,824	6.04
1982-83	2,829	1.94	3.05 (+0.54)	8,628	5.91
1983-84	2,004	1.37	2.79 (+0.54)	5,591	3.83
1984-85	2,661	1.82	3.14 (+0.68)	8,356	5.72
1985-86	1,710	1.17	3.67 (+1.00)	6,276	4.30
1986-87	2,058	1.41	3.37 (+0.81)	6,935	4.75
1987-88	2,244	1.54	2.53 (+0.38)	5,677	3.89
1988-89	1,587	1.09	3.04 (+0.52)	4,824	3.30
1989-90	881	0.60	3.38 (+0.64)	2,983	2.04
1990-91	544	0.37	3.40 (+0.57)	1,849	1.27

^a Numbers in parentheses are percentages of statewide totals.
^b 95% confidence interval.

Table 24. Summary of gray fox trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 146; 139; 145; 130; 111; 102; 103; 78; 92; 89; 80; 81).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	1,301 (43.84) ^a	1.59	1.48 (±0.20) ^b	1,931 (32.87) ^a	2.36
1980-81	1,271 (48.20)	1.55	2.03 (±0.60)	2,584 (45.79)	3.16
1981-82	1,163 (46.90)	1.42	1.44 (±0.24)	1,675 (37.55)	2.05
1982-83	745 (38.46)	0.91	2.00 (±0.61)	1,488 (39.22)	1.82
1983-84	510 (39.64)	0.62	1.98 (±0.78)	1,009 (40.65)	1.23
1984-85	659 (50.98)	0.81	1.69 (±0.36)	1,114 (45.13)	1.36
1985-86	460 (44.66)	0.56	1.98 (±0.54)	909 (39.39)	1.11
1986-87	382 (39.74)	0.47	1.71 (±0.40)	652 (37.06)	0.80
1987-88	402 (33.70)	0.49	2.19 (±0.84)	883 (33.33)	1.08
1988-89	280 (39.33)	0.34	2.03 (±0.43)	568 (37.37)	0.69
1989-90	144 (38.81)	0.18	1.32 (±0.21)	190 (29.69)	0.23
1990-91	120 (48.19)	0.15	1.92 (±0.52)	230 (41.59)	0.28
SOUTHERN ZONE					
1979-80	1,666 (56.16)	2.59	2.37 (±0.71)	3,944 (67.13)	6.14
1980-81	1,366 (51.80)	2.13	2.24 (±0.73)	3,059 (54.21)	4.76
1981-82	1,316 (53.10)	2.05	2.12 (±0.31)	2,787 (62.45)	4.34
1982-83	1,191 (61.54)	1.85	1.94 (±0.31)	2,307 (60.78)	3.59
1983-84	776 (60.36)	1.21	1.90 (±0.30)	1,473 (59.35)	2.29
1984-85	633 (49.02)	0.99	2.14 (±0.51)	1,354 (54.87)	2.11
1985-86	570 (55.34)	0.89	2.46 (±0.71)	1,398 (60.61)	2.18
1986-87	579 (60.26)	0.90	1.91 (±0.40)	1,107 (62.94)	1.72
1987-88	791 (66.30)	1.23	2.23 (±0.50)	1,765 (66.67)	2.75
1988-89	433 (60.67)	0.67	2.20 (±0.96)	951 (62.63)	1.48
1989-90	227 (61.19)	0.35	1.98 (±0.61)	450 (70.31)	0.70
1990-91	129 (51.81)	0.20	2.50 (±1.30)	323 (58.41)	0.50
UNKNOWN					
1989-90	0 (0.00)	..	0.00 (±0.00)	0 (0.00)	..
STATEWIDE					
1979-80	2,967	2.03	1.98 (±0.41)	5,875	4.02
1980-81	2,637	1.81	2.14 (±0.47)	5,643	3.86
1981-82	2,479	1.70	1.80 (±0.21)	4,462	3.05
1982-83	1,936	1.33	1.96 (±0.30)	3,795	2.60
1983-84	1,286	0.88	1.93 (±0.36)	2,482	1.70
1984-85	1,292	0.88	1.91 (±0.31)	2,468	1.69
1985-86	1,030	0.71	2.24 (±0.46)	2,307	1.58
1986-87	961	0.66	1.83 (±0.29)	1,759	1.20
1987-88	1,193	0.82	2.22 (±0.43)	2,648	1.81
1988-89	333	0.49	2.13 (±0.60)	1,519	1.04
1989-90	371	0.25	1.73 (±0.39)	640	0.44
1990-91	249	0.17	2.22 (±0.71)	553	0.38

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

Table 25. Summary of beaver trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 131; 158; 142; 129; 117; 166; 158; 224; 248; 248; 282; 278).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	1,849 (69.47) ^a	2.26	3.52 (+0.88) ^b	6,500 (72.89) ^a	7.94
1980-81	2,031 (67.72)	2.48	3.41 (+0.78)	6,934 (61.66)	8.47
1981-82	1,693 (69.72)	2.07	2.92 (+0.59)	4,938 (71.36)	6.03
1982-83	1,415 (73.64)	1.73	3.94 (+0.97)	5,575 (83.11)	6.81
1983-84	1,042 (76.92)	1.27	4.06 (+0.90)	4,223 (82.02)	5.16
1984-85	1,321 (72.29)	1.86	3.93 (+0.82)	5,981 (79.19)	7.31
1985-86	1,109 (70.25)	1.36	3.60 (+0.71)	4,000 (62.40)	4.89
1986-87	1,824 (66.07)	2.23	4.45 (+0.93)	8,125 (67.52)	9.93
1987-88	2,140 (66.53)	2.61	3.64 (+0.74)	7,801 (57.62)	9.53
1988-89	1,291 (64.92)	1.58	6.17 (+1.68)	7,973 (66.40)	9.74
1989-90	942 (72.02)	1.15	6.30 (+1.45)	5,928 (73.32)	7.24
1990-91	624 (73.07)	0.76	6.61 (+1.40)	4,123 (72.50)	5.04
SOUTHERN ZONE					
1979-80	813 (30.53)	1.27	2.97 (+1.19)	2,418 (27.11)	3.76
1980-81	968 (32.28)	1.51	4.45 (+1.53)	4,312 (38.34)	6.71
1981-82	735 (30.28)	1.14	2.70 (+0.83)	1,982 (28.64)	3.09
1982-83	507 (26.36)	0.79	2.24 (+0.67)	1,133 (16.89)	1.76
1983-84	313 (23.08)	0.49	2.96 (+1.11)	926 (17.98)	1.44
1984-85	583 (27.71)	0.91	2.70 (+0.72)	1,572 (20.81)	2.45
1985-86	470 (29.75)	0.73	5.13 (+1.46)	2,411 (37.60)	3.75
1986-87	936 (33.93)	1.46	4.17 (+1.31)	3,909 (32.48)	6.09
1987-88	1,076 (33.47)	1.67	5.33 (+1.48)	5,738 (42.38)	8.93
1988-89	697 (35.08)	1.09	5.78 (+2.03)	4,035 (33.60)	6.28
1989-90	362 (27.68)	0.56	5.90 (+1.46)	2,134 (26.39)	3.32
1990-91	230 (26.93)	0.36	6.79 (+1.99)	1,564 (27.50)	2.43
UNKNOWN					
1989-90	5 (0.38)	..	5.00 (+0.00)	23 (0.28)	..
STATEWIDE					
1979-80	2,662	1.82	3.35 (+0.71)	8,918	6.11
1980-81	2,999	2.05	3.75 (+0.73)	11,246	7.70
1981-82	2,428	1.66	2.85 (+0.48)	6,920	4.74
1982-83	1,922	1.32	3.49 (+0.74)	6,708	4.59
1983-84	1,355	0.93	3.80 (+0.74)	5,149	3.52
1984-85	2,104	1.44	3.59 (+0.63)	7,553	5.17
1985-86	1,579	1.08	4.06 (+0.67)	6,411	4.39
1986-87	2,760	1.89	4.36 (+0.76)	12,034	8.24
1987-88	3,216	2.20	4.21 (+0.71)	13,539	9.27
1988-89	1,988	1.36	6.04 (+1.30)	12,008	8.22
1989-90	1,308	0.90	6.18 (+1.12)	8,085	5.53
1990-91	854	0.58	6.66 (+1.16)	5,687	3.89

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

Table 26. Summary of striped skunk trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 258; 240; 179; 215; 128; 147; 154; 142; 186; 150; 114; 114).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	3,392 (64.73) ^a	4.14	2.85 (+0.35) ^b	9,664 (61.26) ^a	11.81
1980-81	2,940 (64.58)	3.59	3.10 (+0.58)	9,118 (63.79)	11.14
1981-82	2,000 (65.36)	2.44	2.93 (+0.55)	5,871 (60.71)	7.17
1982-83	2,220 (69.30)	2.71	3.28 (+0.71)	7,278 (71.91)	8.89
1983-84	985 (66.41)	1.20	3.48 (+0.81)	3,432 (78.72)	4.19
1984-85	1,305 (70.07)	1.59	3.00 (+0.71)	3,914 (76.11)	4.78
1985-86	1,970 (62.99)	1.19	3.39 (+0.78)	3,296 (72.79)	4.03
1986-87	1,134 (64.79)	1.39	2.95 (+0.59)	3,337 (69.85)	4.08
1987-88	1,673 (69.35)	2.04	2.73 (+0.53)	4,563 (73.53)	5.58
1988-89	833 (69.33)	1.02	2.33 (+0.40)	1,936 (72.89)	2.37
1989-90	329 (62.19)	0.40	3.39 (+0.89)	1,118 (70.27)	1.37
1990-91	264 (75.43)	0.32	3.63 (+1.17)	959 (83.90)	1.17
SOUTHERN ZONE					
1979-80	1,849 (35.27)	2.88	3.31 (+0.65)	6,111 (38.74)	9.51
1980-81	1,612 (35.42)	2.51	3.21 (+0.92)	5,175 (36.21)	8.06
1981-82	1,060 (34.64)	1.65	3.58 (+0.92)	3,799 (39.29)	5.91
1982-83	983 (30.70)	1.53	2.89 (+0.74)	2,843 (28.09)	4.43
1983-84	498 (33.59)	0.78	1.86 (+0.36)	928 (21.28)	1.44
1984-85	558 (29.93)	0.87	2.20 (+0.65)	1,228 (23.89)	1.91
1985-86	570 (37.01)	0.89	2.16 (+0.39)	1,232 (27.21)	1.92
1986-87	616 (35.21)	0.96	2.34 (+0.60)	1,441 (30.15)	2.24
1987-88	739 (30.65)	1.15	2.25 (+0.52)	1,660 (26.67)	2.58
1988-89	369 (30.67)	0.57	1.96 (+0.37)	720 (27.11)	1.12
1989-90	195 (36.86)	0.30	2.40 (+0.62)	468 (29.42)	0.73
1990-91	86 (24.57)	0.13	2.14 (+0.65)	184 (16.10)	0.29
UNKNOWN					
1989-90	5 (0.95)	..	1.00 (+0.00)	5 (0.31)	..
STATEWIDE					
1979-80	5,241	3.59	3.01 (+0.32)	15,775	10.80
1980-81	4,552	3.12	3.14 (+0.49)	14,293	9.78
1981-82	3,060	2.09	3.16 (+0.48)	9,670	6.62
1982-83	3,203	2.19	3.16 (+0.54)	10,121	6.93
1983-84	1,483	1.02	2.94 (+0.57)	4,360	2.98
1984-85	1,863	1.28	2.76 (+0.53)	5,142	3.52
1985-86	1,540	1.05	2.94 (+0.52)	4,528	3.10
1986-87	1,750	1.20	2.73 (+0.44)	4,778	3.27
1987-88	2,412	1.65	2.58 (+0.40)	6,223	4.26
1988-89	1,202	0.83	2.21 (+0.30)	2,656	1.82
1989-90	529	0.36	3.01 (+0.61)	1,591	1.09
1990-91	350	0.24	3.26 (+0.90)	1,143	0.78

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

Table 27. Summary of weasel trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 16; 17; 11; 16; 16; 18; 13; 16; 16; 13; 7; 2; 10).

Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	163 (50.00) ^a	0.20	1.00 (+0.00) ^b	163 (47.06) ^a	0.20
1980-81	171 (52.94)	0.21	1.00 (+0.00)	171 (47.37)	0.21
1981-82	171 (90.91)	0.21	1.40 (+0.43)	239 (93.33)	0.29
1982-83	105 (43.75)	0.13	1.14 (+0.28)	119 (47.06)	0.15
1983-84	92 (50.00)	0.11	1.13 (+0.24)	104 (47.37)	0.13
1984-85	139 (61.11)	0.17	1.18 (+0.36)	164 (59.09)	0.20
1985-86	70 (53.85)	0.09	1.29 (+0.36)	90 (56.25)	0.11
1986-87	86 (43.75)	0.11	1.29 (+0.36)	111 (50.00)	0.14
1987-88	65 (38.46)	0.08	1.00 (+0.00)	65 (35.71)	0.08
1988-89	32 (57.14)	0.04	1.50 (+0.98)	48 (66.67)	0.06
1989-90	9 (100.00)	0.01	1.00 (+0.00)	9 (100.00)	0.01
1990-91	12 (40.00)	0.01	1.00 (+0.00)	12 (35.29)	0.01
SOUTHERN ZONE					
1979-80	163 (50.00)	0.25	1.13 (+0.24)	183 (52.94)	0.28
1980-81	152 (47.06)	0.24	1.25 (+0.32)	191 (52.63)	0.30
1981-82	17 (9.09)	0.03	1.00 (+0.00)	17 (6.67)	0.03
1982-83	134 (56.25)	0.21	1.00 (+0.00)	134 (52.94)	0.21
1983-84	93 (50.00)	0.14	1.25 (+0.32)	116 (52.63)	0.18
1984-85	89 (38.89)	0.14	1.29 (+0.56)	114 (40.91)	0.18
1985-86	60 (46.15)	0.09	1.17 (+0.33)	70 (43.75)	0.11
1986-87	111 (56.25)	0.17	1.00 (+0.00)	112 (50.00)	0.17
1987-88	104 (61.54)	0.16	1.13 (+0.25)	118 (64.29)	0.18
1988-89	24 (42.86)	0.04	1.00 (+0.00)	24 (33.33)	0.04
1989-90	0 (0.00)	0.00	0.00 (+0.00)	0 (0.00)	0.00
1990-91	18 (60.00)	0.03	1.17 (+0.33)	22 (64.71)	0.03
UNKNOWN					
1989-90	0 (0.00)	..	0.00 (+0.00)	0 (0.00)	0.00
STATEWIDE					
1979-80	326	0.22	1.06 (+0.12)	346	0.24
1980-81	323	0.22	1.12 (+0.16)	362	0.25
1981-82	188	0.13	1.36 (+0.40)	256	0.18
1982-83	239	0.16	1.06 (+0.12)	253	0.17
1983-84	185	0.13	1.19 (+0.20)	220	0.15
1984-85	228	0.16	1.22 (+0.30)	278	0.19
1985-86	130	0.09	1.23 (+0.24)	160	0.11
1986-87	197	0.13	1.13 (+0.17)	223	0.15
1987-88	169	0.12	1.08 (+0.15)	183	0.13
1988-89	56	0.04	1.29 (+0.56)	72	0.05
1989-90	9	0.01	1.00 (+0.00)	9	0.01
1990-91	30	0.02	1.10 (+0.20)	34	0.02

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

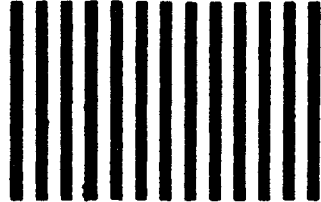
Table 28. Summary of coyote trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1990-91, from post-season resident trapper mail survey (n = 102; 101; 129; 116; 147; 143; 125; 122; 154; 149; 172; 164).

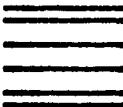
Area/Season	Estimated number of effective trappers	Estimated number of effective trappers/100 km ²	Average season catch	Estimated total trapper harvest	Estimated trapper harvest/100 km ²
NORTHERN ZONE					
1979-80	894	(43.14) ^a	4.86 (+4.84) ^b	4,350 (59.44) ^a	5.32
1980-81	797	(41.58)	4.10 (+4.06)	3,264 (57.14)	3.99
1981-82	855	(38.76)	1.92 (+0.55)	1,644 (31.07)	2.01
1982-83	551	(31.90)	1.92 (+0.55)	1,059 (26.30)	1.29
1983-84	741	(43.54)	2.77 (+0.85)	2,050 (47.20)	2.50
1984-85	925	(51.05)	2.23 (+0.51)	2,064 (44.66)	2.52
1985-86	640	(51.20)	2.98 (+1.58)	1,911 (47.04)	2.34
1986-87	678	(45.08)	3.38 (+1.47)	2,293 (52.25)	2.80
1987-88	960	(48.05)	4.07 (+1.86)	3,903 (51.02)	4.77
1988-89	577	(48.32)	3.64 (+1.42)	2,100 (46.05)	2.57
1989-90	450	(56.39)	6.26 (+3.88)	2,816 (64.44)	3.44
1990-91	295	(58.53)	4.72 (+1.45)	1,392 (60.57)	1.70
SOUTHERN ZONE					
1979-80	1,179	(56.86)	2.52 (+1.12)	2,968 (40.56)	4.62
1980-81	1,120	(58.42)	2.19 (+0.44)	2,449 (42.86)	3.81
1981-82	1,350	(61.24)	2.70 (+0.65)	3,648 (68.93)	5.68
1982-83	1,177	(68.10)	2.52 (+0.63)	2,967 (73.70)	4.62
1983-84	962	(56.46)	2.39 (+0.40)	2,293 (52.80)	3.57
1984-85	887	(48.95)	2.89 (+0.88)	2,557 (55.34)	3.98
1985-86	610	(48.80)	3.52 (+0.89)	2,151 (52.96)	3.35
1986-87	825	(54.92)	2.54 (+0.63)	2,096 (47.75)	3.26
1987-88	1,037	(51.95)	3.61 (+1.18)	3,746 (48.98)	5.83
1988-89	617	(51.68)	3.99 (+0.95)	2,461 (53.95)	3.83
1989-90	339	(42.48)	4.49 (+1.39)	1,522 (34.83)	2.37
1990-91	209	(41.47)	4.34 (+1.20)	906 (39.43)	1.41
UNKNOWN					
1989-90	9	(1.13)	3.50 (+0.98)	32 (0.73)	..
STATEWIDE					
1979-80	2,073		3.53 (+2.18)	7,318	5.01
1980-81	1,917		2.98 (+1.71)	5,713	3.91
1981-82	2,205		2.40 (+0.45)	5,292	3.62
1982-83	1,728		2.33 (+0.46)	4,026	2.76
1983-84	1,703		2.55 (+0.43)	4,343	2.97
1984-85	1,812		2.55 (+0.51)	4,621	3.16
1985-86	1,250		3.25 (+0.92)	4,062	2.78
1986-87	1,503		2.92 (+0.75)	4,389	3.00
1987-88	1,997		3.83 (+1.08)	7,649	5.24
1988-89	1,194		3.82 (+0.84)	4,561	3.12
1989-90	798		5.48 (+2.27)	4,370	2.99
1990-91	504		4.56 (+0.98)	2,298	1.57

^a Numbers in parentheses are percentages of statewide totals.

^b 95% confidence interval.

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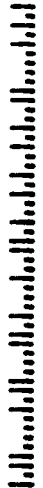




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DEPARTMENT OF CONSERVATION
Wildlife Resources Division
Furbearer Section
LINCOLN TOWER PLAZA
624 SOUTH SECOND STREET
SPRINGFIELD, ILLINOIS 62794-0000



TO ISSUING AGENT:

**COMPLETE THIS FORM AND MAIL
IMMEDIATELY UPON SALE OF
FIRST LICENSE IN BOOK**

The Department of Conservation is conducting a survey to estimate the fur harvest in Illinois. To effect this, we need the names and addresses of part of our licensed trappers. Please print at the bottom of this page, in space provided, name, mailing address including zip code, and county of residence of the person who purchases the first license in this book. Please detach the next page and give to license purchaser.

Thank you for your cooperation. **Please note** reverse side is Business Reply postal card, perforated at binding for removing.

**MAIL IMMEDIATELY UPON SALE OF LICENSE
TRAPPING (1988 SERIES)
Please Print Plainly**

Name	TRAPPER JOHN
Rural Route or Street Address	RR 1, Box 23
Post Office	HOMETOWN
Zip Code	61234
County of Residence	SANGAMON

Figure 1. Mail survey address card issued to license vendors in 1990-91 post-season trapper mail survey.

**DETACH THIS PAGE AND GIVE TO
PERSON WHO PURCHASES FIRST
LICENSE IN BOOK**

Dear Trapper:

Please keep an accurate record of the number of days you had traps set, the average number and kinds of traps you used during the season, the number of furbearers you caught in traps, what county you trapped in most, and the number and kinds of pelts you sold in Illinois and Out of State.

You may be one of the selected trappers contacted at the close of the trapping season and provided a form to return to the Illinois Department of Conservation.

Thanks for your cooperation.

**THE BACK SIDE OF THIS CARD MAY BE USED FOR
RECORD KEEPING.**

Number of TRAPS I had set: _____

Number of DAYS I had traps set: _____

FURBEARERS CAUGHT IN TRAPS: _____

Species	Total Number Caught	Number Sold	
		In Illinois	Out-of- State
Muskrat			
Mink			
Raccoon			
Opossum			
Beaver			
Red Fox			
Gray Fox			
Coyote			
Striped Skunk			
Weasel			

Other Animals Caught: _____

Figure 2. Information and activity record card issued to trappers in 1990-91 post-season trapper mail survey.



LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1737
 CHICAGO OFFICE • ROOM 4-300 • 100 WEST RANDOLPH 60601
 MARK FRECH, DIRECTOR - KATHY SELCKE, ASSISTANT DIRECTOR

1990-91

Dear Illinois Trapper:

The harvest of fur-bearing animals is one of the few field and stream sports that is tied to our economy through a return from the crop. In the 1989-90 season, there were 164,704 pelts sold by Illinois fur-takers for a value to them of \$529,278. We need information on the trapped portion of the catch for the 1990-91 season.

You can make an important contribution to the future management of Illinois' fur harvests and trapping activity by completing the enclosed questionnaire. The questionnaire is self-explanatory. If you did not trap, simply answer questions #1 and #8 and return the questionnaire. If you did trap, please fill out the questionnaire completely.

The information requested from you and other trappers is used in determining catch, trapping success, trapping pressure, and trapper characteristics on a statewide basis. These facts are necessary for a better understanding of how regulations affect your trapping and the welfare of the furbearer populations. Also, with your help, the future of sport trapping will be assured.

Please take a few minutes and fill out the questionnaire. If you do not remember exact figures, please give your best estimate. Also, if you trapped in partnership with another person, list only your half of the catch. Drop the completed questionnaire in the mail; no postage is required. Please reply even if you did not trap this season or were not successful.

Yours for better trapping.

Sincerely,

Jeffrey M. Ver Steeg
 Chief

Division of Wildlife Resources

MF:BA:lc
 Enclosure

T1

Figure 3. Letter of transmittal sent with initial mailing in 1990-91 post-season trapper mail survey.



LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1787
 CHICAGO OFFICE • ROOM 4-300 • 100 WEST RANDOLPH 60601
 MARK FRECH, DIRECTOR - KATHY SELCKE, ASSISTANT DIRECTOR

Dear Illinois Trapper:

Recently we mailed to you a Trapper Harvest Survey questionnaire and requested that you fill out and return the completed form. We have not received your form at this time - perhaps because you have misplaced the questionnaire card or haven't found time to complete it and return it to us.

We are enclosing another questionnaire card which we hope you will complete and return as soon as possible. If you have already returned a questionnaire, please destroy this one. The information supplied by you and other trappers being sampled will be of great value to the Conservation Department in better directing the management of the Illinois furbearer resources.

Please fill out the form completely and return it even if you did not trap or were not successful. If you trapped in partnership with another person, please list only your half of the catch. No postage is required to return the completed questionnaire. Simply fill it out and drop it in the mail.

Your prompt attention will be greatly appreciated. Thank You.

Sincerely,

Jeffrey M. Ver Steeg
 Chief
 Division of Wildlife Resources

MF:BA:lc
 Enclosure

T2

Figure 4. Letter of transmittal sent with first follow-up mailing in 1990-91 post-season trapper mail survey.



LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1787
 CHICAGO OFFICE • ROOM 4-300 • 100 WEST RANDOLPH 60601
 MARK FRECH, DIRECTOR - KATHY SELCKE, ASSISTANT DIRECTOR

Dear Illinois Trapper:

This is to remind you that we would still like to receive an answer to the questionnaire concerning your trapping activity this past season. We don't like to keep bothering you, but this is very important information which only you can supply.

Another copy of the questionnaire card is enclosed. We hope you will complete and return it as soon as possible. If you have already returned a questionnaire, simply destroy this one. We are making a final effort to obtain a complete response so that we may compile the information received from all cooperating trappers and prepare a report of our findings. Remember, your response is needed - even though you did not trap or had an unsuccessful season. Also, if you trapped in partnership with another person, kindly list only your half of the catch.

No postage is required to return the completed questionnaire card. Just fill it out and drop it in the mail. Please help us complete this survey by sending it in now!

Sincerely,

Jeffrey M. Ver Steeg
 Chief

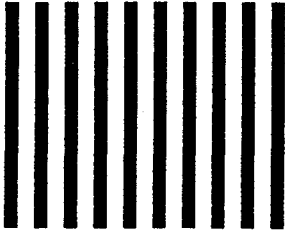
Division of Wildlife Resources

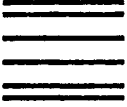
MF:BA:lc
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T3

Figure 5. Letter of transmittal sent with second follow-up mailing in 1990-91 post-season trapper mail survey.

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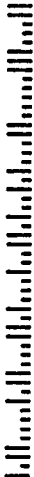




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FIRST CLASS PERMIT NO. 2032 SPRINGFIELD, IL

POSTAGE WILL BE PAID BY ADDRESSEE

**ILLINOIS DEPARTMENT OF CONSERVATION
WILDLIFE RESOURCES -- FURBEARER**
P.O. BOX 19225
SPRINGFIELD, IL 62794-9961



ATTN: BILL ANDERSON

FURBEARER TRAPPING SURVEY 1990 - 1991 SEASON

1. Did you trap for furbearers in Illinois during the 1990-91 season? Yes No
2. In what COUNTY did you do MOST of your trapping?

3. How many days (or nights) did you have traps set?

4. How old were you on your last birthday?
_____ years old.
5. Have you ever attended a trapper education class sponsored by the Illinois Dept. of Conservation? Yes No
6. Please fill in ALL THREE BLANKS for each kind of furbearer you trapped in Illinois during the 1990-91 season:

	Number Caught In Traps	Number SOLD In Illinois	Number SOLD Out of State
Muskrat	_____	_____	_____
Mink	_____	_____	_____
Raccoon	_____	_____	_____
Opossum	_____	_____	_____
Red Fox	_____	_____	_____
Gray Fox	_____	_____	_____
Beaver	_____	_____	_____
Skunk	_____	_____	_____
Weasel	_____	_____	_____
Coyote	_____	_____	_____
7. Did you sell any furs from road-killed animals during the 1990-91 season? Yes No
If yes, please list what kind and how many:

8. Did you also HUNT furbearers with gun and/or dogs during the 1990-91 season? Yes No
If yes, please give the number of each kind taken:
Raccoon _____ Red Fox _____ Skunk _____
Opossum _____ Gray Fox _____ Coyote _____

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Figure 6. Questionnaire for post-season mail survey of Illinois trappers, 1990-91 season.

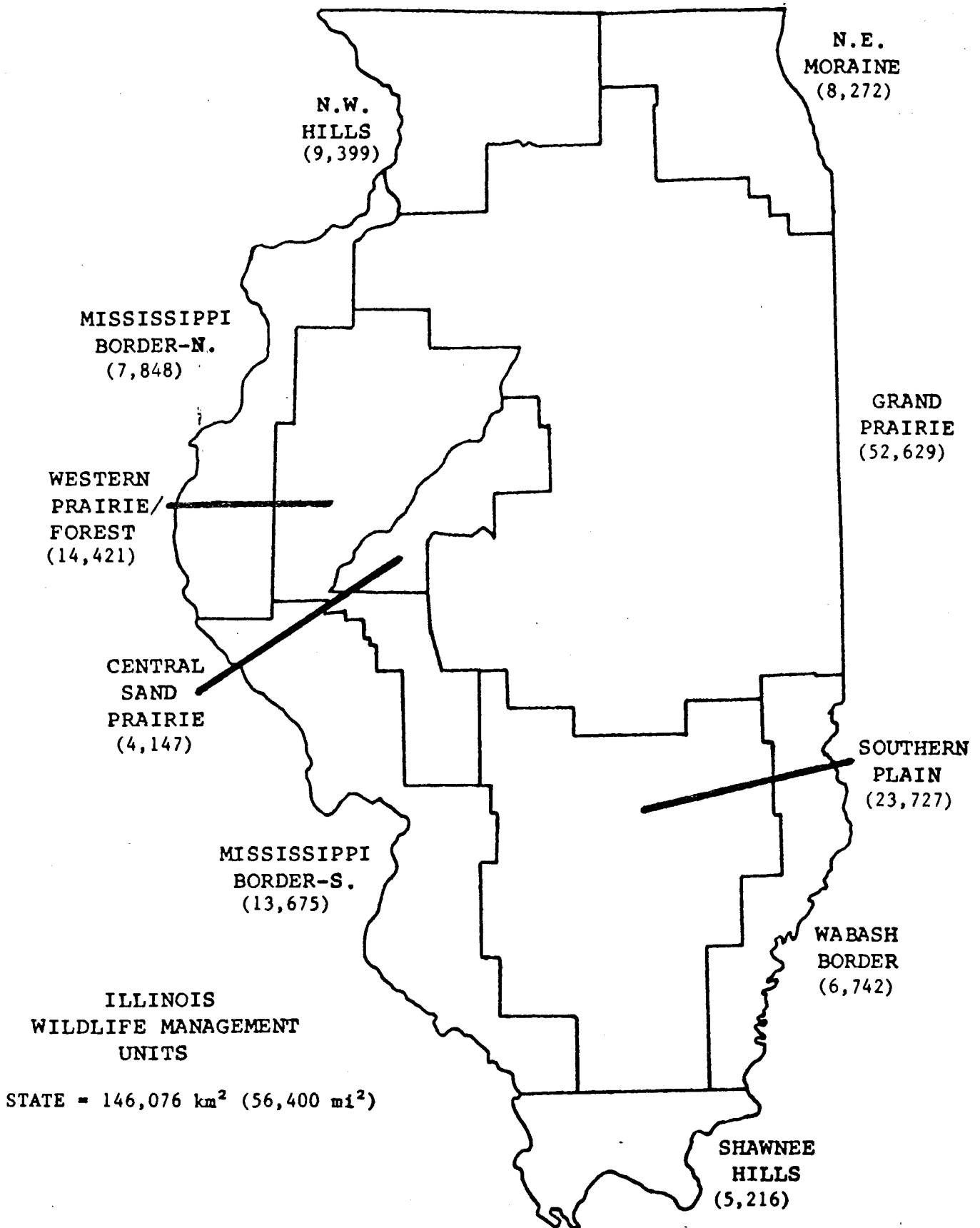


Figure 7. Area (km²) of wildlife management units in Illinois.



Figure 8. Furbearer management zones for the 1990-91 season.

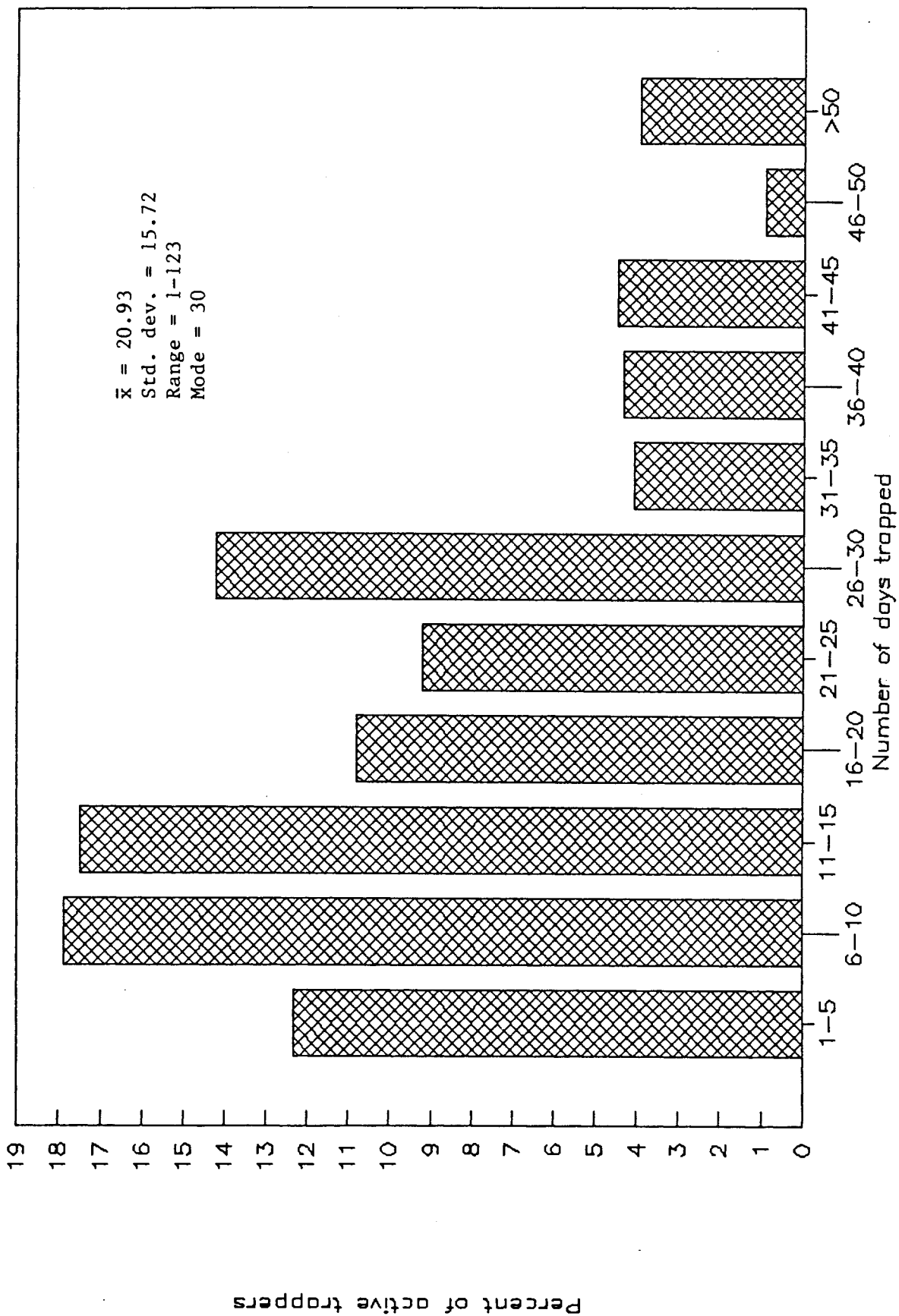


Figure 9. Distribution of days trapped per active trapper in Illinois, 1990-91 season (n = 760).

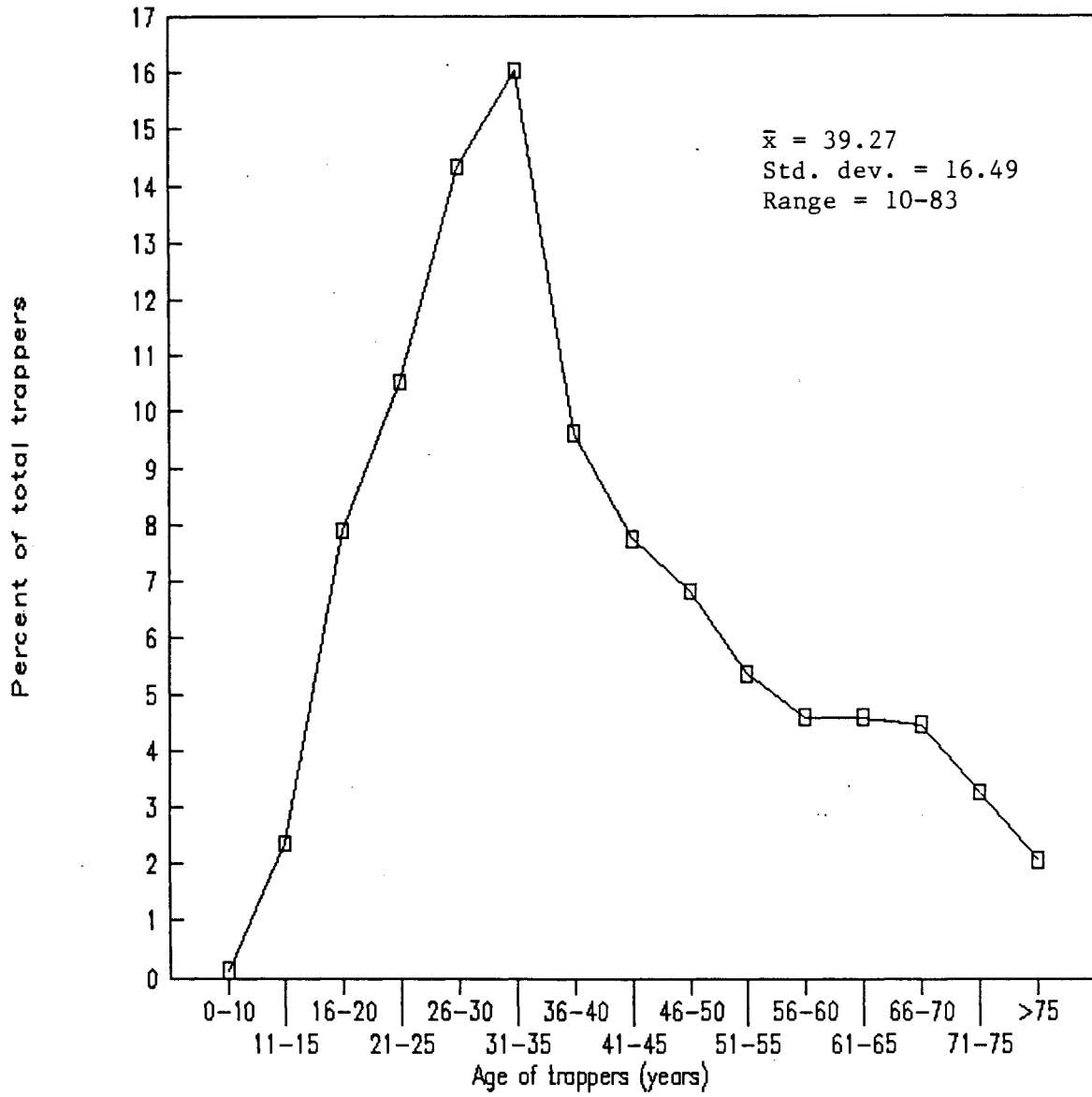


Figure 10. Distribution of ages of effective trappers in Illinois, 1990-91 season (n=760).

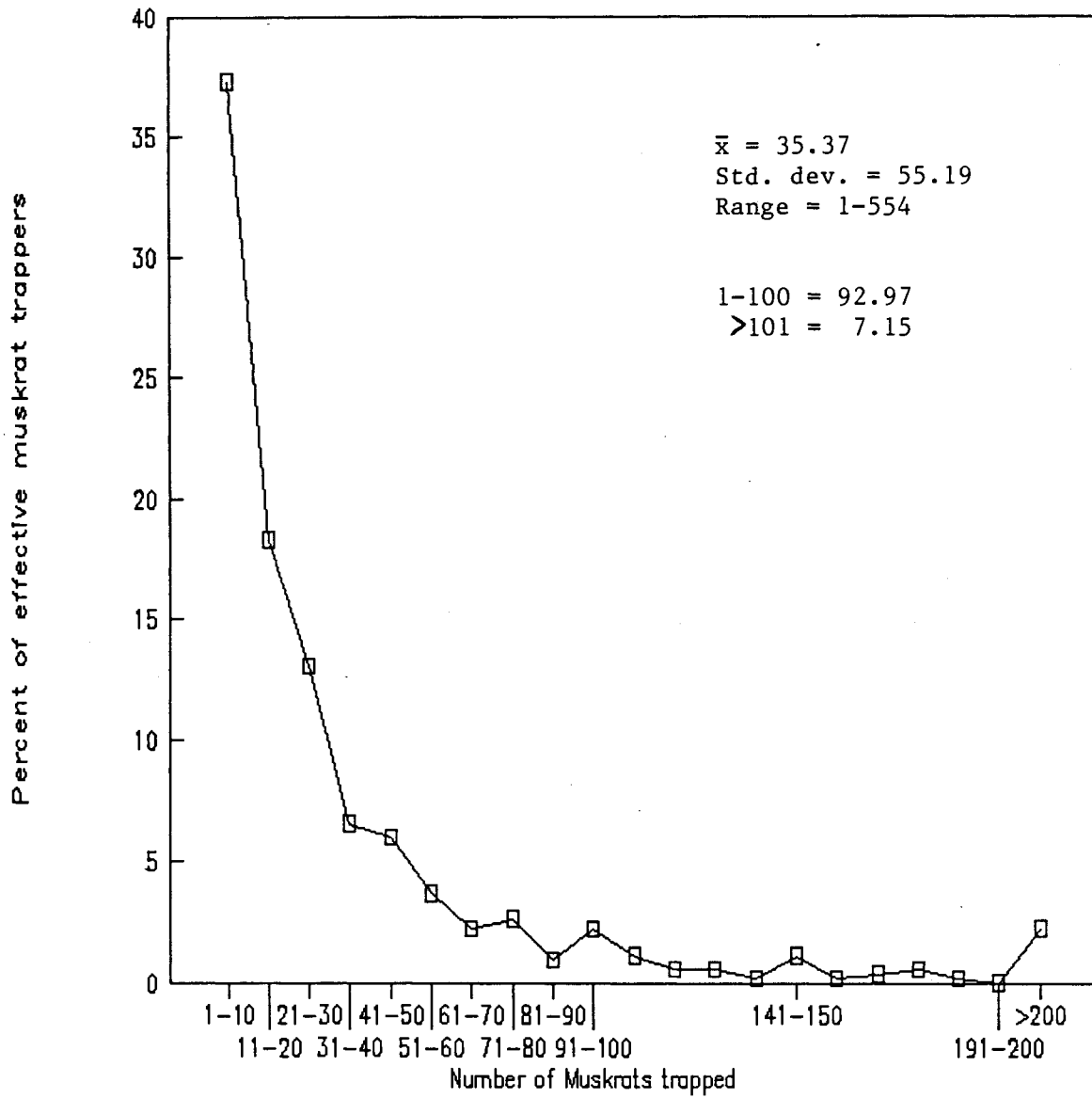


Figure 11. Distribution of muskrats trapped per effective muskrat trapper in Illinois, 1990-91 season (n = 536).

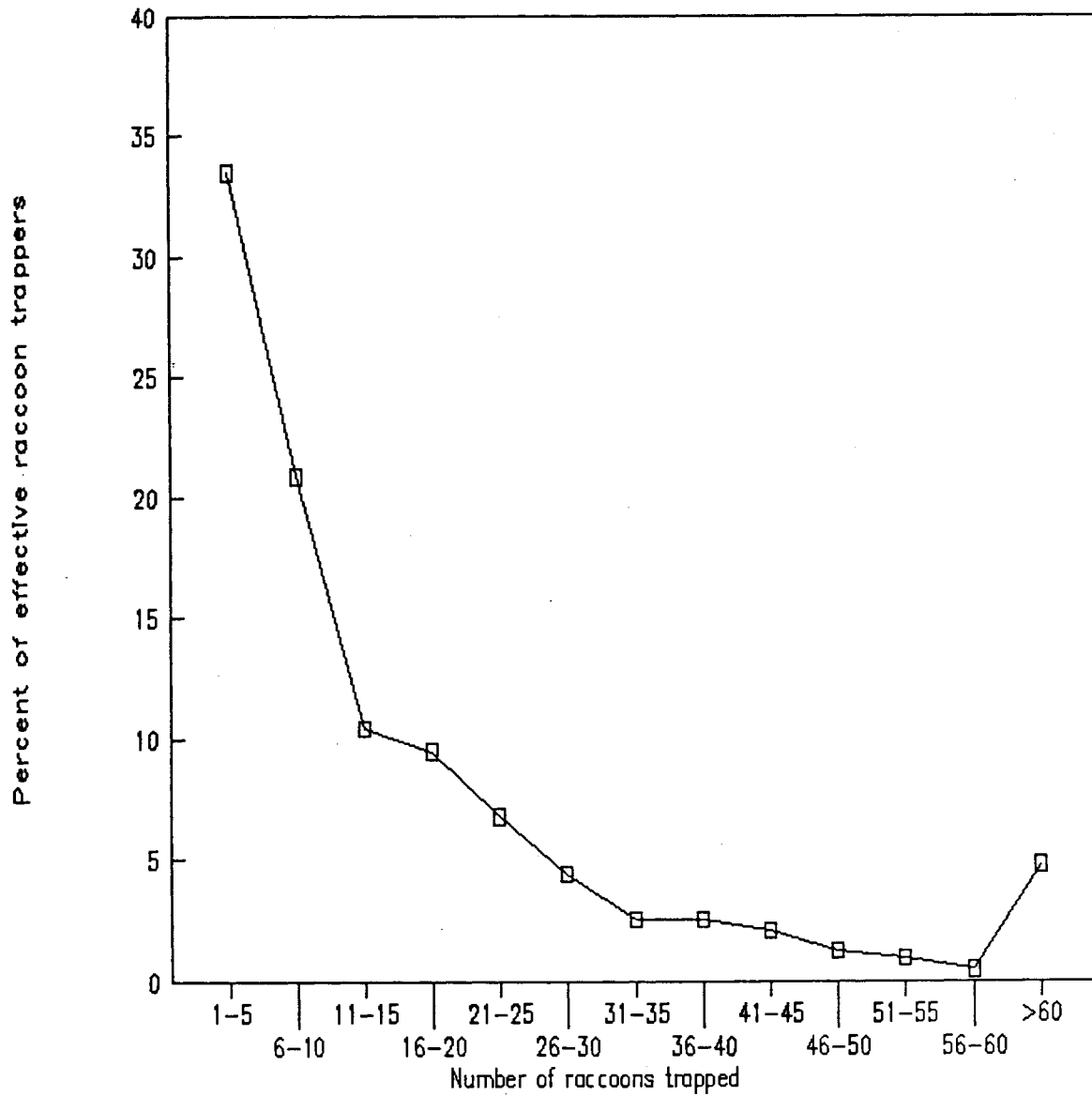


Figure 12. Distribution of number of raccoons trapped per effective raccoon trapper in Illinois, 1990-91 season (n = 633).



Figure 13. Existing furbearer management zones (based on county boundaries) used to prepare 1979-80 through 1990-91 season data summaries.

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