ILLINOIS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

PRODUCTION NOTE

University of Illinois at
Urbana-Champaign Library
Large-scale Digitization Project, 2007.

639.109773
T689
1982/83

Natural History Survey
Library

NATURAL HISTORY SURVEY

NOV 7 1994

LIBRARY

JOB COMPLETION REPORT

SURVEYS AND INVESTIGATIONS PROJECTS

As Required By

FEDERAL AID IN WILDLIFE RESTORATION ACT

ILLINOIS

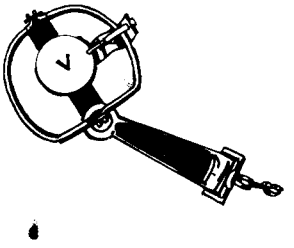
Federal Aid Project No. W-49-R(30)

Study XV: Wildlife Harvests

Job No. 4: Trapper harvest survey, 1982-83

By

G. F. Hubert, Jr.



David Kenney, Director

ILLINOIS DEPARTMENT OF CONSERVATION

S. W. Harrison
P-R Coordinator

M. Conlin, Supervisor
Div. of Fish & Wildl.

12 August 1983

PERMISSION TO QUOTE

This is a progress report that may contain tentative or perliminary findings. It may be subject to future modifications and revisions. To prevent the issuing of misleading information, persons wishing to quote from any of this report, to cite it in bibliographies, or to use it in other forms should first obtain permission from the project leader under whose direction the work was performed or from the Supervisor of the Special Projects Section, Division of Fish and Wildlife Resources.

Printed by authority of the State of Illinois 175-11-83

The Department of Conservation is an equal opportunity employer.

Natural History Survey
Library

JOB COMPLETION REPORT

SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO. W-49-R-30

STUDY XV: Wildlife Harvests

JOB NO. 4: Trapper harvest survey, 1982-83

ABSTRACT: A stratified random sample of 1,300 persons who purchased 1982 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 1,295 (99.62%) recipients from which 1,075 useable replies were received (83.01% return). Of these, 89.49% were active, i.e. set 1 or more traps during the season. Only 2.81% of the active trappers were ineffective, i.e. caught nothing.

The 1982-83 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 2 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 number of effective trappers and total trapper harvest (in parentheses) are: muskrat (Ondatra zibethicus) 10,293 (294,174), mink (Mustela vison) 6,629 (18,429), raccoon (Procyon lotor) 12,155 (126,290), opossum (Didelphis marsupialis) 8,074 (54,096), red fox (Vulpes vulpes) 2,829 (8,628), gray fox (Urocyon cinereoargenteus) 1,936 (3,795), beaver (Castor canadensis) 1,922 (6,708), striped skunk (Mephitis mephitis) 3,203 (10,121), weasel (Mustela frenata, M. nivalis) 239 (253), and coyote (Canis latrans) 1,728 (4,026).

The average trapper had traps set for 24.55 days (or nights). Active trappers averaged 34.16 years of age. Trapping licenses had been purchased the previous year by 86.64% of all trappers. The majority of effective muskrat trappers (62.37%) caught 20 or fewer muskrats during the season. Most effective raccoon trappers (82.59%) harvested from 1 to 15 raccoons for the entire season and 92.02% trapped 25 or less. Trappers sold 94.13% of their 1982-83 catch of which 3.45% was sold out-of-state. Accidental catches of dogs were reported by 12.83% of the trappers who responded to the survey. Trappers reportedly released 91.04% of the non-target dogs unharmed. 28.03% of the licensed trappers also hunted furbearers, primarily raccoons. The harvest of pelts by hunting trappers amounted to 7.56% of the total trapped catch in the sample.

This page is intentionally blank.

JOB COMPLETION REPORT

SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-49-R-30

STUDY XV: Wildlife Harvests

JOB NO. 4: Trapper harvest survey, 1982-83

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 5 resident and non-resident trapping licenses in the 1982 series (total sales estimate 16,013 - 1 July 1983) (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 Fish and Wildlife Resources via business reply mail and were filed according to the licensee's county of residence.

Prior to the close of the muskrat trapping season, a random sub-sample based on the distribution of the 1976-80 trapping license sales was drawn. The size of the sub-sample was set at 1,300 since this quantity would result in 1,000 to 1,100 useable replies for adequate reliability at the statewide level. Address cards in the drawn sample were manually marked with serial numbers to provide for the removal of respondents and undeliverables from the initial and first follow-up mailings.

An initial and 2 follow-up mailings to non-respondents were made with a different letter of trasmittal 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 (20.0¢) was used for all mailings.

Questionnaires were returned via business reply permit printed on the back of the form. Those received were checked for useableness, and the respondents were initially placed into 1 of 2 categories: inactive - those that did not set traps for furbearers during the 1982-83 seasons; active - those that did set 1 or more traps for furbearers during the 1982-83 seasons. Active trappers were further classified as: effective - those who caught 1 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 magnetic computer tape at the Coordinated Sciences Laboratory, University of Illinois, Urbana, Illinois, using remote terminals and stored for subsequent analysis. Mr. David Spoor, a consultant employed by the Coordinated Sciences Laboratory, prepared the data entry and analysis programs and obtained output.

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

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

q = 1-p

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

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

x_i = reported season catch for species in question

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

c. Total trapper harvest:

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

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

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:

1982-83 Trapping Seasons

The 1982-83 fur-bearing mammal trapping seasons varied from 30 to 106 days in length (Table 1). the seasons for all species except beaver, red fox, gray fox, and coyote were 45 days long with the northern management zone opening 10 days before the southern management zone (Fig. 8). Beaver trapping season was 96 or 106 days in length and opened simultaneously with all other species except fox and coyote. Red fox, gray fox, and coyote could be legally trapped for 30 days statewide. No bag limits were in effect for any furbearer. Special regulation reduced the length of the beaver season along the Mississippi River from Interstate 80 north to the Wisconsin state line as a protective measure for river otter (Lutra canadensis).

1982-83 Trapper Mail Survey

The initial mailing of 1,300 questionnaires was made on 12 January 1983. The 2 follow-up mailings to non-respondents were made on 17 February (714) and 17 March (396) and closed out on 15 April 1983. Approximately 2 days preparation was required for each mailing.

A total of 1,295 (99.62%) licensees in the 1982-83 survey sample was reached by the Postal Service via first class mail. The 5 remaining questionnaires were returned as undeliverable. There were 1,075 useable replies received from the licensees contacted, representing an 83.01% response on the number delivered. Of these respondents, 962 (89.49%) reported that they set 1 or more traps for furbearers during the season and were classifed as active. A total of 935 (97.19%) active trappers was effective, i.e. caught 1 or more furbearers, and the remaining 27 (2.81%) were ineffective, i.e. caught nothing.

a. Number of days trapped

Active trappers had traps set an average of 24.55 days (or nights) during the 1982-83 season (Fig. 9). The maximum number of days a trapper could have legally trapped was 106. However, only 1.21% of the respondents stated they had traps set for over 45 days, and just 28.55% trapped over 30 days. The vast majority of trapping activity seems to be concentrated during the initial 30 days of the muskrat, mink, and raccoon seasons. In 1981-82, Illinois trappers had traps set an average of 24.33 days during a 106-day season (Hubert 1982). The mean number of days trapped in 1980-81 was 24.83 (Hubert 1981).

b. Age of trappers

Active trappers in 1982-83 had an average age of 34.16 years (Fig. 10). The majority (51.71%) was 30 years of age or younger. In fact, 41.62% were less than 26 years old. Hubert (1980) reported the average age of Illinois trappers was 32.85 years in 1979-80. The observed age distribution probably reflects the combined effects of several factors. First, the attrition of young (i.e. novice) trappers appears to be quite high; many individuals stop trapping around the time they reach the age of 30. This may be the result of reduced leisure time due to increased job and family responsibilities.

Additional leisure time could account for the slight increase in trappers over 55 years of age. The relative abundance of young trappers may also reflect expanded interest in trapping in recent years. This factor is obviously important since the number of licensed trappers in Illinois climbed from an annual average of 6,710 during the 1970 through 1972 seasons to an average of 18,113 from 1980 through 1982. High pelt prices and a decline in upland wildlife hunting opportunities may have played a role. The fact that a majority of trappers are young (and probably lack experience) emphasizes the continued need for a formal trapper education program.

c. Repeat purchase of trapping license

During the 1982-83 season, 86.64% of the individuals who responded to the survey (n = 1,063) indicated they had purchased a trapping license the previous year. No additional data on repeat license purchases by trappers are available. However, Sampson and Erickson (1977) reported 84.46% of the persons who bought small game licenses in Missouri in 1976 had purchased a hunting license the year before.

d. Trapper harvest summary

A statewide summary for the 10 species of furbearers surveyed in 1982-83 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 the estimated density of effective trappers and pelts 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 1 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 1982-83, effective raccoon trappers were the most numerous and their projected number varied by only $\pm$ 3.44%. The 95% confidence interval projections for less numerous opossum trappers varied by $\pm$ 6.04% and for uncommon weasel trappers by $\pm$ 49.37%.

e. Distribution of harvest among effective trappers

The muskrat and raccoon were the 2 most important furbearers trapped during the 1982-83 season in terms of number of effective trappers, average season catch, and total harvest (Table 2). The reported number of muskrats harvested by 691 effective muskrat trappers ranged from 1 to 398 and averaged 28.58 (Tables 2, 13, 14, Fig. 11). Approximately 71% of these trappers took less than the average catch (Fig. 11). During the season, 62.37% harvested 20 or fewer muskrats and 94.50% caught 100 or less. All values are similar to those obtained in the 1979-80, 1980-81, and 1981-82 surveys (Hubert 1980, 1981, 1982). Relatively few trappers are extremely successful at catching muskrats. Of the effective trappers who responded, 127 (18.38%) stated their catch averaged 1 or more 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 816 effective raccoon trappers who reported averaged 10.39 and ranged from 1 to 148 (Tables 2, 13, 14, Fig. 12). Less than the average season catch was taken by 70.83% of these trappers (Fig. 12). For the entire season, 82.59% harvested 15 or fewer raccoons and 92.02% trapped 25 or less. Only 25 (3.06%) of the effective raccoon trappers reported making an average daily catch of 1 or more raccoons throughout the season.

The harvest of the other 8 open season furbearers was distributed among effective trappers much like the muskrat and raccoon harvests (Table 15). For 5 of these species, 12% or less of the effective trappers made season catches exceeding 5 pelts. The exceptions were: effective opossum trappers - 34.87% of these individuals trapped more than 5 opossums during the season; effective red fox trappers - 14.74% trapped more than 5 red foxes during the season; and effective beaver trappers - 17.07% caught more than 5 beavers during the season.

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 harvests because of their goal-setting effect.

f. Pelt sales

Trappers sold an estimated 94.13% of their catch during 1982-83 (Table 2). The previous season (1981-82), 96.32% of all trapped pelts were sold (Hubert 1982). The portion of each species sold ranged from a low of 22.21% for weasel to a high of 99.18% for raccoon. The fraction of pelts sold in Illinois and out-of-state also varied among species (Table 16). Overall, 96.55% of the marketed portion of the trapped catch was sold in Illinois and 3.45% out-of-state. Hubert (1982) found that Illinois trappers sold 4.86% of their pelts outside the state in 1981-82. Resident trappers sold an average of 4.30% of their pelts out-of-state during the last 3 seasons (Hubert 1981, 1982, this study).

g. Non-target dog catches

Accidental catches of dogs were reported by 12.83% (n = 1,068) of the trappers who responded to the 1982-83 survey (Table 17). In comparison, 14.24% of the active trappers made non-target dog catches. The trappers who accidentally caught dogs averaged 1.48 for the year. The estimated total number of non-target dogs caught by trappers during the season was 3,040. As stated earlier, the estimated total furbearer catch by trappers was 526,520 (Table 2). Therefore, the accidental catch rate for dogs was 0.58% or 1 non-target dog for every 173 furbearers trapped. Trappers reportedly released 91.04% of the dogs unharmed. During 5 recent seasons, the estimated percentage of all trappers who caught dogs averaged 9.04%. Many of the dogs accidentally trapped are probably free-ranging animals with limited human association.

h. Fur hunting by trappers

A total of 280 (28.03%) trappers reported they hunted furbearers with gun and/or dogs in 1982-83 (Table 18). Their total hunting harvest was 2,672 pelts or an average of 9.54 per hunting trapper. This is equivalent to 7.56% of the total trapped catch in the sample. The raccoon was hunted by more trappers than any other species. Next in popularity was the opossum. From 1977-78 through 1982-83, an average of 27.25% of the trappers in Illinois also hunted furbearers (Hubert 1982, this study). Sampson (1973) reported 33.6% of the trappers in Missouri were also fur hunters. Obviously, there is much overlap between the groups designated as fur trappers and fur hunters.

i. 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), and 1982-83 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 1982-83 (Fig. 8).

j. Relative abundance of mink

Data provided by 2,873 effective muskrat/mink trappers from 1979-80 through 1982-83 were used to determine the relative abundance of mink among the various wildlife management units in Illinois (Table 29, Fig. 7). These trappers caught 79,885 muskrats and 5,147 mink during the 4 seasons studied. The number of trappers sampled varied from a low of 51 in the Shawnee Hills unit to a high of 914 in the Grand Prairie unit.

Trapper catch data were used to calculate 4 indexes of mink abundance (Table 30). The 2 indexes which appear to be the most reliable indicators of relative mink density are the average number of mink taken per effective muskrat/mink trapper and the percent of effective trappers in the wildlife management unit who caught mink. The mean annual estimated mink harvest per unit area is less reliable because it fails to account for variations in trapper density. The least valid indicator of mink abundance is the number of mink trapped per 100 muskrats trapped. Even though many of the mink trapped each season are taken in sets made for muskrats, this index is obviously influenced by the number of muskrats present. A management unit with high numbers of both muskrats and mink per unit area might appear to have a lower mink population than a unit with almost no muskrats and only a few mink.

Available data indicate the mink population is highest in the Northeast Moraine management unit (Table 30). This area contains a large portion of the remaining high quality wetland habitat in the state. Other units which support comparatively high mink densities include the Grand Prairie, Southern Plain, and Mississippi Border-South. The Shawnee Hills unit also has good numbers of mink in spite of the fact that muskrat numbers there are relatively low. Mink appear to be least abundant in the Wabash Border management unit. The Wabash Border has fewer miles of stream per km^2 and fewer impounded acres of water per km^2 than any other wildlife management unit (Hubert 1977). Poor quality mink habitat is apparently the end result.

RECOMMENDATIONS:

A mail survey of this type 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. In addition, this particular survey provides the only regional harvest data available for the trapped portion of the annual fur catch. It is recommended that the survey be continued in essentially the same form.

LITERATURE CITED:

Cochran, W. G. 1953. Sampling techniques, 2nd ed. Wiley and Sons, New York. 413pp.

Hubert, G. F., Jr. 1977. Wildlife management unit survey. Illinois Dept. of Conservation P-R Proj. Rep. W-49-R-25, Study III, Job 1. 47pp.

_____. 1980. Trapper harvest survey, 1979-80. Illinois Dept. of Conservation P-R Proj. Rep. W-49-R-27, Study XV, Job 4. 36pp.

_____. 1981. Trapper harvest survey, 1980-81. Illinois Dept. of Conservation P-R Proj. Rep. W-49-R-28, Study XV, Job 4. 48pp.

_____. 1982. Trapper harvest survey, 1981-82. Illinois Dept. of Conservation P-R Proj. Rep. W-49-R-29, Study XV, Job 4. 53pp.

Sampson, F. W. 1973. Fur harvest survey, 1972-73. Missouri Dept. of Conservation P-R Proj. Rep. W-13-R-28, Study X, Job 1. 16pp.

_____, and D. W. Erickson. 1977. Post-season small game harvest mail survey 1976-77. Missouri Dept. of Conservation P-R Proj. Rep. W-13-R-31, Study XXX, Job 1. 26pp.

Snedecor, G. W., and W. G. Cochran. 1967. Statistical methods, 6th ed. Iowa State Univ. Press, Ames. 593pp.

DATA AND REPORTS:

Original data and reports in this investigation are on file in the Division of Fish and Wildlife Resources office, Illinois Department of Conservation, Springfield IL 62706.

PREPARED BY: G. F. Hubert, Jr.
Furbearer Biologist
Special Projects Section
Div. of Fish & Wildl. Res.

APPROVED BY: J. A. Tranquilli
Supervisor
Special Projects Section
Div. of Fish & Wildl. Res.

DATE: 12 August 1983

GH:lg

Table 1. Illinois fur-bearing mammal trapping seasons for 1982-83.

Species	Trapping season	
	Northern zone	Southern zone
Muskrat, Mink, Raccoon, Opossum, Striped Skunk, Weasel	15 Nov - 29 Dec (45)[a]	25 Nov - 8 Jan (45)
Beaver	15 Nov - 28 Feb (106)[b]	25 Nov - 28 Feb (96)
Red Fox, Gray Fox, Coyote	30 Nov - 29 Dec (30)	30 Nov - 29 Dec (30)

[a] Numbers in parentheses are season lengths in days.

[b] Those portions of JoDaviess, Carroll, Whiteside, and Rock Island counties lying west of Illinois Rt. 84 and US Rt. 20, from Interstate-80 north to the Wisconsin line were open to beaver trapping from 15 Nov. - 29 Dec. 1982 only.

Table 2. Summary of statewide data from post-season mail survey of Illinois resident trappers, 1982-83 season (n = 1,075).

Species	Estimated number of effective trappers	Percent of total licensees	Average season catch	Estimated total trapper harvest	Estimated percent sold[a]	Estimated total sold
Muskrat	10,293	64.28	28.58	294,174	98.28	289,114
Mink	6,629	41.40	2.78	18,429	99.00	18,245
Raccoon	12,155	75.91	10.39	126,290	99.18	125,254
Opossum	8,074	50.42	6.70	54,096	72.10	39,003
Red fox	2,829	17.67	3.05	8,628	97.63	8,424
Gray fox	1,936	12.09	1.96	3,795	97.51	3,701
Beaver	1,922	12.00	3.49	6,708	85.94	5,765
Striped skunk	3,203	20.00	3.16	10,121	22.21	2,248
Weasel	239	1.49	1.06	253	43.75	111
Coyote	1,728	10.79	2.33	4,026	93.31	3,757

[a] n = 999.

Table 3. Summary of muskrat trapper and harvest data for wildlife management units in Illinois, 1982-83, from post-season resident trapper mail survey (n = 691).

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	1,206	(11.72)[b]	12.83	44.28	53,402	(18.16)[b]	568.17
Northeast Moraine	789	(7.67)	9.54	48.55	38,306	(13.03)	463.08
Mississippi Border-North	610	(5.93)	7.77	25.98	15,848	(5.39)	201.94
Mississippi Border-South	1,117	(10.85)	8.17	22.61	25,255	(8.59)	184.68
Western Prairie/Forest	1,147	(11.14)	7.95	23.52	26,977	(9.17)	187.07
Central Sand Prairie	269	(2.61)	6.49	28.94	7,785	(2.64)	187.73
Grand Prairie	3,203	(31.12)	6.09	30.87	98,877	(33.61)	187.88
Southern Plain	1,400	(13.60)	5.90	13.48	18,872	(6.42)	79.54
Wabash Border	343	(3.33)	5.09	16.91	5,800	(1.97)	86.03
Shawnee Hills	209	(2.03)	4.01	14.43	3,016	(1.02)	57.82
Statewide	10,293	(100.00)	7.05	28.58	294,174	(100.00)	201.38

[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 4. Summary of mink trapper and harvest data for wildlife management units in Illinois, 1982-83, from post-season resident trapper mail survey (n = 445).

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	656	(9.89)[b]	6.98	2.36	1,548	(8.41)[b]	16.47
Northeast Moraine	536	(8.09)	6.48	4.53	2,428	(13.18)	29.35
Mississippi Border-North	357	(5.39)	4.55	2.75	982	(5.33)	12.51
Mississippi Border-South	835	(12.59)	6.11	2.25	1,879	(10.19)	13.74
Western Prairie/Forest	700	(10.56)	4.85	2.51	1,757	(9.54)	12.18
Central Sand Prairie	209	(3.15)	5.04	2.79	583	(3.15)	14.06
Grand Prairie	1,906	(28.76)	3.62	3.00	5,718	(31.04)	10.86
Southern Plain	1,013	(15.28)	4.27	2.66	2,695	(14.63)	11.36
Wabash Border	253	(3.82)	3.75	1.47	372	(2.02)	5.52
Shawnee Hills	164	(2.47)	3.14	2.82	462	(2.51)	8.86
Statewide	6,629	(100.00)	4.54	2.78	18,429	(100.00)	12.62

[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, 1982-83, from post-season resident trapper mail survey (n = 816).

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	1,236	(10.17)[b]	13.15	11.69	14,449	(11.44)[b]	153.73
Northeast Moraine	729	(6.00)	8.81	16.33	11,905	(9.44)	143.92
Mississippi Border-North	760	(6.25)	9.68	15.90	12,084	(9.57)	153.98
Mississippi Border-South	1,400	(11.52)	10.24	7.95	11,130	(8.81)	81.39
Western Prairie/Forest	1,519	(12.50)	10.53	10.43	15,843	(12.55)	109.86
Central Sand Prairie	298	(2.45)	7.19	9.65	2,876	(2.28)	69.35
Grand Prairie	3,769	(31.01)	7.16	9.54	35,956	(28.48)	68.32
Southern Plain	1,698	(13.97)	7.16	8.26	14,025	(11.11)	59.11
Wabash Border	477	(3.92)	7.08	12.22	5,829	(4.61)	86.46
Shawnee Hills	269	(2.21)	5.16	8.06	2,168	(1.71)	41.56
Statewide	12,155	(100.00)	8.32	10.39	126,290	(100.00)	86.45

[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 6. Summary of opossum trapper and harvest data for wildlife management units in Illinois, 1982-83, from post-season resident trapper mail survey (n = 542).

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	849	(10.52)[b]	9.03	5.75	4,882	(9.04)[b]	51.94
Northeast Moraine	462	(5.72)	5.59	8.13	3,756	(6.94)	45.41
Mississippi Border-North	536	(6.64)	6.83	12.61	6,759	(12.51)	86.12
Mississippi Border-South	909	(11.26)	6.65	7.46	6,781	(12.54)	49.59
Western Prairie/Forest	998	(12.36)	6.92	5.36	5,349	(9.89)	37.09
Central Sand Prairie	238	(2.95)	5.74	5.56	1,323	(2.45)	31.90
Grand Prairie	2,264	(28.04)	4.30	5.32	12,044	(22.26)	22.88
Southern Plain	1,326	(16.42)	5.59	5.85	7,757	(14.36)	32.69
Wabash Border	298	(3.69)	4.42	10.10	3,010	(5.57)	44.65
Shawnee Hills	194	(2.40)	3.72	12.38	2,402	(4.44)	46.05
Statewide	8,074	(100.00)	5.53	6.70	54,096	(100.00)	37.03

[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 managment units in Illinois, 1982-83, from post-season resident trapper mail survey (n = 190).

Wildlife management unit	Estimated number of effective trappers		Estimated nubmer of effective trappers/100 km^2	Average season catch	Estimated total trapper harvest[a]		Estimated trapper harvest/100 km^2
Northwest Hills	283	(10.00)[b]	3.01	3.00	849	(9.83)[b]	9.03
Northeast Moraine	357	(12.63)	4.32	4.54	1,621	(18.79)	19.60
Mississippi Border-North	119	(4.21)	1.52	3.50	416	(4.83)	5.30
Mississippi Border-South	253	(8.95)	1.85	2.82	713	(8.28)	5.21
Western Prairie/Forest	179	(6.32)	1.24	1.58	283	(3.27)	1.96
Central Sand Prairie	75	(2.63)	1.81	3.00	225	(2.59)	5.43
Grand Prairie	923	(32.63)	1.75	3.29	3,037	(35.17)	5.77
Southern Plain	402	(14.21)	1.69	2.63	1,057	(12.24)	4.45
Wabash Border	149	(5.26)	2.21	1.50	224	(2.59)	3.32
Shawnee Hills	89	(3.16)	1.71	2.33	207	(2.41)	3.97
Statewide	2,829	(100.00)	1.94	3.05	8,628	(100.00)	5.91

[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, 1982-83, from post-season resident trapper mail survey (n = 130).

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	223	(11.54)[b]	2.37	1.67	372	(9.80)[b]	3.96
Northeast Moraine	149	(7.69)	1.80	2.20	328	(8.63)	3.97
Mississippi Border-North	45	(2.31)	0.57	2.00	90	(2.35)	1.15
Mississippi Border-South	268	(13.85)	1.96	2.11	565	(14.90)	4.13
Western Prairie/Forest	119	(6.15)	0.83	1.38	164	(4.31)	1.14
Central Sand Prairie	30	(1.54)	0.72	1.50	45	(1.18)	1.09
Grand Prairie	491	(25.38)	0.93	2.18	1,070	(28.24)	2.03
Southern Plain	432	(22.31)	1.82	1.72	743	(19.61)	3.13
Wabash Border	119	(6.15)	1.77	2.25	268	(7.06)	3.98
Shawnee Hills	60	(3.08)	1.15	2.50	150	(3.92)	2.88
Statewide	1,936	(100.00)	1.33	1.96	3,795	(100.00)	2.60

[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, 1982-83, from post-season resident trapper mail survey (n = 129).

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	253	(13.18)[b]	2.69	5.76	1,457	(21.78)[b]	15.50
Northeast Moraine	119	(6.20)	1.44	3.38	402	(6.00)	4.86
Mississippi Border-North	179	(9.30)	2.28	4.75	850	(12.67)	10.83
Mississippi Border-South	149	(7.75)	1.09	2.10	313	(4.67)	2.29
Western Prairie/Forest	208	(10.85)	1.44	2.43	505	(7.55)	3.50
Central Sand Prairie	60	(3.10)	1.45	6.75	405	(6.00)	9.77
Grand Prairie	700	(36.44)	1.33	3.19	2,233	(33.33)	4.24
Southern Plain	179	(9.30)	0.75	1.58	283	(4.22)	1.19
Wabash Border	30	(1.55)	0.44	1.50	45	(0.67)	0.67
Shawnee Hills	45	(2.33)	0.86	4.67	210	(3.11)	4.03
Statewide	1,922	(100.00)	1.32	3.49	6,708	(100.00)	4.59

[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, 1982-83, from post-season resident trapper mail survey (n = 215).

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	373	(11.63)[b]	3.97	3.36	1,253	(12.35)[b]	13.33
Northeast Moraine	328	(10.23)	3.97	6.91	2,266	(22.35)	27.39
Mississippi Border-North	164	(5.12)	2.09	1.91	313	(3.09)	3.99
Mississippi Border-South	149	(4.65)	1.09	3.90	581	(5.74)	4.25
Western Prairie/Forest	387	(12.09)	2.68	1.88	728	(7.21)	5.05
Central Sand Prairie	89	(2.79)	2.15	2.83	252	(2.50)	6.08
Grand Prairie	1,237	(38.61)	2.35	2.72	3,365	(33.23)	6.39
Southern Plain	298	(9.30)	1.26	2.80	834	(8.23)	3.51
Wabash Border	89	(2.79)	1.32	3.00	267	(2.65)	3.96
Shawnee Hills	89	(2.79)	1.71	3.00	267	(2.65)	5.12
Statewide	3,203	(100.00)	2.19	3,16	10,121	(100.00)	6.93

[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, 1982-83, from post-season resident trapper mail survey (n = 16).

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	30 (12.50)[b]	0.32	1.00	30 (11.76)[b]	0.32
Northeast Moraine	--	--	--	--	--
Mississippi Border-North	15 (6.25)	0.19	1.00	15 (5.89)	0.19
Mississippi Border-South	--	--	--	--	--
Western Prairie/Forest	15 (6.25)	0.10	1.00	15 (5.89)	0.10
Central Sand Prairie	--	--	--	--	--
Grand Prairie	74 (31.25)	0.14	1.20	89 (35.29)	0.17
Southern Plain	45 (18.75)	0.19	1.00	45 (17.64)	0.19
Wabash Border	45 (18.75)	0.67	1.00	45 (17.64)	0.67
Shawnee Hills	15 (6.25)	0.29	1.00	15 (5.89)	0.29
Statewide	239 (100.00)	0.16	1.06	253 (100.00)	0.17

[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, 1982-83, from post-season resident trapper mail survey (n = 116).

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	74	(4.31)[b]	0.79	1.20	89	(2.22)[b]	0.95
Northeast Moraine	--		--	--	--		--
Mississippi Border-North	149	(8.62)	1.90	3.50	522	(12.96)	6.65
Mississippi Border-South	179	(10.34)	1.31	2.83	507	(12.60)	3.71
Western Prairie/Forest	194	(11.21)	1.35	2.23	433	(10.74)	3.00
Central Sand Prairie	74	(4.31)	1.78	2.00	148	(3.70)	3.57
Grand Prairie	313	(18.10)	0.59	1.67	523	(12.96)	0.99
Southern Plain	402	(23.28)	1.69	1.74	699	(17.41)	2.95
Wabash Border	194	(11.21)	2.88	3.85	747	(18.52)	11.08
Shawnee Hills	149	(8.62)	2.86	2.40	358	(8.89)	6.86
Statewide	1,728	(100.00)	1.18	2.33	4,026	(100.00)	2.76

[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 1982-83 post-season mail survey of Illinois resident trappers (n = 1,075).

Species	Total effective trappers	Percent effective trappers	Total season catch
Muskrat	691	64.28	19,748
Mink	445	41.40	1,237
Raccoon	816	75.91	8,477
Opossum	542	50.42	3,629
Red fox	190	17.67	580
Gray fox	130	12.09	255
Beaver	129	12.00	450
Striped skunk	215	20.00	680
Weasel	16	1.49	17
Coyote	116	10.79	270

Table 14. Estimated number of effective trappers, average season catch, and total trapper harvest by species in Illinois for 1982-83 season based on post-season trapper mail survey (n = 1,075).

Species	Estimated number of effective trappers	Estimated average season catch	Estimated total harvest
Muskrat	10,293 ± 468[a]	28.58 ± 3.33[a]	294,174 ± 37,398[a]
Mink	6,629 ± 481	2.78 ± 0.27	18,429 ± 2,285
Raccoon	12,155 ± 418	10.39 ± 1.03	126,290 ± 13,469
Opossum	8,074 ± 488	6.70 ± 0.74	54,096 ± 6,876
Red fox	2,829 ± 373	3.05 ± 0.54	8,628 ± 1,934
Gray fox	1,936 ± 318	1.96 ± 0.30	3,795 ± 859
Beaver	1,922 ± 317	3.49 ± 0.74	6,708 ± 1,826
Striped skunk	3,203 ± 391	3.16 ± 0.54	10,121 ± 2,149
Weasel	239 ± 118	1.06 ± 0.12	253 ± 129
Coyote	1,728 ± 303	2.33 ± 0.46	4,026 ± 1,078

[a] ± 95% confidence interval.

Table 15. Distribution of harvest among effective trappers for 8 species of furbearers in Illinois, 1982-83, from post-season resident trapper mail survey.

Total season catch	Percentage of effective trappers for species							
	Mink (445)[a]	Opossum (542)	Red fox (190)	Gray fox (130)	Beaver (129)	Striped skunk (215)	Weasel (16)	Coyote (116)
1	44.04	17.34	48.42	56.92	43.41	36.74	93.75	63.79
2	18.20	17.53	17.37	21.54	17.05	25.58	6.25	9.48
3	14.16	10.70	8.42	9.23	8.53	15.35	--	6.03
4	7.64	10.89	8.42	7.69	6.97	7.90	--	6.90
5	6.52	8.67	2.63	0.77	6.97	2.79	--	4.31
6	2.02	4.43	1.58	0.77	5.43	1.86	--	1.73
7	1.81	2.95	3.16	0.77	0.78	1.39	--	3.45
8	0.90	3.69	3.16	0.77	2.32	0.47	--	0.86
9	0.45	1.66	1.58	--	2.32	1.86	--	--
10	1.81	5.35	1.58	--	1.55	0.47	--	1.73
11	0.67	1.48	--	0.77	--	0.93	--	0.86
12	0.45	2.77	2.10	0.77	0.78	0.47	--	--
13	0.45	0.92	--	--	--	0.93	--	--
14	--	0.74	--	--	--	0.93	--	--
15	0.22	2.77	--	--	0.78	0.93	--	--
16-20	0.22	2.95	1.05	--	1.55	0.93	--	0.86
21-25	0.22	1.29	--	--	0.78	--	--	--
> 25	0.22	3.87	0.53	--	0.78	0.47	--	--

[a] Numbers in parentheses indicate sample size for species.

Table 16. Distribution of pelt sales by trappers for 10 species of furbearers in Illinois, 1982-83 season, from post-season resident trapper mail survey (n = 1,046).

Species	Total number of pelts sold	Total number of pelts sold in Illinois	Percent sold in Illinois	Total number of pelts sold outside of Illinois	Percent sold outside of Illinois
Muskrat	19,271	18,939	98.28	332	1.72
Mink	1,204	1,166	96.84	38	3.16
Raccoon	8,247	7,766	94.17	481	5.83
Opossum	2,545	2,393	94.03	152	5.97
Red fox	552	521	94.38	31	5.62
Gray fox	241	225	93.36	16	6.64
Beaver	381	334	87.66	47	12.34
Striped skunk	147	141	95.92	6	4.08
Weasel	8	6	75.00	2	25.00
Coyote	250	221	88.40	29	11.60
Total or Average	32,846	31,712	96.55	1,134	3.45

Table 17. Summary of non-target dog catches by trappers in Illinois, 1977-78 through 1982-83 seasons, from post-season resident trapper mail surveys.

Season	Number of trappers sampled	Number of trappers catching dogs	Total number of dogs caught	Average number of dogs caught	Estimated percent of all trappers catching dogs	Estimated total caught by all trappers
1977-78	983	63	103	1.63	6.41	1,818
1978-79	964	84	141	1.68	8.71	2,855
1979-80	1,044	95	161	1.69	9.10	3,297
1980-81	1,041	85	119	1.40	8.17	2,270
1981-82	No data		No data		No data	
1982-83	1,068	137	203	1.48	12.83	3,040
5-yr. averages	1,020	93	145	1.58	9.04	2,656

Table 18. Summary of fur hunting activities of trappers in Illinois, 1982-83 season, from post-season resident trapper mail survey (n = 999).

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	197	2,224	11.29	19.72	35,654
Opossum	56	241	4.30	5.61	3,861
Red fox	24	85	3.54	2.40	1,359
Gray fox	8	18	2.25	0.80	288
Striped skunk	9	14	1.56	0.90	225
Coyote	39	90	2.31	3.90	1,444
All species	280	2,672	9.54	28.03	42,831

Table 19. Summary of muskrat trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 730; 747; 696; 691).

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
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
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

[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 1982-83, from post-season resident trapper mail survey (n = 419; 501; 471; 445).

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	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
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
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 21. Summary of raccoon trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 755; 756; 815; 816).

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)	10.48	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
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
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 22. Summary of opossum trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 374; 446; 549; 542).

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]	4.17	2.68(±0.38)[b]	9,151	(33.36)[a]	11.18
1980-81	3,832	(45.29)	4.68	3.60(±1.12)	13,806	(36.58)	16.87
1981-82	5,266	(56.10)	6.43	4.34(±0.53)	22,841	(42.03)	27.91
1982-83	4,543	(56.27)	5.55	6.13(±1.03)	27,892	(51.56)	34.08
SOUTHERN ZONE							
1979-80	4,186	(55.08)	6.52	4.37(±0.62)	18,281	(66.64)	28.46
1980-81	4,630	(54.71)	7.21	5.17(±0.66)	23,935	(63.42)	37.26
1981-82	4,120	(43.90)	6.41	7.65(±1.11)	31,504	(57.97)	49.04
1982-83	3,531	(43.73)	5.50	7.42(±1.02)	26,204	(48.44)	40.79
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 23. Summary of red fox trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 175; 180; 187; 190).

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
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
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 24. Summary of gray fox trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 146; 139; 145; 130).

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
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
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 25. Summary of beaver trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 131; 158; 142; 129).

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
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
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 26. Summary of striped skunk trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 258; 240; 179; 215).

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
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
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 27. Summary of weasel trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 16; 17; 11; 16).

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
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
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

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 28. Summary of coyote trapper and harvest data for furbearer management zones in Illinois, 1979-80 through 1982-83, from post-season resident trapper mail survey (n = 102; 101; 129; 116).

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]	1.09	4.86(±4.84)[b]	4,350 (59.44)[a]	5.32
1980-81	797 (41.58)	0.97	4.10(±4.06)	3,264 (57.14)	3.99
1981-82	855 (38.76)	1.04	1.92(±0.55)	1,644 (31.07)	2.01
1982-83	551 (31.90)	0.67	1.92(±0.55)	1,059 (26.30)	1.29
SOUTHERN ZONE					
1979-80	1,179 (56.86)	1.84	2.52(±1.12)	2,968 (40.56)	4.62
1980-81	1,120 (58.42)	1.74	2.19(±0.44)	2,449 (42.86)	3.81
1981-82	1,350 (61.24)	2.10	2.70(±0.65)	3,648 (68.93)	5.68
1982-83	1,177 (68.10)	1.83	2.52(±0.63)	2,967 (73.70)	4.62
STATEWIDE					
1979-80	2,073	1.42	3.53(±2.18)	7,318	5.01
1980-81	1,917	1.31	2.98(±1.71)	5,713	3.91
1981-82	2,205	1.51	2.40(±0.45)	5,292	3.62
1982-83	1,728	1.18	2.33(±0.46)	4,026	2.76

[a] Numbers in parentheses are percentages of statewide total.

[b] 95% confidence interval.

Table 29. Sample sizes used to determine the relative abundance of mink among wildlife management units in Illinois, 1979-80 through 1982-83 seasons.

Wildlife management unit	Number of effective muskrat/mink trappers sampled	Total number of muskrats trapped	Total number of mink trapped
Northwest Hills	359	17,704	513
Northeast Moraine	197	9,269	556
Mississippi Border-North	162	4,919	244
Mississippi Border-South	303	6,631	482
Western Prairie/Forest	298	5,674	453
Central Sand Prairie	77	1,837	116
Grand Prairie	914	25,872	1,767
Southern Plain	399	5,823	778
Wabash Border	113	1,481	112
Shawnee Hills	51	675	126

Table 30. Relative abundance of mink among wildlife management units in Illinois, 1979-80 through 1982-83 seasons.

Wildlife management unit	Mean number of mink per effective muskrat/mink trapper	Number of mink trapped per 100 muskrats trapped	Percent of effective trappers in unit who caught mink	Mean annual estimated trapper$_2$mink harvest/100 km^2
Northwest Hills	1.43 (9)[a]	2.90(10)	48.43 (6)	25.25 (2)
Northeast Moraine	2.82 (1)	6.00 (8)	56.25 (1)	32.58 (1)
Mississippi Border-North	1.51 (7)	4.96 (9)	39.53 (9)	14.52 (6)
Mississippi Border-South	1.59 (5)	7.27 (5)	51.32 (5)	17.01 (3)
Western Prairie/Forest	1.52 (6)	7.98 (3)	45.94 (8)	14.42 (7)
Central Sand Prairie	1.51 (7)	6.31 (7)	47.87 (7)	12.13 (8)
Grand Prairie	1.93 (4)	6.83 (6)	53.12 (2)	15.90 (4)
Southern Plain	1.95 (3)	13.36 (2)	52.69 (4)	15.02 (5)
Wabash Border	0.99(10)	7.56 (4)	35.29(10)	8.36(10)
Shawnee Hills	2.47 (2)	18.67 (1)	52.86 (3)	11.24 (9)

[a] Numbers in parentheses indicate rank among units.

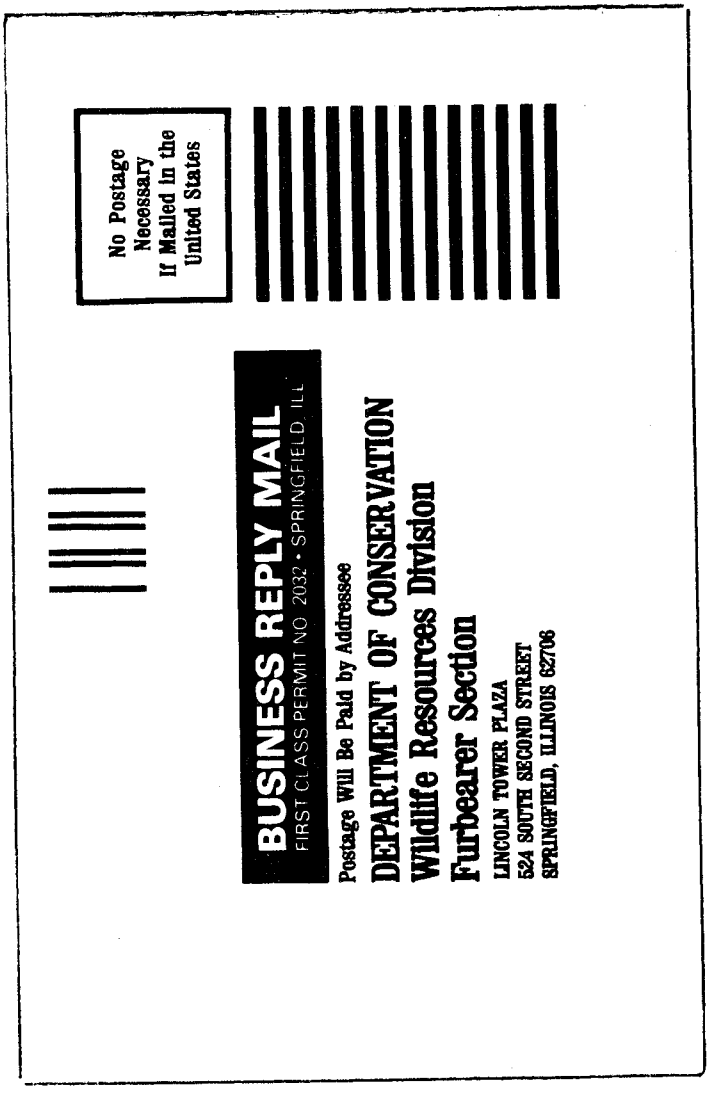


Figure 1. Mail survey address card issued to license vendors in 1982-83 post-season trapper mail survey.

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 1982-83 post-season trapper mail survey.

Illinois Department of Conservation
life and land together

LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62706
CHICAGO OFFICE - ROOM 100, 160 NO. LASALLE 60601
David Kenney, Director • James C. Helfrich, Assistant Director

1 1982-83

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 1981-82 season, there were 757,195 pelts sold by Illinois fur-takers for a value to them of $10,106,561. We need information on the trapped portion of the catch for the 1982-83 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,

George Hubert, Jr.

George Hubert, Jr.
Furbearer Biologist

GH:gh
Encl.

Figure 3. Letter of transmittal sent with initial mailing in 1982-83 post-season trapper mail survey.

Illinois Department of Conservation
life and land together

LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62706
CHICAGO OFFICE - ROOM 100, 160 NO. LASALLE 60601
David Kenney, Director • James C. Helfrich, Assistant Director

2

Dear Illinois Trapper:

Recently we mailed to you a Trapping 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 resource.

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,

George Hubert, Jr.

George Hubert, Jr.
Furbearer Biologist

Figure 4. Letter of transmittal sent with first follow-up mailing in 1982-83 post-season trapper mail survey.

Illinois Department of Conservation
life and land together

605 WM. G. STRATTON BUILDING • 400 SOUTH SPRING STREET • SPRINGFIELD 62706
CHICAGO OFFICE – ROOM 100, 160 NO. LASALLE 60601
David Kenney, Director • James C. Helfrich, Assistant Director

3

Dear Illinois Trapper:

This is to remind you that we still would 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 co-operating 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 ir 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,

George Hubert, Jr.

George Hubert, Jr.
Furbearer Biologist
Division of Wildlife Resources

Figure 5. Letter of transmittal sent with second follow-up mailing in 1982-83 post-season trapper mail survey.

NO
Postage Stamp
Necessary
If Mailed in the
United States

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 2032, SPRINGFIELD, IL

POSTAGE WILL BE PAID BY ADDRESSEE

Illinois Department of Conservation
Div. of Fish & Wildl. Resources — Furbearer
Lincoln Tower Plaza
524 South 2nd Street
Springfield, Illinois 62706

FURBEARER TRAPPING SURVEY
1982-83 SEASON

1. Did you trap for furbearers in Illinois during the 1982-83 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. Did you buy an Illinois Trapping license last year (1981-82 season)? Yes ☐ No ☐
6. Please fill in **all three blanks** for each kind of furbearer you trapped in Illinois during the 1982-83 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 accidentally catch any dogs in your traps during the 1982-83 season? Yes ☐ No ☐
   If yes, please list the number caught and released:
   Number of dogs caught in traps _____
   Number of dogs released unharmed _____
8. Did you also HUNT furbearers with gun and/or dogs during the 1982-83 season? Yes ☐ No ☐
   If yes, please give the number of each kind taken:
   Raccoon _____ Red Fox _____ Skunk _____
   Opossum _____ Gray Fox _____ Coyote _____

THANK YOU FOR YOUR COOPERATION!!!
NO POSTAGE REQUIRED

Figure 6. Questionnaire form for post-season mail survey of Illinois trappers, 1982-83 season.

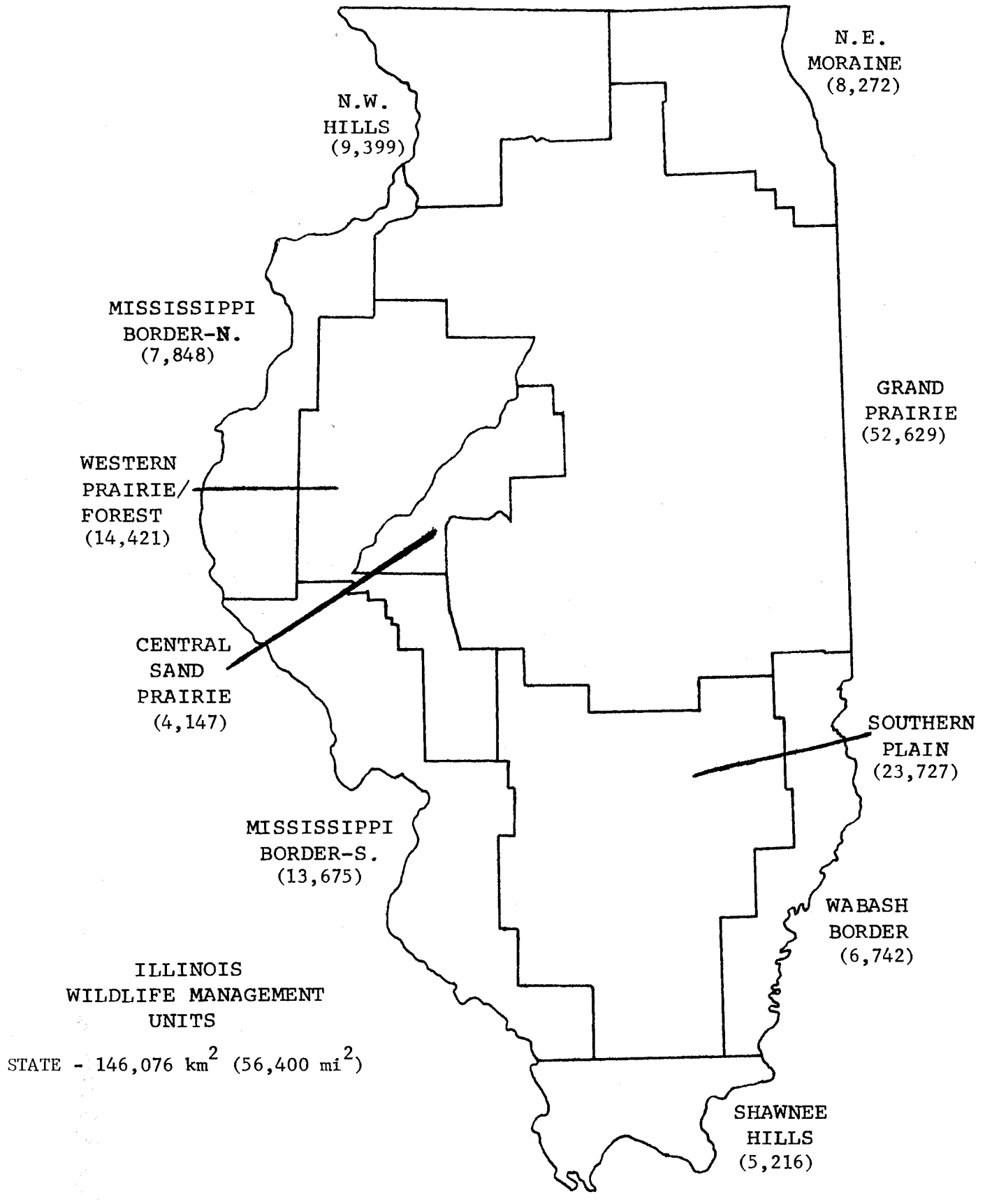


Figure 7. Area (km^2) of wildlife management units in Illinois.

Figure 8. Furbearer management zones for the 1982-83 season.

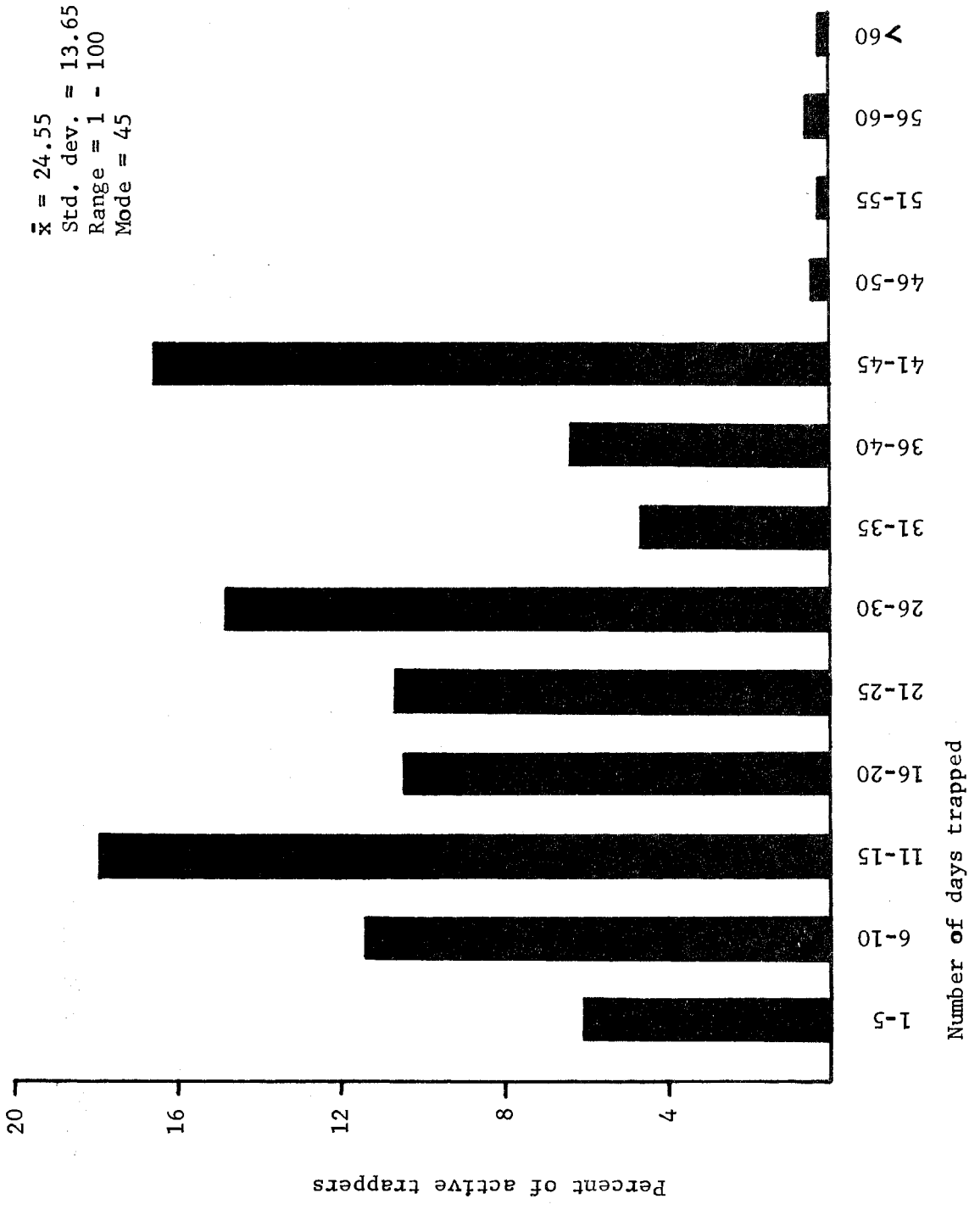


Figure 9. Distribution of days trapped per active trapper in Illinois, 1982-83 season (n = 959).

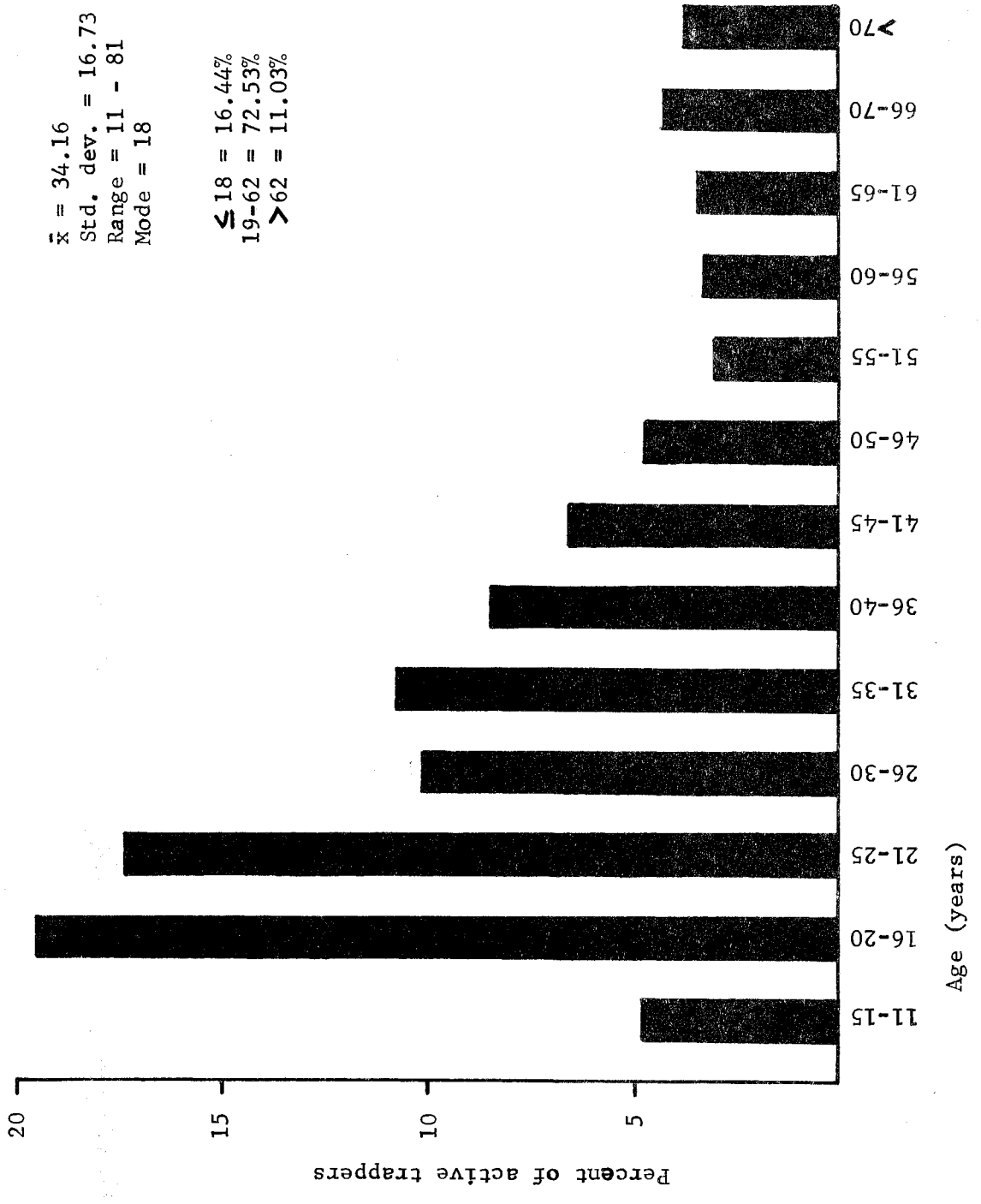


Figure 10. Age of active trappers in Illinois, 1982-83 season (n = 961).

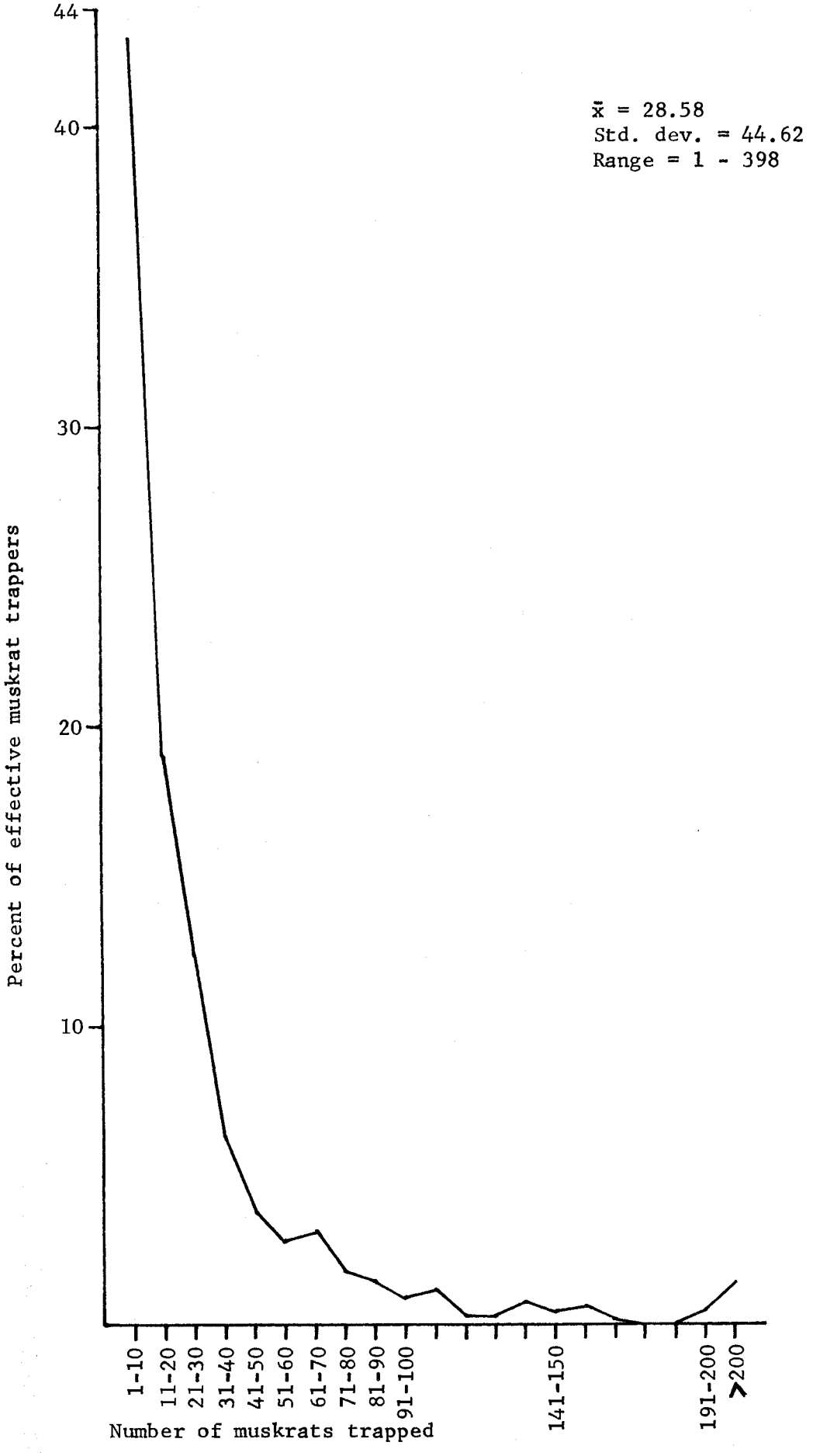


Figure 11. Distribution of muskrats trapped per effective muskrat trapper in Illinois, 1982-83 season. (n = 691)

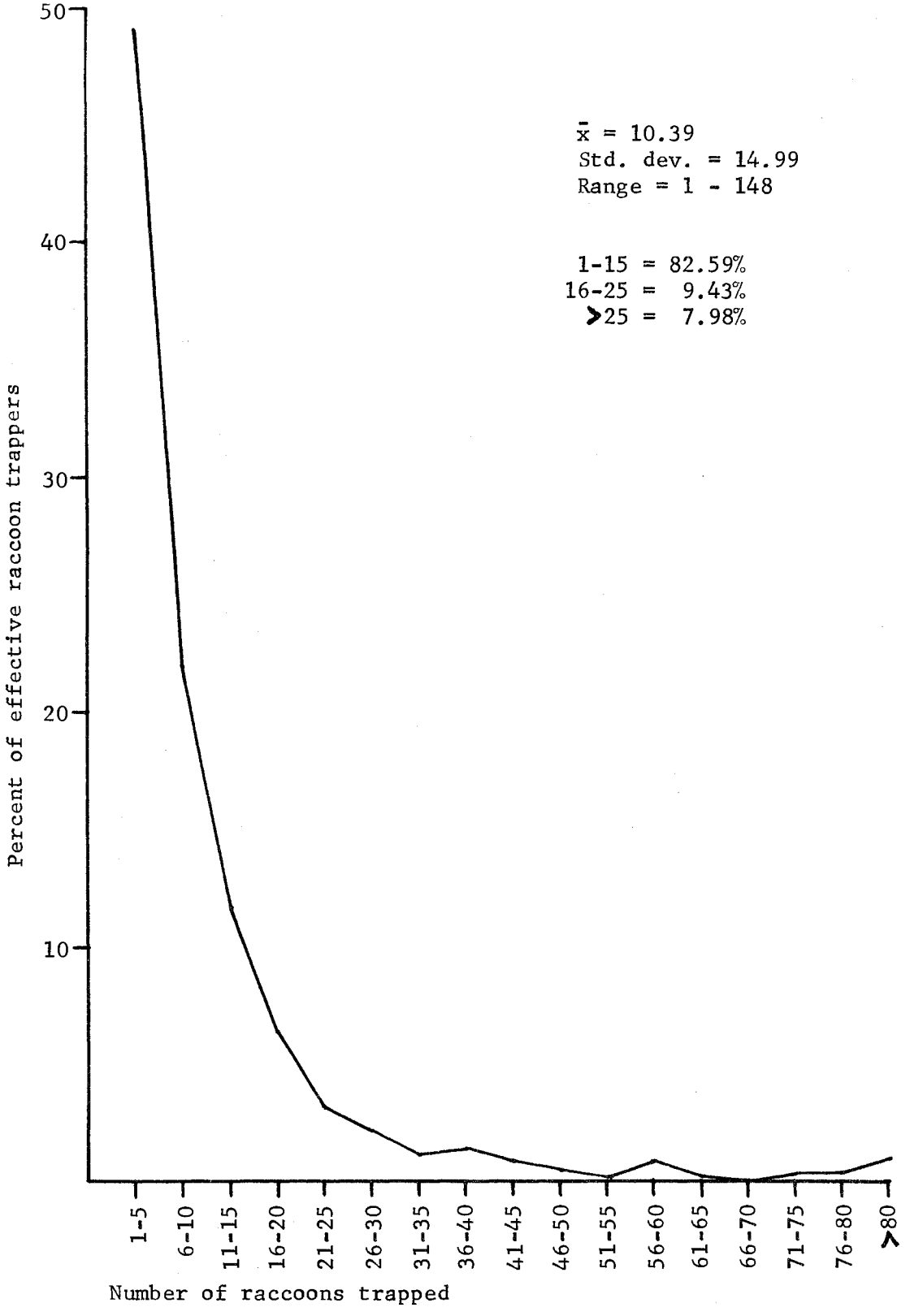


Figure 12. Distribution of number of raccoons trapped per effective raccoon trapper in Illinois, 1982-83 season (n = 816).

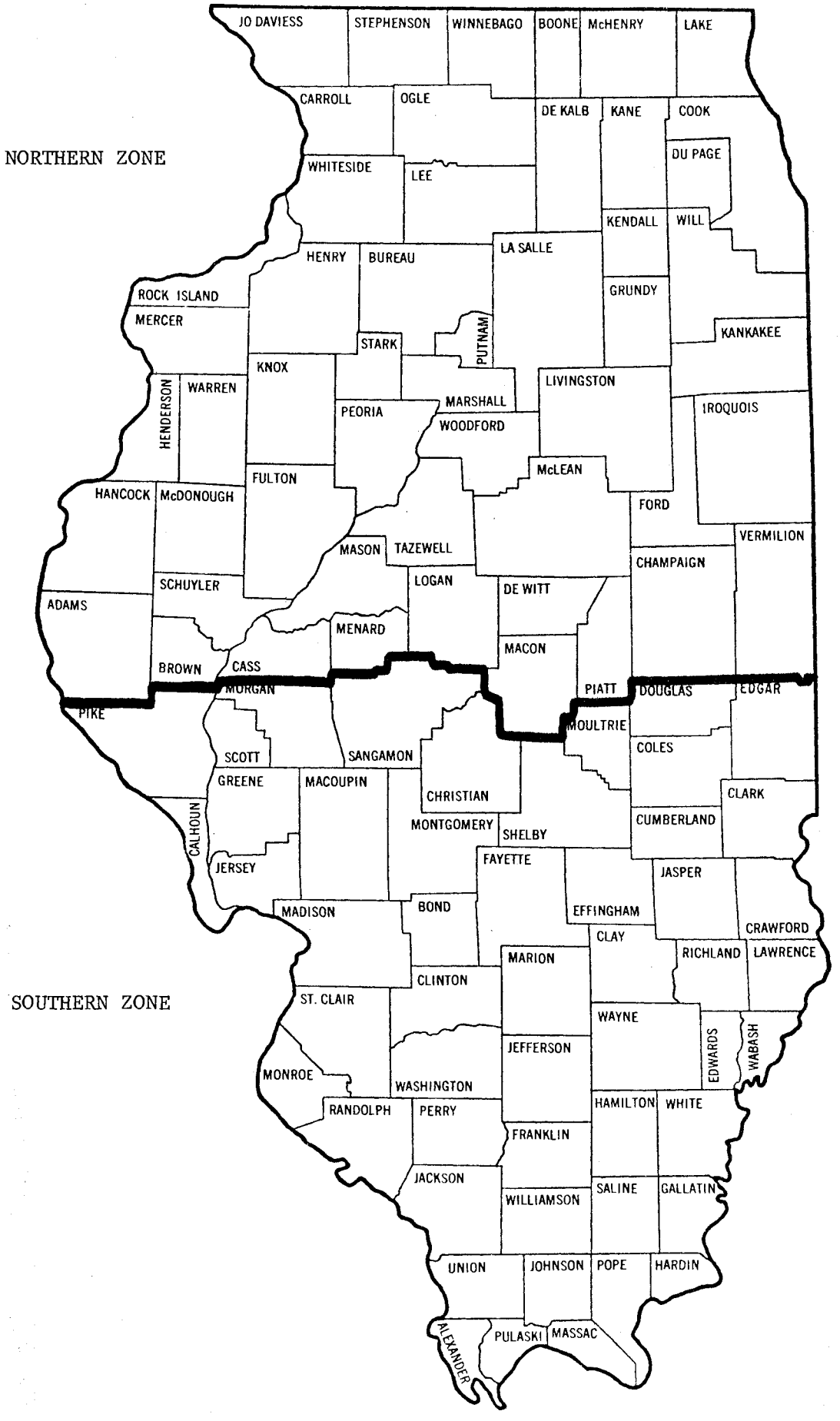


Figure 13. Existing furbearer management zones (based on county boundaries) used to prepare 1979-80 through 1982-83 season data summaries.

UNIVERSITY OF ILLINOIS-URBANA
639.109773T689 C001
TRAPPER HARVEST SURVEY SPRINGFIELD, ILL
1982/83
3 0112 017685253