A SURVEY OF FURBEARERS AND TRAPPERS IN OKLAHOMA

By

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FURBEARER DATA

Introduction

For effective management of Oklahoma's furbearers, information must be available concerning the status and distribution of both the furbearing animals and the fur harvesters. Data concerning a number of characteristics of wildlife habitats, populations, harvests, and markets must be available for evaluation at appropriate intervals. Regulations relating to the fur harvest may be better enforced if the Oklahoma Department of Wildlife Conservation knows who the fur takers are, where they are, the number of animals (by species) they take, how they may be contacted, the reasons that they are engaging in the fur harvest, and their perceptions and preferences regarding alternative management strategies. With an adequate flow of information, regulations designed to maximize the society's benefits from wildlife resources can be developed.

There are no provisions for regularly monitoring Oklahoma's furbearer resources. Furbearer populations are not routinely estimated. Furbearer habitats are not evaluated. The last comprehensive survey of the furbearer harvest was completed in 1944 (Duck and Fletcher, 1944). The intervening years have seen numerous environmental and social changes that can be expected to bear heavily upon the furbearing resources in the state.

Oklahoma's trapping regulations are in need of review. Low rates of compliance with certain existing regulations such as trapper and dealer reports and commercial furtakers licensing rules are cited in this connection. Moreover, there is uncertainty surrounding the abundance of certain species, most notably fox and bobcat. Wildlife managers are also faced with substantial public and legislative pressures from special interest groups concerning issues such as humane trapping technologies, endangered species, and control of predators and nuisance species.

The present study examines several aspects of furbearer resources in Oklahoma. Existing data on the fur harvest are organized and displayed to aid in answering such questions as:

-what species are sold, in what numbers, to whom and in what condition?

-where are furs harvested and where are they sold?

-what changes have taken place in the patterns of fur sales since 1944?

Secondly, new data on furtakers were obtained to develop a profile of their socio-economic characteristics, their target species, their success rates, their persistence, their attitudes towards alternative management strategies, and other characteristics.

Finally, regulations from other states are reviewed. Because it is believed that knowledge of other states' experiences can be useful when making recommendations regarding changes in the regulations of Oklahoma's fur harvest.

Review of the Literature on Furbearer Data

The importance of current information for proper furbearer management is stressed by several authors (Davis, 1938; Wade, 1939; Gibbons, 1947; Anderson, 1976). There are four methods commonly used by state wildlife agencies in obtaining fur harvest data for large areas. They are: (1) fur dealer reports - required reports submitted by licensed fur dealers containing information on purchases made during the season; (2) fur trapper reports - information regarding the season's take that is required by regulation to be submitted by licensed trappers; (3) fur trapper questionnaires - voluntary information supplied by trappers on forms delivered in person or by mail; (4) fur tagging systems - tags required to be attached to pelts of animals taken during the trapping season indicating the location of harvest.

Fur Dealer Reports

Several authors contend that dealer reports offer the least expensive and best method of obtaining data on the fur harvest. Leuth (1956, p. 131) observed that "dealers reports can give information on numbers of furs taken, value of furs taken, and seasonal variations in the value of furs." He also states that "dealers reports reveal trends in the numbers and values of the furs harvested and permits a study of the catch of the individual." (p.131) Presumably, the relatively small number of dealers makes enforcement of reporting requirements feasible.

However, sources of error in estimating fur harvest from fur dealer reports are addressed by several authors. Bennitt and Nagle

(1937) attributed the largest error source in dealers' records to the double counting of furs by dealers. They estimate that 30 per cent of the furs were handled by two or more dealers. David (1938) also cites this source of error.

Another problem associated with using dealer reports in monitoring the harvest has to do with the migration of furs. It is common for furs to be marketed across the state borders without first being recorded by furdealers within the state, thereby reducing the value of the records for management purposes. David (1938) asserted that the percentage of furs shipped out-of-state was a function of local market prices. Wilson (1957) contended that most of the out-of-state shipments were made from counties where not enough furs were taken to attract full-time buyers (Table I).

TABLE I

PERCENTAGE OF FURS SHIPPED OUT-OF-HOME-STATE

Author	State	Per Cent Shipped
Bennitt and Nagle (1937)	Missouri	15
Davis (1938)	Vermont	25 - 50
Wade (1939)	Pennsylvania	18
Brown and Yeager (1943)	Illinois	40
Duck and Fletcher (1944)	Oklahoma	25
Wilson (1957)	North Carolina	20
Adams (1960)	North Dakota	7

Dealer repors also fail to account for "trash" pelts; those pelts which are so badly damaged that they are unsaleable (Davis, 1938). It appears that this omission has the effect of underestimating the total fur harvest by about 10 per cent (Bennitt and Nagle, 1937; Krefting and Fletcher, 1940).

Lack of dealer compliance with reporting regulations may also be considered a source of error. However, this is one problem that can be eliminated through proper law enforcement (Krefting and Fletcher, 1940).

Trapper Reports

Reports submitted by licensed trappers during or at the end of each trapping season may be used to estimate the fur yield for a region to reveal marketing patterns (including the number of furs sold out-of-state) and to provide information on individual catch data.

Mohr (1943) was of the opinion that trapper reports may best be used to indicate trends over a period of years because the percentage of licensed trappers who report is low and varies annually. He found that over a 10 year period, during which trapper reports were required, the percentage of reporting trappers ranged from 10 to 23. Wilson (1953) agreed that reports are best used to provide information on the trend and composition of the annual catch, but he noted that the information may not be sufficiently accurate enough to provide an estimate for any one year. However, Wilson believes that reliable estimates over time can be developed since the same quality of information is provided by the same group of people (and roughly the same individuals). Others disagree, citing that the turnover in trappers is quite high.

For instance, Nichols (1975) found that over 50 per cent of licensed trappers from the previous season did not trap the following season. Leuth (1956) found this percentage to be approximately 33.

Another problem is that in many states a large proportion of furs are taken by unlicensed trappers. Adams (1964) found that the majority of furs taken annually in North Dakota are taken by unlicensed trappers. Mohr (1943) discovered that the ratio of unlicensed trappers to licensed trappers was 1.5 to 1 in Missouri.

Trapper Questionnaires

Another method of obtaining fur harvest data is to use trapper questionnaires that are administered in person or delivered by mail. Leuth (1956, p. 130) found that questionnaires may "not only provide information on number of furs taken; but also information on the value of the fur and the amount of time and money expended in getting the information."

Non-response to mail survey questionnaires is a major problem. Returns from mail survey questionnaires rarely exceed 40 per cent (Table II). Response bias is also a problem. Leuth (1956) believed that there is a tendency for the "better trappers" to answer and return the questionnaires. Other authors, also of this opinion, recommend that a correction factor be applied to the data so that it may be used as a more reliable measure of the fur harvest.

Difficulty in contacting trappers and the accuracy of information received in personal interviews present problems. In conducting personal interviews with trappers, Atwood (1938, p. 20) found that "some were loath to give information concerning their catch because they had

TABLE II

PERCENTAGE OF MAIL SURVEY QUESTIONNAIRES RETURNED

Author	State	Per Cent Returned
Adams (1964)	North Dakota	34
Colorado (1950)	Colorado	32
Leuth (1954)	Alabama	28
McKnight (1975)	Alaska	40

trapped without a license. Because of this many trappers refused to give any information." Wade (1939, p. 252) states that "Due to poor memory, trappers usually cannot furnish reliable data on the numbers of species trapped during past seasons." However, a more recent investigator (Nichols, 1975, p. 40) believes that "the ability of the trappers to remember details of the previous trapping season and to relate this information . . . seemed adequate . . . and the data . . . is sufficiently accurate." In Colorado (1952) the total number of animals taken and reported in trapper questionnaires exceeded the total from the fur dealer reports by 24,198 animals.

Tagging Systems

Tagging systems have been used by state wildlife agencies as a source of information concerning the number and composition of furs being marketed each year and as a source of revenue. Several state departments require that tags be put on all animals being shipped

out-of-state and/or on specific species within the state. Lay (1943) noted that

> for several years Texas tried a tag system which required that each pelt shipped out of the State have a tax tag attached, but evasion of the tax proved easier than enforcement. A similar system has also failed in Louisiana. (p. 309)

In 1956, Alabama required all furs to be tagged before they were marketed. Leuth (1956) found this system useful in providing information on the number of furs taken, but added that misinterpretation often resulted because tags specified for one species were often applied to others. Leuth (1956, p. 130) states that another disadvantage of a tagging system is that "the figures are often not available from the auditing section until after the fur season has been set for the following year." In 1953, Idaho required certain species to be tagged by an officer of the Fish and Game Department before they were sold. Williams (1953) reports that

> it was thought that these tagging records would provide an accurate total catch figure since theoretically all pelts of these species, including those taken by trappers who did not report, would be accounted for. However, it was found that the figures from the tagging records were, in all cases, considerably less than the reported catch, and their use was abandoned. (p. 2)

Specific data needs dictate the use of a fur harvest data collection method. That is, all four of the methods discussed may be used to gain information on the number and value of furs harvested but the additional information each method provided differs substantially (Table III).

However, fur dealer reports are the most widely employed and highly acclaimed method of gaining information on the number and value of furs harvested for a season, and trapper questionnaires seem to

TABLE III

ADVANTAGES AND DISADVANTAGES OF FOUR METHODS
USED TO COLLECT FUR HARVEST DATA

Method	Advantages	Disadvantages
Fur Dealer Reports	provides information on number and value of furs taken and seasonal variations; permits study of individual catch; relatively inexpensive and simple to enforce.	non-compliance; incomplete or inaccurate information submitted; double-counts (resold furs); furs not counted (e.g., out-of-state sales).
Fur Trapper Reports	reveal marketing patterns; provides information on the number and value of furs taken; permits study of individual catch; relatively inexpensive; allows input from trappers to state wildlife agency.	non-compliance; incomplete or inaccurate information submitted; difficult to enforce.
Trapper Questionnaire	provides information on the number and value of furs taken; permits study of individual catch; marketing behavior insight is provided; allows input from trappers to state wildlife agency; provides information on trapper characteristics (persistance, effort).	non-compliance; biased return; inaccurate or incomplete information; expensive and time consuming; difficult to contact trappers.
Tagging Systems	provides information on the number, composition, and distribution of furs taken; source of revenue; reveals marketing patterns.	non-compliance; time consuming (issuance and enforcement); is not practical for all species.

offer the best method of obtaining information on the trappers and the trapping process itself. (Note that these two methods are employed in this study.)

Chapter II of this study focuses on the methodology used in this study. Chapter III deals with various characteristics of Oklahoma fur harvesters and with aspects of the fur trade in Oklahoma including patterns of fur sales, the structure and geography of the Oklahoma fur trade, and characteristics of fur dealers. Chapter IV summarizes regulations of other states and discusses trapping regulations in Oklahoma. Recommendations concerning reporting and licensing procedures are made in Chapter V.

CHAPTER II

METHODOLOGY

Oklahoma Fur Harvesters

After the literature was reviewed concerning the relative advantages and disadvantages of questionnaires, a questionnaire was developed in order to gain some insight on Oklahoma fur trappers' characteristics. The questionnaire was designed to be brief so as to encourage response, yet sufficiently detailed to produce useful results. Information was requested concerning trapping success by species, trapping practices, marketing practices, socio-economic aspects, and opinions on fur harvest management in Oklahoma (Appendix A).

Because trappers were not requested to submit their names with the returns, color coded questionnaires were used in order that certain characteristics of non-respondents could be obtained. The 77 counties in Oklahoma were divided into 11 zones (Figure 1) based on the number of trappers, habitat regions, and area.

A postage-paid, return envelope was sent with the questionnaire and accompanying two cover letters; one explaining the project, and another from the Director of the Oklahoma Department of Wildlife Conservation requesting that the trapper cooperate with the study (Appendix A).

Addresses of trappers were procured from the 1976-77 license receipts held by the Oklahoma Department of Wildlife Conservation, and

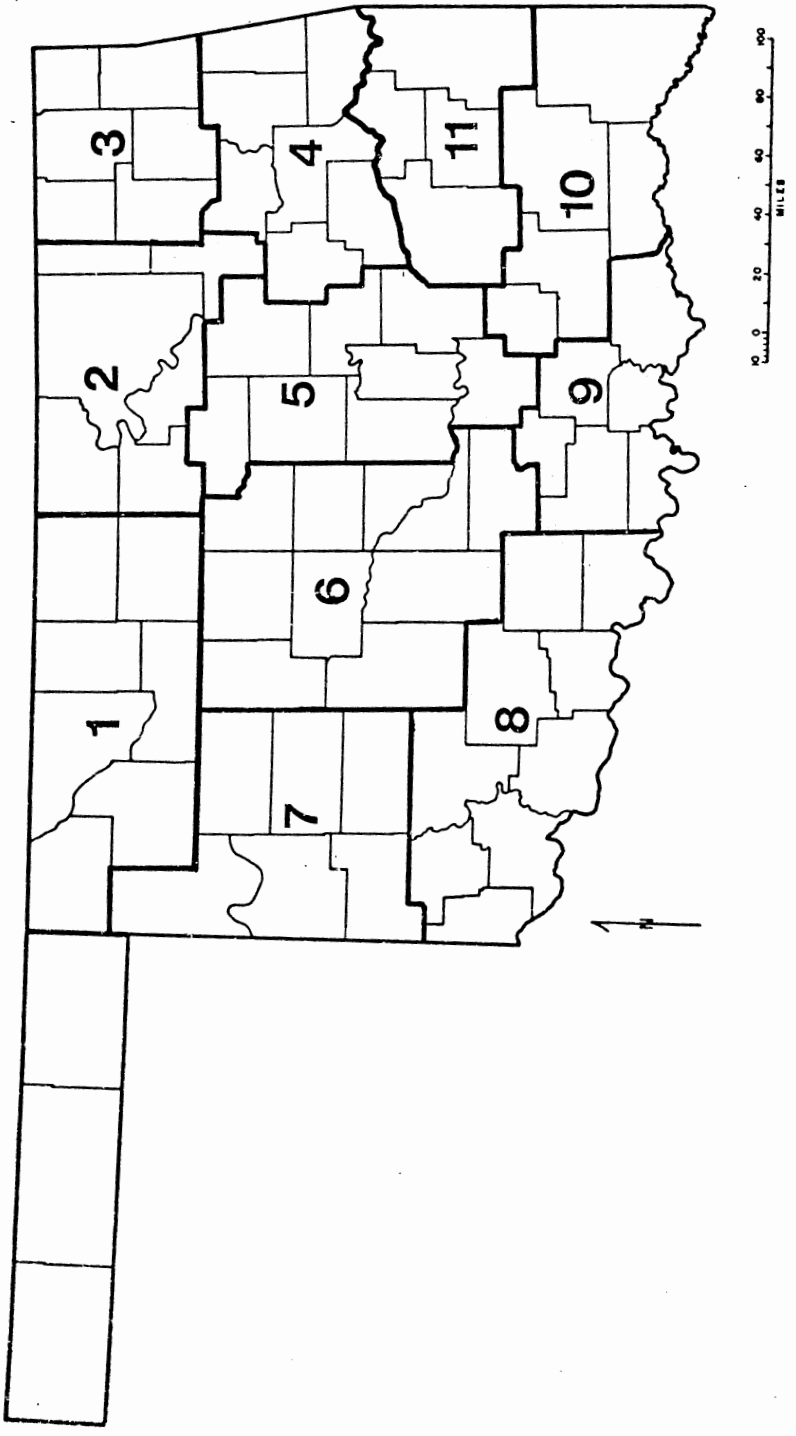

Figure 1. Questionnaire Zones

the instrument was mailed to all (1067) of these addresses on 1 September 1977 by bulk mail. Information on questionnaires returned by 1 December 1977 was analyzed and summarized.

An attempt was made to reach known non-respondents in a telephone survey. However, telephone numbers could not be obtained in sufficient numbers because many trappers are rural residents whose telephones may not be from the same town as their mail delivery. Another problem closely associated in obtaining telephone numbers was the fact that many families in an area have the same last name. From these difficulties in reaching trappers it was concluded that license receipts provided insufficiently accurate or complete information for use in obtaining either telephone numbers or mailing addresses.

To assess furtaker behavior, characteristics, and perceptions a case study was employed that attempted to supplement the dealer report and questionnaire information by interviewing trappers and dealers in two counties. Blaine and Pittsburg counties were selected because in 1976-77 they had a 100 per cent dealer report return, license receipts were available, and there was a large number of pelts sold from these counties. Trappers in these counties were personally interviewed by using the same questionnaire that was used for the mail survey. This information was then analyzed and summarized.

Oklahoma Fur Dealers

Monthly fur dealer reports for the 1976-77 trapping season (held by the Oklahoma Department of Wildlife Conservation) were analyzed with the aid of a Statistical Analysis System (SAS) program and an IBM 370

computer. Information on Oklahoma fur dealers' reports include (for each purchase made) data purchased, seller and seller's address, seller's license number (if any), the number of pelts by species, and price paid (Appendix B).

In addition, in-depth, personal interviews were conducted with dealers in Blaine and Pittsburg counties in an attempt to gain further insights into the fur trade. Dealers were asked to supply information on the marketing activities and technicalities of fur dealing, the number of trash pelts encountered, and evaluations of current management practices. The specific questions raised during the course of the interviews are indicated in Appendix C. The interviews were conducted informally without recorder or note-taking to preserve an atmosphere conducive to frank discussion. Information received was recalled and recorded immediately after the interview. The information was later edited and summarized.

CHAPTER III

RESULTS

Fur Dealer Reports

Reports submitted by dealers in 1976-77 were often incomplete. For instance, in approximately 20 per cent of the transactions, dealers did not record the seller's license number and in less than five per cent of the transactions was the seller's complete address included. However, information regarding the number and species of furs purchased and the price paid was clearly entered on all reports.

Data from the fur dealer reports indicate that pelts from a minimum of 43,500 furbearing animals were sold in Oklahoma as a result of the 1976-77 fur harvest season. The sale of these pelts generated nearly $500,000. Pelts from 6,514 animals were reported purchased from out-of-state sellers by Oklahoma fur dealers. These out-of-state pelts were not considered when the total number of pelts marketed in Oklahoma was tabulated for the 1976-77 season.

In 1976-77, raccoon and opossom pelts dominated the Oklahoma fur market in terms of numbers (Table IV), being the only species marketed in quantities over 10,000. Raccoon also dominated the market in terms of total income generated (Table V). Relatively unimportant species in the 1976-77 Oklahoma fur market in terms of both numbers (less than 1,000 marketed) and total value (less than $5,000 generated) were civet cat, badger, and mink.

TABLE IV

TOTAL NUMBER OF PELTS REPORTED AS MARKETED IN OKLAHOMA

Species	Year Marketed						
	1940-41[a]	1941-42[a]	1942-43[a]	1943-44[a]	1974-75[b]	1975-76[b]	1976-77[c]
Badger	430	208	108	509	183	183	214
Beaver	no data	no data	no data	no data	1,941	1,003	1,227
Bobcat	134	83	76	142	1,458	2,302	1,360
Civet cat	9,603	7,836	4,958	6,234	109	142	92
Coyote	2,292	1,468	1,806	2,349	6,601	8,514	5,440
Gray fox	438	1,141	898	1,475	722	1,839	995
Mink	2,272	2,003	1,846	3,775	356	595	311
Muskrat	6,725	6,638	7,810	9,279	3,235	4,201	2,350
Opossum	220,825	220,912	222,903	182,210	23,393	34,333	11,977
Raccoon	3,099	3,226	3,350	4,843	24,749	43,499	17,666
Striped skunk	80,564	71,443	54,148	67,013	2,993	2,651	1,884
Total	326,382	314,958	297,903	277,929	65,740	99,262	43,516

a. Source: Duck & Fletcher, 1944.

b. Source: Oklahoma Department of Wildlife Conservation Records

c. Source: 1976-77 Oklahoma Fur Dealer Reports.

TABLE V

TOTAL MONIES GENERATED BY KNOWN SALE OF PELTS IN OKLAHOMA

Species	Year Marketed					
	1940-41[a]	1942-43[a]	1943-44[a]	1974-75[b]	1975-76[b]	1976-77[c]
Badger	430.00	129.60	788.95	1055.50	1546.50	2268.25
Beaver	no data	no data	no data	16490.32	5147.28	9106.05
Bobcat	134.00	21.38	200.22	16798.93	85822.80	75353.52
Civet cat	1842.57	1784.88	4052.10	200.56	312.55	1380.25
Coyote	2292.00	6393.24	12308.76	41786.19	74804.60	117935.00
Gray fox	569.40	1122.50	2964.75	15806.25	38012.65	25778.98
Mink	16721.92	9986.86	36240.00	2198.62	4476.75	3962.25
Muskrat	6590.50	8591.00	13911.00	6126.31	9997.20	8172.02
Opossum	44166.00	53496.72	85685.70	35831.73	37260.43	9866.70
Raccoon	6031.35	6901.06	14483.23	140256.65	373489.30	241965.92
Striped skunk	59617.36	51982.08	126654.57	7369.70	3490.06	3818.65
Total	138395.10	140409.32	297289.28	283920.76	634360.12	499607.59

a. Source: Duck and Fletcher, 1944.

b. Source: Oklahoma Department of Wildlife Conservation Records.

c. Source: 1976-77 Oklahoma Fur Dealer Reports.

Over the years there has been substantial changes in marketed furs and their value (Tables IV and VI). For example, in 1976-77, bobcat, gray fox, coyote, and raccoon were the species bringing the highest price per pelt; a price which had increased significantly since 1940-41. These species were the only ones that had increased in pelt number since 1940-41 in the Oklahoma fur market. On the other hand, the average price per pelt for badger and civet cat increased significantly since 1940-41, but the number of pelts entering the market decreased.

It is not possible to say with certainty what factors are responsible for these changes. It seems likely that one or more of the following could be responsible in specific cases:

1. market demand
2. quality of furs
3. land use
4. the availability of area to fur harvesters
5. number of fur harvesters
6. fur harvest behavior (trapping effort)
7. out-of-state sales

Nevertheless, in certain instances, the changes of fur sales and relative pelt value suggest certain conclusions about populations.

With respect to temporal shifts in geographic patterns, explanation is also difficult. However, for a given species, the market conditions are relatively homogeneous throughout the state. Therefore, I believe that shifts in geographic patterns primarily reflect changes in populations. However, changes in habitat, trapper effort, or the magnitude of out-of-state sales may also be factors.

TABLE VI

AVERAGE PRICE PER PELT IN OKLAHOMA

Species	Year Marketed					
	1940-41[a]	1942-43[a]	1943-44[a]	1974-75[b]	1975-76[b]	1976-77[c]
Badger	1.00	1.20	1.55	5.77	8.45	11.23
Beaver	no data	no data	no data	8.50	5.13	7.59
Bobcat	1.00	.28	1.41	11.52	37.28	55.61
Civet cat	.19	.36	.65	1.84	2.20	3.89
Coyote	1.00	3.54	5.24	6.33	8.79	21.89
Gray fox	1.30	1.25	2.01	21.89	20.67	26.49
Mink	7.36	5.41	9.60	6.18	7.52	12.78
Muskrat	.98	1.10	1.50	1.89	2.38	3.48
Opossum	.20	.24	.47	1.53	1.09	.84
Raccoon	1.65	2.06	3.61	5.67	8.59	13.78
Striped skunk	.74	.96	1.89	2.58	1.32	2.09

a. Source: Duck & Fletcher, 1944.

b. Source: Oklahoma Department of Wildlife Conservation Records.

c. Source: 1976-77 Oklahoma Fur Dealer Reports.

Fur Trade Patterns by Species

Badger

Badger is a relatively unimportant species in the Oklahoma fur market. Pelts reported sold in one season rarely exceed 500 in number. In 1976-77, badger ranked second lowest in both percentage of total pelts marketed and percentage of total monies generated. The majority of pelts were sold in the western half of Oklahoma (Figure 2).

Populations of badgers appear to be declining in Oklahoma; in 1940-41, 430 badger pelts were marketed compared to 214 in 1976-77. However, the geographic shifts in marketing patterns (from 1940-41 to 1976-77) suggest that badgers are extending their range somewhat into the central portion of Oklahoma. Also, an increase in pelt sales has taken place in the southwestern portion of the state while there has been a decrease in the northwestern portion of Oklahoma.

Beaver

There are no records of beaver marketed in Oklahoma in the early 1940's (Table IV). In the past three years, the sale of beaver pelts in the Oklahoma fur market has been relatively unimportant in terms of total monies generated and total numbers marketed (in 1976-77, 1227 beaver pelts were sold generating $9,106.05) with no trend evident. The majority of beaver pelts are marketed by persons residing in the eastern half of the state. However, they are sold in small quantities throughout the west-central portion of the state (Figure 3).

NUMBER OF BADGER PELTS MARKETED

OKLAHOMA COUNTIES

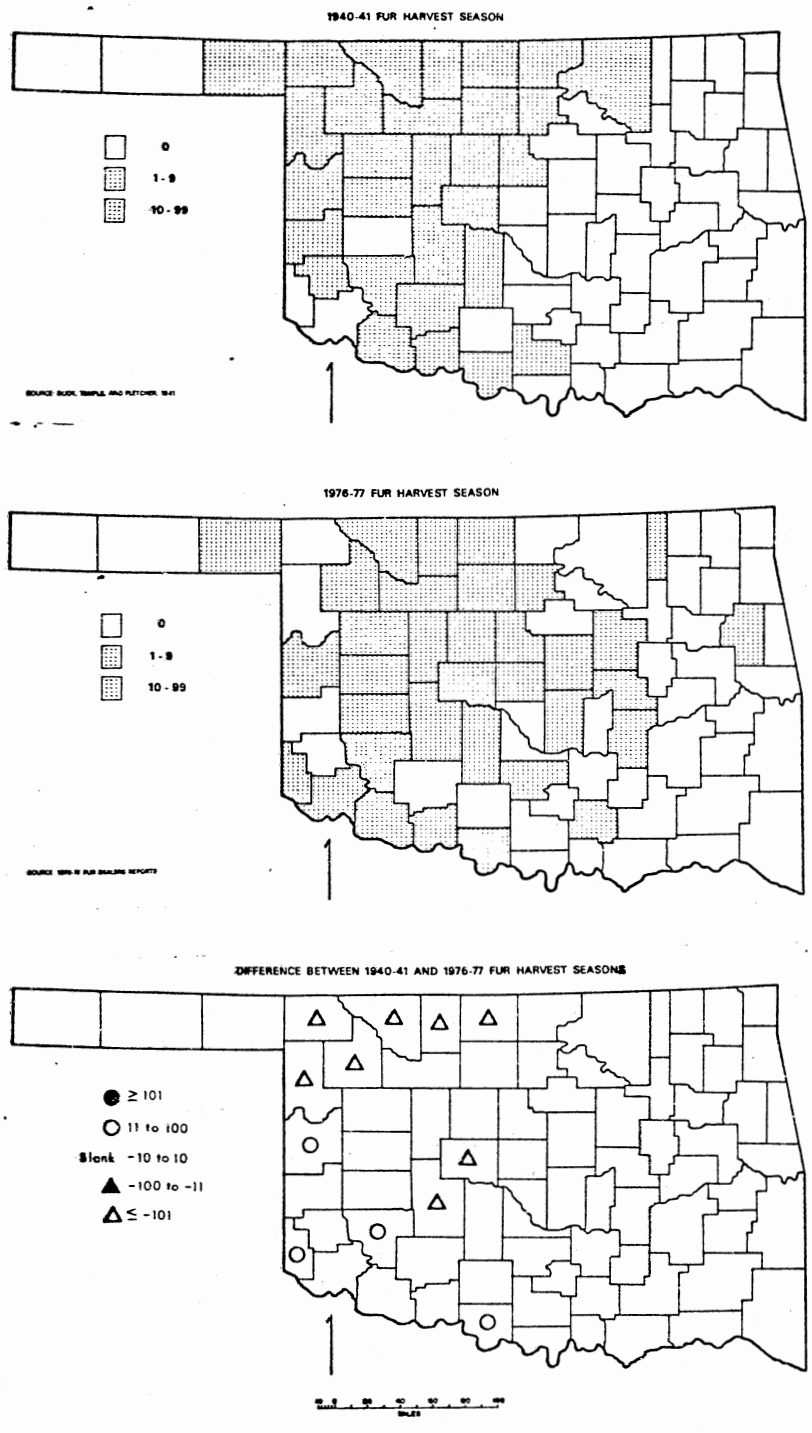

Figure 2. Number of Badger Pelts Marketed

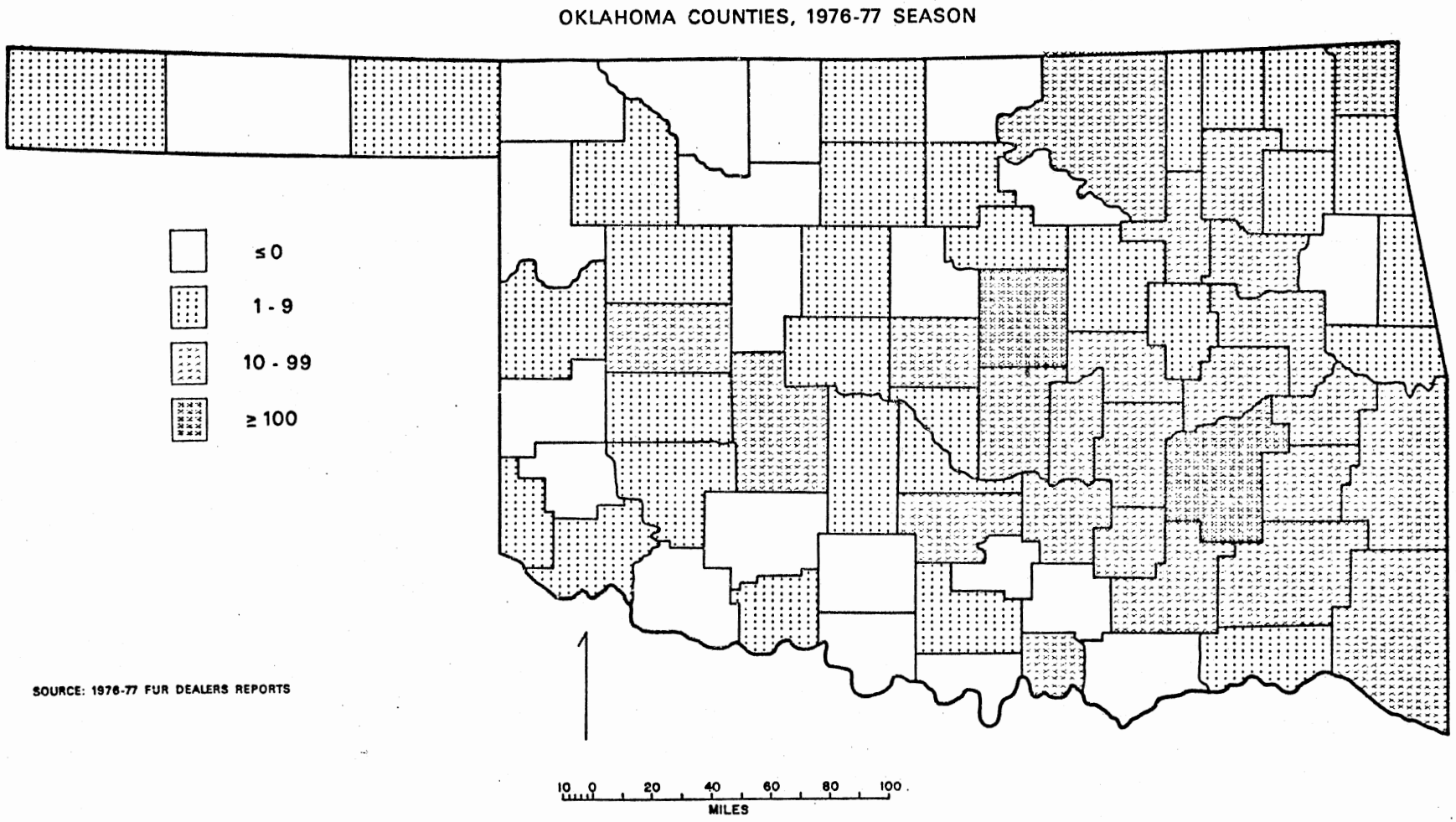

Figure 3. Beaver Pelts Purchased By Oklahoma Fur Dealers

Bobcat

The number of bobcat marketed in Oklahoma has increased sharply in the past few years; in 1940-41, 134 bobcat pelts were sold while in 1976-77 1360 pelts were sold. The average price of bobcat pelts in Oklahoma has increased from $1 in 1940-41 to $37.28 to in 1976-77, and the bobcat is becoming increasingly important in terms of total monies generated. It seems likely that this increase is the result of changes in the market conditions. However, in 1940-41, there were many portions of the state that did not produce bobcat pelts for the Oklahoma market, while in 1976-77, bobcat pelts were sold in moderate numbers throughout Oklahoma. The southeastern, southwestern, and central portions of the state show the greatest increase in bobcat pelt sales over the 36 year span (Figure 4).

Civet Cat (Spotted Skunk)

The number of civet cat pelts sold in Oklahoma has decreased significantly over the years; over 9000 civet cat pelts were sold in 1940-41, compared to 92 marketed in the 1976-77 Oklahoma fur market. The average price has increased steadily since 1940-41, with the high price being slightly less than $4 in 1976-77.

In 1940-41, civet cats were sold throughout Oklahoma in moderate to large quantities with the heaviest concentrations being in the north central region. However, in 1976-77, the majority of civet cat pelts in the Oklahoma market originated in the eastern portion of the state with the north central portion supplying very few civet cat pelts. A decline in the civet cat population throughout Oklahoma (Figure 5), but

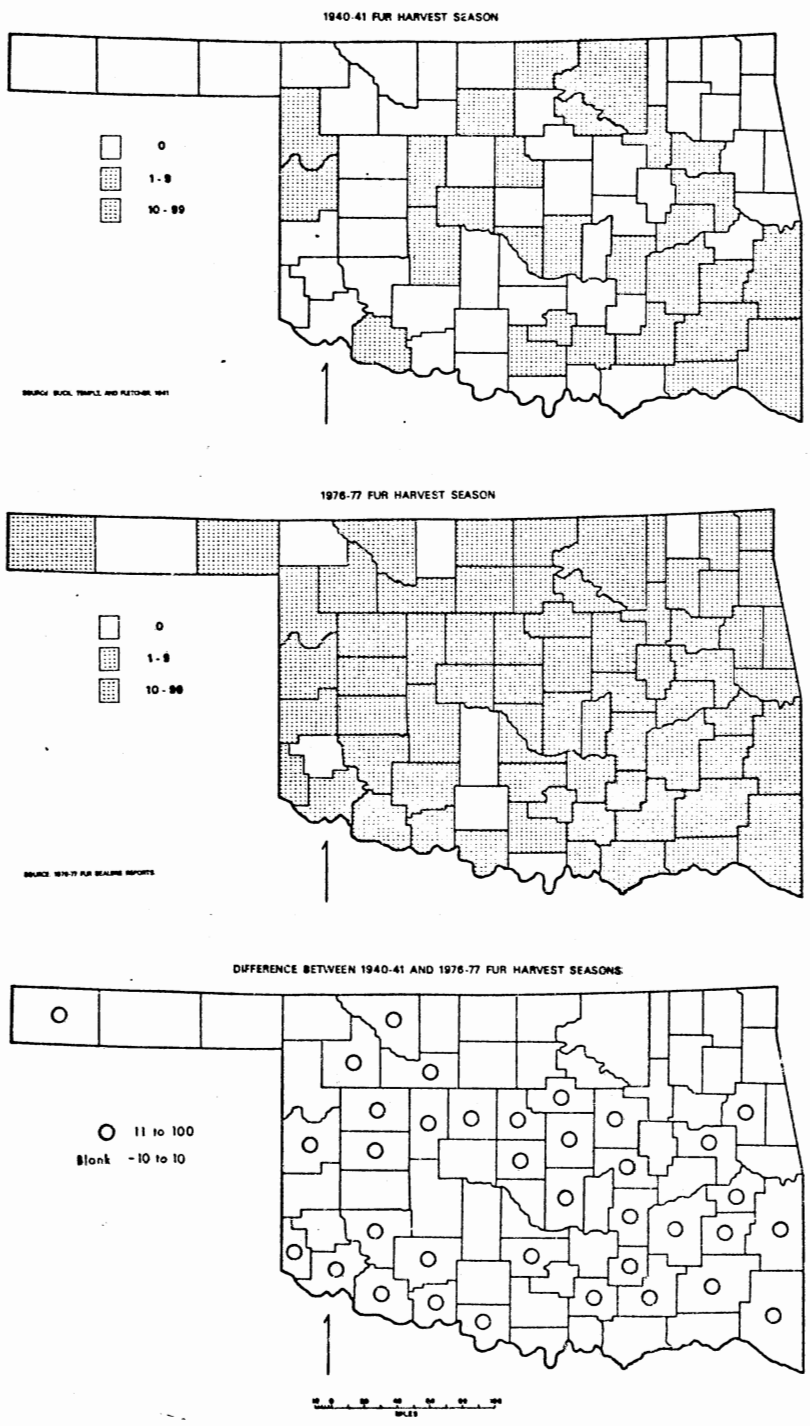

Figure 4. Number of Bobcat Pelts Marketed

NUMBER OF CIVET CAT PELTS MARKETED

OKLAHOMA COUNTIES

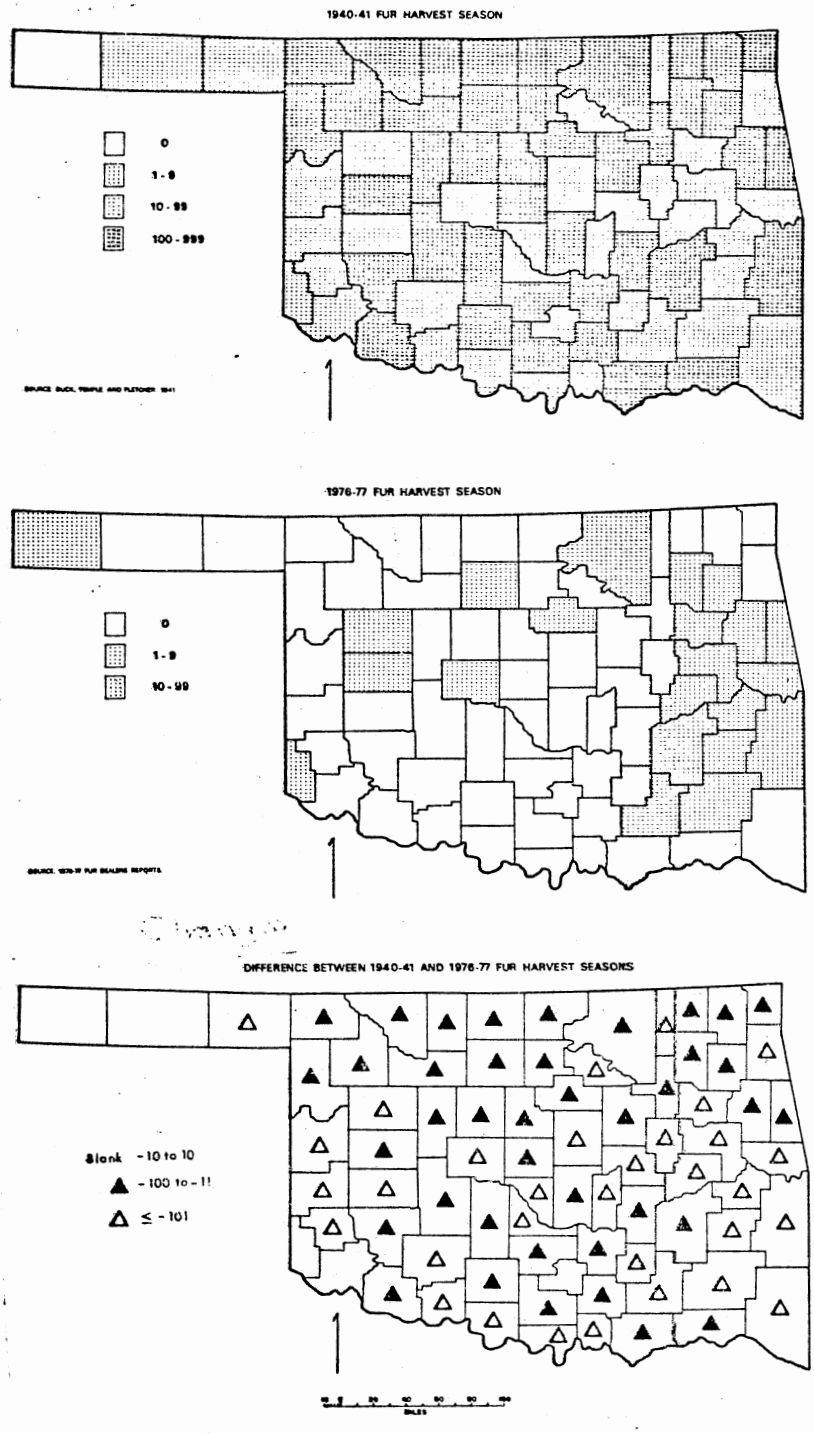

Figure 5. Number of Civet Cat Pelts Marketed

that is most significant in the eastern two-thirds of the state, is believed to be the primary reason for the drastic decrease in civet cat pelts entering the Oklahoma fur market.

Coyote

Although subject to considerable fluctuation, coyote pelts in the Oklahoma fur market show an upward trend. For the past three seasons, coyote pelts have ranked third in percentage of total pelts in the Oklahoma fur market. The average price per coyote pelt (Table VI) offered by Oklahoma fur dealers has also increased significantly; in 1976-77, the sale of coyote pelts accounted for over 23 per cent of total monies in the fur market, ranking it second only to raccoon, while in 1940-41, coyote accounted for less than two per cent of total income and ranked sixth.

In 1940-41, the northeastern corner of the state produced the majority of coyote pelts in the Oklahoma fur market (Figure 6). The 1976-77 distribution finds coyote pelts sold in large quantities throughout most of western Oklahoma, and in moderate quantities in the central and northeastern portions of the state. That is, low producing areas in 1940-41 are now supplying moderate numbers of coyote pelts to the Oklahoma market, while areas that were producing moderate numbers are now heavy producers. This phenomenon may be explained by an increased demand for coyote pelts by the fur market and/or an overall increase in the Oklahoma coyote population.

Exceptions to this phenomenon are the southeastern border counties which have experienced a general decrease in coyote production since 1940-41. It is likely that the coyote population of these areas has

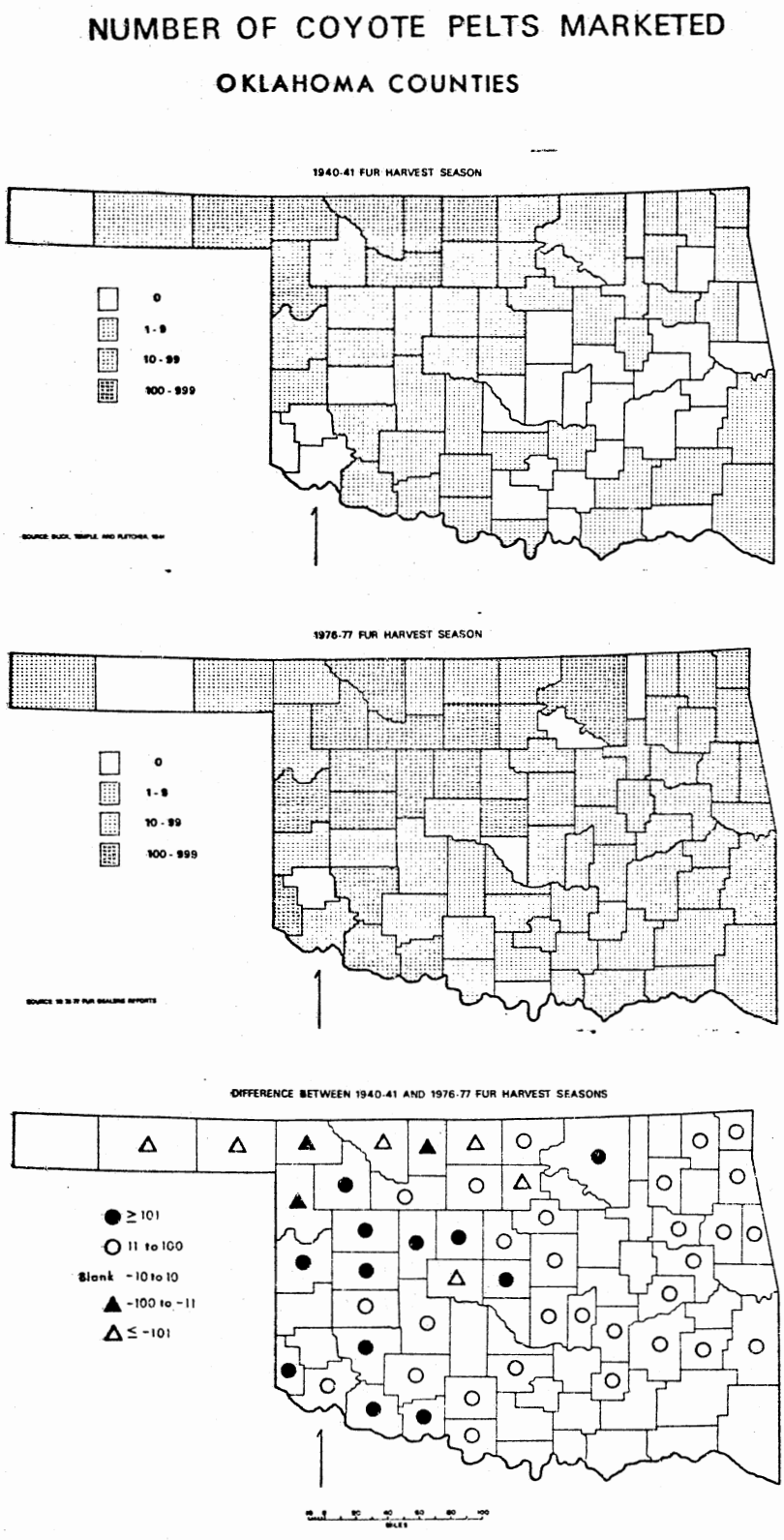

Figure 6. Number of Coyote Pelts Marketed

decreased (slightly in the southeast, substantially in the northwest) and/or that a number of coyote pelts from these areas are being sold across state borders.

Gray Fox

No clear trend is evident from the number of gray fox pelts in the Oklahoma fur market. Annual pelt sales of this species fluctuates between 400 and 20,000. In the 36 year span, gray fox pelts show an increase, second only to that of the bobcat. In 1940-41, practically all gray fox pelts were sold by individuals residing in the eastern one-third of the state (Figure 7). The 1976-77 marketing distribution shows that gray fox pelts were sold in small quantities in the west central and southern portions of the state; areas, that in 1940-41 did not produce any gray fox pelts in the Oklahoma market.

An expanded gray fox range and market demands may explain this phenomenon. However, the decline in production of the eastern border counties, formerly a heavy producing area, may be caused by a decline in the area's gray fox population or increased by out-of-state sale.

Mink

In 1940-41, mink was the most valuable furbearing species in Oklahoma with the average price being nearly seven times greater than that of any other species. Although the average price per mink pelt has increased since 1940-41, its position of prominence has dropped. Presently, mink ranks fifth in terms of average price per pelt.

Both the number of producing counties and the number of mink pelts entering the market has decreased since 1940-41. The marketing

NUMBER OF GRAY FOX PELTS MARKETED

OKLAHOMA COUNTIES

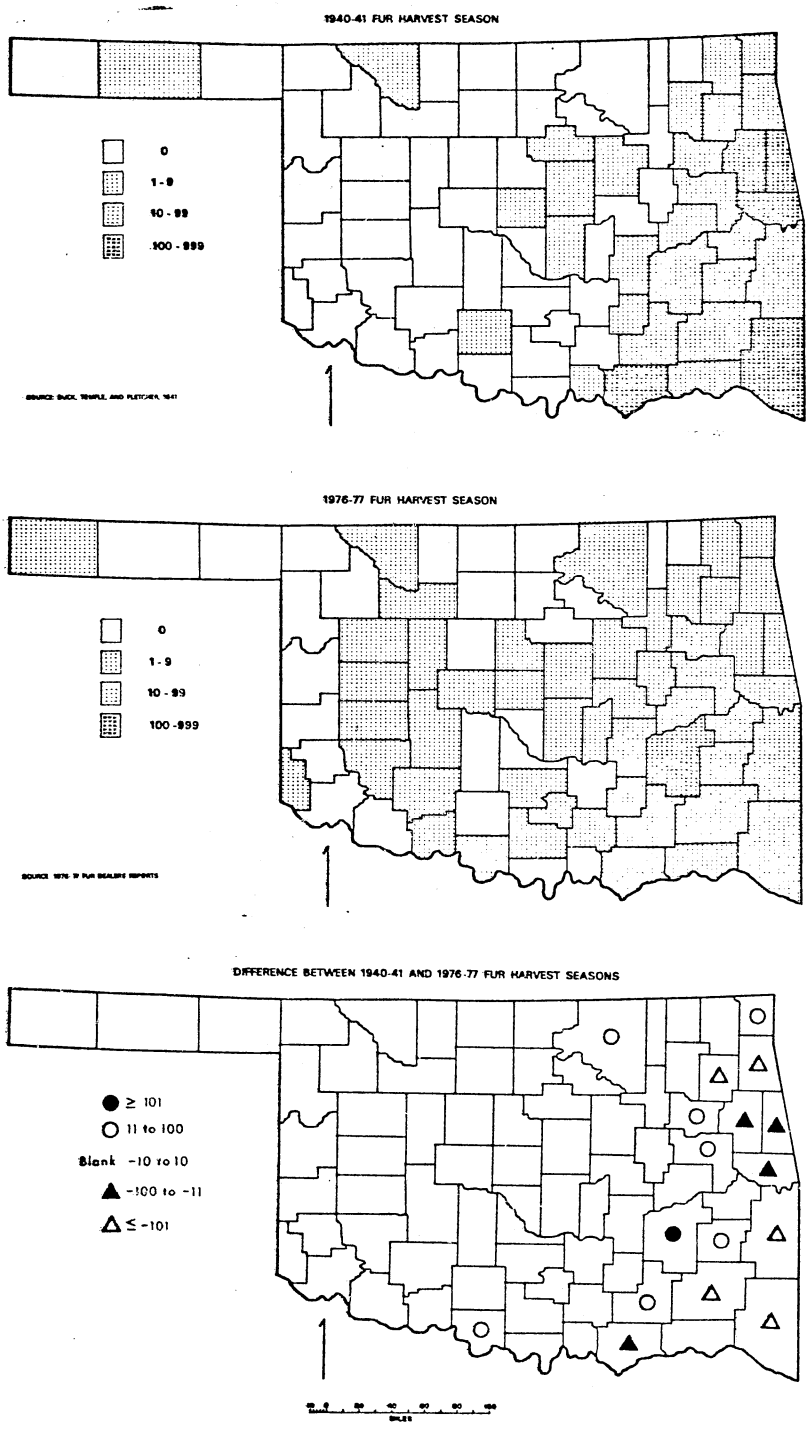

Figure 7, Gray Fox Pelts Marketed

distribution has also changed (Figure 8). That is, the area of heaviest production has shifted from the southeastern corner of the state to the northeastern portion, apparently because of a decrease in mink numbers in the southeast as opposed to a stable mink population in the northeast. A decline in the mink population may also explain why many of the counties in the central and southern sections of the state, that represented low to moderate numbers of mink pelts in 1940-41 did not represent any mink pelts in the 1976-77 market.

In 1944, a season when 3,775 mink were marketed, Duck and Fletcher recommended that mink should receive considerable attention in efforts toward restoration because the species was becoming increasingly scarce. In 1977, only 311 mink were marketed. Field work is necessary to determine if the number of mink pelts marketed is an indication of the relative abundance of this species. If so, then Duck and Fletcher's restoration recommendations should be heeded.

Muskrat

In 1976-77, marketed muskrat pelts were relatively unimportant in the Oklahoma fur trade, accounting for less than six per cent of total pelts and less than two per cent of total monies. Although muskrat accounts for a greater percentage of total pelts in the 1970's market than in the 1940's market, the numbers have decreased substantially. Average pelt price has not increased significantly, and the percentage of total fur sales by muskrat pelts in the Oklahoma fur market has decreased.

It is believed that the number of pelts entering the market is partly a function of market demand, operationally defined as change in

NUMBER OF MINK PELTS MARKETED

OKLAHOMA COUNTIES

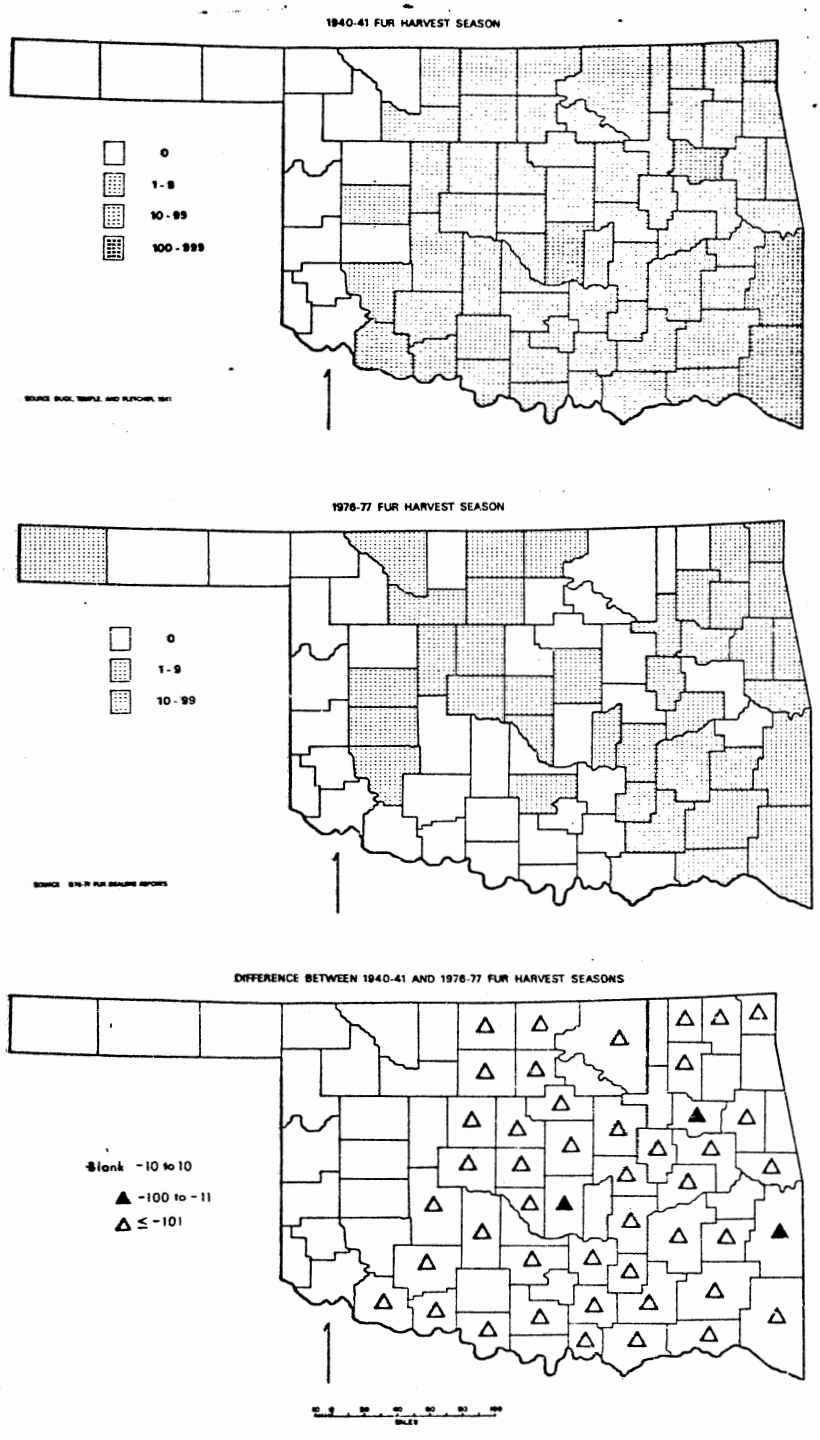

Figure 8. Number of Mink Pelts Marketed

average pelt price over time. That is, if the average pelt price for a species has not increased significantly over the years, it may be assumed that the fur market is not in demand for pelts of that species. Thus, when the market demand does not change significantly and an area is stable in production, or shows a slight increase over time, it can be viewed as an indication of a significant increase in that species population; areas showing a slight decrease would have a relatively stable population; and areas showing a moderate decrease would have experienced a slight decrease in population.

If the above assumptions are correct, then we may conclude that the eastern one-third of Oklahoma has experienced an increase in its muskrat population (which is most significant in the southeastern corner) and that the western two-thirds of the state has experienced a slight decrease in muskrat numbers since 1940-41 (Figure 9).

Opossum

In 1940-41, opossum was the most commonly marketed furbearer in the state. However, in recent years, the number of pelts entering the Oklahoma market has decreased considerably (from 220,825 in 1940-41 to 11,977 in 1976-77) and opossum now ranks second to raccoon in terms of percentage of total pelts marketed (Table VII). This decrease is apparently the result of the extremely low price offered for opossum pelts; in 1976-77 opossum pelts were the lowest priced among Oklahoma furbearers. The trend suggests that opossum will maintain this distinction; in the past three seasons opossum is the only species that has decreased steadily in average price per pelt.

In 1940-41, opossum were marketed in large numbers throughout

NUMBER OF MUSKRAT PELTS MARKETED

OKLAHOMA COUNTIES

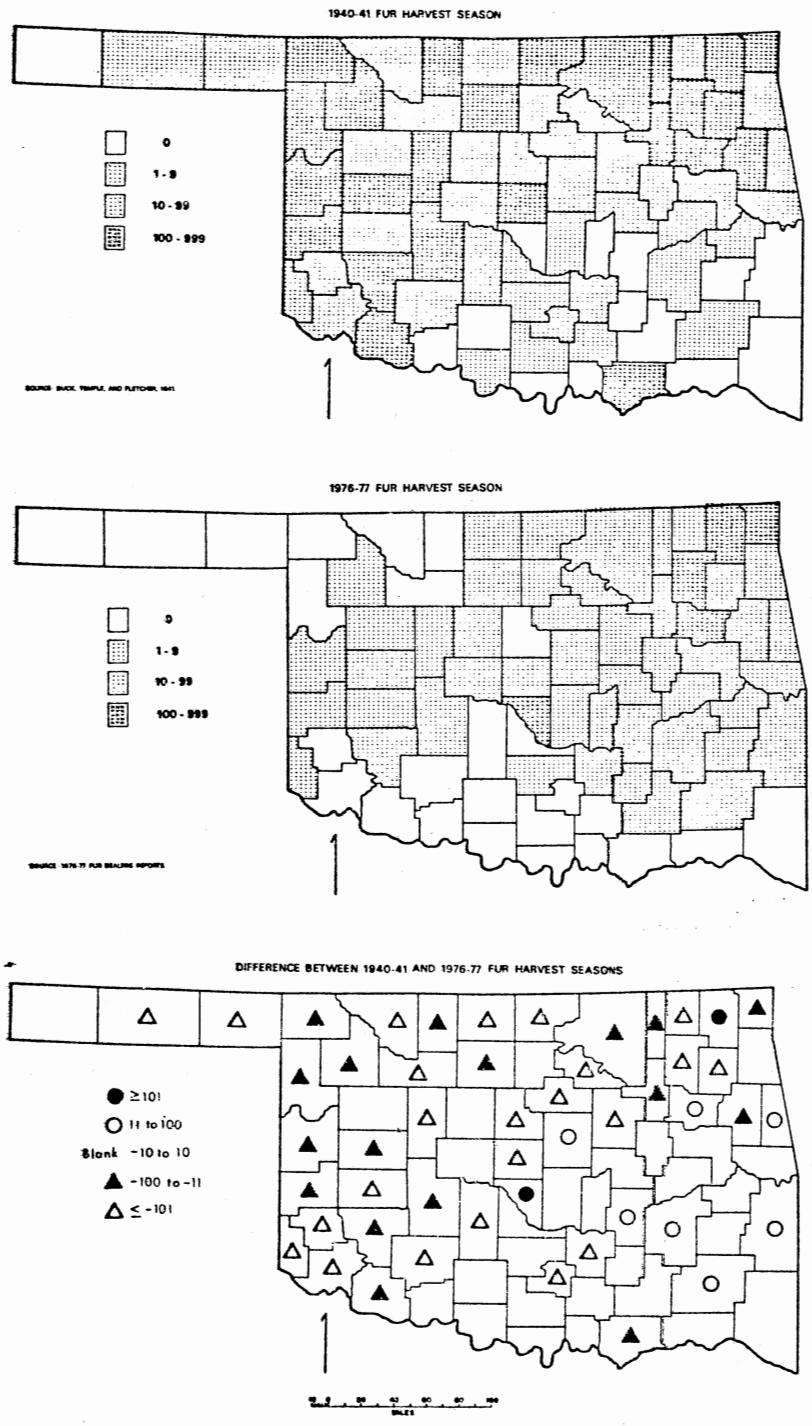

Figure 9. Number of Muskrat Pelts Marketed

Oklahoma (Figure 10) with the greatest concentrations being in the eastern two-thirds of the state. Analysis of the 1976-77 fur dealer reports revealed that the number of opossum marketed has greatly decreased throughout the state since 1940-41. The only increase was in the southwestern corner of Oklahoma where three low producing counties in 1940-41 represented moderate numbers of opossum pelts in the 1976-77 Oklahoma fur market. It seems likely that these changes are the result of market conditions rather than a decrease in opossum numbers.

Raccoon

From 1974 to 1977, raccoon dominated the Oklahoma fur market both in numbers sold and total monies generated. However, in the 1940's market, raccoon was relatively unimportant, accounting for less than five per cent of pelts marketed and of total monies generated. In 1940-41, raccoon pelts were marketed throughout the state with the heaviest concentrations being in southeastern Oklahoma. In the 36 year span, raccoon pelts from eastern and central Oklahoma have increased in number, while the marketing of raccoon pelts has decreased slightly in the southcentral portion of the state (Figure 11).

Striped Skunk

In 1940-41, striped skunk ranked second to opossum in terms of numbers marketed in Oklahoma. The number of striped skunk pelts in the Oklahoma market has drastically declined from over 80,000 in 1940-41 to less than 2000 in 1976-77. As a result, the sale of striped skunk pelts now accounts for less than one per cent of total monies generated as compared to over forty per cent in 1940-41. In 1940-41, striped skunk

NUMBER OF OPOSSUM PELTS MARKETED

OKLAHOMA COUNTIES

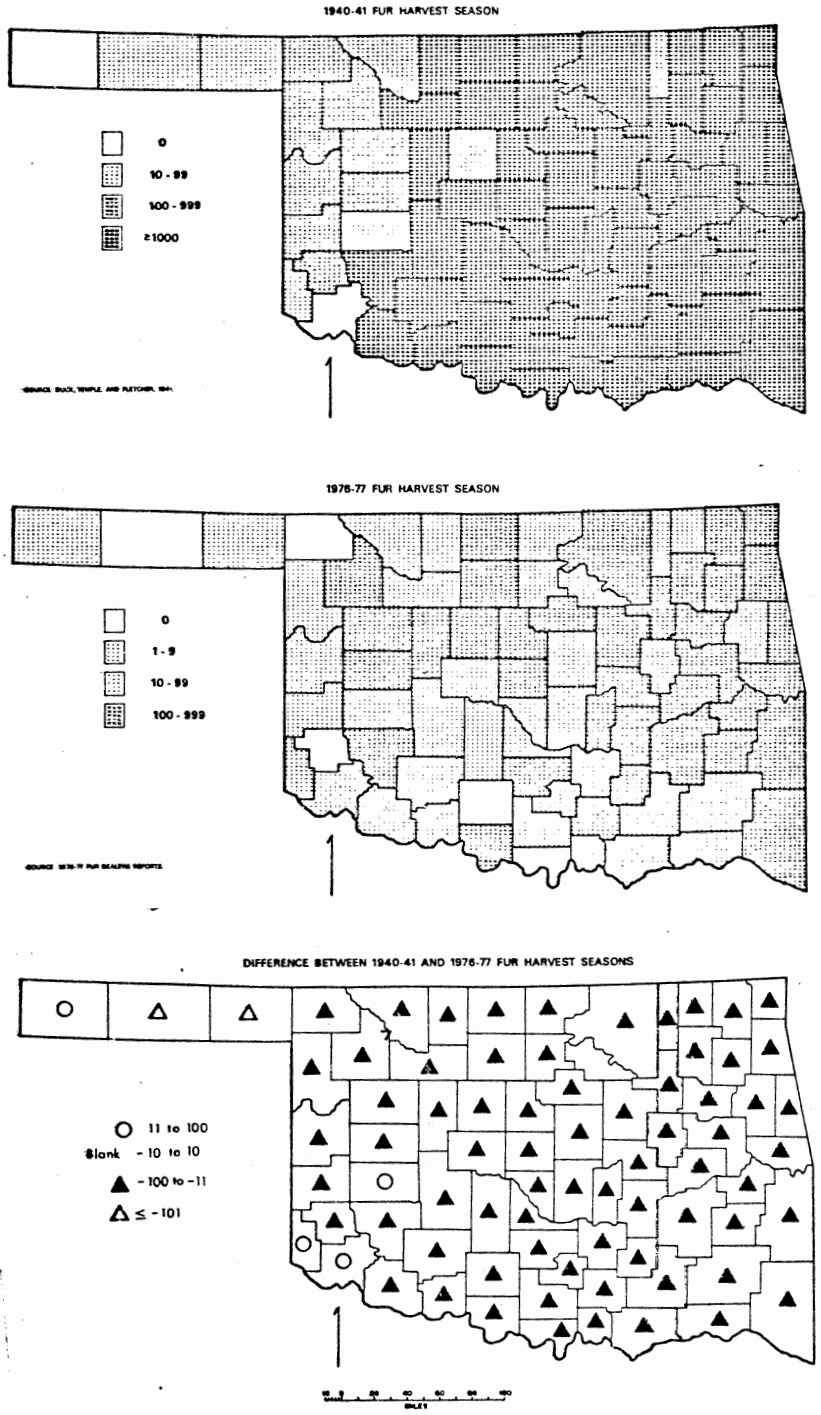

Figure 10. Number of Opossum Pelts Marketed

NUMBER OF RACCOON PELTS MARKETED

OKLAHOMA COUNTIES

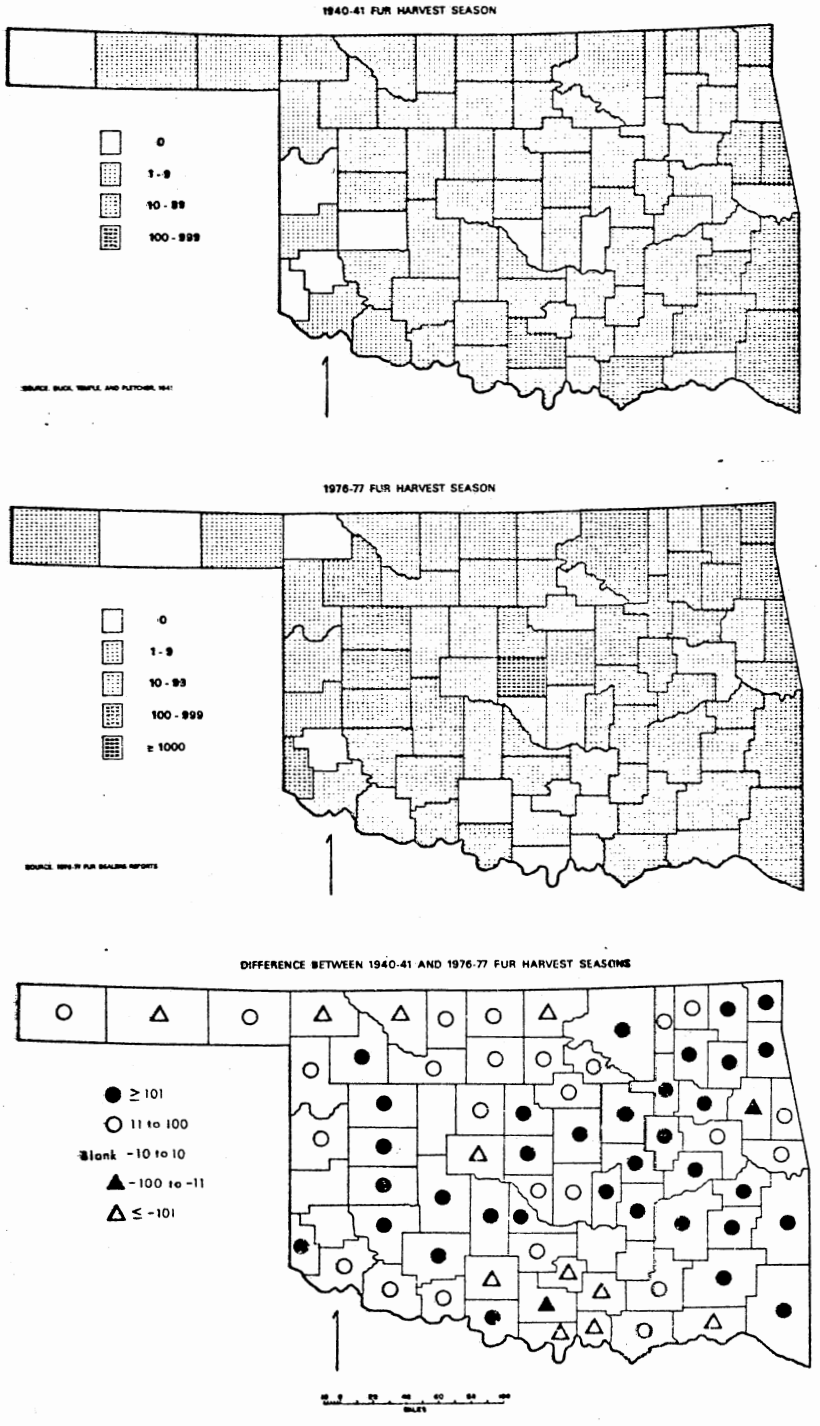

Figure 11. Number of Raccoon Pelts Marketed

was marketed in large quantities throughout Oklahoma (Figure 12) with the heaviest concentrations being in the north central and northeastern portions of the state. The numbers of striped skunk marketed has declined throughout the state with the greatest decrease being in the southern half of Oklahoma, particularly in the southcentral portion. Low demand for striped skunk evidenced by the average pelt price, and a slight decrease in the population throughout the state, are believed to be the primary factors involved in the temporal shifts described.

Summary of Marketing Patterns

The majority of the counties making up Oklahoma's northern, western, and southern borders, as well as several counties in the central portion of the state have experienced a general decrease in the number of pelts marketed since 1940-41. The only area where several furbearing species were marketed in greater quantities in 1976-77 than in 1940-41, is the extreme southwestern corner of Oklahoma (Figure 13).

Out-of-state sales made by residents of the border counties mentioned above, may explain a large portion of the decrease in pelt production in these areas. However, it was not possible to obtain information to substantiate the out-of-state sales in these areas. While the decrease in pelt production of Oklahoma's interior counties may reflect changes in land use; several counties near the metropolitan areas of Oklahoma City and Tulsa show an overall decrease in pelt production.

In 1940-41, fur purchase records were not available to Duck and Fletcher for Cimarron County (the western most county in Oklahoma's panhandle). Therefore, Cimarron County was treated as a non-producing county for 1940-41. The resultant comparative maps depict Cimarron

NUMBER OF STRIPED SKUNK PELTS MARKETED

OKLAHOMA COUNTIES

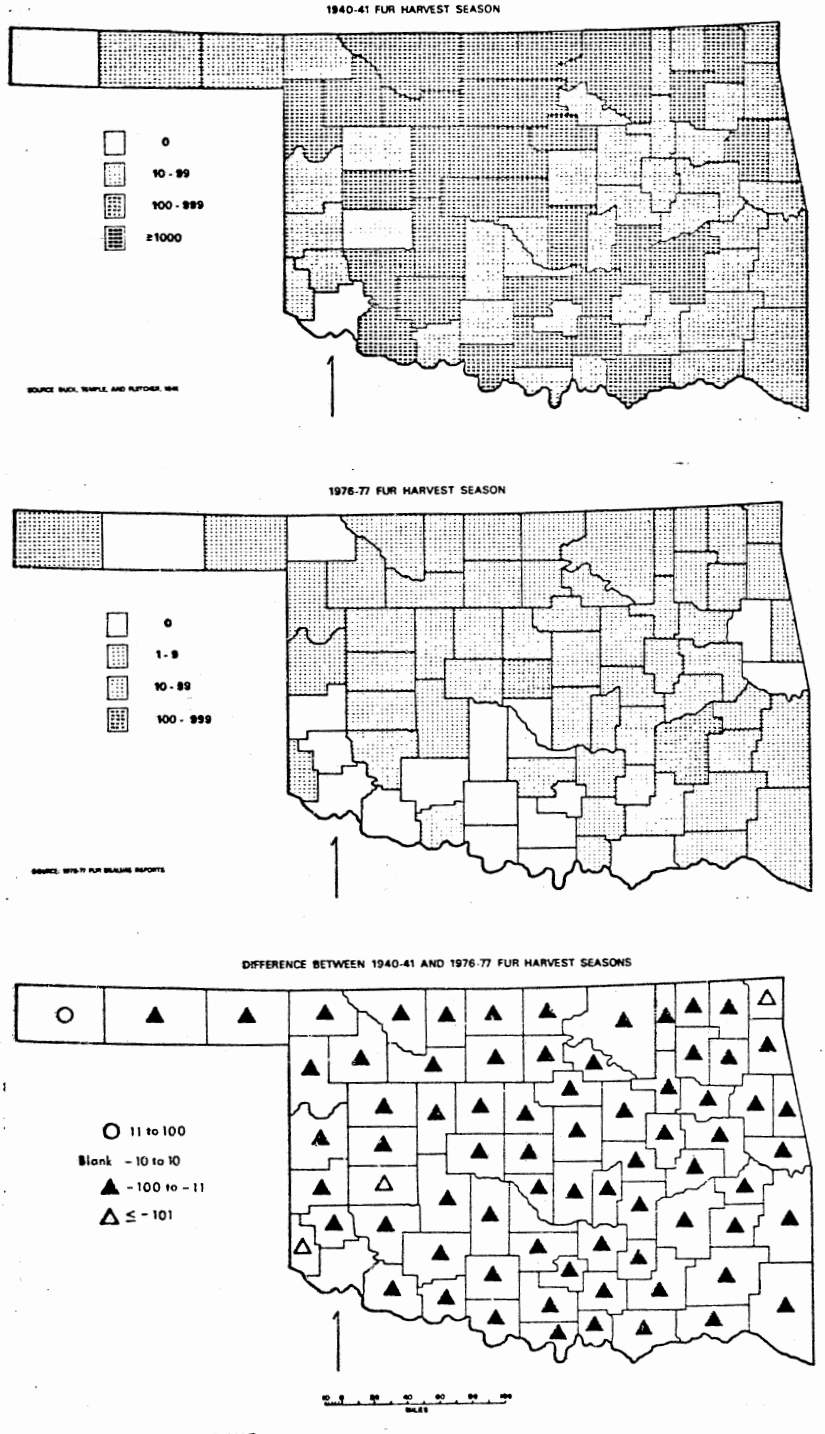

Figure 12. Number of Striped Skunk Pelts Marketed

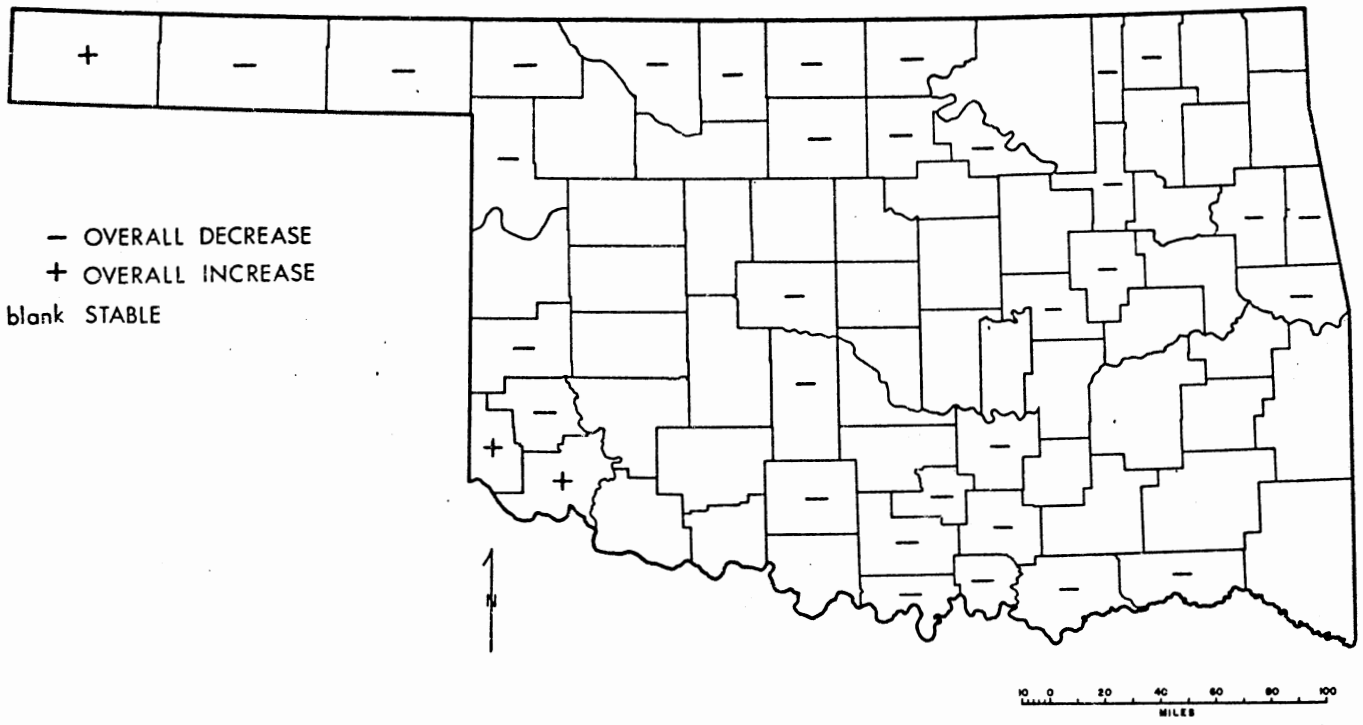

Figure 13. Overall Change in the Number of Pelts Marketed, 1940-41 to 1976-77

County as an area where furbearer sales are increasing, although only a few furbearers were marketed from this county in 1976-77. I believe that the furbearer marketing activities in Cimarron County are similar to those in the remainder of the panhandle, where an overall decrease in pelt sales occurred.

1976-77 Patterns of Prices

The range in prices offered for a given species during a marketing year is an indication of variability in pelt quality. In 1976-77, pelts of all species excepting badger, generally brought a slightly higher average price per pelt in the northern portion of Oklahoma, particularly in the northeastern corner as compared to the remainder of the state. The lowest average price per pelt was most often offered in the southwestern corner.

The Fur Marketing Structure

Generally, fur dealers handling the fewest pelts service the county of their residence and one or two adjacent counties. Such individuals will be referred to as "local dealers". Dealers who service several counties and purchase large quantities of furs will be referred to as "traveling dealers". It must be noted that both "local" and "traveling" Oklahoma fur dealers purchase furs from other states.

Local fur dealers appear to buy furs of all species and pay an average or slightly below average price. These dealers generally do not have storage facilities for holding a great number of pelts for any length of time. Therefore, they sell bulk pelts of mixed species to another buyer at a slight profit. Local dealers interviewed indicated

that they often serve as "agents" to a larger fur dealer in the area and that they rarely sell directly to large fur houses out-of-state.

In personal interviews, traveling dealers reported that they often have a predetermined route that they travel during the fur harvest season. They advertise that they will be at a certain location on a certain date, and there they buy from local fur harvesters and collect from local fur dealers who have agreed to serve as agents for them. Traveling dealers often specialize in certain species of furbearers by offering a slightly higher than average price per pelt for a species, and holding such pelts until it becomes profitable to sell them to a large fur house.

Traveling dealers usually bale the pelts by species and sell each species to the market that allows them the greatest profit. Traveling dealers reported selling pelts to fur houses in St. Louis, Missouri; New York, New York; and Kansas City, Missouri.

One large fur dealer in western Oklahoma buys pelts from local fur harvesters but purchases the greatest proportion of furs from agents residing in the eastern portion of the state. The eastern agent transports green furs to western Oklahoma where the pelts are stretched, dried, and baled. The cured and baled pelts are then trucked to a large fur house in Missouri every week to 10 days for sale.

Fur Sellers

In analyzing the 1976-77 fur dealer reports, individual fur sellers in Oklahoma were divided into five groups:

1) possessing a trapping license;

2) possessing a hunting license;

3) exempt from licensing requirements by age;

4) exempt from licensing requirements by trapping on own land;

5) not reporting a license type or exemption at the time of sale.

Individuals holding trapping licenses constituted the largest group of sellers (Table VII) and were responsible for approximately 40 per cent of all pelts marketed. Hunters made up the next largest group.

TABLE VII

TOTAL NUMBER AND PERCENTAGE OF PELTS SOLD TO OKLAHOMA FUR DEALERS BY FIVE GROUPS OF SELLERS (1976-77)

Group	Number	Percentage
Not Reporting	8,503	16
Age Exempt	1,251	1
Land Exempt	6,554	18
Hunters	8,503	23
Trappers	14,987	40

Source: 1976-77 Oklahoma Fur Dealer Reports

For each species, the percentage of pelts marketed differs by group. Table VIII shows the percentage of pelts, by species, marketed by each group of sellers. Table IX indicates the percentage of sellers

TABLE VIII

PERCENTAGE OF PELTS SOLD TO OKLAHOMA FUR DEALERS BY LICENSE GROUPS

Species	Total Number of Pelts Sold	Percentage of Pelts Sold by Each Group				
		Not Reporting	Age Exempt	Land Exempt	Hunters	Trappers
Badger	201	23	1	21	11	44
Beaver	1,034	3	1	28	2	48
Bobcat	1,172	26	1	17	16	39
Civet cat	86	14	5	35	21	26
Coyote	5,024	49	1	16	10	23
Gray fox	844	10	2	20	22	46
Mink	252	4	4	25	18	48
Muskrat	2,040	2	2	9	10	78
Opossum	10,121	8	5	18	26	42
Raccoon	14,692	12	3	16	29	4
Striped skunk	1,634	12	7	38	13	29

TABLE IX

PERCENTAGE OF ALL SELLERS OF A SPECIES
REPRESENTED BY LICENSE GROUPS

Species	Total number of Sellers	Percentage of all Sellers for a Species				
		Not Reporting	Age Exempt	Land Exempt	Hunters	Trappers
Badger	146	29	1	30	13	32
Beaver	334	1	4	24	25	36
Bobcat	693	25	2	21	22	30
Civet cat	57	14	5	39	19	23
Coyote	1,717	48	2	19	15	16
Gray fox	376	8	4	28	29	32
Mink	178	5	11	25	21	38
Muskrat	343	7	6	15	25	48
Opossum	2,050	11	7	26	31	25
Raccoon	2,960	15	5	22	35	23
Striped skunk	520	14	7	39	18	22

within each group by species. Figures on Table IX were obtained by dividing the total number of sellers withing a recognized group by the total number of sellers for each species and may be taken as an indication of a particular group's species preference and/or success in harvesting various species.

Trappers were responsible for the largest quantities of beaver, badger, bobcat, gray fox, mink, muskrat, opossum, and raccoon pelts marketed in Oklahoma in 1976-77 (Table VIII). The relative take of trappers is most significant in the marketing of muskrat; trappers sold over 75 per cent of all muskrat pelts while representing over 40 per cent of all muskrat sellers.

Raccoon and opossum appear to be the preferred/available species of individuals holding hunting licenses. In 1976-77, hunters constituted the largest percentage (35 per cent and 31 per cent) of raccoon and opossum sellers. As a group, individuals holding hunting licenses did not represent the greatest percentage of pelts sold for any one species.

Although individuals exempt from licensing requirements by age did not represent more than 10 per cent of the takers for any species except mink, and they were not responsible for more than seven per cent of any species marketed, their contribution was most significant in the sale of striped skunk.

Individuals exempt from licensing requirements by taking furbearers on their own land sold the largest percentage of civet cat and striped skunk pelts in the 1976-77 Oklahoma fur market. This group also represented the greatest percentage of sellers of striped skunk and civet cat pelts. Thus, it appears that the majority of individuals exempt from licensing requirements harvest those species considered by many as pests.

The greatest concentrations of fur sellers is in the eastern portion of Oklahoma while the southwestern and southcentral portions of the state have the fewest fur sellers (Figure 14). The geographic distribution is quite similar for persons possessing trapping licenses and those individuals possessing hunting licenses with the eastern and central portions of the state having the largest concentrations (Figures 15 and 16). The northwestern and southeastern corners of the state have the highest concentrations of individuals who are exempt from licensing requirements (Figures 17 and 18) and persons not reporting a license type or exemption at the time of sale (Figure 19).

Oklahoma dealers do not purchase all of the pelts sold from Oklahoma. About 20 per cent of the pelts purchased in Oklahoma were sold to buyers from out-of-state. Most of these out-of-state sales are to and by fur harvesters who live in counties adjacent to other states. Also, Oklahoma dealers purchase a number of pelts from fur harvesters in other states. These transactions are significant to the following discussion.

Licensed Fur Harvesters

In January, 1978 it was discovered that less than 50 per cent of the trapper license receipts had been returned to the Oklahoma Department of Wildlife Conservation by license sellers. Since questionnaires were sent to trappers whose license receipts were returned to the Department, the effect of this was to reduce the sample proportion of the population from 20 per cent to less than 10 per cent of the Oklahoma trappers. More importantly, the missing license receipts were

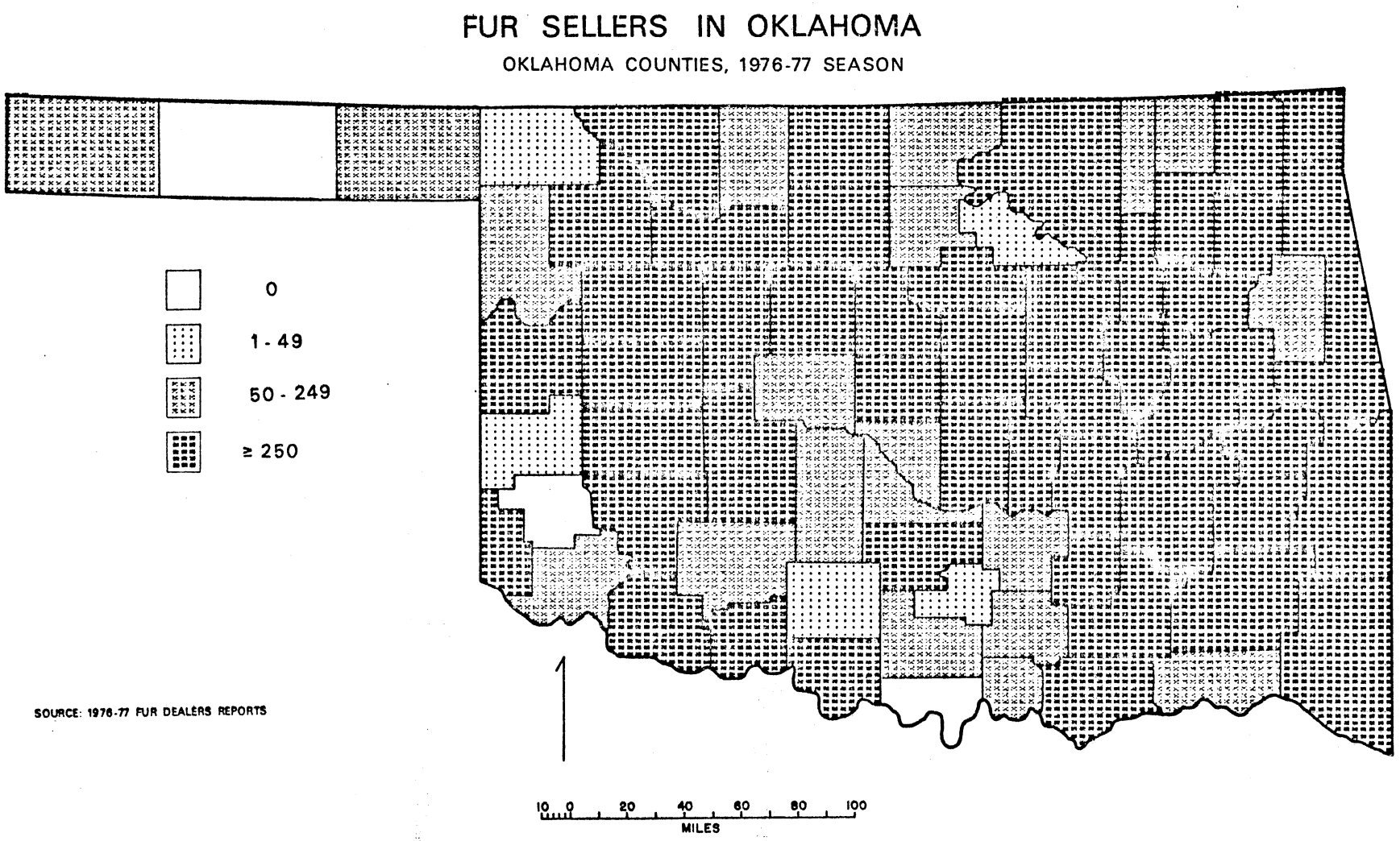

Figure 14. Fur Sellers in Oklahoma

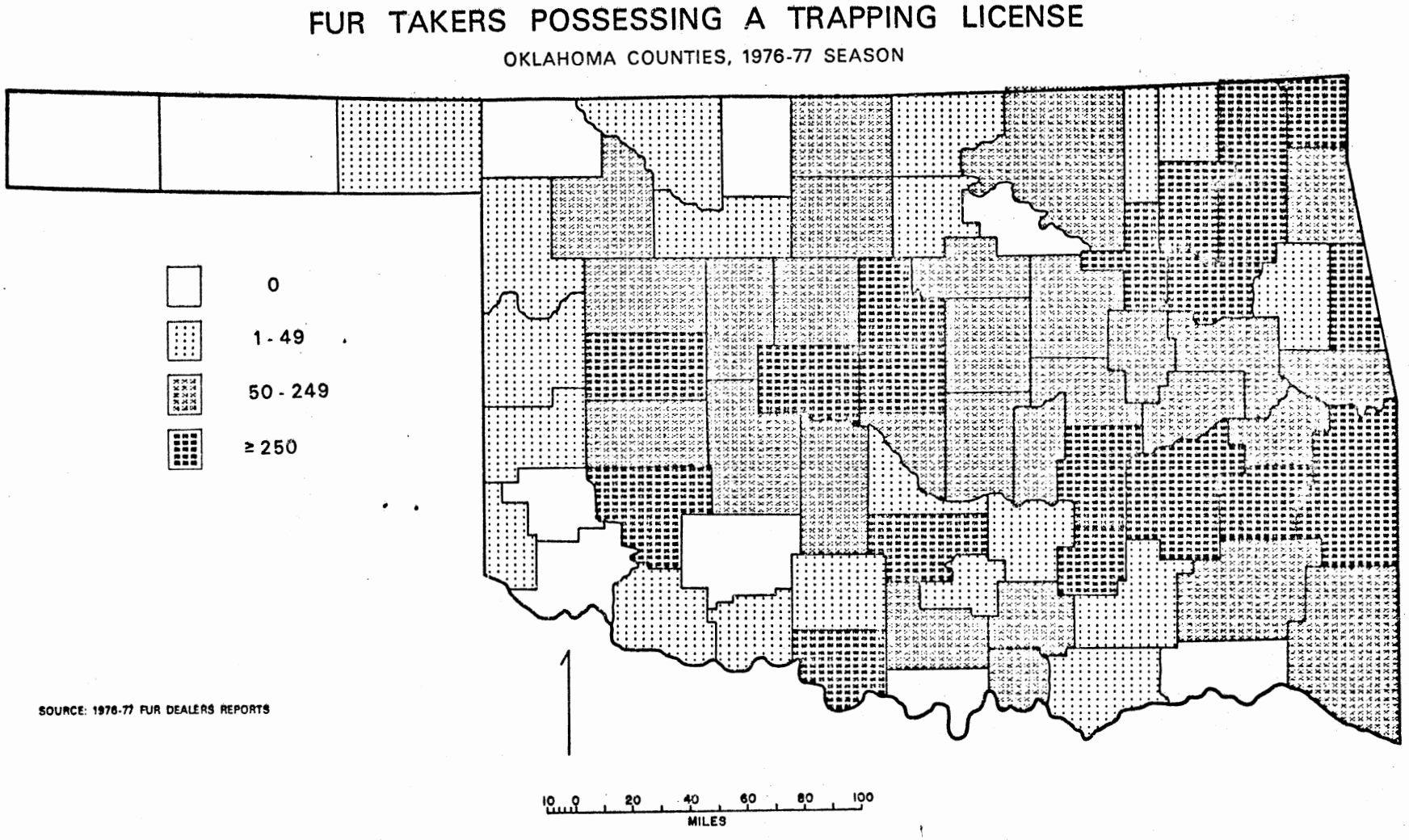

Figure 15. Fur Takers Possessing a Trapping License

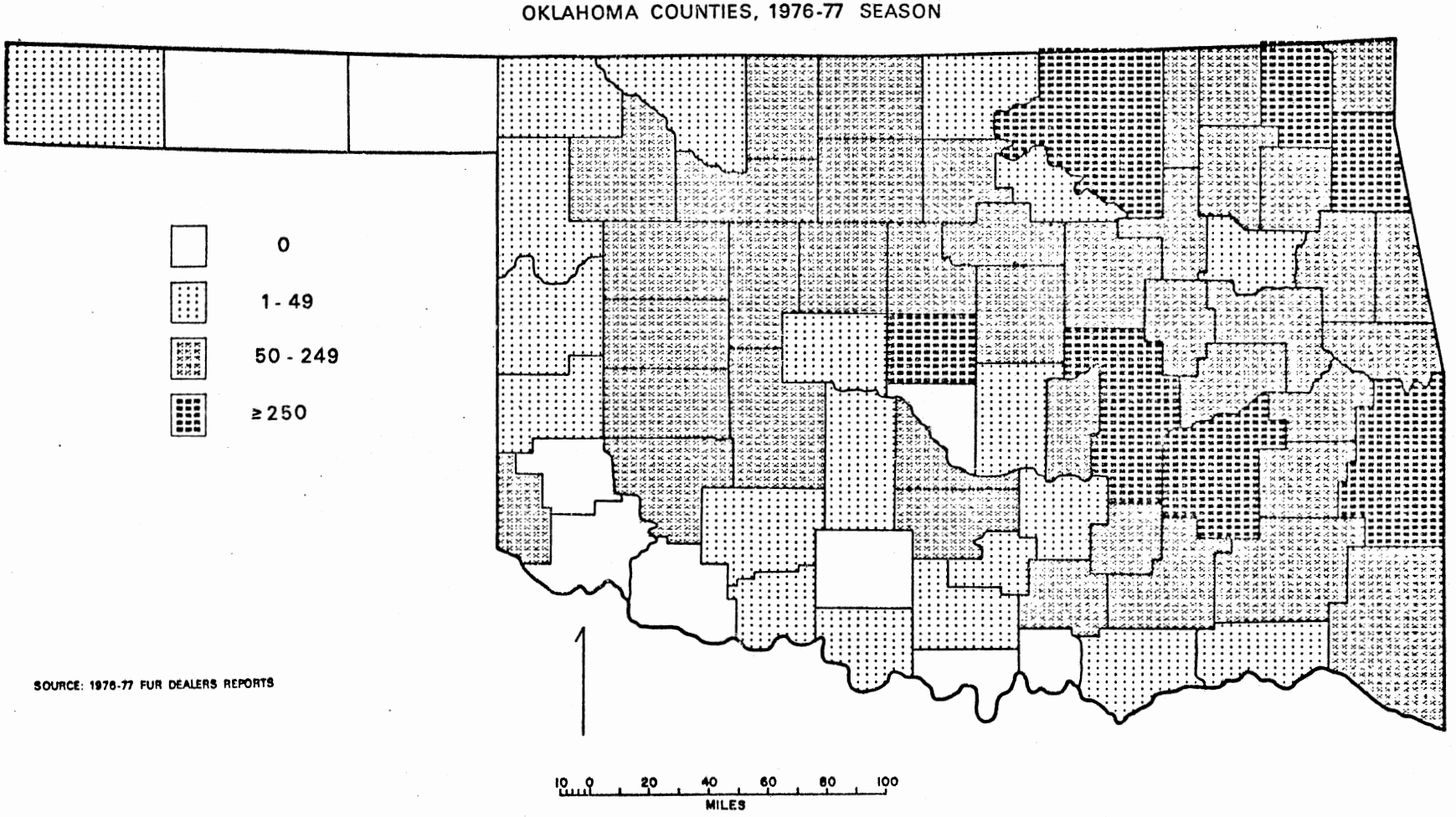

Figure 16. Fur Sellers Possessing a Hunting License

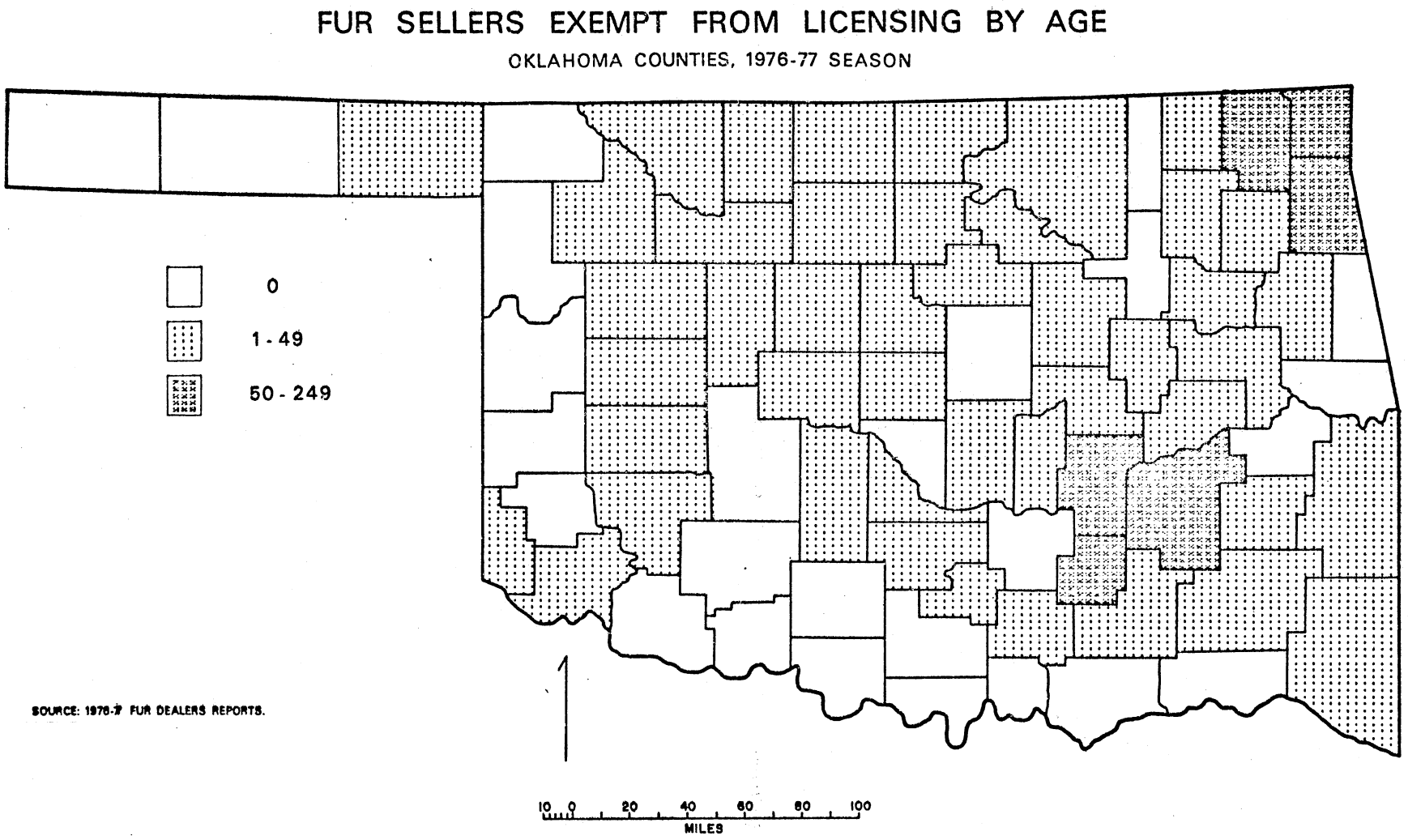

Figure 17. Fur Sellers Exempt from Licensing by Age

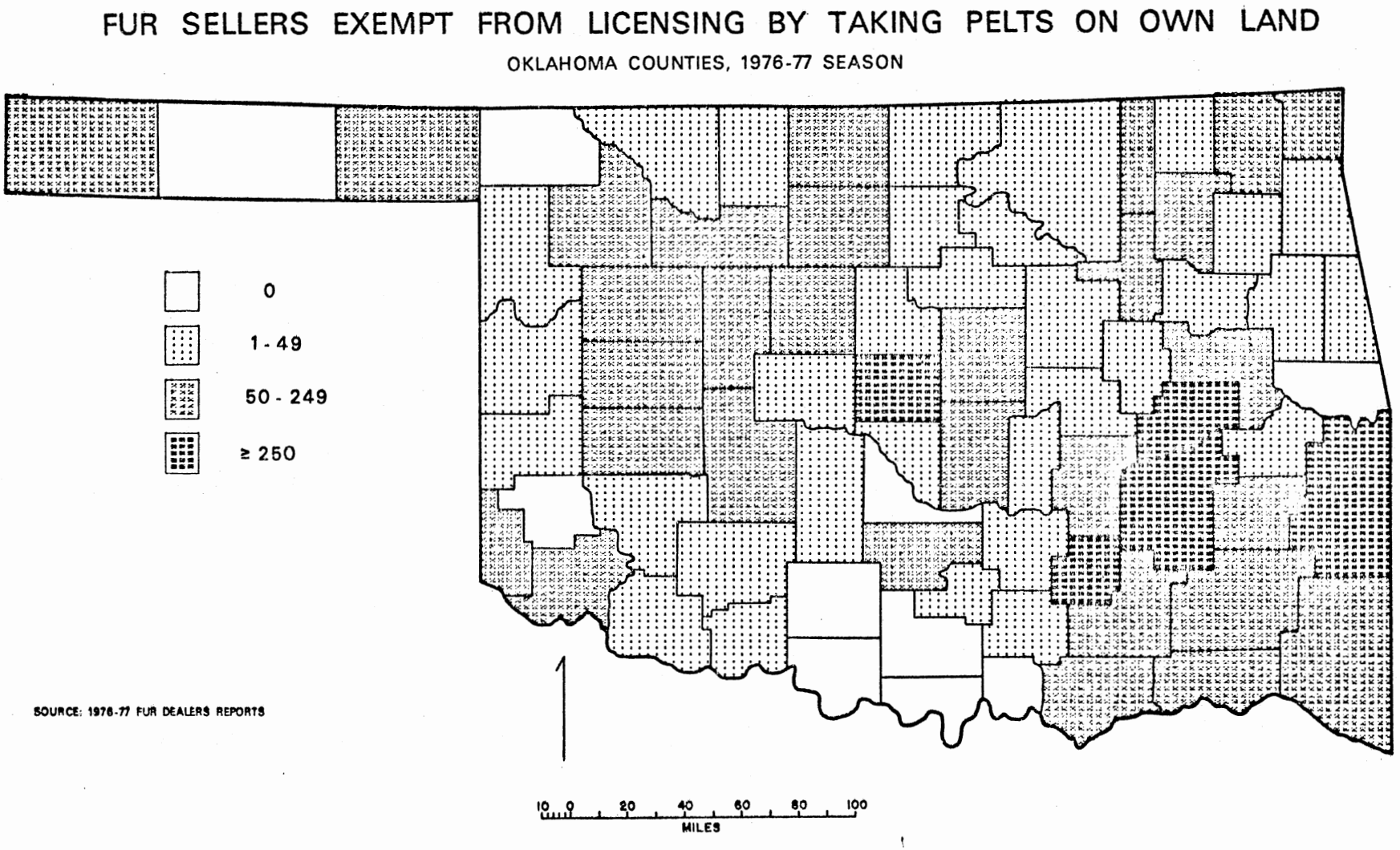

Figure 18. Fur Sellers Exempt from Licensing by Taking Pelts on Own Land

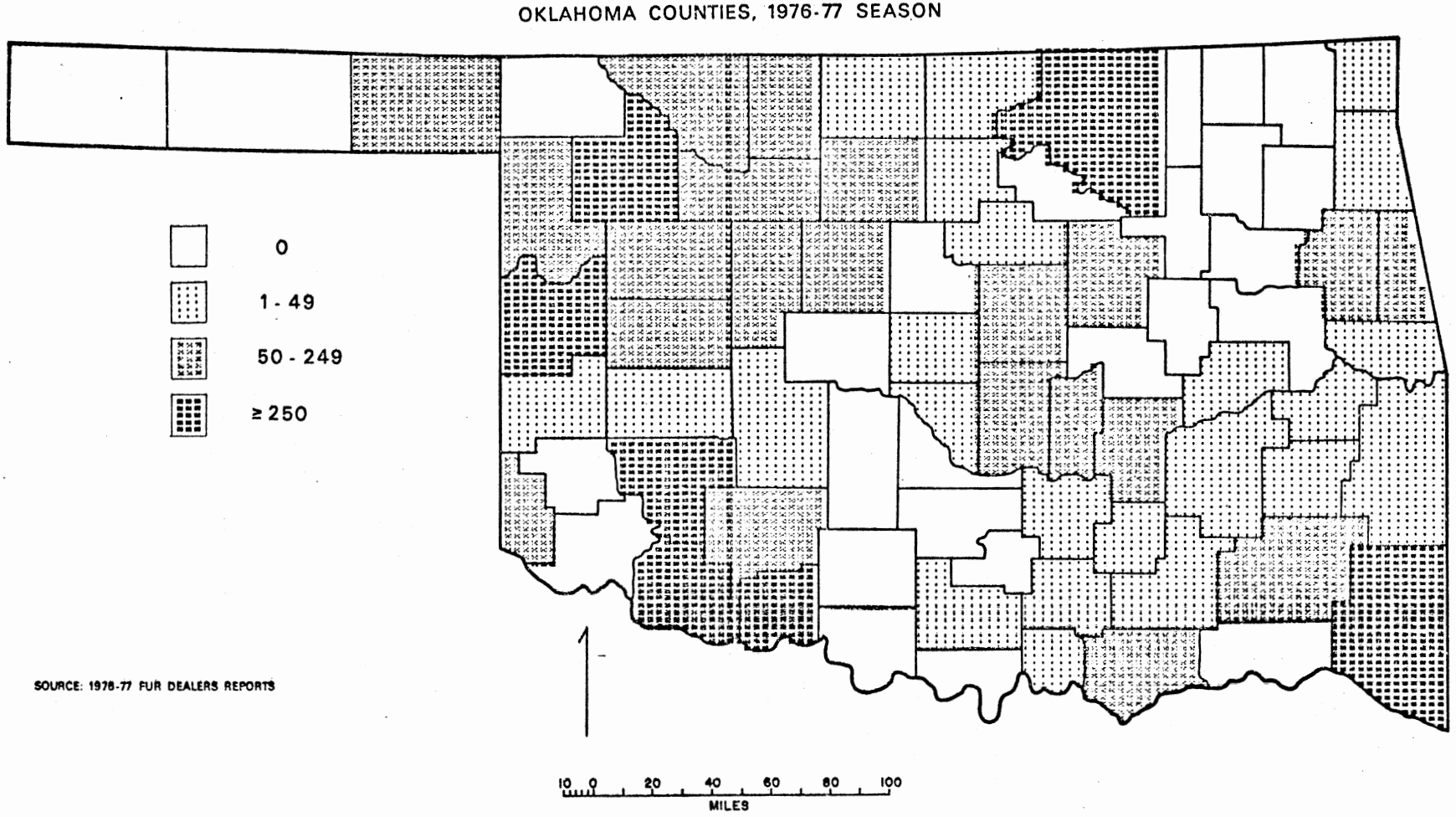

Figure 19. Fur Sellers Whose License Types or Exemptions are Unknown

from a few areas. The resultant bias is believed to threaten seriously the validity of the sample.

Of the 198 trappers responding to the questionnaire, approximately 78 per cent indicated that they sold pelts exclusively to local fur dealers, compared to 98 per cent of the 17 personal interview respondents. Thus, it is possible that information concerning the distribution of fur sales in Oklahoma can be only partially obtained from fur dealer reports, which account for about 70 per cent of the pelts sold.

Although all species harvested in Oklahoma are reported by trappers to be sold in greater quantities in-state than out-of-state, and only 28 per cent of the trappers reported selling furs directly to large fur houses or out-of-state buyers, out-of-state sales constitute a significant portion of the harvest for certain species. Over 30 per cent of badger and coyote pelts harvested by trappers returning the questionnaire were sold out-of-Oklahoma. Out-of-state sales were also significant for mink. In terms of absolute numbers, opossum and raccoon led the out-of-state sales. Species ranking high in average price per pelt also ranked high in number of pelts sold out-of-state (Table X).

The greatest number of out-of-state sales was made by persons residing near the borders of Oklahoma. It appears that these individuals sell furs to buyers near their residence; state boundaries have no limiting effect on their behavior. Trappers in northern counties who reported out-of-state sales, generally sold to buyers in Wichita and Arkansas City, Kansas, while the majority of eastern border residents solf furs to buyers in Fort Smith, Arkansas. Southern residents reported that the majority of their out-of-state pelt sales were to buyers from the Dallas/Fort Worth area in Texas.

TABLE X

NUMBER OF OKLAHOMA FURS SOLD OUT-OF-STATE BY TRAPPERS AND THE NUMBER OF FURS PURCHASED FROM OUT-OF-STATE SELLERS BY OKLAHOMA FUR DEALERS (1976-1977)

Species	Number of Furs Sold[a]	Number of Furs Purchased[b]
Badger	17	13
Beaver	77	193
Bobcat	107	288
Civet cat	28	6
Coyote	309	414
Gray fox	60	151
Mink	4	59
Muskrat	266	310
Opossum	407	1,856
Raccoon	316	2,974
Striped skunk	146	250
Total	1,737	6,514

a. Source: Trapper Questionnaire.

b. Source: 1976-77 Fur Dealer Report.

A number of furbearers harvested did not reach the fur market. For some species this number is minimal (Table XI); less than five per cent of badger, bobcat, coyote, gray fox, mink, and raccoon pelts reported taken were retained by the trapper. For other species it is quite substantial; over 10 per cent of civet cat, beaver, and striped skunk pelts harvested by trappers in the survey were not sold.

The average price per pelt appears to influence the number of furbearers taken but not sold. The lower priced species are more likely to be taken and not sold than are those species bringing a higher average price. During interviews, several trappers noted that the price offered for opossum and striped skunk did not pay for their effort in harvesting.

The species composition of furs reported by trappers returning the questionnaire does not consistently reflect the species composition of furs purchased by fur dealers. Nor do the number of furs reported in the questionnaire closely approximate the number of percentage of furs sold to Oklahoma fur dealers by individuals holding a trapping license (Table XII). The biggest discrepancy is that of reported civet cat pelts; only 92 civet cat pelts were reported purchased by 1976-77 Oklahoma fur dealers, while trappers reponding to the questionnaire (10 per cent of all licensed trappers) reported selling 167 civet cats in Oklahoma.

Licensed Trappers: Behaviors, Characteristics, and Preferences

Trappers responding to the questionnaire ranged in age from 12 to 79 and averaged 36 years of age. Trapping experience ranged from 0 to

TABLE XI

NUMBER OF FURS REPORTED TAKEN AND RETAINED
BY LICENSED TRAPPERS IN COMPARISON
TO AVERAGE PRICE PER PELT

Species	Total Number[a] Reported	Number[a] Retained	Percentage of[a] Furs Retained	1976-77 Average[b] Price Per Pelt
Badger	58	1	1.92	$11.23
Beaver	864	113	14.41	$ 7.59
Bobcat	473	10	2.48	$55.61
Civet cat	251	41	17.37	$ 3.89
Coyote	1,078	40	4.09	$21.89
Gray fox	303	4	1.39	$26.49
Mink	126	1	.96	$12.78
Muskrat	1,309	87	6.80	$ 3.48
Opossum	3,781	220	7.31	$ 0.84
Raccoon	3,069	96	3.65	$13.78
Striped skunk	1,070	231	25.22	$ 2.09
Total	12,382	844	6.82	

a. Source: Trapper Questionnaires

b. Source: 1976-77 Oklahoma Fur Dealer Reports

TABLE XII

NUMBER AND PERCENTAGE OF FURS REPORTED BY LICENSED TRAPPERS ON QUESTIONNAIRE AND THE NUMBER AND PERCENTAGE OF FURS SOLD TO FUR DEALERS BY LICENSED TRAPPERS (1976-77)

	Reported by Licensed Trappers		Sold to Dealers by Trappers	
Species	Total #	% of all pelts sold	Total #	% Accounted for by questionnaire
Badger	58	27.1	88	65.90
Beaver	864	70.42	496	174.19
Bobcat	473	34.78	461	102.60
Civet cat	251	272.83	22	1140.90
Coyote	1078	19.82	1169	92.22
Gray fox	303	30.45	388	78.09
Mink	126	40.51	122	103.28
Muskrat	1309	55.70	1587	82.48
Opossum	3781	31.57	4263	88.69
Raccoon	3069	17.37	5910	51.93
Striped skunk	1070	56.79	481	222.45

65 years, and averaged 13.7. Educational background ranged from 1 to 18 years of schooling and averaged slightly over 11 years.

Blue collar workers made up the largest group of trappers in this survey with retired individuals being the next largest group. Approximately 41 per cent of the trappers reported incomes of less than $5,000 per year. Persons earning $5,000 to $10,000 per year made up the next largest group. There was no significant correlation found between various socio-economic aspects and management preferences or trapping behavior.

Nearly all (97 per cent) of the trappers responding to the questionnaire indicated that they had trapped two or more consecutive years. Slightly more than 50 per cent of the trappers answering the question reported that they hunted as well as trapped and they they had participated in both activities during one or more years.

Approximately 80 per cent of the trappers responding to the survey sought furbearers on private land. However, the majority of individuals did not restrict their trapping activities to private land; trappers reported that they utilized state, municipal, and federally owned land in conjunction with private land for the harvest of furbearers.

Oklahoma trappers reported trapping an average of 36 days (range 0 to 109 days) during the 1976-77 fur harvest season. Although a few individuals reported spending 10 hours per day to check their traplines, the average was slightly less than three hours per day. Checking traplines (which were reported to range from 1 to 100 miles in length) was an activity most often attempted at dawn.

Estimation of trapping expenses (traps, lures, transportation cost, license cost, etc.) for the 1976-77 season averaged $144 (range

0 to 1,000). No significant correlation was found to exist between the various aspects of trapping behavior, trapping success, or socio-economic characteristics provided and the estimate of trapping expense.

Trappers completing the survey form and those personally interviewed were interested and concerned with furbearer management; 196 out of the 198 returnees voluntarily supplied their names and addresses and stated that they would be willing to discuss trapping in Oklahoma with me at a later date. Interest in furbearer management was also evidenced by recommendations made. The most common recommendation was that the Oklahoma Department of Wildlife Conservation should regulate the running of raccoons with dogs (Table XIII). Many trappers (not of the same locale) expressed that the number of raccoon in their area was decreasing because of the large number of animals taken througout the year, and that the running of raccoons with dogs during the female pregnancy period lessened the chance of kit survival.

Concern over the scarcity of all furbearing animals led to the recommendation that the Oklahoma Department of Wildlife Conservation initiate a restoration or restocking program. This was the second most commonly expressed recommendation.

The third most common recommendation from licensed trappers returning the mail questionnaire (but not expressed by trappers personally interviewed) was increased law enforcement activities. Trappers cited specific illegal activities including stealing of traps and catch, trapping without a license, placing traps in an area without identifying the area with signs, and individuals not checking their traps in a prudent period of time.

TABLE XIII

RECOMMENDATIONS MADE BY FUR HARVESTERS IN OKLAHOMA

Recommendation	# Trappers Stating
Control the taking of raccoon with dogs	29
Restock or repopulate areas with furbearers	15
Enforce trapping laws; restrict illegal trapping activities	14
Allow trapping of bobcat	5
Do not require posting of land where traps are set	4
Require posting of land where traps are set	4
Lengthen the fur harvest season	4
Offset trapping and bird-hunting seasons	4
Require license-tags and permission to trap on private land	3
Do not require permission to trap on private land	3
Leave things as they are	3
Lower professional trapper license fee or raise the number of traps allowed	3
Create a bag limit for furbearers	3
Allow trapping on Federally owned lands	3
Shorten the season (fur harvest)	3
Classify coyotes as furbearers	2
Require license to sell furs	2
Have annual surveys of furbearers	2
Enforce checking of traps	2
Provide a list of dealers to trappers	2
Classify skunk as vermin	2
Keep the bobcat season closed	2
Legalize snares	1
Use only single-spring traps	1

Although 78 per cent of the trappers indicated that they would prefer the Oklahoma Department of Wildlife Conservation to place more emphasis and funding on furbearer management, 55 per cent are not willing to pay the cost of management through increased license fees. Oklahoma trappers were not willing to pay for an improved furbearer management program via a fur tag system either. On a question concerning initiating a fur tag system in Oklahoma, 72 per cent of the 192 individuals responding stated that they would not support a fur tag system while 17 per cent noted that they would if a tag for each fur cost 25¢. Approximately 98 per cent of the trappers stating that they would support a tagging system also estimated that their trapping expenses were over $250 per year and stated that their total income was greater than $5,000 per year.

CHAPTER IV

A COMPARATIVE ANALYSIS OF FUR HARVEST REGULATIONS

Each of the United States, with the exception of Hawaii, provides for the regulation of furbearer harvest. These regulations pertain to the actions of fur takers and fur dealers as well as to methods of fur harvest. In order to gain perspectives on Oklahoma's regulations, a review of state regulations was undertaken fall, 1977. Forty-seven states responded to a request for specific information (Appendix D).

Fur Trapper Rules and Regulations

Fur trapping license (1976-77) fees ranged from $1.25 to $150.00, with the average cost being slightly less than $10.00 (Table XIV). Non-residents had to purchase a special license in most states. Generally, the charges for non-residents were substantially higher than charges for resident licenses. States that do not issue non-resident licenses charged only token fees for resident trapping licenses.

The licensing system is complicated considerably by the practice of granting exemptions or fee waivers. About 66 per cent of the states reporting provided for some sort of license waiver, mainly for reasons of age or land ownership. It was found that states with high out-of-state license fees were more likely to grant exemptions than those charging token amounts for licenses (Tables XV and XVI).

TABLE XIV

TRAPPING LICENSE FEES, BY STATE FOR RESIDENTS AND NON-RESIDENTS

Amount of Fee	Number of States Selling Resident Licenses*		Number of States Selling Non-Resident Licenses**	
		Per cent reporting states		Per cent reporting states
0.00	0	0.00	0	0.00
$5.00 or Less	14	38.88	0	0.00
$5.01-15.00	21	58.33	1	3.33
$15.01-50.00	0	0.00	11	36.66
Over $50.00	1	2.77	11	36.66
No License Issues	0	0.00	7	23.33

* 36 States supplied information concerning the cost of a resident license.

** 30 State supplied information concerning the cost of a non-resident license.

TABLE XV

RESIDENT TRAPPING LICENSE FEE STRUCTURE AND EXEMPTION PRACTICES
(NUMBER OF STATES)

Exemption Practices	License Costs		
	$5.00 or less	$5.01-15.00	over $15.01
No Exemptions	4	4	0
On Own Land	4	8	0
On Land with Landowners Permission	1	0	0
Parents on Childrens Land	1	1	0
Persons not Selling Catch	1	0	0
Age	2	8	0
American Indians	1	1	0
On Leave from Active Military Duty	3	4	0
Low Income	1	0	1
Disabled	2	2	0

TABLE XVI

NON-RESIDENT TRAPPING LICENSE FEE STRUCTURE AND EXEMPTION PRACTICES
(NUMBER OF STATES)

Exemption Practices	License Costs					
	$5.00 or less	$5.01 to 15.00	$15.01 to 25.00	$25.01 to 50.00	over $50.00	no license issued
No Exemptions	0	0	0	1	5	1
On Own Land	0	0	2	3	4	3
On Land With Landowners Permission	0	0		0	0	1
Parents on Childrens Land	0	0	0	0	1	1
Persons Not Selling Catch	0	0	0	0	1	1
Age	0	0	0	0	3	1
American Indians	0	0	0	1	0	1
On Leave from Active Military Duty	1	1	1	2	1	0
Low Income	0	0	0	2	0	0
Disabled	2	0	0	0	0	0

Trapper reports were required in 1976-77 by at least 13 states. Ten of these states used another method in conjunction with trapper reports. States penalizing non-compliers by not reissuing their trapping license appear to have a high degree of compliance with the reporting requirements. Enforcement of such a system would require centralized license issuance.

Fur Dealer Rules and Regulations

The average fur dealer license fee charged for residents ($14) is low in comparison to non-residents ($90). The range in fees (Table XVII) is large for both residents ($4 to $50) and non-residents ($20 to $500) with the higher fees emphasizing the commercial aspects of fur dealing.

A fur dealer license waiver is not granted by any of the states providing information, but some states do adjust the license fee according to gross sales or area covered. The few states not issuing non-resident fur dealer licenses charge low fees for resident licenses.

In 1976-77, fur transaction reports were required from licensed fur dealers in the majority of states. In most cases the penalty for non-compliance with the reporting procedure constitites a misdemeanor punishable by a fine or non-reissuance of license or both.

Other Fur Harvest Regulations

An attempt was made to identify and summarize the types of traps that are restricted or illegal in other states. But, illegal trap characteristics (i.e., size and style) vary so much between and within

TABLE XVII

FUR DEALER LICENSE FEES, BY STATE, FOR RESIDENTS AND NON-RESIDENTS

Amount of Fee	Number of States Selling Resident Licenses		Number of States Selling Non-Resident Licenses	
		Per cent reporting states		Per cent reporting states
None	0	0.00	0	0.00
$5.00 or less	6	24.00	0	0.00
$5.01-15.00	7	28.00	0	0.00
$15.01-50.00	7	28.00	9	40.90
Over $50.00	1	4.00	6	27.37
Adjustable	3	12.00	2	9.09
No License Issued	1	4.00	5	22.72
Number Reporting	25		22	

states that this attempt failed. However, it was discovered that traps identified with the owner's name and/or a number registered by the game and fish department were required by 32 of the 33 states supplying information.

Tags affixed to certain species after they are harvested are required in 19 of the 25 states reporting. Five of these states require tags on all animals shipped out-of-state. Tags (at a cost of less than one dollar per tag) are usually distributed by the state wildlife agency.

Oklahoma Fur Taker and Seller Regulations

Oklahoma's present system is characterized by such a variety of licenses and exemptions that considerable doubt is cast upon the system's usefulness for either revenue production or fur harvest management. Licenses specifically designated for furbearer harvest are:

1) resident amateur license (20 traps or less) $1.25;
2) professional trapper license (more than 20 traps) $50;
3) non-resident trapping license $250.

Exemptions from license requirements may be claimed for any one of the following reasons:

a) legal resident under 16 or over 65 years of age;
b) legal resident veterans having a disability of 60 per cent or more;
c) legal resident owners or tenants who hunt on land owned or leased by them;
d) citizens of Oklahoma on leave from military duty;
e) non-residents under 14 years of age.

Oklahoma trapping regulations have remained relatively static since 1935. The only changes which have taken place are:

1) change in criterion for professional trappers (presently a professional trapper is defined as an individual using 20 traps or more, before 1951 it was 10 traps or more);
2) elimination of "limited" dealer license, defined by the size of the dealer's business;
3) reclassification of age exemptions (presently, persons under 16 and over 65 years of age are exempt from licensing requirements. Between 1935 and 1951 only persons under 14 years of age were exempt);
4) penalty for dealer report non-compliance was changed from $25--$50 (1935) to $10--$100 (1949) to $10--$50 (1951).

The cost of an Oklahoma resident trapping license is lower than that of any other state. But because most trappers are able to qualify for a legal exemption quite easily, relatively few people purchase an Oklahoma resident trapping license (2144 in 1976). Oklahoma has more exemptions for a greater variety of reasons than any other of the reporting states excepting West Virginia. Only one person purchased an Oklahoma non-resident trapping license in 1976-77 (a license that costs more than twice the national average--$250 compared to $100).

Oklahoma is the only state that makes a legal distinction between amateur and professional trappers. In 1976-77, only nine persons purchased professional trapping licenses in Oklahoma. However, there is a number of individuals who are defined as professional trappers by law

but do not obtain such a license because they are able to qualify for an exemption. It is suspected on the basis of sales to dealers that many amateur or exempted trappers are in reality professional trappers as defined by Oklahoma regulation. For example, at least one trapper claiming an exemption for trapping on his own land sold 50 bobcat pelts. Similarly it is clear that some who trap on an amateur license sell numbers of furs far in excess of the production that can be reasonably expected from "less than 20 traps".

Another shortcoming in Oklahoma's trapping regulations is that trappers are required to report their season's take, but the Oklahoma Department of Wildlife Conservation does not enforce this requirement (even though a penalty of $10-50 is written into the regulations). Only four per cent of the licensed trappers (92 out of 2144) submitted reports for the 1976-77 season. Furthermore, only 20 per cent of the submitted reports were notarized in compliance with requirements.

The cost of a resident fur dealer license in Oklahoma ($15) approximates the national average ($13.81). The same is true of non-resident fur dealer licenses ($50 in Oklahoma compared to the national average of $89).

Reports have been required from fur dealers in Oklahoma since 1935. Compliance with this regulation has never been 100 per cent, however, the penalty ($10 -50) for dealer non-compliance with the reporting system is rarely if ever enforced. No follow-up action is taken if a dealer submits incomplete or inaccurate reports.

The Oklahoma Department of Wildlife Conservation requires that "all traps bear the owner's name or identification attached thereto,

except for a person trapping on his own property" (Article 26, Sections 3-103 and 5-401 of the Constitution of Oklahoma). This regulation does not state a specific form of trap identification, thus it cannot be enforced.

CHAPTER V

RECOMMENDATIONS

Fur Harvesters Licensing Requirements

A fur harvesters licensing system may be designed to serve one or more of the following objectives:

to raise revenue;

to monitor or control harvest;

to monitor or control harvesters;

to reward or penalize certain harvesters or potential harvesters. Under these objectives, Oklahoma's present licensing system is in need of revision for it does not serve to manage, monitor, or control harvest or harvesters. Oklahoma's present licensing system does serve to reward or penalize certain harvesters or potential harvesters. This form of discrimination may not be a legitimate wildlife management objective, but there are certain political justifications involved.

If revenue production is the objective, then license fees should be increased, or a system initiated that would tax each pelt sold to a dealer. If data collection is the objective, then dealer reports should be revised to provide needed information on the fur harvest and fur harvesters. Also universal licensing should be initiated in order to facilitate data collection from all of the fur harvesters.

If fur harvester licensing requirements were eliminated entirely, it would reduce cost (enforcement and production of licenses) to the

Oklahoma Department of Wildlife Conservation and it would eliminate discrimination among different types of fur harvesters. Elimination of licensing requirements would not greatly reduce revenue to the Oklahoma Department of Wildlife Conservation, nor would it reduce the amount of data utilized in furbearer management. If licensing requirements were eliminated and a tax were collected on furs sold to dealers, a substantial amount of revenue could be generated and enforcement procedures would be simplified.

If licensing is to continue, the number and types of exemptions to the fur trapping licensing requirement should be modified and a license or permit should be required for all persons taking and selling furs. In 1976-77, 2,619 trapping licenses were sold in Oklahoma; persons holding these licenses account for only 40 per cent of the furbearing pelts sold. The remainder of the pelts were produced by individuals claiming exemptions or holding hunting licenses, or by persons not reporting a license type or exemptions at the time of sale. Thus, there are a large number of individuals in Oklahoma who harvest furbearers but their interest is not reflected in license sales because they are able to qualify for one or more of the several exemptions to the trapping license requirement; sixty per cent of individuals utilizing furbearing resources do not provide fees to assist in the management of the resource. Ninety-six per cent do not contribute reports that allow assessment of the harvest and sale of pelts.

If the Oklahoma Department of Wildlife Conservation feels that under certain circumstances individuals should receive the benefit of exemption from licensing requirements, a special license or permit could be issued free or at minimal cost to the individual. Issuing a

special license would enable enforcement of the requirement that all sellers have a license without discouraging individuals possessing certain characteristics (i.e., low income, disabled) from taking furs. Such a procedure could provide revenue and allow more complete information on the characteristics and distribution of the fur harvester population to aid in management decisions. Selling pelts of animals that were taken for purposes of depredation should require a license to permit consistent enforcement of the universal licensing requirement.

The distinction between amateur and professional trappers should be eliminated unless the level of enforcement is increased. In 1976-77, Oklahoma was the only state (legally) classifying trappers on the basis of the numbers of traps used. Law enforcement officials would have to check each trap line to determine if an individual was using more than 20 traps (definition of a professional trapper in Oklahoma). The price differential in license types (resident amateur $1.25, professional $50.00) and the fact that penalties are rarely if ever enforced, apparently discouraged many individuals from identifying themselves as professional trappers. In 1967-77, only nine individuals procured a professional trapping license. Such a requirement, which appears to penalize the individual complying but does not penalize those who do not comply, definitely needs review.

The cost of an Oklahoma fur harvester license should be increased to generate revenue for use in furbearer management but not increased to the point that individuals are discourgaed from procuring a license. The cost of an Oklahoma resident amateur license (the only trapping license sold in significant numbers) has not changed since 1935. In 1976-77, only $3,309 was generated from trapping license sales. It is

obvious that a quality furbearer management program cannot be supported by the revenue currently generated by these sales. However, in the 1978 Oklahoma Department of Wildlife Conservation Furbearer Report, it is stated that a self-sustaining furbearer management program could be initiated if a cost, near the national average of $8.90, or the regional average of $5.00, was charged for a fur taker's license and required of every person taking and selling furs, and if application were made for federal aid reimbursement on the biological expense; if a $8.00 furtaker license were required of the approximately 4,000 individuals selling furs in Oklahoma $32,000 would be generated for furbearer management use.

Reduction of the non-resident license fee of $250 would encourage more non-resident trapping. In 1976-77, the cost of a non-resident trapping license was $250, more than twice the national average. On the other hand, this excessive price may simply be discouraging many non-residents from procuring licenses (in 1976-77 only one non-resident trapping license was sold); lack of enforcement does not keep non-residents from trapping.

It is recommended that fur harvesters' licenses be issued for a period (such as 1 June 1978 to 31 May 1978) so that fur takers can use one license for the entire fur harvest season. In 1976, Oklahoma fur trapping licenses were issued for the period of 1 January 1976 to 31 December 1976, thereby requiring a trapper to procure two licenses if he wished to trap an entire season. This time framework hampers analysis and may lead to misinterpretation of data unless a data processing system was able to identify fur sellers by some other means than license number. If not, the resultant analysis of fur dealer reports may

indicate that there was a large number of trappers in an area (due to double-counting) but that individual catch in that area was low (because only a portion of an individual's take would be accounted for by one license number).

In Oklahoma, trapping licenses are distributed to several places of business for sale to trappers. Businesses selling trapper licenses should be visited regularly and penalties enforced if the license seller refuses to record all information required on the license in a legible manner or does not submit the receipts to the Oklahoma Department of Wildlife Conservation. In 1976-77, slightly less than 50 per cent of the trapping license receipts were returned to the Oklahoma Department of Wildlife Conservation. Those that were returned were often illegible and incomplete. It is possible that information would be more accurate and complete if licenses were sold by fur dealers or tag agents.

Fur Dealer Licensing Requirements

Present Oklahoma fur dealer licensing requirements appear adequate. The charge for a resident and non-resident fur dealer license in Oklahoma is not appreciably different from the national average. If the cost of a fur dealer license were increased, additional revenue would be provided to the Oklahoma Department of Wildlife Conservation for use in furbearer management. However, an increase in cost may also discourage individuals from procuring licenses. Wilson (1957) believed that the number of furs shipped out-of-state was a function of the availability of dealers in that area. In 1976-77, the majority of Oklahoma appeared to be well-serviced by fur dealers. However, if the cost

of a license was increased to the point that some individuals were discouraged from procuring licenses, then fur harvesters in some areas may begin to ship a larger percentage of their fur take out-of-state. Thus, unless a system was initiated to monitor out-of-state shipments, it may appear that the fur harvest had decreased in certain areas when in fact the number of furs shipped out-of-state had increased because of the absence of area fur dealers.

It is recommended that fur dealer licenses be issued for a period that would allow fur dealers to use one license for the entire fur trade season. In 1976, fur dealer licenses were issued for the period of 1 January 1976 to 31 December 1976. Thus a dealer would have to purchase two licenses if he wished to purchase furs throughout the entire season. This practice hampers enforcement and analysis.

Fur Trapper Reporting Requirements

Fur trapper reports may be used to obtain information on marketing patterns, individual catch data, and trends and composition of the annual catch. The quality of information received through this method is questionable (Mohr, 1943; Wilson, 1953). The majority of states utilizing fur trappers' reports to analyze the fur harvest do so in conjunction with another method, primarily because of the low level of compliance with the reporting requirement.

Fur trapper reports should be discontinued unless the level of enforcement is increased and information from the report is used for management purposes. Oklahoma has required trappers to submit reports of their kill since 1935. However, there is no indication that data from these reports have ever been used for furbearer management. In

the past, no attempt has been made to coerce trappers into compliance with the reporting procedure, and the rate of compliance with the reporting requirement is extremely low. This indicates that neither the Oklahoma Department of Wildlife Conservation or Oklahoma fur trappers regard trapper reports as an important source of data for furbearer management. This regulation should be discontinued or greatly modified.

If trapper reports are to be utilized in Oklahoma, the method of report form issuance should be changed, enforcement should be increased, cost (notarization and postage) to the trapper should be reduced, and trappers must be educated. In 1976-77, a licensed trapper had to contact the Oklahoma Department of Wildlife Conservation to obtain a fur trapper report form. After completing the report the trapper was then required to have it notarized and returned to the Department. Obviously, such a process discourages trappers from completing forms. During the course of personal interviews, many trappers indicated that they did not comply with the reporting requirement because it caused them to expend time, energy, and money (notary cost and postage) without deriving any benefits or receiving any penalties for non-compliance. Other trappers stated that they were not aware that fur trapper reports were required by the Oklahoma Department of Wildlife Conservation, or that there was a penalty of $10 to $50 for non-compliance. Fur trapper reports and fur harvest regulations should be issued with the trapper license and the requirement of notarization discontinued.

Enforcement might be more effective if the number of trappers required to submit reports were reduced to a sample of the population, Report forms could be mailed or delivered to this sample and law enforcement officials be given a list of non-compiliers. Penalties for

non-compliance could be monetary fines or non-reissuance of license. However, non-reissuance of license would be difficult to enforce unless all licenses were issued centrally or businesses selling licenses were supplied with a list of names of those in non-compliance.

If fur trapper reports continue to be used in Oklahoma, enforcement is imperative to insure compliance. However, enforcement of the present fur trapper reporting procedure is difficult because of the large number of trappers and the difficulty in contacting them.

Fur Dealer Reports

Fur dealer reports are highly acclaimed and are in widespread usage. This would seem to justify the continuation of the regulation that licensed fur dealers submit reports of purchases to the Oklahoma Department of Wildlife Conservation. Care must be given for collecting data by these means. Inherent errors must be recognized and accounted for in analyzing fur dealer reports for use in furbearer management. Other errors could be eliminated or drastically reduced if the fur dealer report form was revised.

The Oklahoma fur dealer reports should be modified to make them useful for management of Oklahoma's furbearing resources. Errors such as double-counting of furs due to transactions between dealers could be avoided if dealers were supplied with appropriate forms for noting that information. The number and species of "trash" and "blue pelts" encountered and information on the origin and destination of furs could also be obtained on a revised form. A suggested revision of a fur dealer report form is shown on Figure 20.

FUR DEALERS REPORT OF PURCHASE

To the Oklahoma Department of Wildlife Conservation

ne of Dealer _____ Registration Number _____ County of Residence _____ Date _____

te rchased	From Whom Purchased	Address Street	Address Town	Zip Code	License Type* Hunting	Trapping	Special	License #	County of Kill**	*** Resale	Badger #	Badger Price	Bobcat #	Bobcat Price	Beaver #	Beaver Price

Figure 20. Proposed Fur Dealer Report Form

Enforcement of current regulations should be increased to insure that fur dealers submit complete and accurate reports of purchase. Dealers should be visited regularly during the season and their records inspected to guarantee that all purchases are recorded correctly. In Oklahoma in 1976-77, the penalty for non-compliance with the reporting procedure was a fine of $10 to $50. However, this penalty was never enforced, thus reports from certain dealers were never analyzed and management could not be aided through such data. In other states, monetary fines and/or non-reissuance of licenses appears to be effective penalties if fur dealers do not comply with the reporting procedures.

To be effective in assisting resource managers, data such as those obtained from existing or revised fur dealer reports must be routinely and promtly analyzed. Fur dealer reports contain a wealth of information (the geographic distribution of the number and value of pelts harvested, individual catch records, and seasonal harvest variations) that may be thoroughly analyzed by computer. Computer-coding of fur dealer reports is time-consuming and delays analysis. To expedite analysis, reporting forms should be designed so that data can be key-punched directly from them.

Care must be taken to revise forms to ease in analysis (e.g., direct key-punching) without discouraging fur dealers from entering complete and accurate data. Fur dealer report forms were revised in 1978 so that dealers were required to record several pieces of information on <u>each</u> pelt purchased (Figure 21). During the course of personal interviews (particularly with those dealers handling large numbers of furs) many dealers disclosed that they did not take the time to list each pelt purchased, instead they recorded the total number and price

FUR DEALER'S MONTHLY REPORT

OF PURCHASES TO:

The Oklahoma Department of
Wildlife Conservation
Game Division
1801 North Lincoln
Oklahoma City, Oklahoma 73105

NAME OF DEALER: _____

MAILING ADDRESS: _____

CITY, ZIPCODE: _____

PHONE: _____

FUR BUYER LICENSE NUMBER: _____

FUR BUYER REGISTRATION NUMBER: _____

RANGER ASSIGNED: _____

If You Need More Of These Booklets, Phone Collect 405-521-2739.

If You Want A Summary Of This Report, Check Here _____

INSTRUCTIONS AND EXAMPLE

1. LEAVE THIS TYPE OF COLUMN BLANK.

2. ENTER THE DATE ON WHICH THE PURCHASE WAS MADE.

3. EVERY TIME YOU MAKE A PURCHASE, ENTER THE TAKER'S NAME, ADDRESS, LICENSE TYPE AND LICENSE NUMBER IN THE SPACES PROVIDED. (HUNTING, TRAPPING, EXEMPT) AND LICENSE #

4. THIS IS YOUR PERMANENT IDENTIFICATION NUMBER. IT WILL NOT CHANGE ANNUALLY. USE IT ON ALL CORRESPONDENCE.

5. LIST EACH AND EVERY FUR BOUGHT ON A SEPARATE LINE. ENTER THE SPECIES, THE COUNTY WHERE THE ANIMAL WAS TAKEN AND THE AMOUNT PAID FOR THE FUR IN THE SPACES PROVIDED.

FUR DEALER REGISTRATION NUMBER _____

For Office Use Only	Date Purchased	From Whom Purchased		Mailing Address of Taker			For Office Use Only	Type of License (Circle One)	License Number	Species of Fur	For Office Use Only	County of Kill	Price Paid
		Last Name	First Initial	Street/P.O. Box	City	Zip Code							
								H T E					
								H T E					
								H T E					
	6. Do Not Use the last row of each page (the one with numbers). It is for Office Use only.							H T E		7. Do Not Total Columns.			

Figure 21. 1978 Fur Dealer Report Form

(by species) for a purchase, or they did not enter the information at all.

Tagging Systems

Although the literature review revealed no successful examples of a tagging system, there are several states that use a tagging procedure to obtain fur harvest data. The majority of Oklahoma trappers surveyed, indicated that they would not support a tagging system in Oklahoma. Therefore, the use of a tagging system in Oklahoma is not recommended unless a controlled harvest is desired or information is needed that cannot be derived from fur dealer report data and resources are available for effective enforcement and analysis.

A tagging system utilized for the purpose of gaining information on the location of take would require non-transferable tags to be issued for a specified region and possibly affixed to pelts by a designated official, or a numbered tag that provided a space for the taker to enter harvest location information. Information on the tags would require compliance from fur harvesters, fur dealers, and enforcement personnel. A computer analysis would be a necessary component for a statewide tagging system.

Enforcement, A Final Word

Enforcement of the rules and regulations surrounding the fur harvest appears to be the key to a successful furbearer management program. Fur harvest regulations and the penalties for non-compliance with regulations must be clearly defined and made readily available to all persons involved in the fur harvest. Additional programs, or any

changes in existing programs should provide for adequate enforcement. Enforcement of the regulations must be carried out in a consistent and prescribed manner.

Areas where enforcement is an issue include:

1. licensing--enforce the requirements that pertain to the licensing of fur harvesters and fur dealers. Also insure proper issuance of licenses.
2. reports--insure that accurate and complete data are recorded and submitted to the Oklahoma Department of Wildlife Conservation in a specified amount of time by fur dealers and possibly by fur harvesters.
3. traps--enforce regulations regarding the setting and visiting of traps. Also insure that only specified types and numbers of traps are used by an individual during the fur harvest season.

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APPENDIX A

TRAPPER QUESTIONNAIRE

A STUDY OF OKLAHOMA FUR SALES AND TRAPPERS

1. Please fill in all ten columns for each kind of furbearer that you harvested during the 1976-77 season.

Species	Number taken with traps	Number taken with guns and/or dogs	Number Sold		Number of furs taken but not sold	Number of traps used	Did you use off-set jaw traps?		Did you use a stationary anchor or a drag?	
			In-Okla.	Out-of-State			No	Yes	Stationary	Drag
Badger	53	5	34	17	1	7.19	6	13	14	13
Bobcat	411	62	287	107	10	7.76	51	32	50	39
Spotted Skunk or Civet Cat	234	17	167	28	41	6.64	19	15	29	10
Coyote	885	193	628	309	40	7.53	42	37	51	46
Beaver	826	38	594	77	113	6.79	36	17	45	14
Gray Fox	284	19	225	60	4	7.14	31	20	33	30
Mink	124	2	99	4	1	6.91	23	8	29	11
Striped Skunk	954	116	539	146	231	6.62	54	22	58	22
Muskrat	1293	16	926	266	87	8.75	48	23	59	12
Opossum	3203	578	2382	407	220	7.29	75	36	96	34
Raccoon	2019	990	2221	316	96	7.87	83	46	101	47

2. In what county do you live? _____ In what counties do you do most of your trapping? _____

3. Did you sell your furs: to local fur buyers 138 at an auction 7 other 43 (Out-of-state)

4. From what city and state was the fur dealer(s) to whom you sold your pelts to? _____ City _____ State _____ City _____ State _____ City _____ State

5. Please estimate the total length of all your traplines: ave 8.09 range 0-100 miles.

6. At what time of day do you start to check your traplines?
   52 Before daylight 109 at daylight 20 midmorning 2 noon 29 afternoon

7. How long does it take you to run your trapline? ave. 2.72, 0-10 range hours per day.

8. Approximately how many days did you trap during the 1976-77 season?
   (Include part of a day as a full day) 36.13 ave., range 0-109 days

9. How many years of trapping experience do you have? 13.7 ave. years. (0-65 years range)

10. Please indicate all land on which you trapped during the 1976-77 season:
    80 your own land exclusively 156 other private land 37 state owned land
    26 federally owned land 33 municipally owned land 23 other

11. Did you trap and/or hunt furbearers in Oklahoma during the past 5 years? If so, please indicate all that apply.
    Trapped during 169 1976-77 126 1975-76 99 1974-75 70 1973-74 65 1972-73
    Hunted during 100 1976-77 84 1975-76 77 1974-75 69 1973-74 68 1972-73

12. Please estimate your total trapping expenses for the 1976-77 season. (Traps, lures, transportation costs, license, etc.) $144.03 (ave), 1-1,000 range.

13. Would you prefer that the State Wildlife Department place more emphasis and funding on furbearer management? _____ Yes _____ No

14. Do you feel that the present trapping license fee ($1.25 for resident amateurs) is:
107 too low 82 just right 5 too high.

15. Would you support a tag for each fur harvested if it cost:
32 25¢ 14 50¢ 7 $1.00

I would not support a fur tag system: 139

16. Do you have any recommendations concerning trapping in Oklahoma? _____

17. Would you be willing to have me call on you in order for me to obtain further information or insights on trapping in Oklahoma? 196 Yes 2 No

18. Would you like a brief summary of the final report? _____ Yes _____ No

19. If yes to either of the above, would you please give me your name, address, and telephone number? _____

20. How old are you? 36.36 ave years (12-79 range)

21. What is your occupation? 38 Student 24 Self-employed 30 Farmer
20 White collar 52 Blue collar 4 Temporarily unemployed 44 Retired

22. What was the last grade of schooling that you completed? 11.05 ave. 0-18 range

23. What is your yearly income from sources other than trapping?
71 0-$5,000 57 $5,000-10,000 34 $10,000-15,000 12 $15,000-20,000
17 Above $20,000

Thank you for your cooperation. If you have any questions or desire more information concerning this project, contact:

Susan Day
Department of Geography
Oklahoma State University
Stillwater, Oklahoma 74074
405-624-6248

NOTE: Numbers appearing in question #1 under: the columns headed "Number taken with traps", "Number taken with guns and/or dogs", "Number Sold", and "Number of furs taken but not sold" refer to the total number of animals reported by trappers; the column headed "Number of traps used" refers to the average number of traps used by reporting trappers for each species; the columns headed "Did you use off-set jaw traps" and "Did you use a stationary anchor or a drag?" refer to the total number of trappers indicating that choice.

Unless noted as "ave." or "range", numbers appearing as answers to questions 2-23 refer to the total number of trappers indicating that choice.

Dear Trappers and Furdealers:

As I am sure most of you are aware, there is a strong and steady anti-trapping pressure exerted by various groups and individuals both on the state and national levels. Our official position is that trapping removes surplus animals and is no less humane than nature's natural processes of starvation, disease, and predation. It is our responsibility, however, to provide sufficient regulation and enforcement to ensure that the harvest does not reach a level which would jeopardize the future of a species in any area.

We must be prepared to defend trapping and at the same time ensure the security of the game species to the fullest extent within our authority. To defend trapping, we must have good information on population distribution and relative abundance, and on levels of harvest.

So, to protect your interests and meet our responsibility, we are conducting a review of all aspects of furbearer harvest to include types and costs of licenses needed, possible fur tag requirements, reporting requirements for dealers and trappers, and acquisition of field data on furbearer status by this department. Your support in these efforts is urgently needed, both to improve the system at the onset, and to continually provide information as requested through the formal reporting procedures.

The enclosed material from Miss Susan Day is a part of the larger program, and we would greatly appreciate your supplying the requested information. The answers you provide on this questionnaire will not be used to take legal action against you.

Sincerely,

George B. Wint
Director

CBW:JHE:bkh
Enclosure

Oklahoma State University
DEPARTMENT OF GEOGRAPHY

STILLWATER, OKLAHOMA 74074
HOME ECONOMICS EAST
(405) 624-6248

September 1, 1977

Dear Trapper:

I am presently working on a study concerning the factors which influence fur harvest is Oklahoma. The information from this study may assist the Oklahoma Wildlife Commission in reviewing regulations surrounding furbearer trapping.

To insure that trappers' views are represented in this study, I would greatly appreciate your personal assistance, for, as a trapper, you may be one of those who best understand the present trapping situation in Oklahoma. Therefore, the information that you provide in this questionnaire, and the recommendations that you may give, may influence the future of trapping regulations in Oklahoma.

This questionnaire is being sent to trappers who procured a license and/or sold furs to a registered fur dealer in Oklahoma during the 1976-77 trapping season. Please fill out this questionnaire to the best of your knowledge and mail it back in the enclosed postage paid envelope as soon as possible. If you do not keep records of your harvest, please give your best estimate.

The information and recommendations that you supply on this questionnaire will be considered confidential.

Thank you very much for your cooperation.

Sincerely,

Susan Day

Susan Day
Research Assistant

SQD/njs

APPENDIX B

1976-77 OKLAHOMA FUR DEALER REPORT FORM

FUR DEALER'S MONTHLY REPORT OF PURCHASE
To the Wildlife Conservation Dept.

Name of Dealer
Mailing Address

Fur Buyer's License No. 244, County McClain, Date 12 31 76

Date Purchased	From Whom Purchased	Address	Trappers Lic. #	BADGER		BOBCAT		CIVET CAT		COYOTE	
				No.	Price Pd.	No.	Price Pd.	No.	Price Pd.	No.	Price P
1. 12 12		Wynnewood	25-25								
2. 12 12		Sulphur	1161								
3. 12 12		Ada	177166								
4. 12 12		Ada	15377					3	750		
5. 12 12		Sulphur	85781								
6. 12-12		Roff	60389								
7. 12-12		Tishomingo	6963							1	1500
8. 12-12		Springer	155382								
9. 12 18		Rowen	1673								
10. 12 18		Ravia	46439								
11. 12 18		Ravia	118965								
12. 12 18		Ravia	673							2	40.00
13. 12 18		Millcreek	161353			2	55.00				
14. 12 18		Millcreek									
15. 12 18		Davis	Undrage			1	30.00				
16. 12 18		Daughenty	3550								
17. 12 18		Daughenty	41889								
18. 12 18		Daughenty	30531								
		TOTALS				3	8500	3	750	3	5500

APPENDIX C

QUESTIONS PUT TO FUR DEALERS IN INFORMAL INTERVIEWS

1. How long have you been in the fur dealing business?
2. What area do you buy furs from? (Local, statewide, etc.,)
3. Do you have an "agent" working for you? If so, do they travel or gather furs from the area they reside in?
4. Who do you buy pelts from? (Local trappers, out-of-state sellers)
5. Where do you sell your furs?
6. What form do you prefer the pelt in?
7. Would you please estimate the number of trash and blue pelts you came into contact with when you were purchasing pelts during the 1976-77 fur harvest season.
8. What form of advertisement do you use?
9. Do you have any recommendations concerning furbearer management in Oklahoma?

APPENDIX D

OTHER STATE'S FUR HARVEST RULES AND REGULATIONS

FUR TRAPPER'S

State	License Cost Resident	License Cost Non-Resident	Exemptions Allowed	Special License issued	Questionnaire used	Report Required	Penalty for non-compliance	Rate of compliance
Alabama	$ 5.15	$ 25.15	N.A.	No	No	Yes	$50-$200	"slack"
Alaska	3.00	200.00	1,9	Yes	No	No	--	--
Arizona	N.A.	N.A.	None	No	Yes	No	--	--
Arkansas	5.00	50.00	None	No	No	No	--	--
California	10.00	25.00	2	No	No	Yes	N.A.	N.A.
Colorado	5.00	50.00	None	No	No	Yes	N.A.	90-95%
Connecticut	N.A.	N.A.	N.A.	No	No	Yes	N.A.	N.A.
Delaware	5.20	40.25	1,2	No	No	No	--	--
Florida	3.00	100.00	None	Yes	Yes	No	--	--
Georgia	150.00	500.00	None	Yes	No	No	--	--
Hawaii	NO TRAPPING IN STATE							
Idaho	5.00	75.00	None	No	No	Yes	N.A.	67%
Illinois	3.00	N.A.	None	No	Yes	Yes	Lic. not reissued	15-20%
Indiana	3.25	N.A.	2	No	No	No	--	--
Iowa	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Kansas	3.00	None	5,7,8	No	No	No	--	--
Louisiana	2.00	N.A.	None	No	No	Yes	N.A.	N.A.
Maine	13.00	250.00	1,2,3	No	No	No	--	--

State	License Cost Resident	License Cost Non-Resident	Exemptions Allowed	Special License issued	Questionnaire used	Report Required	Penalty for non-compliance	Rate of compliance
Maryland	8.00	25.50	2	Yes	No	Yes	N.A.	N.A.
Massachusetts	11.50	N.A.	1,2,6	Yes	No	No	--	--
Michigan	3.00	N.A.	N.A.	Yes	No	No	--	--
Minnesota	N.A.	N.A.	N.A.	N.A.	No	Yes	N.A.	N.A.
Mississippi	5.25	201.00	N.A.	No	No	No	--	--
Missouri	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Montana	10.00	N.A.	1,2,6	Yes	No	No	--	--
Nebraska	14.50	207.50	None	Yes	Yes	No	--	--
Nevada	7.50	40.00	1	No	Yes	No	--	--
New Hampshire	10.50	N.A.	1,2,5	Yes	No	Yes	Lic. not reissued	95%
New Jersey	10.25	100.25	N.A.	No	No	No	---	--
New Mexico	N.A.	N.A.	N.A.	No	Yes	No	--	--
New York	6.25	200.00	1,2,5	No	No	Yes	N.A.	N.A.
North Carolina	10.00	60.00	2	Yes	No	No	--	--
North Dakota	N.A.	N.A.	N.A.	N.A.	Yes	N.A.	N.A.	N.A.
Ohio	4.00	30.50	2,5,6	No	No	No	--	--
Oregon	6.00	N.A.	1,2	No	No	Yes	N.A.	90%
Pennsylvania	8.25	40.00	None	Yes	No	No	--	--
Rhode Island	2.00	N.A.	1	No	No	Yes	N.A.	N.A.

State	License Cost Resident	License Cost Non-Resident	Exemptions Allowed	Special License issued	Questionnaire used	Report Required	Penalty for non-compliance	Rate of compliance
South Carolina	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
South Dakota	5.00	None	1,2	No	Yes	No	--	--
Tennessee	5.30	15.30	1,5	No	No	No	--	--
Texas	5.00	200.00	10	No	No	No	--	--
Utah	N.A	N.A	N.A.	N.A.	Yes	N.A.	N.A.	N.A.
Vermont	N.A.	N.A.	N.A.	No	No	No	--	--
Virginia	7.50	50.00	1,2,7	Yes	No	No	--	--
Washington	N.A.	N.A.	N.A.	N.A.	No	Yes	N.A.	N.A.
West Virginia	5.00	None	1,2,3, 4,5,6, 7,8	No	Yes	No	--	--
Wisconsin	4.00	N.A.	None	No	No	Yes	N.A.	N.A.
Wyoming	N.A.	None	N.A.	N.A.	N.A.	No	--	--

EXEMPTIONS REFERENCED ON TRAPPING RULES
AND REGULATIONS OF U.S. STATES

1. Age
2. On own land
3. Resident parents on children's land
4. On land with landowner's permission
5. On leave from active military duty
6. Disabled
7. American Indian
8. Not selling catch
9. Length of residency

N.A. Data not available

FUR DEALER'S

State	License Cost Resident	Non-Resident	Report Required	Rate of Compliance	Penalty for non-compliance	Accuracy
Alabama	Variable	Variable	Yes	N.A.	$50-200	N.A.
Alaska	$20.00	$200.00	Yes	50%	N.A.	N.A.
Arizona	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Arkansas	50.00	N.A.	Yes	50%	N.A.	N.A.
California	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Colorado	50.00	100.00	Yes	90%	N.A.	100%
Connecticut	15.00	75.00	N.A.	N.A.	N.A.	N.A.
Delaware	5.00	N.A.	Yes	N.A.	$10-50	N.A.
Florida	Variable	500.00	Yes	"poor"	N.A.	"good"
Georgia	Variable	Variable	Yes	N.A.	Misdemeanor	N.A.
Hawaii	NO TRAPPING IN STATE					
Idaho	5.00	20.00	Yes	N.A.	N.A.	N.A.
Illinois	10.00	none	Yes	90%	Lic. not reissued	"poor"
Indiana	10.00	N.A.	Yes	90%	N.A.	N.A.
Iowa	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Kansas	10.00	25.00	Yes	N.A.	N.A.	N.A.
Kentucky	N.A.	N.A.	Yes	97%	N.A.	90%
Louisiana	25.00	N.A.	Yes	100%	Misdemeanor	N.A.
Maine	32.00	N.A.	Yes	N.A.	N.A.	N.A.
Maryland	2.00	25.00	N.A.	N.A.	N.A.	N.A.
Massachusetts	N.A.	N.A.	Yes	"high"	N.A.	60-70%
Michigan	10.00	N.A.	Yes	N.A.	N.A.	N.A.
Minnesota	N.A.	N.A.	Yes	100%	Misdemeanor	N.A.
Mississippi	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Missouri	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Montana	10.00	50.00	Yes	N.A.	Misdemeanor	N.A.
Nebraska	N.A.	N.A.	Yes	N.A.	N.A.	N.A.
Nevada	5.00	35.00	No	--	--	--
New Hampshire	Variable	Variable	Yes	100%	N.A.	N.A.
New Jersey	N.A.	N.A.	Yes	N.A.	N.A.	N.A.
New Mexico	N.A.	N.A.	Yes	N.A.	N.A.	N.A.

State	License Cost Resident	Non-Resident	Report Required	Rate of Compliance	Penalty for non-compliance	Accuracy
New York	N.A.	N.A.	No	--	--	--
North Carolina	N.A.	N.A.	Yes	N.A.	N.A.	N.A.
North Dakota	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Ohio	N.A.	N.A.	Yes	"good"	N.A.	N.A.
Oregon	10.00	N.A.	Yes	N.A.	N.A.	N.A.
Pennsylvania	N.A.	N.A.	Yes.	N.A.	N.A.	N.A.
Rhode Island	5.00	25.00	No	--	--	--
South Carolina	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
South Dakota	N.A.	N.A.	Yes	75%	N.A.	N.A.
Tennessee	N.A.	N.A.	Yes	"poor"	N.A.	N.A.
Texas	Variable	Variable	Yes	N.A.	N.A.	N.A.
Utah	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Vermont	4.00	20.00	Yes	N.A.	N.A.	N.A.
Virginia	25.00	75.00	Yes	100%	N.A.	N.A.
Washington	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
West Virginia	N.A.	N.A.	Yes	88%	N.A.	67%
Wisconsin	25.00	200.00	Yes	N.A.	N.A.	N.A.
Wyoming	N.A.	N.A.	Yes	N.A.	Lic. Not reissued	N.A.

VITA

Susan Diane Day

Candidate for the Degree of

Master of Science

Thesis: A SURVEY OF FURBEARERS AND TRAPPERS IN OKLAHOMA

Major Field: Geography

Biographical :

Personal Data: Born in Park Rapids, Minnesota, July 30, 1954, the daughter of Mr. and Mrs. L. J. Day.

Education: Graduated from Menahga Public High School, Menahga, Minnesota, in May, 1972; received Bachelor of Arts degree in Geography and Psychology from Moorhead State University in 1976; completed requirements for the Master of Science degree at Oklahoma State University in December, 1978.

Professional Experience: Graduate research assistant, Oklahoma State University, 1976-78.