


AN ABSTRACT OF THE THESIS OF

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Title: Attitudes and characteristics of Kansas trappers

Abstract approved: 

The trapping of furbearers provides a wide range of benefits to both wildlife populations and people. However, trapping has become increasingly scrutinized to the point that antitrapping groups have been successful at getting state ballot initiatives implemented that prohibit or significantly restrict legal trapping. Trapper participation is changing rapidly, as well. An assessment of trappers and their attitudes toward current trapping-related issues would be beneficial to understand better the effect these issues will have on trapper participation, and to assist in policy making decisions. Consequently, I mailed a self-administered survey questionnaire that addressed trapper participation, trap use, and Best Management Practices (BMPs) for trapping to a random sample of 400 Kansas trappers. Respondents were primarily Caucasian males from rural areas who participated in a variety of other outdoor-related activities besides trapping. They were a diverse group in respect to participation level, experience, and motivations. Trapper organization members tended to be more active and highly involved in trapping than nonmembers. Respondents, who were familiar with BMPs, were generally favorable towards them, but a continuing BMP outreach program will be necessary to inform and gain the acceptance of most

trappers. A phase-out time, which would allow trappers to become more familiar with some of the newer trap designs and reduce the financial burden of having to replenish an entire trap supply, is essential to minimize the effect that BMPs could have, should they become regulations, on trapper participation. State wildlife management agencies should publicly and actively support legal trapping as a beneficial and necessary activity in today's highly modified environment.

Attitudes and Characteristics of Kansas Trappers

A Thesis Presented

to

the Division of Biological Sciences

Emporia State University

In Partial Fulfillment

of the Requirements for the Degree

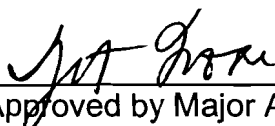
Master of Science

by

Matthew S. Peek

May 2000

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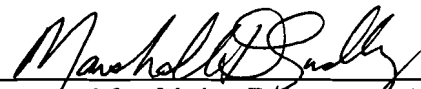
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## **PREFACE**

My thesis was written in a style suitable for the Wildlife Society Bulletin.

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## INTRODUCTION

### ***Background***

For the past 11,000 years, furbearers have provided food, clothing, and religious symbols for people in North America (McGee 1987, Wright 1987). Trapping of furbearers was one of the most important factors influencing European settlement of the North American continent (Ray 1987), and remains an important part of the American heritage (NEFRTC 1996). Although the importance of the fur trade to our society has decreased, trapping and trading of fur resources are still important components in the lifestyles of many people, and trapping is still a necessary component of today's wildlife management techniques (Deems and Pursley 1983, Giroux 1987, NEFRTC 1996). Among the numerous benefits of trapping are population control, nuisance control, research opportunities (Payne 1980), and millions of dollars in annual profit for American fur harvesters (IAFWA Fur Resources Committee 1994).

Management of wild animals is necessary in many areas today because of demands placed on the environment by humans (Payne 1980, Dolbeer et al. 1994). Many control techniques and preventative measures are used to manage wildlife populations and alleviate nuisance wildlife problems (de Almeida 1987, Dolbeer et al. 1994), but techniques involving population reduction are desirable in some situations (Dolbeer et al. 1994, NEFRTC 1996). Hunting is an effective means of managing some species of animals, but because of the nocturnal and secretive behavior of most furbearers, hunting alone is a relatively ineffective means of management (Payne 1980, Deems and Pursley 1983). However,

regulated trapping is a very effective and efficient means of managing furbearers (Deems and Pursley 1983, NEFRTC 1996).

Despite the benefits provided by trapping to both people and furbearer populations, the ability of wildlife managers to regulate wildlife populations through trapping is threatened by an expanding antitrapping and animal welfare/rights movement. This movement is composed mainly of groups who want to eliminate trapping, but also includes those who want trapping to be more humane. These groups have become an important political force in North America and Europe (de Almeida and Cook 1987), and have been increasingly effective at implementing public policies that prohibit or restrict furbearer harvest and use (Muth et al. 1996, Hamilton et al. 1998, Cockrell 1999).

During the past three decades, antitrapping sentiment in the United States has escalated to an all-time high. Between 1968 and 1982, some form of trapping was banned by 90 local governments (Gentile 1987). Over 360 antitrapping bills were introduced at all levels of government, and seven states banned the use of foothold traps between 1968 and 1986 (Gentile 1987). Since 1994, three more states (California, Colorado, and Massachusetts) have banned and one (Arizona) has greatly restricted use of foothold traps and snares (Andelt et al. 1999).

Recent surveys have indicated that, although most people admittedly have little or no knowledge of trapping (83% in Illinois -- Responsive Management 1994), public attitudes toward trapping are very negative. In a nationwide survey, 59% of respondents disapproved of trapping, and only 34% approved

(Responsive Management 1995). Seventy-one percent of Illinois residents disapproved of trapping, whereas only 22% approved (Responsive Management 1994). Manfredo et al. (1999) reported that 61.1% of Colorado residents would vote to ban trapping, but only 28.7% would vote to allow trapping to remain legal. Ironically, this survey, which was commissioned by the Colorado Division of Wildlife, further encouraged antitrapping groups to take the trapping issue to the ballot (Cockrell 1999).

In 1995, one of the principal buyers of North American furbearer resources, the European Union (E.U.), banned the importation of furbearer pelts and products from any country that refused to prohibit certain trap types or meet international "humane" trap standards. Although an agreement between the United States and E.U. has delayed the ban to allow time for trap testing (Linscombe et al. 1998), the E.U. situation is perhaps the best example of the powerful political pressures applied by the well-funded and organized antitrapping groups.

In addition to antitrapping concerns, a variety of other factors are responsible for reducing trapping opportunities, and perhaps even the desire of people to trap. These factors include direct interference from nontrappers, excessive regulatory restrictions, and limited land access because of residential and commercial development, changing land ownerships, habitat fragmentation, and posting of land. Each of these factors could be a threat to the traditional harvest and use of furbearer resources (Bailey 1981, Siemer et al. 1991, Muth et al. 1996).

There has also been a decreasing trend in both the sale of trapping licenses and pelt prices for most species in recent years (Siemer et al. 1991, Roy 1997). In the United States, the estimated number of licensed trappers fell from almost 300,000 in 1987 to less than 160,000 in 1990, and the value of furs harvested during this same period fell from \$121 million in 1987 to \$14 million in 1990 (IAFWA Fur Resources Committee 1994). In Kansas alone, the number of licensed furharvesters fell from 8860 in 1987 to 3609 in 1990. The value of pelts harvested and sold to fur dealers in Kansas also fell from \$1,942,849 in the 1986-87 season to \$72,145 in the 1990-91 season. License sales in Kansas increased to 4268 in 1995, and total pelt value of furbearers sold to Kansas fur dealers increased to \$360,797 during the 1995-96 season (Roy 1997), but more recent crashes in Russian and Asian economies have again resulted in a drastic reduction in trapping activities in Kansas (Roy unpublished data).

In an attempt to reduce both real and perceived problems associated with trapping, the International Association of Fish and Wildlife Agencies (IAFWA) has formed a Fur Resources Technical Subcommittee (FRTS) composed of biologists from state agencies across the United States. One of the goals of the FRTS is to develop "Best Management Practices" (BMPs) for trapping furbearers in the United States. A BMP is a way of improving an activity by recommending actions based on sound scientific knowledge. BMPs are needed to maintain and improve animal welfare and public acceptance of trapping (IAFWA 1997), but as long as they remain recommendations (as opposed to regulations, which could be imposed individually by states), their ultimate level of acceptance will be

determined by the trappers. Consequently, the general view of trappers toward BMPs should be determined to predict the actual “in the field” effect that BMPs will have on trap use and trapping in general.

Increasing animal welfare concerns, changing demographics, and dramatic fluctuations in pelt demand and harvest are not new to the wild fur industry. These events do suggest, however, that trapping involvement is undergoing a period of rapid change, which could have important implications for the successful development and implementation of wildlife programs (Siemer et al. 1991, IAFWA Fur Resources Committee 1994). However, little has been done to determine the magnitude of such changes or the importance of factors that might be causing changes in trapping participation (Siemer et al. 1991). Most research has been limited to monitoring trapping effort, furbearer harvest and population trends, pelt prices, license sales, demographics of participants, and other descriptive information (Muth et al. 1996, Siemer et al. 1991). Few studies have examined the deeper sociocultural motives and values of furbearer harvest and use (Muth et al. 1996). The lack of geographically-representative information in these areas hinders the ability of wildlife managers to be socially responsive, contributes to the controversy that surrounds trapping, and impedes sound decision-making by policy makers. Wildlife managers recognize that they must develop a better understanding of trappers and trapping to be responsive to growing societal concerns about furbearer harvest (Siemer et al. 1991). Subsequently, carefully designed surveys could be valuable in providing data on



trappers and other furbearer management-related issues in North America (Todd and Boggess 1987).

### ***Study purpose and objectives***

The purpose of my study was to provide a better understanding of trappers in the state of Kansas by determining their characteristics, motivations, and beliefs. I wanted to quantify these traits in such a way that they could be used to enlighten both a largely-uninformed public and increasingly-diversified wildlife professionals, and assist with decision making by wildlife managers for the benefit of trappers and trapping as well as wildlife management. My three primary objectives were: (1) to determine and quantify factors affecting trapper recruitment and participation; (2) to determine and quantify beliefs of trappers concerning injury level, trap use, and BMPs; and (3) to determine and quantify general characteristics of trappers in the state of Kansas.

In the first section of the questionnaire, I specifically addressed trapper initiation, motivations, disincentives, and degree of participation in trapping. Previous hunting and trapping research has suggested that how and when one is introduced and initiated into an activity, such as trapping or hunting, can be critical to understanding one's level of involvement in and commitment to the activity. I wanted to consider these aspects as they apply to Kansas trappers.

Few studies have determined motivations to trap, and findings have not been consistent (Todd and Boggess 1987), so I assessed both utilitarian and recreational trapping motivations. I briefly addressed animal damage control, which is often given as an incentive to trap, but few studies have actually

attempted to quantify the role that nuisance animal control actually plays in overall trapping activity (IAFWA Fur Resources Committee 1994).

The second section of the questionnaire primarily addressed BMPs. I wanted to determine the importance of specific trap characteristics that might cause some trap types to be more popular among trappers than others. I also directly addressed attitudes toward padded foothold traps and a relatively new but similar design of foot-enclosing raccoon (Procyon lotor) trap that includes EGG®, Duffer®, Dog Proof®, and Coon Cuff® traps. Padded traps have not been widely accepted by the trapping community (IAFWA Fur Resources Committee 1994). Therefore, it would be beneficial to determine specifically why these traps are unpopular, so if they are recommended by BMPs, specific areas of trapper concern can be addressed. Some of the similarly-designed, foot-enclosing traps appear likely to be favorably recommended by BMPs (Baker et al. 1998, Roy 1999), but it would be advantageous to know how many trappers know what they are, have actually used them, and what their thoughts are about them. Finally, both direct and indirect questions about BMPs were asked. The indirect questions were included to potentially determine how trappers, who are not yet familiar with BMPs, will react to them when they find out about them. This section may provide insight in predicting the impact of potential trap regulatory decisions that deal with animal welfare on trapper attitude and participation.

Some of the general characteristics of trappers in Kansas have been well documented through the annual surveys of the Kansas Department of Wildlife and Parks (Roy 1997). However, it was necessary to address this information in

the final section of the questionnaire to make comparisons and understand other aspects of my study. Characteristics, such as age, gender, and occupation, will provide a descriptive profile of Kansas trappers.

## METHODS

### *Sampling strategy*

A self-administered, mailback questionnaire was sent to 400 randomly-selected trappers throughout the state of Kansas. Survey participants were selected from a partial list (4488 of 5326 license holders) of the 1997 furharvester license receipts. The sample size was preselected based on budget and what I considered to be an acceptable sampling error. The recommendations of Salant and Dillman (1994) were used to guide sampling procedures and survey instrument structure and content.

Both furbearer hunters and trappers must purchase a furharvester license to legally harvest (with the exception of landowners not wishing to sell the animal) or sell any furbearers in Kansas. Consequently, license holders were first contacted by telephone to eliminate nontrappers and trappers who would not consider filling out a mail survey. Phone calls were made between 6:45 p.m. and 9:30 p.m. on Monday through Thursday. To eliminate time of day or season bias (night workers, students away at college, etc.), the person who answered the phone was questioned about the individual who had purchased the license if that individual was not at home. If the individual was both a trapper and willing to fill out the survey, the mailing address was confirmed.

To decrease the time between phone contact and mailing of the survey, the first mailing was sent on two different dates to the first and second 200 participants. The first mailing consisted of a cover letter, questionnaire, and postage paid reply envelope. The cover letter (Appendix 1) conveyed the

purpose and the importance of the study, attempted to acquaint or personalize the trappers with myself, and assured them that responses would be kept confidential. The first 200 participants were contacted by telephone between 17 August and 3 September 1998, and mailed surveys on 8 September 1998. The second 200 participants were contacted by telephone between 8 and 14 September 1998, and mailed surveys on 17 September 1998. A second mailing, which consisted only of a reminder post card, was mailed to all participants who had not responded (208) by the date of the this mailing (29 September 1998). The post card (Appendix 2) encouraged nonrespondents to respond and further conveyed the importance of the study. The third and final mailing had the same content as the first, but included a slightly different cover letter (Appendix 3), which attempted to further personalize nonrespondents with myself. This mailing was sent to 114 participants on 28 November 1998. The first two mailings were sent as bulk rate with return service requested. The final mailing was sent first class because of bulk rate restrictions. An identification number placed on both the questionnaire cover page and the reply envelope was used to determine respondents' names, which were marked off the mailing list upon receipt of a completed questionnaire. Hand-addressed envelopes were used to distribute all mailings in an attempt to be more personal and separate this survey from other mail surveys.

### ***Question structure***

After thoroughly reviewing the current literature on trapper surveys (Bailey 1981, Boddicker 1981, Kellert 1981, Samuel and Bammel 1981, Siemer et al.

1991, IAFWA Fur Resources Committee 1994, Muth et al. 1996, Roy 1997), I developed a 10 page, 43-variable, questionnaire (Appendix 4) that allowed for comparisons to be made with existing research and addressed areas of concern that had not been previously studied. To minimize measurement error, which occurs when a respondent's answer to a question is inaccurate, imprecise, or cannot be compared in any useful way to other respondents' answers (Salant and Dillman 1994), I used precise, mostly closed-ended questions in the questionnaire.

### ***Data analysis***

Survey data were entered into a computer via the use of Questionnaire Programming Language (QPL) (Dooley 1991). The data were then transferred directly from QPL to a Statistical Analysis Systems (SAS) program, which allowed for the data to be analyzed. Partially completed questionnaires were used, but nonresponses to specific questions were excluded from the analysis. Descriptive statistics (mean, range, etc.) are presented where appropriate. Chi-square analyses with Yates correction for continuity were used for statistical comparisons, such as the responses of professional trapping organization members versus nonmembers. Mann-Whitney Rank Sum tests were used to compare Likert scale responses of different groups (i.e., agreement with statements about BMPs by trapper organization members vs. nonmembers). To determine "mean scores" for Likert scale questions, responses were scored from +2 (strongly agree) to -2 (strongly disagree) in questions that addressed level of agreement, or from +5 (extremely important) to +1 (not at all important) in

questions that addressed level of importance. "Group mean scores" for broad motivational categories are simply an average of the mean scores of potential motivations that were grouped within each category.

## RESULTS

### *Response rate*

A total of 822 license holders were contacted by telephone, of which 420 (51.1%) said they were trappers (or had trapped within the past five seasons). Twenty trappers refused over the phone to fill out a survey. Half of these individuals ( $n = 10$ ) voluntarily stated that their trapping involvement was minimal (only trap a few days a year or one of the past five seasons, catch few or no animals, etc.). Of the 400 survey participants, 325 (81.25%) returned usable surveys. Including the 20 "telephone nonrespondents," the effective response rate was 77.4% (325 of 420). Given such a high response rate, nonresponse error (Salant and Dillman 1994) was assumed to be minimal, and no additional measures were taken to contact nonrespondents.

Possibly, some individuals would not admit being a trapper over the telephone to someone they did not personally know. However, comparison with an annual survey of Kansas furharvesters (Roy 1997) suggested that sampling methods were reliable. According to my results, 43.2% of all license holders trapped last season (51.1% of all license holders were trappers and 84.6% of all trappers were active last season). Roy (1997) estimated that 41% of Kansas furharvester licensees trapped during the 1995-96 season. The similarity of these two figures suggested that coverage error (Salant and Dillman 1994) was minimal and that telephone conversation was a reliable way of distinguishing trappers from other furharvesters. With an estimated 2723 trappers (51.1% of



5326) in Kansas in 1997, sampling error was just under  $\pm 5\%$  with a 95% confidence level (Cochran 1966).

### ***Characteristics of Kansas trappers***

Respondents' mean year of birth was 1957, with a range from 1911 to 1985 (median = 1959) (Figure 1). Almost all respondents were male (99.7%, n = 321). Respondents were mostly Caucasian (87.8%, n = 281), but also included 29 Native Americans (9.1%). No African Americans, Hispanics, or Orientals responded to the survey. The majority of respondents lived most of their childhood (73.5%, n = 222) and currently live (71.1%, n = 223) in a rural area (population less than 2500 people) (Figure 2). Few respondents "lived most of (their) childhood" (6.9%, n = 21) or "currently live" (7.4%, n = 23) in a city of 25,000 people or more. The mean number of people per household was 3.4, with a range of 1 to 9 (Figure 3). There were four people or less in 80.7% of the respondents' households.

Most respondents (60.4%, n = 194) relied upon wages or salary as a primary source of income. Other sources of income are listed in Table 1. Respondents' primary occupations varied greatly, but were overwhelmingly blue collar. Common occupations included farming or ranching (22.0%, n = 71), student (10.2%, n = 33), welder (3.7%, n = 12), mechanic (3.4%, n = 11), and construction worker (2.5%, n = 8).

Respondents were active in a variety of outdoor-related activities (Table 2), and were more likely to participate in consumptive than non-consumptive

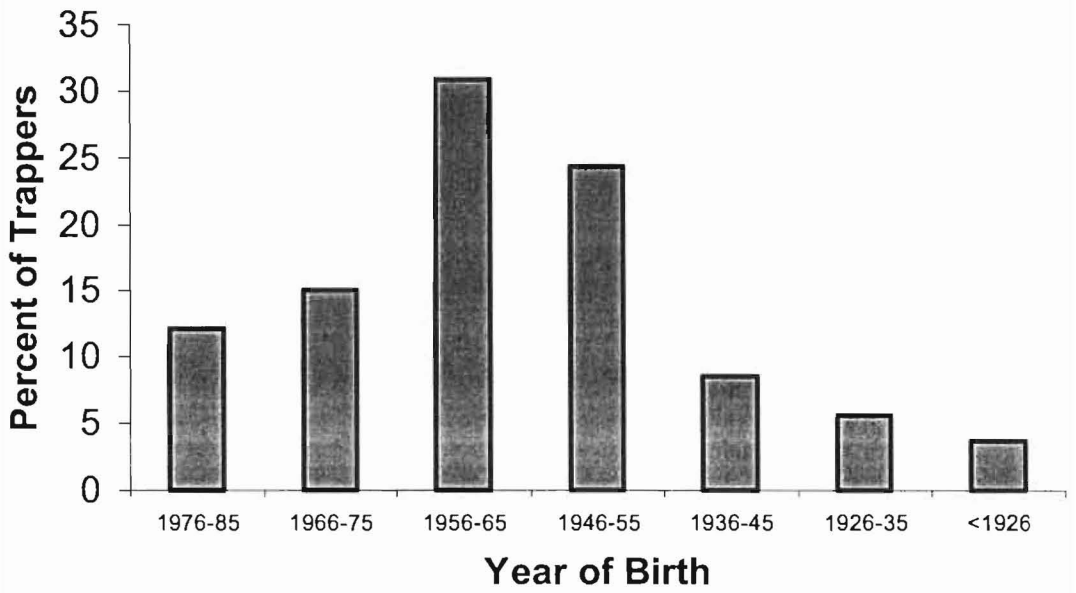


Figure 1. Year of birth of Kansas trappers as surveyed in the Fall of 1998.



Figure 2. Locations where Kansas trappers "lived most of (their) childhood" and where they "currently live." (Rural Area = < 2500 people, Town = 2500 - 9999 people, Small City = 10,000 to 24,999 people, Medium City = 25,000 - 100,000 people, Large City = > 100,000 people)

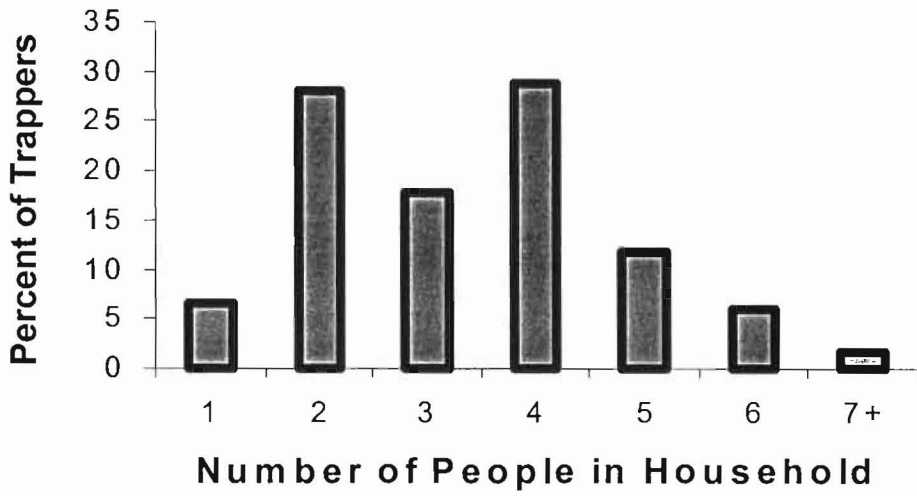


Figure 3. Number of individuals in households of Kansas trappers.

Table 1. Primary source of income of Kansas trappers.

<b>Primary Source of Income</b>	<b>(n)</b>	<b>Percent of Trappers</b>
Wages/Salary	194	60.4
Self-employed	80	24.9
Pension/Social Security	38	11.8
Public Assistance	1	0.3
Other	8	2.5

Table 2. Participation in outdoor-related activities by Kansas trappers.

<b>Activity</b>	<b>(n)</b>	<b>Percent of Trappers</b>
Fish	303	93.2
Hunt small game	286	88.0
Hunt big game	267	82.2
Hunt furbearers without dogs	121	62.8
Cut and use firewood	192	59.1
Plant vegetable garden	188	57.8
Feed wildlife	178	54.8
Gather wild plant resources	172	52.9
Raise farm animals	170	52.3
Hunt furbearers with dogs	108	33.2
Photograph wildlife	101	31.1
Bird watch	86	26.5

outdoor-related activities. Seventy-two percent of respondents (n = 232) indicated they were active in at least half of the activities listed.

Eighty-five respondents (26.6%) belonged to at least one trapper organization. These organizations included the Kansas Furharvesters Association (21.7%, n = 68), the National Trapper's Association (14.0%, n = 44), and the Fur Takers of America (2.9%, n = 9). Thirty-three of the 80 individuals (41.3%), who specified the trapper organization(s) in which they were a member, were members of at least two trapper organizations.

### ***Trapper recruitment and participation***

Just over half of the respondents (50.2%, n = 163) had a family member who trapped when they were growing up. Only 5.2% (n = 17) had a family member who was morally opposed to trapping when they began trapping. Most trappers (65.4%, n = 212) were initially taught to trap by someone, as opposed to first learning on their own. Their mentors were most often either an immediate family member (40.1%, n = 130), a friend or neighbor (17.6%, n = 57) or some other relative (5.9%, n = 19). Respondents, who had a family member who trapped when they were growing up, were more likely to be taught to trap than respondents who did not have a family member who trapped (84.0 vs. 46.6%,  $X^2 = 48.7$ , 1 df,  $P < 0.001$ ). Trapper organization members were no more likely than nonmembers to have a family member who trapped ( $X^2 = 0.0824$ , 1 df,  $P < 0.774$ ) or to be taught to trap ( $X^2 = 0.191$ , 1 df,  $P < 0.662$ ).

The mean age respondents began setting and checking their own traps was 15.3 years (median = 13 years), with a range of 5 to 60 years (Figure 4).

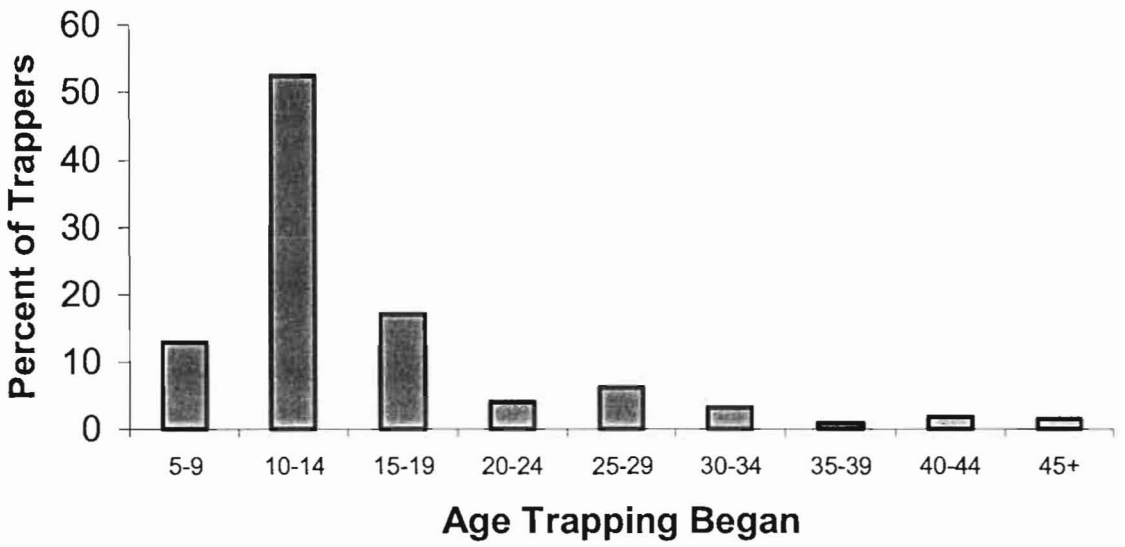


Figure 4. Age at which Kansas trappers began trapping.



By the age of 10, 27.5% (n = 89) had already begun trapping, and by the age of 16, 77.8% (n=252) had begun trapping. Only 10.2% of respondents, who were taught to trap, began trapping at a younger age than those who learned on their own (14.9 vs. 16.0 years,  $T = 20012.5$ , 1 df,  $P = 0.024$ ). Respondents, who were taught to trap by an immediate family member, began trapping at a younger age than those who were taught to trap by anyone other than an immediate family member (12.8 vs. 18.4 years,  $T = 11297.5$ , 1df,  $P < 0.001$ ).

The number of season trapped by respondents ranged from one to 80 seasons, with a mean of 15.8 seasons (median = 14 seasons) (Figure 5). Almost one-third (30.8%, n = 98) had trapped six seasons or less, and over one-third (36.2%, n = 115) had trapped at least 20 seasons. Trapper organization members had trapped for more seasons than nonmembers (18.5 vs. 14.9 years,  $T = 15457.0$ , 1 df,  $P < 0.001$ )

Respondents trapped for an average of 44.2 days during the most recent season in which they trapped (median = 35 days) (Figure 6). The number of days trapped ranged from 2 to 150 days. Few respondents trapped less than 10 days (6.0%, n = 19) or over 90 days (4.8%, n = 15). Trapper organization members trapped more days during their most recent season than nonmembers (mean = 53.7 vs. 40.6 days,  $T = 14814.0$ , 1df,  $P = 0.003$ ). There was no significant difference in the number of days trapped by those who did and did not have a family member who trapped (mean = 46.8 vs. 41.7%,  $T = 25833.0$ , 1df,  $P = 0.204$ ,) and by those who were and were not taught to trap (mean = 43.9 vs. 45.1%,  $T = 17212.5$ , 1 df,  $P = 0.903$ ).

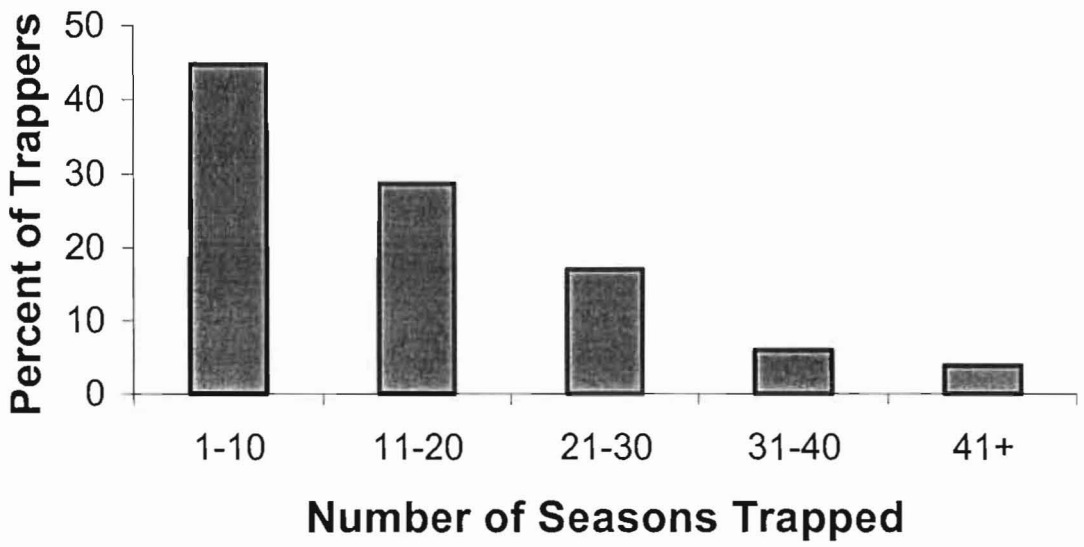


Figure 5. Number of seasons trapped by Kansas trappers.

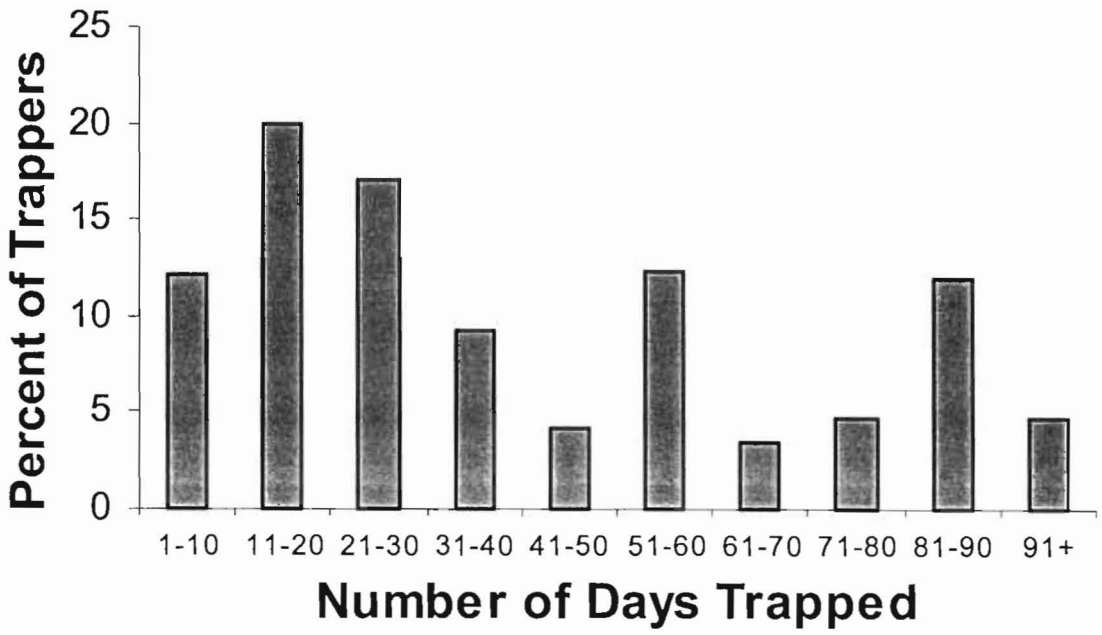


Figure 6. Number of days spent trapping during the most recent season in which Kansas trappers trapped.

The most recent season trapped by 84.6% ( $n = 274$ ) of respondents was the 1997-98 furharvesting season (Table 3). Few respondents (5.4%,  $n = 17$ ) most recently trapped three seasons ago (1995-96) or before. Trappers, who were active during the 1997-98 furharvester season, trapped more days than inactive trappers trapped during their most recent active season (46.7 vs. 29.7 days,  $T = 5031.5$ , 1 df,  $P < 0.001$ ). Trapper organization members were more likely to have trapped during the 1997-98 furharvester season than nonmembers (92.9 vs. 82.1%,  $X^2 = 4.964$ , 1 df,  $P < 0.026$ ).

Respondents, who did not trap during the 1997-98 furharvesting season (15.4%,  $n = 49$ ), were given a series of potential reasons for their inactivity and asked to give the importance of each. Only two reasons were considered at least moderately important by the majority of respondents (Table 4). "Too busy with family, personal, or job obligations" was considered by most respondents (85.1%) to be an extremely ( $n = 26$ ) or very ( $n = 14$ ) important reason for not trapping. "Pelt prices were too low" was at least moderately important to 51.1% ( $n = 23$ ) of respondents. The only other reason that was at least slightly important to most respondents was "lost interest in trapping" (51.2%,  $n = 22$ ). All other potential reasons for inactivity were listed as "not important" by at least half the respondents. Although many factors deterred certain individuals from trapping during the 1997-98 furharvesting season, almost all survey participants (97.5%,  $n = 314$ ) intend to trap in the future.

As an indicator of why Kansas trappers trap, respondents were asked to give their level of agreement with 21 potential motivations to trap (Table 5). After

Table 3. Season in which Kansas trappers most recently trapped.

<b>Season</b>	<b>(n)</b>	<b>Percent of Trappers</b>
1997-98	274	84.6
1996-97	32	10.0
1995-96	5	1.6
1994-95	4	1.3
1993-94	2	0.6
Other	6	1.9

Table 4. Importance of potential reasons why Kansas trappers did not trap during the 1997-98 trapping season.

<b>I did not trap last season because:</b>	<b>(n)</b>	<b>EI<sup>a</sup></b>	<b>VI<sup>b</sup></b>	<b>% MI<sup>c</sup></b>	<b>SI<sup>d</sup></b>	<b>NI<sup>e</sup></b>
I was too busy with family, personal or job obligations.	47	55.3	29.8	10.6	0.0	4.3
pelt prices were too low.	45	15.6	4.4	31.1	15.6	33.3
it would have cost too much money to go trapping.	46	8.7	4.3	19.6	15.2	52.2
the places I wanted to trap were too crowded.	44	4.5	2.3	18.2	9.1	65.9
furbearer populations were too low.	45	2.3	8.9	11.1	8.9	68.9
I lost interest in trapping.	43	2.3	4.7	27.9	16.3	48.8
I did not have anyone to trap with.	44	2.3	2.3	4.5	20.5	70.5
I could not find anyplace to trap.	45	2.3	0.0	6.7	15.6	75.6
I was physically unable to trap.	43	2.3	0.0	4.7	4.7	88.4
I did not want to get into conflicts with people morally opposed to trapping.	44	0.0	2.3	6.8	4.5	86.4
I would have had to travel too far.	45	0.0	0.0	15.6	20.0	64.4
my dislike for killing animals became greater than the benefits of trapping.	43	0.0	0.0	11.6	4.7	83.7
season dates were inappropriate.	43	0.0	0.0	4.7	11.6	83.7
I had family or friends morally opposed to trapping.	44	0.0	0.0	4.5	0.0	95.5
some other reason kept me from trapping.	9	22.2	44.4	22.2	0.0	11.1

<sup>a</sup>Extremely important, <sup>b</sup>Very important, <sup>c</sup>Moderately important, <sup>d</sup>Slightly important, <sup>e</sup>Not important

Table 5. Agreement of Kansas trappers with potential reasons why they trap.

One of the reasons I am involved in trapping is to:	(n)	SA <sup>a</sup>	A <sup>b</sup>	% N <sup>c</sup>	D <sup>d</sup>	SD <sup>e</sup>
<b>NATURE APPRECIATION</b>						
spend time outdoors.	314	71.7	27.1	0.6	0.6	0.0
experience or enjoy nature.	318	67.9	28.9	2.5	0.6	0.0
observe or learn about wildlife.	309	46.0	44.3	7.8	1.6	0.3
<b>LIFESTYLE ORIENTATION</b>						
participate in one of my favorite outdoor activities.	316	65.5	29.7	3.5	0.6	0.6
continue an important part of my lifestyle.	310	37.1	40.6	19.0	2.6	0.6
<b>ESCAPE</b>						
relax or get away from everyday problems.	312	43.6	43.6	9.0	2.9	1.0
get a change from my routine.	309	33.3	46.3	14.2	4.9	1.3
<b>PERSONAL ACHIEVEMENT</b>						
do something exciting or challenging.	310	43.9	47.4	6.8	1.3	0.6
test my skills and abilities.	309	43.7	45.6	8.1	1.9	0.6
get a sense of independence or self-sufficiency.	305	25.2	38.4	25.2	8.5	2.6
<b>ANIMAL CONTROL</b>						
control nuisance or predatory animals.	312	44.6	41.7	10.3	2.2	1.3
help prevent the spread of disease.	309	34.6	33.3	21.7	6.8	3.6
<b>UTILIZATION OF RESOURCES</b>						
obtain pelts or products that I barter or trade.	311	41.8	44.8	10.0	2.9	1.3
make use of a valuable natural resource.	308	33.1	45.1	17.5	2.9	1.3
use the annual crop of furbearers produced each year.	304	20.7	41.1	26.0	8.9	3.3
obtain meat for myself and/or my family.	302	3.0	10.6	31.5	29.1	25.8
<b>ECONOMICS</b>						
obtain spare money for nonessential items or activities.	304	21.1	36.2	24.3	9.9	8.6
obtain income that pays for family necessities.	307	10.4	18.9	36.8	21.8	12.1
provide an income safety net for my family.	306	8.5	12.4	38.6	24.2	16.3
<b>OTHER</b>						
maintain a family or rural American tradition.	309	29.8	36.6	24.6	7.1	1.9
teach or share skills with others.	308	19.2	40.3	31.5	5.5	3.6

<sup>a</sup>Strongly agree, <sup>b</sup>Agree, <sup>c</sup>Neutral, <sup>d</sup>Disagree, <sup>e</sup>Strongly disagree

the design of Siemer et al. (1991) and Muth et al. (1996), I grouped potential motivators into broader categories. These included nature appreciation, lifestyle orientation, escape, personal achievement, animal control, utilization of resource, and economics. Two potential motivators, "to maintain a family or rural American tradition" and "to teach or share skills with others," were excluded from the broader categories because of their failure to fit into any one of these.

Although most respondents trap for a variety of reasons, motivations under the category of nature appreciation had the highest group mean score (1.56) (Table 6). Each of the three potential motivators in this category were reasons why over 90% of respondents trapped. Lifestyle orientation, which included two broad trapping motivations, was the second highest ranked category (group mean score = 1.35). The categories of escape, personal achievement, and animal control had group mean scores of 1.16, 1.13, and 1.08, respectively. Potential motivators in these three categories appear to be, to many respondents, additive factors that further encourage participation in the trapping activity. Utilization of an available resource, which had a group mean score of 0.58, encouraged some individuals to trap. With the exception of "to obtain meat," the motivators in this category were of similar importance to those in higher-ranked categories. Economics was the least important category for respondents. Although receiving a group mean score of only 0.06, a minority of respondents reported that the acquisition of income for family necessities (29.3%) or as an income safety net (20.9%) were reasons they trap. In addition,



Table 6. Group mean and mean scores for potential trapping motivations of Kansas trappers (mean scores determined from responses presented in Table 5).

Potential Trapping Motivations	Group Mean	Mean Score
Nature Appreciation	1.56	
spend time outdoors		1.70
experience or enjoy nature		1.64
observe or learn about wildlife		1.34
Lifestyle Orientation	1.35	
participate in one of my favorite outdoor activities		1.59
continue an important part of my lifestyle		1.11
Escape	1.16	
relax or get away from everyday problems		1.26
get a change from my routine		1.06
Personal Achievement	1.13	
do something exciting or challenging		1.33
test my skills and abilities		1.30
get a sense of independence or self-sufficiency		0.75
Animal Control	1.08	
control nuisance or predatory animals		1.26
help prevent the spread of disease		0.89
Utilization of Resource	0.58	
obtain pelts or products that I barter or trade		1.22
make use of a valuable natural resource		1.06
use the annual crop of furbearers produced each year		0.67
obtain meat for myself and/or my family		-0.64
Economics	0.06	
obtain spare money for nonessential items/activities		0.51
provide an income safety net for my family		-0.27
obtain income that pays for family necessities		-0.06

the majority of respondents (57.3%) reported that the acquisition of spare money for nonessential items or activities was a motivator to trap.

Respondents were asked how often they trapped alone, with a family member, with a friend or neighbor, or with someone they were teaching to trap. Most respondents (69.2%, n = 218) were rather solitary and usually trapped alone, including 17.1% (n = 54) who always trapped alone (Figure 7). Most respondents (57.7%, n = 177) trapped at least sometimes with a family member, and slightly less than half (48.7%, n = 145) trapped at least sometimes with a friend. Although few respondents (7.8%, n = 23) usually trapped with someone they were teaching, most (72.0%, n = 213) taught someone to trap at least rarely.

Respondents indicated they had been contacted to trap nuisance wildlife both during (76.8%, n = 245) and outside (58.4%, n = 173) the furharvesting season. Trapper organization members reported that a lower percentage of their trapping activity involved removal of nuisance wildlife, although the difference was not statistically significant (24.9 vs. 30.1%,  $T = 12471.0$ , 1 df,  $P = 0.475$ ).

Twenty-eight percent of each respondent's trapping activity consisted of nuisance wildlife removal. Nearly half the respondents (47.1%, n = 145) reported that 10% or less of their trapping activity during the season involved removal of nuisance wildlife (Figure 8). Nearly one-third (31.5%, n = 97) reported that half or more of their trapping activity involved removal of nuisance wildlife. Ten of these individuals (3.2%) reported that 100% of their trapping activity involved removal of nuisance wildlife.

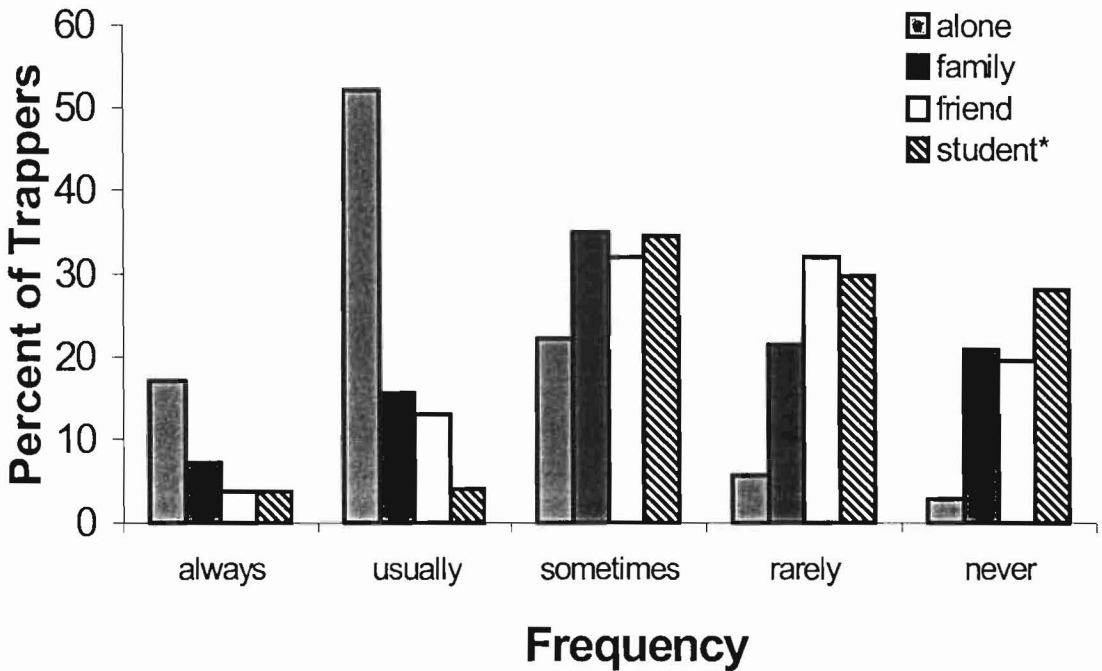


Figure 7. Frequency with which Kansas trappers trap "alone," with a "family member," "friend or neighbor," or with "someone (they) are teaching to trap" (\*student).

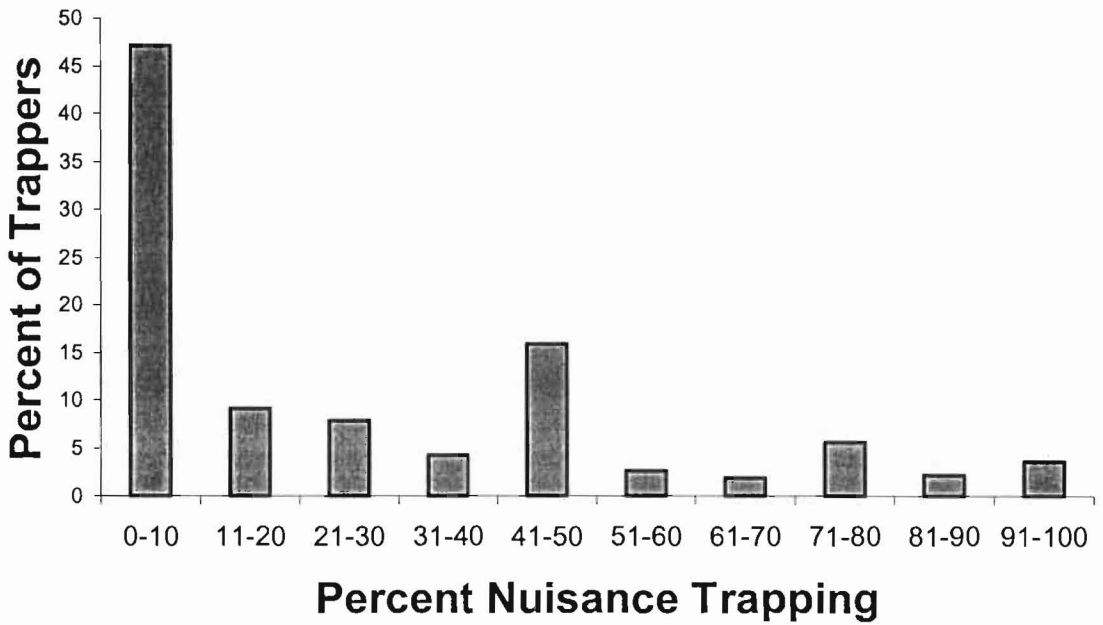


Figure 8. Percent of trapping activity of Kansas trappers that involves removal of nuisance wildlife.

During the most recent season that they trapped, 35.9% of Kansas trappers (n = 115) "lost money," 35.9% "broke even" (n = 115), and 28.2% "made money" (n = 90). As a source of household income, trapping was "unimportant" for 76.6% of respondents (n = 246), "slightly important" for 18.1% (n = 58), "important" for 4.7% (n = 15), and "critical" for 0.6% (n = 2). Trapper organization members were more likely to make money trapping (T = 15017.5, 1 df, P = 0.023) and trapping income was of greater importance to their household incomes (T = 15218.5, 1 df, P = 0.015).

Completion of a trapper education course is required for anyone born after 1 June 1966 to trap in Kansas. Both formal class courses and correspondence courses are available. Respondents were asked whether they had ever taken a formal trapper education course. Over one-third of Kansas trappers (34.4%, n = 111) reported to have taken a formal trapper education course. These individuals took a formal trapper education course because: they wanted to (12.7%, n = 41), it was mandatory (11.5%, n = 37), both because they wanted to and it was mandatory (6.2%, n = 20), or either as an instructor or to become an instructor (3.4%, n = 11).

To determine how Kansas trappers get new trapping information (international news, political/legislative happenings, new techniques, etc.), participants were provided a list of sources and asked to identify all of those that applied to them as well as their single most important source. The two most common sources of information were "books or magazines" and "other trappers," which were identified by 84.3% (n = 274) and 82.5% (n = 268) of participants,

respectively (Figure 9). A majority of respondents also relied on "fur dealers" (63.9%, n = 204) and the "state trapping regulations summary" (56.1%, n = 179) as sources of information. Trapper organization members were more likely than nonmembers to rely on "books or magazines" (98.8 vs. 79.1%,  $X^2 = 16.961$ , 1 df,  $P < 0.001$ ), "other trappers" (92.9 vs. 72.9%,  $X^2 = 7.475$ , 1 df,  $P = 0.006$ ), "conservation officers" (54.1 vs. 30.3%,  $X^2 = 14.170$ , 1 df,  $P < 0.001$ ), and "trapping demos" (65.9 vs. 0.7%,  $X^2 = 115.258$ , 1 df,  $P < 0.001$ ) as sources of information (Figure 10). Of the 80% of survey participants, who selected a "single most important source of information," 52.7% (n = 137) selected "books or magazines" and 28.1% (n = 73) selected "other trappers" (Figure 9). Although sample size limited statistical comparison of most important sources of information, members relied more heavily upon "books or magazines" and nonmembers relied more heavily upon "other trappers as sources of information (Figure 11).

Survey participants were asked how often they attended state and national trapper conventions and fur auctions. Although overall attendance of the four events was low, state events were attended more frequently than national events, and conventions were attended more frequently than fur auctions (Figure 12). State conventions and fur auctions were attended at least sometimes by 13.1% (n = 41) and 11.8% (n = 37) of respondents, respectively. National conventions and fur auctions were attended at least sometimes by 9.6% (n = 30) and 1.9% (n = 6) of respondents, respectively.

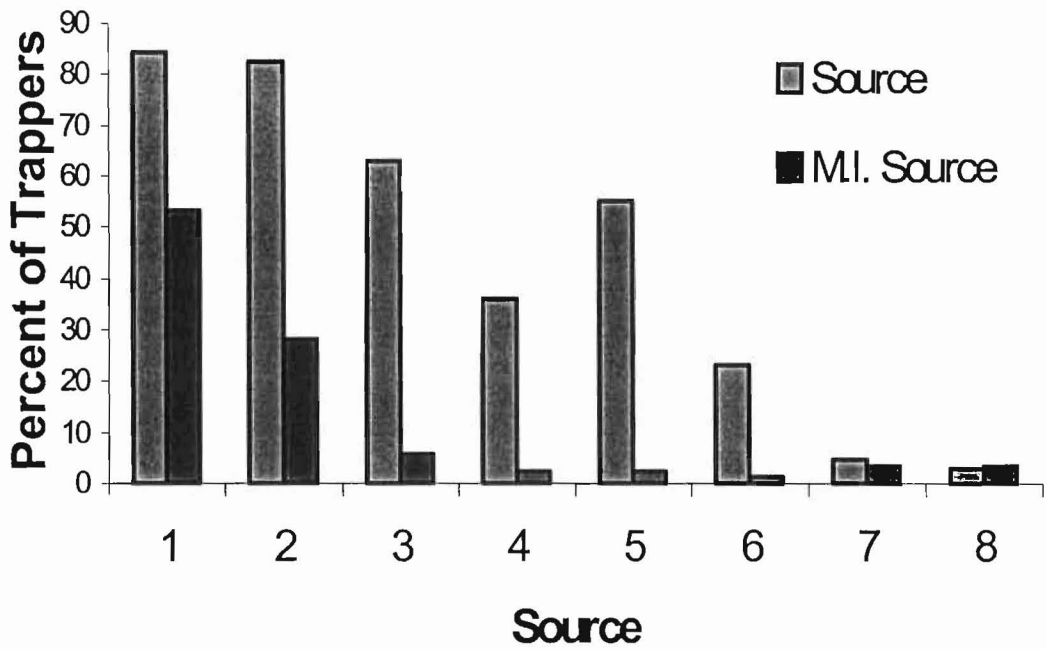


Figure 9. Sources of information about trapping, and the single most important (M.I.) source of information about trapping for Kansas trappers. Axis legend: 1. Books or magazines, 2. Other trappers, 3. Fur dealers, 4. Conservation Officers, 5. State trapping regulations summary, 6. Trapping demonstrations, 7. Other source, and 8. Don't get any new information about trapping

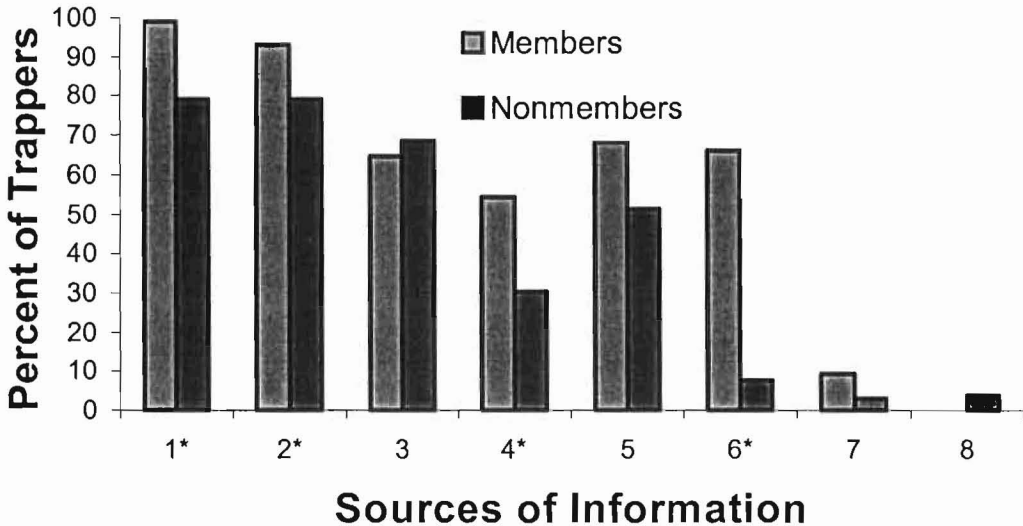


Figure 10. Comparison of sources of trapping information for Kansas trappers who are and are not trapper organization members. Axis legend: 1. \*Books or magazines ( $P < 0.001$ ), 2. \*Other trappers ( $P = 0.006$ ), 3. Fur dealers, 4. \*Conservation Officers ( $P < 0.001$ ), 5. State trapping regulations summary, 6. \*Trapping demonstrations ( $P < 0.001$ ), 7. Other source, and 8. Don't get any new information about trapping



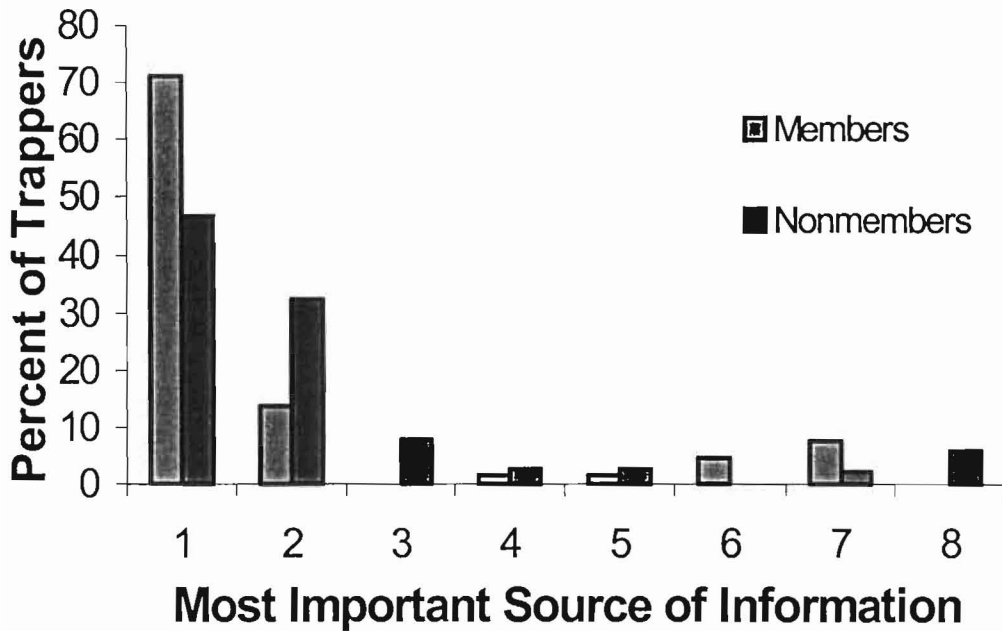


Figure 11. Comparison of single most important sources of trapping information for Kansas trappers who are and are not trapper organization members. Axis legend: 1. Books or magazines, 2. Other trappers, 3. Fur dealers, 4. Conservation Officers, 5. State trapping regulations summary, 6. Trapping demonstrations, 7. Other source, 8. Don't get any new information about trapping

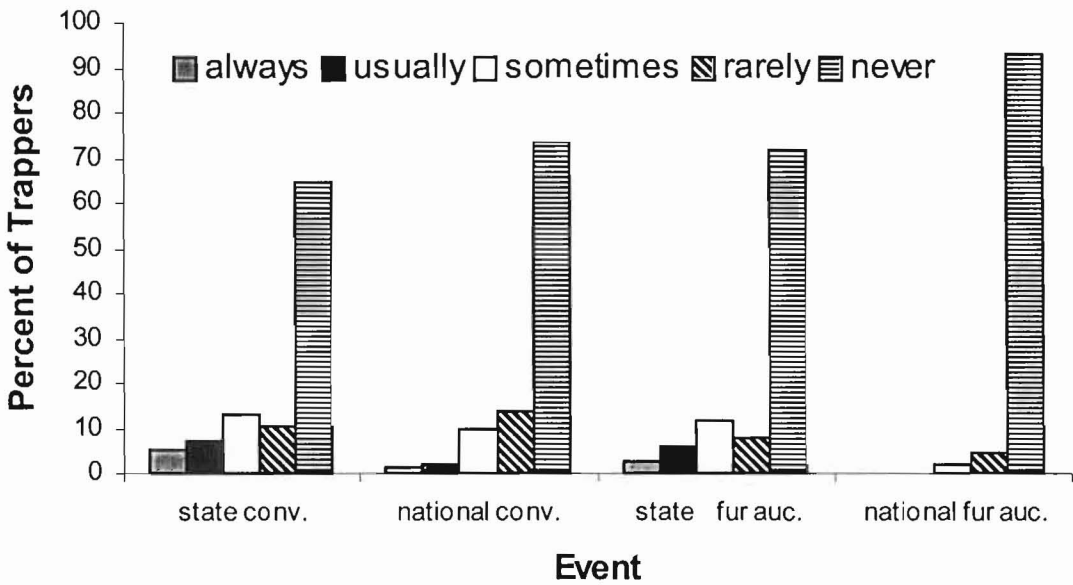


Figure 12. Attendance at state and national trapper conventions and fur auctions by Kansas trappers.

Trapper organization members were more likely than nonmembers to attend state (T = 6192.0, 1df, P < 0.001) and national conventions (T = 8079.0, 1df, P < 0.001) and state fur auctions (T = 8327.0, 1df, P < 0.001) (Figures 13 - 15). Attendance of national fur auctions was too low for reliable statistical comparisons to be made. State conventions were attended at least sometimes by 70.5% of members (n = 60 of 85) and only 8.5% of nonmembers (n = 20 of 234). State fur auctions were attended at least sometimes by 47.1% of members (n = 40) and 10.3% of nonmembers (n = 24). National conventions were attended at least sometimes by 40% of members (n = 34) and only 2.6% of nonmembers (n = 6).

Most respondents (62.7%, n = 202) "actively encourage other people to trap." Fewer respondents write or call their legislator about antitrapping bills (16.6%, n = 53) or the Kansas Department of Wildlife and Parks about trapping regulations (30.1%, n = 96). Organization members were more likely than nonmembers to actively encourage others to trap (82.4 vs. 54.7%,  $X^2 = 19.004$ , 1 df, P < 0.001) and to write or call their legislator about antitrapping bills (38.8 vs. 8.5%,  $X^2 = 38.131$ , 1 df, P < 0.001) or the Kansas Department of Wildlife and Parks about trapping regulations (41.2 vs. 26.1%,  $X^2 = 5.507$ , 1 df, P = 0.019).

Trapper organization members were given a list of potential reasons for being a trapper organization member and asked to give the importance of each. Reasons that related to the overall support of the trapping activity (helping ensure the future of trapping, fighting antitrappers, influencing state regulations, and providing financial support for trapping/conservation) tended to be more

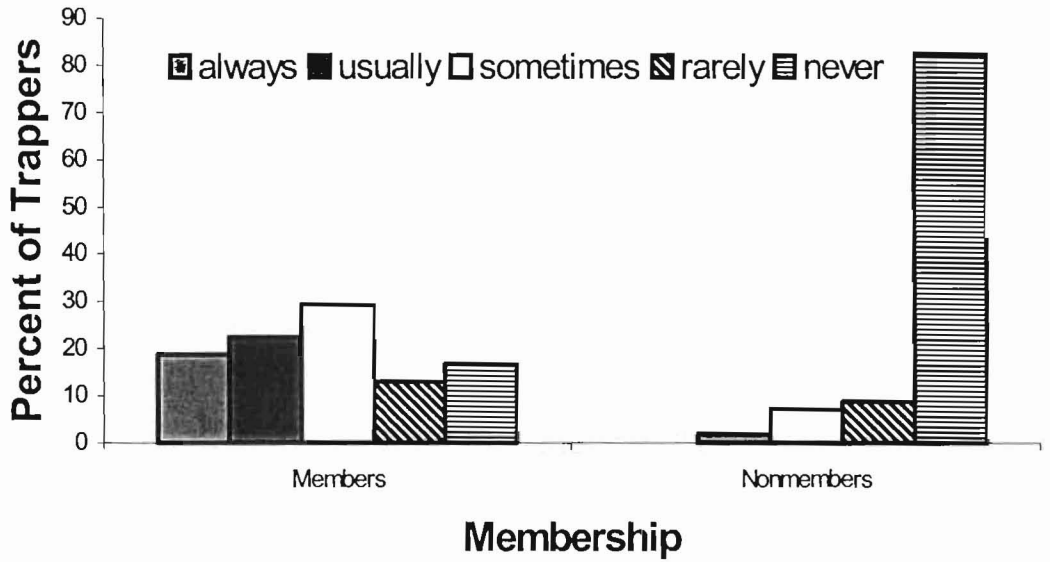


Figure 13. Attendance at state trapper conventions by trapper organization members (n = 85) and nonmembers (n = 234).

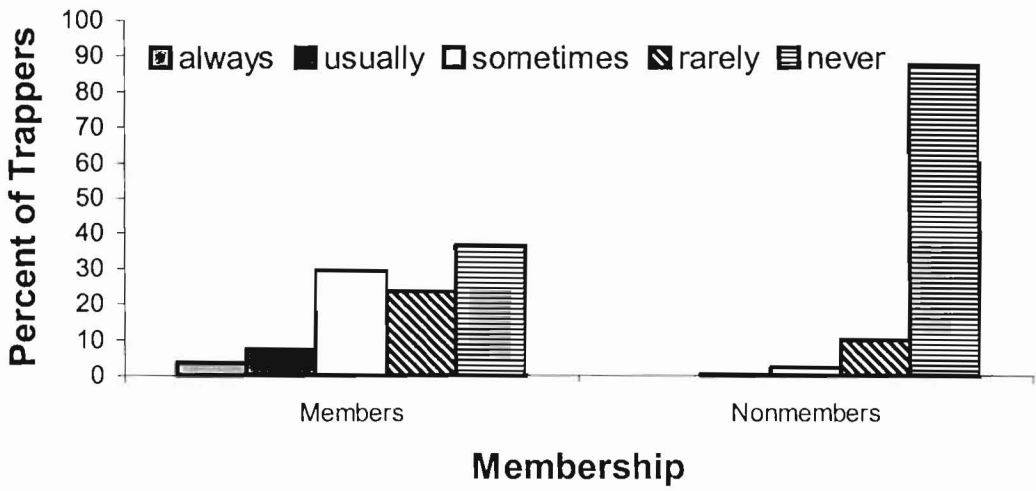


Figure 14. Attendance at national trapper conventions by trapper organization members (n = 85) and nonmembers (n = 234).

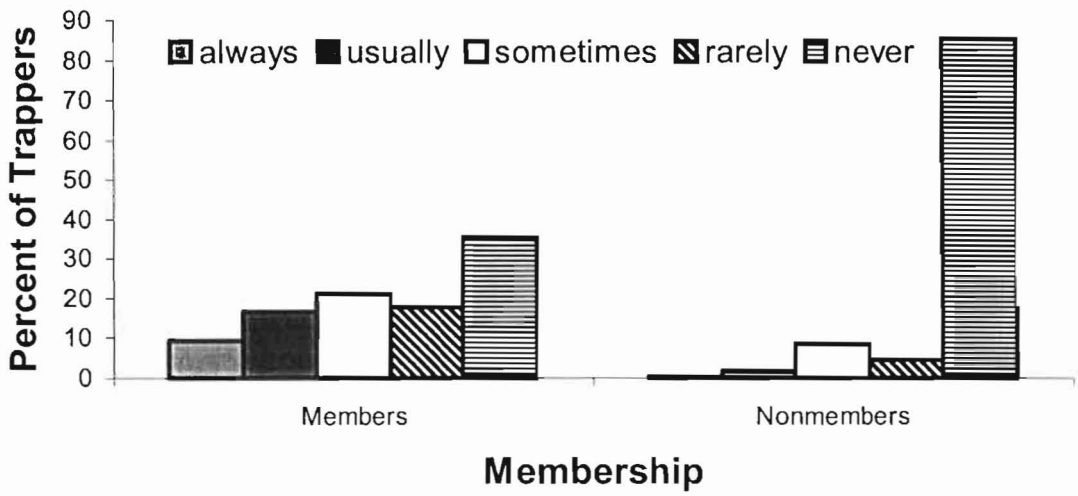


Figure 15. Attendance at state fur auctions by trapper organization members (n = 85) and nonmembers (n = 234).

important to respondents than reasons related to more personal motivations (interacting with other trappers, receiving financial benefits at fur auctions, and keeping up with current trapping information). The most important reason for belonging to a trapper organization was "fighting antitrappers and their legislation," which had a mean score of 4.79 and was "extremely" or "very" important to 96.6% (n = 82) of respondents (Table 7). "Helping ensure the future of trapping," which had a mean score of 4.75 and was either "extremely" or "very" important to 98.8% (n = 83) of respondents, was the second most important reason for being a member of a trapper organization.

### ***Trap use and Best Management Practices***

Respondents were asked to categorize the importance of 12 trap characteristics that potentially determine which trap type they used. By far the most important factor was "effectiveness of the trap at capturing and holding animals" (Table 8). This characteristic, which had a mean score (m.s.) of 4.81, was either extremely or very important to almost all respondents (98.1%, n = 313). Other important characteristics included practicality (quick and easy to set/use, etc.), maintenance required or longevity, and ability to minimize injury to the captured animal, which had mean scores of 4.05, 4.03, and 4.01, respectively. Ability to capture only the target species (mean score = 3.89) and flexibility to capture multiple species (mean score = 3.58) were the only other characteristics that were either extremely or very important to the majority of respondents. Although other characteristics, which dealt less directly with the

Table 7. Importance of potential reasons for being a member of a trapper organization to Kansas trappers.

Reason for Membership	(n)	EI <sup>a</sup>	VI <sup>b</sup>	% MI <sup>c</sup>	SI <sup>d</sup>	NI <sup>e</sup>
Fighting antitrappers and their legislation	84	84.5	13.1	2.4	0.0	0.0
Helping ensure the future of trapping	84	76.2	22.6	1.2	0.0	0.0
Influencing state trapping regulations	84	41.7	28.6	27.4	2.4	0.0
Providing financial support for trapping conservation	84	39.3	35.7	23.8	1.2	0.0
Keeping up with current trapping information	84	35.7	39.3	17.9	4.8	2.4
Interaction with other trappers	84	14.3	31.0	33.3	14.3	7.1
Receiving financial benefits at fur auctions	84	8.3	13.1	25.0	20.2	33.3
Other benefit	9	100	0.0	0.0	0.0	0.0

<sup>a</sup>Extremely important, <sup>b</sup>Very important, <sup>c</sup>Moderately important, <sup>d</sup>Slightly important, <sup>e</sup>Not important



Table 8. Importance of trap characteristics to Kansas trappers.

Trap Characteristic	(n)	EI <sup>a</sup>	VI <sup>b</sup>	% MI <sup>c</sup>	SI <sup>d</sup>	NI <sup>e</sup>
Effectiveness of the trap at capturing and holding animals	319	83.1	15.0	1.9	0.0	0.0
Ability to minimize injury	319	40.8	31.3	19.1	5.3	3.4
Maintenance required or longevity	315	37.1	36.5	20.6	3.5	2.2
Practicality	316	36.1	38.3	22.2	1.9	1.6
Ability to capture only the target species	314	34.1	34.4	22.0	5.1	4.5
Flexibility to capture multiple species	314	19.1	35.4	34.4	6.4	4.8
Tradition (traps I have used in the past)	313	16.0	24.9	36.4	7.3	15.3
Inexpensive initial cost	314	15.3	23.6	38.5	11.1	11.5
Brand	315	10.5	14.0	33.3	16.5	15.7
Country in which trap is made	317	9.8	10.7	20.2	13.6	45.7
Recommendations of other trappers	317	8.5	29.3	36.9	16.1	9.1
Suggestions in magazine articles	317	7.3	29.3	36.3	14.8	12.3

<sup>a</sup>Extremely important, <sup>b</sup>Very important, <sup>c</sup>Moderately important, <sup>d</sup>Slightly important, <sup>e</sup>Not important

performance of the trap type, were less important to respondents, all characteristics were at least slightly important to the majority of respondents. Few respondents (13.2%,  $n = 42$ ) had trapped with padded foothold traps, even though they had been available for many years. There was a high degree of neutrality toward these traps, but responses were generally more negative than positive (Figure 16). Respondents were more likely to agree than disagree that padded traps were too expensive (55.8 vs. 4.6%), too difficult or time consuming to operate (29.9 vs. 20.7%), and that it would not be economical to use them (32.3 vs. 14.6%). They were also more likely to believe that padded traps were ineffective (27.5 vs. 16.9%). Over one-third of respondents (35.6%,  $n = 102$ ) felt that padded traps reduce injury (as opposed to 20.9%,  $n = 60$ , that did not), but only 5.9% ( $n = 18$ ) agreed that when their coyote (*Canis latrans*) or fox (*Vulpes vulpes*) traps were no longer serviceable, they would replace some with padded traps. Responses of individuals, who had and had not used padded traps, differed only in that those who had used padded traps more strongly disagreed that "most other trappers are satisfied with (their) performance" (mean score = -0.60 vs. -0.28,  $T = 7007.0$ , 1 df,  $P = 0.022$ ).

Over half (53.6%,  $n = 172$ ) of the respondents were familiar with Dog Proof®, Duffer®, or EGG® traps. Trapper organization members were more likely to be familiar with them than nonmembers (84.7 vs. 42.7%,  $X^2 = 42.564$ , 1 df,  $P < 0.001$ ). Few respondents (19.9%,  $n = 64$ ) had actually used any of these trap types. Of the trap types mentioned, the Dog Proof® trap, which has been on the market the longest, was the most commonly used (11.5%,  $n = 37$ ),

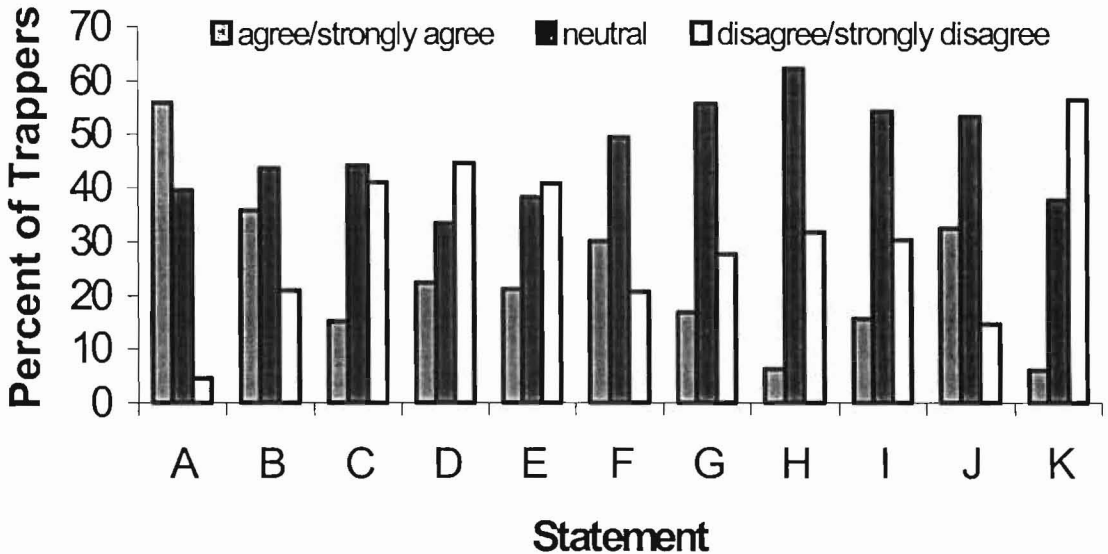


Figure 16. Level of agreement with statements about padded foothold traps by Kansas trappers.

- A. Initial cost is too expensive.
- B. These traps significantly reduce injury.
- C. These traps allow me to trap additional locations.
- D. The public would increase their support for trapping if these traps were used.
- E. I would rather stop using foothold traps than switch to these traps.
- F. The maintenance, time, and difficulties of operating these traps keeps me from using them.
- G. These traps are effective at capturing and holding animals.
- H. Most other trappers are satisfied with these traps.
- I. It takes more skill to capture an animal in these traps than in a conventional foothold trap.
- J. It will not be economical for me to use these traps.
- K. When the traps I now use are no longer serviceable, I will replace some with these traps.

followed by the Duffer® trap (8.4%, n = 27), which is manufactured in Kansas, and the EGG® trap (6.5%, n = 21). Five individuals (1.6%) had also used the Coon Cuffs® trap.

These foot-enclosing traps were viewed more favorably than the padded traps, but there were a high percentage of "neutral" responses to most statements (Figure 17). More respondents agreed than disagreed that these trap types "significantly reduce injuries to captured animals" (37.2 vs. 17.3%), "allow me to trap in additional locations" (54.0 vs. 17.8%) and that they "are effective at capturing and holding animals" (48.1 vs. 9.9%). However, only 17.8% (n = 29) of the individuals, who were familiar with these trap types, agreed that "when the raccoon traps I now use are no longer serviceable, I will replace some with these traps." This could be the result of the initial cost of these traps, because 65.4% (n = 106) of respondents agreed that "the initial cost of these traps is too expensive." Individuals, who had trapped with foot-enclosing traps, were more likely to agree that these traps "allow me to trap additional locations" (mean score = 0.86 vs. 0.22,  $P < 0.001$ ,  $T = 6410.5$ ), and that they are "effective at capturing and holding animals" (mean score = 0.79 vs. 0.31,  $P < 0.001$ ,  $T = 6149.0$ ).

As an indicator of attitudes toward Best Management Practices (BMPs), respondents were asked to give their level of agreement with a list of statements about trapping (Table 9), which did not specifically address BMPs, but related to them in a broad way. BMPs were not specifically addressed in this question because I wanted to determine attitudes toward certain issues that relate to

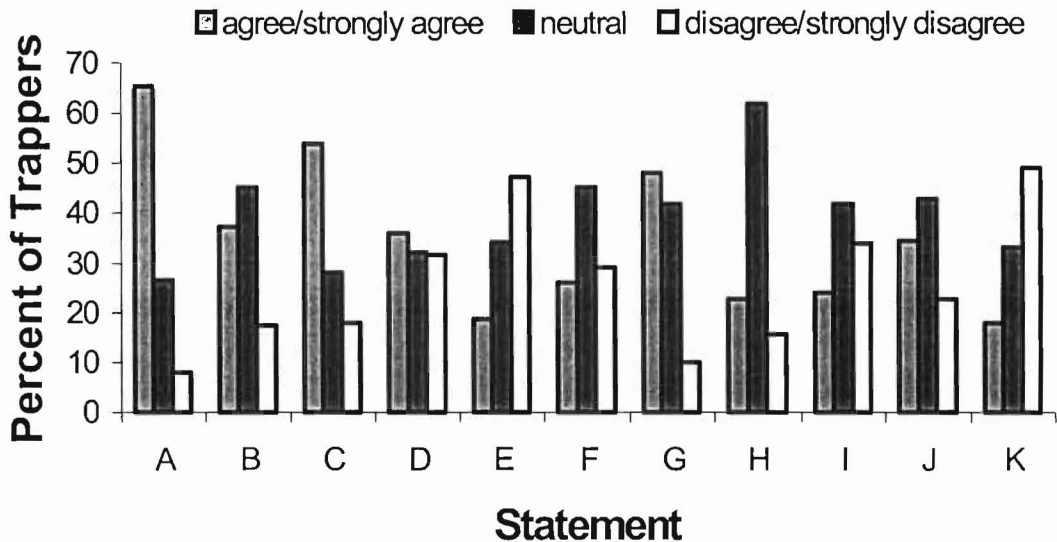


Figure 17. Level of agreement with statements about Dog Proof®, Duffer® and EGG® by Kansas trappers.

- A. Initial cost is too expensive.
- B. These traps significantly reduce injury.
- C. These traps allow me to trap additional locations.
- D. The public would increase their support for trapping if these traps were used.
- E. I would rather stop using foothold traps than switch to these traps.
- F. The maintenance, time, and difficulties of operating these traps keeps me from using them.
- G. These traps are effective at capturing and holding animals.
- H. Most other trappers are satisfied with these traps.
- I. It takes more skill to capture an animal in these traps than in a conventional foothold trap.
- J. It will not be economical for me to use these traps.
- K. When the traps I now use are no longer serviceable, I will replace some with these traps.

Table 9. Attitudes of Kansas trappers toward statements about trapping.

Statement	(n)	SA <sup>a</sup>	A <sup>b</sup>	% N <sup>c</sup>	A <sup>d</sup>	SD <sup>e</sup>
It is my right to trap.	322	68.3	24.2	2.8	4.1	0.6
A trapping trip can be satisfying even if no animals are harvested.	323	52.0	39.0	6.2	1.9	0.9
Furbearers should be captured using the best traps and technology available.	319	31.0	47.3	16.0	4.7	0.9
I would change my trapping methods to ensure that trapping remains legal in the future.	319	18.2	51.7	22.3	5.0	2.8
Furbearers are captured with the best traps and technology available.	320	15.0	42.5	35.3	5.9	1.3
Attempts to develop more humane traps should continue.	321	11.8	44.5	29.9	10.0	3.7
It is important that traps are improved in the U.S.	321	13.7	40.2	29.0	13.7	3.4
I would buy a trap that would allow me to trap additional locations even if it was more expensive.	316	6.3	32.9	40.5	16.1	4.1
I would buy a trap that caused less injury even if it was more expensive.	318	6.6	32.4	43.4	13.5	4.1
Scientific studies are a reliable way to determine the effectiveness of a trap type.	312	3.8	26.3	44.9	17.6	7.4
I would stop trapping if use of the leghold trap was prohibited.	316	8.9	18.4	25.0	32.9	14.9
If I could no longer make a profit from trapping, I would quit.	317	2.8	5.0	16.7	45.7	29.7

<sup>a</sup>Strongly agree, <sup>b</sup>Agree, <sup>c</sup>Neutral, <sup>d</sup>Disagree, <sup>e</sup>Strongly disagree

BMPs without limiting responses to individuals who were familiar with BMPs. Most respondents agreed that "furbearers should be captured using the best traps and technology available" (78.4%, n = 250), "I would change my trapping methods to ensure that trapping remains legal in the future" (69.9%, n = 223), "attempts to develop more humane traps should continue" (56.4%, n = 181), and that "it is important that traps and trapping systems are improved in the United States" (54.8%, n = 129). However, 92.5% of respondents (n = 298) believe that it is their right to trap. Also, most respondents (57.5%, n = 184) believe that "in Kansas, furbearers are captured using the best traps and technology available." Only 30.1% of respondents (n = 94) agreed with the statement that "scientific studies are a reliable way to determine the effectiveness of a trap type."

A total of 37.4% of respondents (n = 116) reported that they knew what BMPs were. These individuals were asked to give their level of agreement with four statements that specifically addressed BMPs. Many respondents were uncertain about BMPs, however, given the high percentage of "neutral" responses and the low percentage of "strong" agreement or disagreement (Table 10). Most respondents (62.6%, n = 72) agreed that "the development of BMPs is a good idea," whereas only seven respondents (6.1%) disagreed with this statement. Interestingly, many respondents (60.9%, n=70) also agreed that "BMPs will lead to regulations that will restrict what trap types I am able to use." More respondents agreed (43.5%, n = 56) than disagreed (27.8%, n = 31) that "BMPs will result in a greater public acceptance of trapping." Respondents were more likely to disagree (37.4%, n = 43) than agree (27.0%, n = 31) that "BMPs

Table 10. Agreement of Kansas trappers (n=115) with statements about Best Management Practices (BMPs).

Statement about BMPs	SA <sup>a</sup>	A <sup>b</sup>	% N <sup>c</sup>	D <sup>d</sup>	SD <sup>e</sup>
The development of BMPs is a good idea.	11.3	51.3	31.3	3.5	2.6
BMPs will result in a greater public acceptance of trapping.	5.2	38.3	28.7	24.3	3.5
BMPs will lead to regulations that will restrict what trap types I am able to use.	6.1	54.8	30.4	7.0	1.7
BMPs will permit trapping to occur in places where it is currently prohibited.	3.5	23.5	35.7	32.2	5.2

<sup>a</sup>Strongly agree, <sup>b</sup>Agree, <sup>c</sup>Neutral, <sup>d</sup>Disagree, <sup>e</sup>Strongly disagree



will permit trapping to occur in places where it is currently prohibited." Trapper organization members were more likely than nonmembers to know what BMPs were (60.2 vs. 28.7%,  $X^2 = 24.411$ , 1 df,  $P < 0.001$ ), but the only significant difference in their attitudes toward BMPs was that members believed BMPs would "result in a greater public acceptance of trapping," whereas nonmembers were neutral on the issue (0.36 vs. 0.0,  $T = 2507.5$ , 1 df,  $P < 0.048$ ).

## DISCUSSION

### *Trapper recruitment*

In order for one to be recruited into the trapping activity, a general process that involves three steps (exposure, incentive, and access) must occur. One must first be introduced or exposed to trapping (i.e., made aware that trapping is a legal activity in which participation is a possibility) (exposure). One must then recognize an incentive or motive to pursue the activity, such as an interest in outdoor activities, encouragement by another individual, or potential monetary gain (incentive). Finally, the physical requirements of becoming involved must be met (access). Physical requirements include access to supplies and knowledge of how to get them, access to available land and furbearers, and for some individuals, guidance in how to trap.

Factors that hinder trapper recruitment have increased in number and intensity in recent years, but all three steps of the recruitment process can be simultaneously achieved through close association with an active trapper. Although my research did not fully address the effect of exposure to active trappers on trapper recruitment, my results did indicate that the majority of individuals are being recruited into the trapping activity with the assistance at some point in the recruitment process of at least one other individual who is already familiar with trapping. Similar findings by Muth et al. (1996) indicated that 91% of trappers from six northeastern states were introduced (step 1) to the trapping activity by people (as opposed to media or agency sources). In this

sense, trapping is a somewhat self-supporting activity, in that, for one to become a trapper, one likely knows a trapper.

One possible explanation for this dependency on mentors is that a decrease in exposure (step 1) to trapping prevents potential trappers from ever being recruited into the trapping activity. Supporting this assumption, a recent study found that a very high percentage of the general public (83%) in Illinois have little or no knowledge of trapping (Responsive Management 1994). Because current trapper participation levels are very low (Roy, C. C., Kansas Department of Wildlife and Parks, pers. commun.) and wildlife agency resources and personnel are becoming increasingly limited in many states, including Kansas, informing the public about trapping, which provides exposure, is generally not a high priority of wildlife agencies. Low participation levels also reduce the likelihood that potential trappers will be exposed to trapping by other trappers.

Incentives (step 2) to trap have also been diminished by several notable factors. Competing interests, such as athletics, computers, and video games, have become more prevalent in today's society and likely increase time-constraints on potential trappers. Also, a depressed fur trade has removed the major incentive to trap for market-oriented trappers. Not all trappers are market oriented, however, and recruitment can and does occur (at lower rates) during periods of low pelt price.

Access (step 3) to trapping in Kansas has also decreased because we are currently undergoing a period of low pelt price. Despite plentiful furbearer

populations (Roy 1999), fur and trap supply dealers are both fewer in number than they were in the past. The number of fur dealers in the state has fallen from 75 in 1988 to 33 in 1998 (Fox 1988, Roy 1999). Although the decrease in the number of trap supply dealers is difficult to quantify, supply has decreased with demand. Even farm and ranch stores (Bluestem, Orscheln, Town and Country, Tractor Supply Co., etc.) carry at most a very limited selection of foothold traps if they carry any at all. The decrease in the number of fur and trap supply dealers also further reduces the opportunity for individuals, who do not know a trapper, to gain exposure to trapping.

The urbanization of our landscape is an increasing and virtually insuppressible process that negatively affects all three stages of trapper recruitment. Individuals from more urban areas have less exposure to outdoor activities (exposure), less opportunity to become interested in or learn about wildlife or the "outdoors" (incentive), and less access to land or furbearers that can be legally trapped (access). Consequently, most trappers were from more rural settings. In fact, only 7% of Kansas trappers were from cities of greater than 25,000 people.

The decreases in exposure and access to trapping have made it difficult for potential trappers, who either do not already know a trapper well enough to learn from him/her or who do not live near one of the few remaining fur or trap supply dealers, to receive the exposure they need get started on their own. Consequently, a public information campaign about trapping to both address misconceptions and provide exposure to potential trappers might be the key to

increasing trapper numbers during periods of low pelt prices and sustaining trapper numbers in the future. Increasing exposure to trapping in schools, 4-H clubs, Scouts, etc. would be most beneficial, given the age at which most trappers begin trapping. Ideally, during higher pelt prices, financially-motivated trappers will again become active and the number of fur dealers will increase with demand. The renewed presence of a monetary incentive to trap will increase exposure and access to trapping, which will increase recruitment into the trapping activity. A new "generation" of trappers will become active, some of whom will have a great enough interest in the activity to remain active and provide support for trapping through its next depression.

### ***Trapper participation***

The most important factors that kept inactive respondents from trapping during the 1997-98 furharvesting season tended to be driven both financially and by a decrease in the importance of trapping as a personal priority. Factors that physically reduce trapping opportunity (lack of access to furbearers because of land access, distance, or low furbearer populations) have been identified as potential trapper deterrents in previous literature and could affect trapper participation in more populated areas (Siemer et al. 1991, Muth et al. 1996), but did not appear to be important deterrents to trapping in Kansas. The apparently high demand for nuisance wildlife trapping also indicates that a lack of access to land or furbearers is not a significant deterrent to trapping in Kansas. Opposition to trapping by other individuals and the threat of conflict with them were very minor deterrents to inactive trappers in Kansas, and were not important

deterrents to trappers in the northeastern United States (Siemer et al. 1991, Muth et al. 1996), but could affect participation indirectly by hindering trapper recruitment.

Previous literature has indicated that a complex variety of motives are responsible for most trappers' participation in the activity. My findings were no exception. The most important motivators to Kansas trappers as a group were related to an appreciation of nature, wildlife, and the outdoors, but the challenges and potential seclusion that trapping offers also motivated many. Association with other trappers was also an important motive for some, but given the rather solitary nature of many trappers, is likely more important to the recruitment process than it is as a motive for trapping.

Although most respondents trapped for recreational reasons, utilitarian incentives also motivated some respondents to trap. Animal control was an important motivator to many trappers, most of whom have actually been contacted to trap nuisance wildlife. In fact, the actual number of individuals, who have been contacted to trap nuisance wildlife outside the season, might be higher than reported, because this question had 29 non-responses as opposed to three to six in other similar questions in this immediate section. Possibly, this question was left blank by some individuals who feared possible repercussions for trapping outside the season without an animal damage control permit.

Of the motives I assessed, financial incentive was the least important to respondents. However, data collected by the Kansas Department of Wildlife and Parks has indicated a significant correlation between pelt price and furharvester

license sales in Kansas (Roy 1997), and Siemer et al. (1991) reported that financially-motivated trappers drop in and out of the activity as pelt price fluctuates. Given that pelt prices had been rather low in the years leading up to my survey (Roy 1997), financially-motivated trappers may have been inactive, and the importance of income as a motivator to trap could have been underrated in my survey. However, a small percentage of respondents were exclusively financially motivated and/or relied heavily upon trapping income, and many trappers received at least minor economic security and gain from trapping. For many respondents, trapping was part of a general lifestyle that included participation in a variety of outdoor activities. To these individuals, trapping appeared to be one of a number of activities in which they participated that involved the consumptive use of natural resources. Participation should be reassessed during periods of higher pelt price to determine changes that accompany financially-motivated trappers.

### ***Trapper education***

During the 1990s, a mean of 404 people per year took trapper education courses to become certified furharvesters in Kansas. The number of annual certifications ranged from a minimum of 184 in 1991 to a maximum of 588 in 1996 (Stacy Miller, Information and Education, Kansas Department of Wildlife and Parks, pers. commun.).

Trapper education courses offer an important opportunity to convey safe and ethical trapping conduct (Siemer et al. 1991), innovative new trapping tools and techniques (Gilbert 1991), and Best Management Practices to potential

trappers. Although formal courses offer an excellent opportunity to convey current information to new trappers and other furharvesters, my results indicated that few Kansas trappers (34%) had ever taken a formal trapper education course. However, my failure to define "formal" course (as either a classroom course or as any course that meets the mandatory requirements for trapper education in Kansas, including the correspondence course) in the questionnaire structure suggests that my findings should be cautiously evaluated. Kansas was one of the first states in the Midwest to offer trapper education, and not all states require it even today, but the IAFWA (1994) reported that only 10% of Midwest trappers had taken a formal trapper education course. Regardless, pelt prices are presently very low, and will likely remain low for several years given the fur market's dependence upon currently-struggling foreign economies (Dozhier 1998). Consequently, trapper participation, hence recruitment and enrollment in both trapper education courses can be expected to remain low during this critical time in the BMP developmental/educational process.

Another means of educating and informing trappers that has previously been used is presentations at state and national trapper conventions. However, only a small percentage of respondents attend these events on a consistent basis, and few trapper organization nonmembers attend them at all. Consequently, although state conventions offer an opportunity to contact trapper organization members, other, means of educating and informing trappers about BMPs and other important issues (species-specific traps and sets, new



regulations, etc.) will be necessary if a majority of Kansas trappers are to be contacted.

Trapper organizations benefit the trapping community by providing educational, social, and financial services to members. They also play a vital role in the preservation of the trapping activity by providing essential support for trapping in the political arena, which appears to be the primary reason for membership in a trapper organization. Trapper organization members were generally more active and highly involved in the trapping activity. They were more likely to attend state or national trapper events, and they relied more heavily on multiple sources of information about trapping than did nonmembers. In particular, trapper magazines are available sources for informing members, since membership in both state and national trapper organizations includes a subscription to a trapper magazine. Thus, this accounts for the high percentage of members, who relied on books or magazines, as a source of trapping information. Consequently, members are generally much easier to contact than nonmembers. Less than 27% of respondents were trapper organization members, though, and techniques used to contact these individuals will not be sufficient to contact many nonmembers.

Informing nonmembers about current issues that are important to the trapping community will be more challenging because of their diversity and varying level of involvement in the trapping activity. A high percentage of these individuals relied on books or magazines as a source of information about trapping, but these are two very different sources that should have been

separated for the purpose of my survey. (Magazines are more likely current and more frequently received, whereas books are more likely to be kept and referred to for years.) "Other trappers" were also a source of information for many nonmembers. This suggests that information will spread among trappers to some degree by word of mouth, but this is not a reliable means of providing new information to the trapping community.

The only other two sources of information that were relied upon by the majority of nonmembers were fur dealers and the state trapping regulations summary. Both of these have several advantages over other methods, and could be used to contact some of the more difficult-to-reach trappers. There are presently only about 30 fur dealers in Kansas, and they are generally widespread. Also, most trappers (94%--Siemer et al. 1991, 79%--IAFWA Fur Resources Committee 1994) sell pelts to local fur dealers. Fur dealers would not need to take an active role in the process, but could simply be provided with information for posting. Although this tactic might not effectively reach individuals outside the trapping season or who sell their pelts out-of-state or to dealers at pick-up stations (as opposed to base locations), it is an unconventional practice that could be very effective at beginning the circulation of new information into the trapping community.

The state trapping regulations summary is a known source of information that is already relied upon for season dates and legal methods, and could potentially be modified annually to include BMP developments. The summary also includes hunting regulations, which makes it more likely to be read by other

resource users or less involved trappers who may acquire it with the primary intent of reviewing hunting regulations (my findings indicated that about 90% of trappers also hunt). Although traditional methods of contacting trappers will be effective at reaching a minority of individuals, new and innovative methods will have to be used to maximize contact with trappers of all levels of involvement.

### ***Trap use***

Different sizes and brands of padded traps have been extensively tested on several species of furbearers including coyote, red fox, bobcat (*Lynx rufus*), and raccoon (see IAFWA 1997, Baker et al. 1998, Decker et al. 1998), and were shown to cause significantly less injury to captured animals than other trap types (Olsen et al. 1986, Olsen et al. 1988, Onderka et al. 1990, Gruver et al. 1996, Phillips et al. 1996). Although padded traps have been on the market for many years, a national survey of trap ownership and use in the United States reported that only 10% of Midwest trappers own them (IAFWA Fur Resources Committee 1994). This figure has apparently remained fairly stable, because 13% of Kansas trappers have now trapped with them, and not all of these trappers necessarily own them.

The generally negative attitudes toward padded traps, both by trappers who have and have not used them, should be cautiously evaluated by individuals involved in the BMP development process. If padded traps were to be exclusively recommended for BMPs at the present time, voluntary compliance would likely be very low given their perceived ineffectiveness and increased cost (roughly 70% more than standard foothold traps--IAFWA Fur Resources

Committee 1994). That 14% (Roy 1997) and 21% (my results) of Kansas trappers indicated they would rather stop trapping than switch to padded traps should serve as a warning of the potential effect of any regulation that requires the use of padded traps. This also further stresses the importance of a gradual phase-out of trap types (as opposed to immediate regulations), should BMPS result in state-mandated regulations that prohibit the use of trap types not recommended by BMPs. A phase-out of trap types would give trappers additional time to become accustomed to padded and other rather unfamiliar trap types (Dog Proof®, Duffer®, EGG®, etc.) and would reduce the financial burden of replacing an entire trap supply at once. Some of the negativity toward padded traps could be due to their initial ineffectiveness (Linhart et al. 1986, Linhart et al. 1988, Linscombe and Wright 1988). Modifications to more recent models of padded traps have since improved their performance (Skinner and Todd 1990, Linhart and Dasch 1992, Phillips et al. 1992, Phillips and Mullis 1996) and their popularity might increase with time and BMP recommendations. In fact, a minority of respondents did have positive perceptions of padded traps, but with such preconceived negativity toward these traps by most trappers, wildlife managers will be challenged to convince trappers of their effectiveness and advantages, should they be recommended for BMPs.

The Duffer® and EGG® traps have also been tested in the BMP development process. Both trap types have received favorable results (Hubert et al. 1996, Baker et al. 1998, Roy et al. 1998, Hubert et al. 1999). Dog Proof® (D.P.) and Coon Cuffs® traps are presently being considered for testing (Roy,

C. C., Kansas Department of Wildlife and Parks, pers. commun.). The IAFWA (1994) reported that only 4% of Midwest trappers owned and less than 0.1% had used the EGG® trap , which was newly-developed at the time of that survey. Nearly 7% of Kansas trappers have now used this trap, and 20% have used at least one of the four trap types. Over half the respondents were familiar with them.

Attitudes toward these foot-enclosing traps were fairly positive with the exception of cost, but almost half the respondents, who were familiar with them, did not intend to replace the raccoon traps they currently use when they are no longer serviceable with these traps. As unconventional trap types, these traps will require time to be accepted by the trapping community if they are to be accepted at all. Although their selectivity, which is one of their most beneficial characteristics, will limit their use in multiple-species locations, cost appears to be the major factor limiting more widespread use of these traps.

### ***Best Management Practices (BMPS)***

Educating trappers about BMPs is a critical aspect of the BMP development process. That trappers, who were familiar with BMPs, were generally positive toward them indicates that support for the principle of improving trapping is common among trappers. However, the high degree of neutrality toward and the lack of strong support for BMPs also indicates a certain level of skepticism toward them exists that should be further addressed through education efforts. General questions answered by all respondents, which

indirectly addressed BMPs, further indicated that educational efforts will be needed to convince many trappers of the necessity of BMPs. Perhaps the most important reason that education efforts must continue is that less than half the respondents (37%) were familiar with BMPs.

The BMP process is an attempt at achieving voluntary compliance in trap use through recommendation of the "best" trap types. However, convincing trappers to voluntarily change trap types will be difficult when most (58%) already believe the best traps and technology are being used. Recommendations will be based on effectiveness, injury level, selectivity, and practicality of each trap type. Although these were the most important factors that determined which trap type trappers used, effectiveness of the trap was by far the single most important factor. Given the importance of effectiveness of the trap type to trappers, wildlife managers will be challenged to convince trappers to abide by BMPs if it means accepting a reduction (real or perceived) in the effectiveness of the trap for any other reason, including for a decrease in injury level to the trapped animal.

Convincing some trappers to voluntarily change their ways even in the slightest will be virtually impossible. Many trappers were quite experienced (63% have trapped 10 seasons or more). A minority were strongly opposed to BMPs, and many questioned the reliability of scientific studies. There is also a strong opposition to antitrappers, at least among trapper organization members, and any compromise required to appease them. Trappers are a diverse group in respect to emotional involvement in the activity and attitudes toward animal welfare and advances or changes in trap types and politics.

Although the current BMP agenda appears favorable to the future of trapping, each state will be responsible for implementing BMPs as they determine fit. Misinterpretation of such research by uninformed individuals or antitrappers could have disastrous consequences for the trapping community. Wildlife managers should take an active role in promoting implementation of BMPs as recommendations and support a phase-out of less favorable trap types, as opposed to immediate regulations. Many trappers have a substantial financial investment in their trapping equipment (IAFWA Fur Resources Committee 1994), and immediate regulations requiring significant modification or replacement of traps could very negatively affect trapper participation if trappers are not given time to prepare for such an event.

Lastly, it will do absolutely no good politically to improve trap types, even to the point that injury is absolutely eliminated, if the non-trapping public believes that large and dangerous steel-toothed bear traps are being used. Perhaps the most critical aspect of the BMP process is an aggressive and widespread public information campaign. Widespread efforts should be made by individuals, who are knowledgeable about trapping, to educate the public of facts and benefits of trapping. Efforts should also address the negative and false stereotypes about trapping, such as the use of steel-toothed traps, the incompetent trapper, and that animals commonly chew their legs off in an attempt to escape from traps. Finally, "foothold" traps are designed to capture animals across the pad of the foot, not by the leg. The use of the term "leghold" trap to describe a "foothold" trap is improper, contributes to the stereotypes that surround trapping, and

should be eliminated, yet the term "leghold" trap is common even in scientific literature.



## CONCLUSIONS

Sustaining a base of trappers is critical to both the future of trapping and the successful management of wildlife resources. Active trappers provide exposure necessary for the majority of recruitment to occur. They provide benefits to landowners and livestock producers necessary for trapping to remain positive to many nontrappers. Perhaps most importantly, they provide rigid opposition to antitrapping agendas, which politically allows for legal trapping's continued existence.

The public often looks to state agencies for assistance in resolving conflicts with wildlife. Dealing with nuisance wildlife is a frequent and time-consuming task for Kansas wildlife managers and is often necessary to retain a satisfied constituency. Time spent with nuisance wildlife complaints would multiply significantly without legal trapping. Consequently, ensuring the long-term future of trapping should be of concern to wildlife managers in Kansas because of benefits most trappers provide wildlife managers through their role in nuisance wildlife removal.

Many state agencies take an active role in promoting outdoor activities such as hunting, fishing, and bird watching. Trapping should not be an exception. Much research has shown that trapping provides a wide range of non-monetary benefits to participants, yet trapping is often seen only as a financially-driven activity and other benefits are overlooked. Public knowledge of trapping must improve if trapping is to remain legal. Educating the public of facts and benefits of trapping should be a high priority of wildlife managers. States

that have failed to educate their publics about trapping have become more susceptible to the emotionally-driven and often untruthful campaigns of antitrappers.

Knowledge and acceptance of trapping within the field of wildlife professionals is also of concern. Organ et al. (1998) reported that 43% of wildlife professionals believed that leghold traps should be outlawed. Trapping and the use of leghold traps were more acceptable to experienced wildlife professionals (employed for 20 years or more) and to state fish and wildlife agency employees than to other demographic groups involved in the study. "Experienced" professionals constitute a significant percentage of state agency personnel in Kansas. As these individuals enter retirement, a "new wave" of personnel will be entering the profession. Consequently, now more than ever, efforts to educate new state agency employees will be critical to the acceptance of trapping by the personnel responsible for managing wildlife populations and the activities that affect them. Organ et al. (1998) recommended that young professionals, along with federal agency and university personnel and females, should be the focus of outreach efforts (offering experiential opportunities, when possible) within the profession.

**LITERATURE CITED**

- Andelt, W. F., R. L. Phillips, R. H. Schmidt, and R. B. Gill. 1999. Trapping furbearers: an overview of the biological and social issues surrounding a public policy controversy. *Wildlife Society Bulletin* 27:53-64.
- Bailey, T. N. 1981. Characteristics, trapping techniques, and views of trappers on a wildlife refuge in Alaska. Pp. 1904-1918, in Chapman, J. A., and D. Pursley, eds., *Proceedings of the Worldwide Furbearer Conference*. Frostburg, MD.
- Baker, O. E., C. C. Roy, and D. A. Hamilton. 1998. Assessment of four leghold restraining devices to capture raccoons in non-drowning sets in the Midwest and the Southeastern United States. P. 13, in Roy, C. C., ed., *Proceedings of the 1998 Joint Furbearer Resources Conference*. Kansas Department of Wildlife and Parks. Emporia, KS.
- Boddicker, M. L. 1981. Profiles of American trappers and trapping. Pp. 1919-1949, in Chapman, J. A., and D. Pursley, eds., *Proceedings of the Worldwide Furbearer Conference*. Frostburg, MD.
- Cochran, W. C. 1966. *Sampling techniques*. Second Ed. John Wiley and Sons, Inc. New York, NY. 413pp.
- Cockrell, S. 1999. Crusader activists and the 1996 Colorado antitrapping campaign. *Wildlife Society Bulletin* 27:65-74.

- de Almeida, M. H. 1987. Nuisance furbearer damage control in urban and suburban areas. Pp. 996-1006, in Novak, M, J. A. Baker, M. E. Obbard, and B. Mallock, eds., *Wild Furbearer Management and Conservation in North America*. Ontario Ministry of Natural Resources. Toronto, Ontario.
- de Almeida, M. H., and L. Cook. 1987. Trapper education in North America. Pp. 77-84, in Novak, M, J. A. Baker, M. E. Obbard, and B. Mallock, eds., *Wild Furbearer Management and Conservation in North America*. Ontario Ministry of Natural Resources. Toronto, Ontario.
- Decker, T., C. C. Roy, and D. A. Hamilton. 1998. Assessment of three foothold restraining devices to capture coyotes and red foxes in the Northeast United States. P. 14, in Roy, C. C., ed., *Proceedings of the 1998 Joint Furbearer Resources Conference*. Kansas Department of Wildlife and Parks. Emporia, KS.
- Deems, Jr., E. F., and D. Pursley. 1983. *North American furbearers, A contemporary reference*. Worldwide Furbearer Conference, Inc., First Edition. 223pp.
- Dolbeer, R. A., N. R. Holler, and D. W. Hawthorne. 1994. Identification and control of wildlife damage. Pp. 474-506, in Bookhout, T. A., ed., *Research and Management Techniques for Wildlife and Habitats*. The Wildlife Society. Lawrence, KS.
- Dooley, K. 1991. *Reference Manual Version 3.0*. U.S. Department of Commerce. Springfield, VA. 246pp.

- Dozhier, P. 1998. The market report. *The Trapper and Predator Caller* 23(8):24-26.
- Fox, L. 1988. Annual Report: Kansas furbearer information summary. Kansas Department of Wildlife and Parks. Emporia, KS. 45pp.
- Gentile, J. R. 1987. The evolution of antitrapping sentiment in the United States: A review and commentary. *Wildlife Society Bulletin* 15:490-503.
- Gilbert, F. F. 1991. Trapping--an animal rights issue or a legitimate wildlife management technique--the move to international standards. *Transactions of the North American Wildlife and Natural Resources Conference* 56:400-408.
- Giroux, A. 1987. The role of the trapper today. Pp. 55-58, in Novak, M, J. A. Baker, M. E. Obbard, and B. Mallock, eds., *Wild Furbearer Management and Conservation in North America*. Ontario Ministry of Natural Resources. Toronto, Ontario.
- Gruver, K. S., R. L. Phillips, and E. S. Williams. 1996. Leg injuries to coyotes captured in standard and modified Soft Catch traps. *Proceedings of the Vertebrate Pest Conference* 17:91-93.
- Hamilton, D., B. Roberts, N. Jotham, G. Linscombe, J. Stone, and H. Noseworthy. 1998. The European Union's wild fur regulation: a battle of politics, cultures, animal rights, international trade, and North America's wildlife policy. P. 1, in Roy, C. C., ed., *Proceedings of the 1998 Joint Furbearer Resources Conference*. Kansas Department of Wildlife and Parks. Emporia, KS.

- Hubert, G. F., Jr., L. L. Hungerford, G. Proulx, R. D. Bluett, and L. Bowman. 1996. Evaluation of two restraining traps to capture raccoons. *Wildlife Society Bulletin* 24:699-708.
- Hubert, G. F., Jr., G. K. Wollenberg, L. L. Hungerford, and R. D. Bluett. 1999. Evaluation of injuries to Virginia opossums captured in the EGG™ trap. *Wildlife Society Bulletin* 27:301-305.
- International Association of Fish and Wildlife Agencies (IAFWA). 1997. Improving animal welfare in U.S. trapping programs: Process recommendations and summaries of existing data. Published by IAFWA. Washington D.C. 60 pp.
- International Association of Fish and Wildlife Agencies (IAFWA) Fur Resources Committee. 1994. Ownership and use of traps by trappers in the United States in 1992. Published by IAFWA. Washington, D.C. 100pp.
- Kellert, S. R. 1981. Trappers and trapping in American society. Pp. 1971-2003, in Chapman, J. A., and D. Pursley, eds., *Proceedings of the Worldwide Furbearer Conference*. Frostburg, MD.
- Linhart, S. B., F. S. Blom, G. J. Dasch, R. M. Engelman, and G. H. Olsen. 1988. Field evaluation of padded jaw coyote traps: Effectiveness and foot injury. *Proceedings of the Vertebrate Pest Conference* 13:226-229.
- Linhart, S. B., and G. J. Dasch. 1992. Improved performance of padded jaw traps for capturing coyotes. *Wildlife Society Bulletin* 20:63-66.

- Linhart, S. B., G. J. Dasch, C. B. Male, and R. M. Engeman. 1986. Efficiency of unpadding and padding steel foothold traps for capturing coyotes. *Wildlife Society Bulletin* 14:212-218.
- Linscombe, R. G., and V. L. Wright. 1988. Efficiency of padded foothold traps for capturing terrestrial furbearers. *Wildlife Society Bulletin* 16:307-309.
- Linscombe, G., G. Batcheller, and D. A. Hamilton. 1998. The European Union and USA reach an understanding on trapping. Pp. 3-4, in Roy, C. C., ed., *Proceedings of the 1998 Joint Furbearer Resources Conference*. Kansas Department of Wildlife and Parks Research and Survey Office. Emporia, KS.
- Manfredo, M. J., C. L. Pierce, D. Fulton, J. Pate, and B. R. Gill. 1999. Public acceptance of wildlife trapping in Colorado. *Wildlife Society Bulletin* 27:499-508.
- McGee, H. F., Jr. 1987. The use of furbearers by native North Americans after 1500. Pp. 13-20, in Novak, M, J. A. Baker, M. E. Obbard, and B. Mallock, eds., *Wild Furbearer Management and Conservation in North America*. Ontario Ministry of Natural Resources. Toronto, Ontario.
- Muth, R. M., R. R. Zwick, J. J. Daigle, R. J. Glass, and S. A. Jonker. 1996. The sociocultural and economic value of furbearer resources: A study of trapping in six Northeastern states. 1) Pennsylvania Game Commission, 2) U.S.D.A. Forest Service, Northeastern Forest Experiment Station, and 3) Division of Federal Aid, Region 5, U.S.D.I. Fish and Wildlife Service. Hadley, MA. 122pp.

Northeast Furbearer Resources Technical Committee (NEFRTC). 1996.

Trapping and furbearer management: Perspectives from the Northeast.

Published by NEFRTC. 33pp.

Olsen, G. H., S. B. Linhart, R. A. Holmes, G. J. Dasch, and C. B. Male. 1986.

Injuries to coyotes caught in padded and unpadded steel foothold traps.

Wildlife Society Bulletin 14:219-223.

Olsen, G. H., R. G. Linscombe, V. L. Wright, and R. A. Holmes. 1988.

Reducing injuries to terrestrial furbearers by using padded foothold traps.

Wildlife Society Bulletin 16:303-307.

Onderka, D. K., D. L. Skinner, and A. W. Todd. 1990. Injuries to coyotes and

other species caused by four models of footholding devices. Wildlife

Society Bulletin 18:175-182.

Organ, J. F., D. A. Hamilton, R. M. Muth, J. J. Daigle, M. E. Mather, and D. J.

Witter. 1998. Assessing the attitudes and values of wildlife and fisheries

professionals toward trapping. P. 15, in Roy, C. C., ed., Proceedings of

the 1998 Joint Furbearer Resources Conference. Kansas Department of

Wildlife and Parks Research and Survey Office. Emporia, KS.

Payne, N. F. 1980. Furbearer management and trapping. Wildlife Society

Bulletin 8:345-348.

Phillips, R. L., F. S. Blom, G. J. Dasch, and J. W. Guthrie. 1992. Field

evaluation of three types of coyote traps. Proceedings of the Vertebrate

Pest Conference 15:393-395.



- Phillips, R. L., K. S. Gruver, and W. S. Williams. 1996. Leg injuries to coyotes captured in three types of foothold traps. *Wildlife Society Bulletin* 24:260-263.
- Phillips, R. L., and C. Mullis. 1996. Expanded field testing of the No. 3 Victor Soft Catch trap. *Wildlife Society Bulletin* 24:128-131.
- Ray, A. J. 1987. The fur trade in North America: An overview from a historical geographical perspective. Pp. 21-30, in Novak, M, J. A. Baker, M. E. Obbard, and B. Mallock, eds., *Wild Furbearer Management and Conservation in North America*. Ontario Ministry of Natural Resources. Toronto, Ontario.
- Responsive Management. 1994. Illinois residents' opinions and attitudes regarding trapping, fur hunting and furbearer management. Report prepared for the Illinois Department of Conservation. Responsive Management. Harrisonburg, VA. 85pp.
- Responsive Management. 1995. Factors related to hunting and fishing participation in the United States, phase IV, quantitative analysis. Report prepared for the U.S. Department of the Interior, Fish and Wildlife Service. Responsive Management. Harrisonburg, VA. 88pp.
- Roy, C. C. 1997. Kansas furbearer surveys and investigations project summary. Kansas Department of Wildlife and Parks. Emporia, KS. 70pp.
- Roy, C. C. 1999. Kansas furharvester and furdealer activity summary, 1996-1997 and 1997-1998. Kansas Department of Wildlife and Parks. Emporia, KS. 42 pp.

- Roy, C. C., M. S. Peek, C. D. Lee, and D. W. Moore. 1998. The effectiveness of the Duffer trap, EGG trap, and Black Hole trapping device to capture raccoons. P. 49, in Roy, C. C., ed., Proceedings of the 1998 Joint Furbearer Resources Conference. Kansas Department of Wildlife and Parks. Emporia, KS.
- Salant, P., and D. A. Dillman. 1994. How to conduct your own survey. John Wiley and Sons, Inc. New York, NY. 232pp.
- Samuel, D. E., and L. L. Bammel. 1981. Attitudes and characteristics of independent trappers and National Trappers Association members in West Virginia. Pp. 2021- 2036, in Chapman, J. A., and D. Pursley, eds., Proceedings of the Worldwide Furbearer Conference. Frostburg, MD.
- Siemer, W. F., G. R. Batcheller, T. L. Brown, and R. J. Glass. 1991. Characteristics, motivations and involvement of trappers in New York. Human Dimensions Research Unit, Cornell University. Ithaca, NY. 36 pp.
- Skinner, D. L., and A. W. Todd. 1990. Evaluating efficiency of foothold devices for coyote capture. Wildlife Society Bulletin 18:166-175.
- Todd, A. W., and E. K. Boggess. 1987. Characteristics, activities, lifestyles, and attitudes of trappers in North America. Pp. 59-76, in Novak, M, J. A. Baker, M. E. Obbard, and B. Mallock, eds., Wild Furbearer Management and Conservation in North America. Ontario Ministry of Natural Resources. Toronto, Ontario.

Wright, J. V. 1987. Archaeological evidence for the use of furbearers in North America. Pp. 3-12, in Novak, M, J. A. Baker, M. E. Obbard, and B. Mallock, eds., *Wild Furbearer Management and Conservation in North America*. Ontario Ministry of Natural Resources. Toronto, Ontario.

**Appendix 1**

Cover letter 1

September 4, 1998

Dear trapper survey participant:

In reference to our recent phone conversation, I have enclosed the trapper survey that I have written for my Master's thesis. As a young trapper and native of Waverly, Kansas, I chose fur trapping as the subject of my thesis because I feel it is an extremely important wildlife management tool that is often overlooked. I also believe that proactive efforts are needed to combat the negativity that is sometimes directed toward trapping. Both state and national wildlife agencies have taken steps to help ensure the future of trapping, but a better understanding of trappers and trapping is necessary to be responsive to growing societal concerns about the harvest of furbearers.

Again, your name was randomly selected from a list of the 1997 Kansas furharvester licenses, and you are one of the few trappers who is being asked to give your opinion on a variety of issues related to trapping. For the results of my study to accurately represent the views of all Kansas trappers, it is important that each questionnaire be completed and returned in the envelope provided.

I give you my assurance that your responses will be kept completely confidential. The results of the questionnaire will be pooled, and your name will never be associated with your responses. So that your name does not even need to be placed on the questionnaire itself, each questionnaire has been assigned an identification number. This will allow for your name to be checked off the mailing list when your questionnaire is received.

I would greatly appreciate your taking the few moments necessary to complete and return your questionnaire. If you have any questions about this study, feel free to call, write, or e-mail me as listed below.

Thank you very much for your valuable time and assistance.

Sincerely,

Matthew S. Peek  
Division of Biological Sciences - Box 4050  
Emporia State University  
1200 Commercial St.  
Emporia, KS 66801-9903  
(316) 342-6570  
e-mail: peekmatt@esvm.emporia.edu

enclosure

## **Appendix 2**

Post card

Recently, you were mailed a survey questionnaire about trapping. As of today, I have not heard back from you.

If you have completed and returned the questionnaire, I thank you very much. If you have not, please do so as soon as possible. I am very grateful for your help because the results of my study, which I hope to have published, will help to make the views of trappers available to both wildlife managers and the general public.

Please consider that I am not only a dedicated trapper, but also a member of both the Kansas Furharvester's and National Trapper's Associations, and my intentions are purely to benefit trappers and trapping. Thanks again.

Sincerely,

Matthew S. Peek  
Biology Graduate Student  
Emporia State University  
Emporia, KS 66801

**Appendix 3**

Cover letter 2



# Emporia State University

Division of Biological Sciences

Emporia, KS 66801

(316) 342-6570

e-mail: peekmatt@esvm.emporia.edu

October 28, 1998

Dear trapper survey participant:

Several weeks ago, a survey questionnaire about trapping was mailed to you. As of today, I have not received your completed questionnaire. I realize you are probably very busy and may not have had time to complete it, but I would really appreciate hearing from you.

This survey is being conducted to get a better understanding of trappers in the state of Kansas. I chose this topic for my Master's thesis because I believe a proactive approach should be taken to help preserve the future of trapping. I am writing you again because **the usefulness of this study will be determined by the number of trappers who respond.**

In case your questionnaire has been misplaced, I have enclosed a replacement. Feel free to contact me as listed above if you have any questions about the study. Again, thank you very much for your valuable time and assistance.

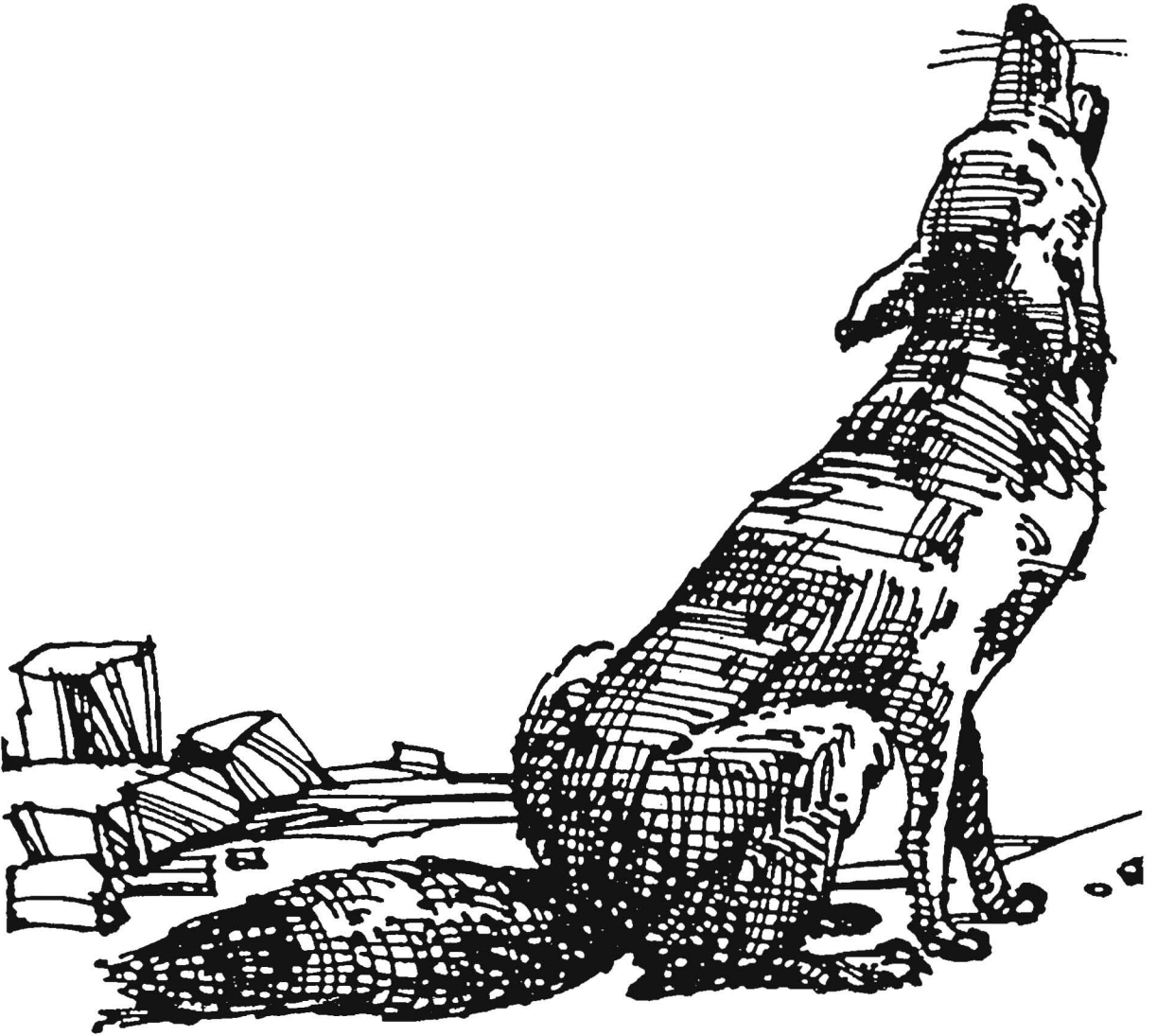
Sincerely,

Matthew S. Peek  
graduate student - ESU

## **Appendix 4**

Survey questionnaire

# A SURVEY OF TRAPPERS IN KANSAS



Please return your completed questionnaire  
in the enclosed envelope to:

**Matthew S. Peek**

Division of Biological Sciences

Emporia State University

1200 Commercial St.

Emporia, KS 66801-9903

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**TRAPPER PARTICIPATION**

I. In the first section of the survey, I would like to determine your level of involvement in fur trapping.

1. Did you have a family member who trapped when you were growing up?

Yes       No

2. Was anyone in your immediate family morally opposed to trapping when you began trapping?

Yes       No

3. When you first learned to trap, did someone teach you how?

Yes (Go to question 4.)

No (Go to question 5.)

4. Who first taught you how to trap? (Check one.)

An immediate family member

Some other relative

A friend or neighbor

Other (please specify) \_\_\_\_\_

5. At what age did you first begin setting and checking your own traps?

\_\_\_\_\_ years

6. Approximately how many seasons have you set and checked traps? (For example, if you started trapping 5 seasons ago, but did not trap during 2 of the past 5 seasons, then you have actively trapped 3 seasons.)

\_\_\_\_\_ seasons

7. How often do you trap with the following persons? Circle the number that represents how often you trap with each person listed.

How often do you trap:	always	usually	sometimes	rarely	never
with a family member?	1	2	3	4	5
with a friend?	1	2	3	4	5
alone?	1	2	3	4	5
with someone you are teaching to trap?	1	2	3	4	5

8. Approximately how many different days did you trap during the most recent season that you trapped? (Count any part of one day as a whole day.)

\_\_\_\_\_ days

9. Did you trap during the 1997-98 furharvesting season?

\_\_\_\_\_ Yes (Go to question 12.)

\_\_\_\_\_ No (Go to question 10.)

10. In which of the following seasons did you last trap? (Check one.)

\_\_\_\_\_ 1996-97

\_\_\_\_\_ 1993-94

\_\_\_\_\_ 1995-96

\_\_\_\_\_ 1992-93

\_\_\_\_\_ 1994-95

\_\_\_\_\_ Other (please indicate season)\_\_\_\_\_

11. I would like to determine why you did not trap during the 1997-98 season. Please circle the number that best represents the level of importance of each of the following potential reasons WHY YOU DID NOT TRAP last season.

<u>I did not trap last season because:</u>	<u>extremely important</u>	<u>very important</u>	<u>moderately important</u>	<u>slightly important</u>	<u>not important</u>
I did not have anyone to trap with.	1	2	3	4	5
I was too busy with family, personal or job obligations.	1	2	3	4	5
the places I wanted to trap were too crowded.	1	2	3	4	5
season dates were inappropriate.	1	2	3	4	5
I would have had to travel too far to set traps.	1	2	3	4	5
I was physically unable to trap.	1	2	3	4	5
I had family or friends morally opposed to trapping.	1	2	3	4	5
pelt prices were too low.	1	2	3	4	5
I did not want to get into conflicts with people morally opposed to trapping.	1	2	3	4	5
I could not find any place to trap.	1	2	3	4	5
furbearer populations were too low.	1	2	3	4	5
it would have cost too much money to go trapping.	1	2	3	4	5
my dislike for killing animals became greater than the benefits of trapping.	1	2	3	4	5
I lost interest in trapping.	1	2	3	4	5
some other reason kept me from trapping.	1	2	3	4	5
(please specify)_____					

12. Have you ever taken a formal trapper's education course? (Check All that apply.)

\_\_\_\_\_ Yes, because I wanted to

\_\_\_\_\_ Yes, because it was mandatory

\_\_\_\_\_ Yes, for some other reason (please specify)\_\_\_\_\_

\_\_\_\_\_ No

**13. I would like to determine why you trap. Please circle the number that best represents YOUR level of agreement with each of the following possible reasons to trap.**

One of the reasons I am involved in trapping is:	strongly agree	agree	neutral	disagree	strongly disagree
to observe or learn about wildlife.	1	2	3	4	5
to obtain meat for myself and/or family.	1	2	3	4	5
to participate in one of my favorite outdoor activities.	1	2	3	4	5
to control nuisance or predatory animals.	1	2	3	4	5
to obtain pelts or products that I barter or trade.	1	2	3	4	5
to make use of a valuable natural resource.	1	2	3	4	5
to continue an important part of my lifestyle.	1	2	3	4	5
to obtain income that pays for family necessities.	1	2	3	4	5
to test my skills and abilities.	1	2	3	4	5
to spend time outdoors.	1	2	3	4	5
to get a change from my routine.	1	2	3	4	5
to maintain a family or rural American tradition.	1	2	3	4	5
to get a sense of independence or self-sufficiency.	1	2	3	4	5
to use the annual crop of furbearers produced each year.	1	2	3	4	5
to provide an income safety net for my family.	1	2	3	4	5
to experience or enjoy nature.	1	2	3	4	5
to help prevent the spread of disease (i.e. rabies).	1	2	3	4	5
to relax or get away from everyday problems.	1	2	3	4	5
to obtain spare money for nonessential items or activities.	1	2	3	4	5
to teach or share skills with others.	1	2	3	4	5
to do something exciting or challenging.	1	2	3	4	5

**14. Do you intend to trap in the future?**

- Yes  
 No

**15. How do you get new information about trapping?** (international news, political/legislative happenings, new techniques, etc.) (Check ALL that apply.)

- a  I read books or magazines  
b  I talk with other trappers  
c  I talk with fur dealers  
d  I talk with conservation officers  
e  I read the state trapping regulations summary (brochure)  
f  I attend trapping demonstrations  
g  I don't  
h  Other (please specify) \_\_\_\_\_

Please circle the letter to the left of your **SINGLE** most important source of information.

**16. How often do you attend each of the following functions?**

How often do you attend:	always	usually	sometimes	rarely	never
state trapper conventions/rendezvous?	1	2	3	4	5
national trapper conventions/rendezvous?	1	2	3	4	5
state fur auctions?	1	2	3	4	5
national fur auctions?	1	2	3	4	5

**17. Are you a member of any trapper organizations?**

Yes (Go to question 18.)

No (Go to question 20.)

**18. In which trapper organizations are you a member? (Check ALL that apply.)**

Kansas Furharvester's Association

National Trapper's Association

Fur Taker's of America

Other trapper organization (please specify) \_\_\_\_\_

**19. How important to you are each of the following potential reasons for being a trapper organization member?**

Potential reasons for organization membership:	extremely important	very important	moderately important	slightly important	not important
Interacting or associating with other trappers	1	2	3	4	5
Influencing state trapping regulations	1	2	3	4	5
Providing financial support for trapping/conservation	1	2	3	4	5
Receiving financial benefits at fur auctions	1	2	3	4	5
Keeping up with current trapping information	1	2	3	4	5
Helping ensure the future of trapping	1	2	3	4	5
Fighting anti-trappers and their legislation	1	2	3	4	5
Other benefit	1	2	3	4	5
(please specify) _____					

20. Do you actively encourage other people to trap? (Circle one.) Yes No
21. Do you write or call your legislator about anti-trapping bills? Yes No
22. Do you write or call the Kansas Department of Wildlife and Parks about trapping regulations? Yes No
23. Have you ever been contacted to trap nuisance wildlife...  
 ...during the furharvesting season? Yes No  
 ...outside the furharvesting season? Yes No
24. During the furharvester season, what percent of your trapping activity involves removal of nuisance wildlife?  
 \_\_\_\_\_ %

**TRAP USE AND TRAPPING**

II. In this section of the questionnaire, I would like to determine why you use certain trap types and your thoughts about trapping in general.

1. How important are each of the following factors in determining which trap type you use?

Factor:	extremely important	very important	moderately important	slightly important	not important
Effectiveness of the trap at capturing and holding animals	1	2	3	4	5
Maintenance required or longevity of the trap	1	2	3	4	5
Tradition (traps I have used in the past)	1	2	3	4	5
Practicality of the trap (quick and easy to set/transport, etc.)	1	2	3	4	5
Inexpensive initial cost of the trap	1	2	3	4	5
Brand of the trap	1	2	3	4	5
Ability of trap to minimize injury to the captured animal	1	2	3	4	5
Ability to capture only the target species	1	2	3	4	5
Flexibility to capture multiple species	1	2	3	4	5
Recommendations of other trappers	1	2	3	4	5
Suggestions in magazine articles	1	2	3	4	5
Country in which the trap is made	1	2	3	4	5

2. Have you ever trapped with padded traps?

- \_\_\_\_ Yes  
 \_\_\_\_ No



3. I would like to find out what you think about padded traps. **Please circle the number that best represents YOUR level of agreement with each of the following statements about PADDED FOOTHOLD (leghold) TRAPS.**

Statement about padded foothold traps:	strongly agree	agree	neutral	disagree	strongly disagree
The initial cost of padded traps is too expensive.	1	2	3	4	5
Padded traps significantly reduce injuries to captured animals.	1	2	3	4	5
Padded traps allow me to trap in additional locations.	1	2	3	4	5
I think the public would increase their support for trapping if trappers used padded traps.	1	2	3	4	5
I would rather stop using foothold (leghold) traps than switch to padded traps.	1	2	3	4	5
The maintenance, time required, and difficulties of operating padded traps keeps me from using them.	1	2	3	4	5
Padded traps are effective at capturing and holding animals.	1	2	3	4	5
Most other trappers are satisfied with the performance of padded traps.	1	2	3	4	5
It takes more skill to capture an animal in a padded trap than in a conventional foothold trap.	1	2	3	4	5
It will not be economical to trap if I use padded traps.	1	2	3	4	5
When the coyote/fox traps I now use are no longer serviceable, I will replace some with padded traps.	1	2	3	4	5

4. Do you know what Dog Proof (D.P.), Duffer, or EGG traps are?

\_\_\_\_ Yes (Go to question 5.)

\_\_\_\_ No (Go to question 7.)

5. Which of these trap types have you used? (Check ALL that you have used.)

\_\_\_\_ Dog Proof (D.P.)

\_\_\_\_ Duffer

\_\_\_\_ EGG

\_\_\_\_ Other similar type (Coon Cuffs, etc.) - please specify: \_\_\_\_\_

\_\_\_\_ I have not used any of these trap types

6. I would like to find out what you think about **Dog Proof (D.P.), Duffer, EGG** and other similarly designed traps. **Please circle the number that best represents YOUR level of agreement with each of the following statements about these trap types.**

Statement about above listed traps:	strongly agree	agree	neutral	disagree	strongly disagree
The initial cost of these traps is too expensive.	1	2	3	4	5
These traps significantly reduce injuries to captured animals.	1	2	3	4	5
These traps allow me to trap in additional locations.	1	2	3	4	5
I think the public would increase their support for trapping if trappers used these traps.	1	2	3	4	5
I would rather stop using foothold (leghold) traps than switch to these traps.	1	2	3	4	5
The maintenance, time required, and difficulties of operating these traps keeps me from using them.	1	2	3	4	5
These traps are effective at capturing and holding animals.	1	2	3	4	5
Most other trappers are satisfied with the performance of these traps.	1	2	3	4	5
It takes more skill to capture an animal in these traps than in a conventional foothold trap.	1	2	3	4	5
It will not be economical to trap if I use these traps.	1	2	3	4	5
When the raccoon traps I now use are no longer serviceable, I will replace some with these traps.	1	2	3	4	5

7. **Please circle the number that best represents YOUR level of agreement with each of the following statements about trapping.**

Statement:	strongly agree	agree	neutral	disagree	strongly disagree
It is important that traps and trapping systems are improved in the United States.	1	2	3	4	5
Attempts to develop more humane traps should continue.	1	2	3	4	5
It is my right to trap.	1	2	3	4	5
A trapping trip can be satisfying even if no animals are harvested.	1	2	3	4	5

## 7. (continued)

Statement:	strongly agree	agree	neutral	disagree	strongly disagree
Furbearers should be captured using the best traps and technology available.	1	2	3	4	5
I would stop trapping if use of the leghold trap was prohibited.	1	2	3	4	5
If I could no longer make a profit from trapping, I would quit.	1	2	3	4	5
I would buy a trap that allowed me to trap in additional locations even if it was more expensive.	1	2	3	4	5
In Kansas, furbearers are captured using the best traps and technology available.	1	2	3	4	5
I would change my trapping methods to ensure that trapping remains legal in the future.	1	2	3	4	5
I would buy a trap that had been scientifically shown to cause less injury even if it was more expensive.	1	2	3	4	5
Scientific studies are a reliable way to determine the effectiveness of a trap type.	1	2	3	4	5

## 8. Do you know what "Best Management Practices" (BMPs) for trapping furbearers are?

Yes (Go to question 9.)

No (Go to the General Characteristics section.)

## 9. Circle the choice that best represents YOUR level of agreement with each of the following statements about Best Management Practices (BMPs) for trapping.

Statement about BMPs:	strongly agree	agree	neutral	disagree	strongly disagree
The development of BMPs is a good idea.	1	2	3	4	5
The development of BMPs will result in a greater public acceptance of trapping.	1	2	3	4	5
BMPs will lead to regulations that will restrict what trap types I am able to use.	1	2	3	4	5
BMPs will lead to regulations that will permit trapping to occur in places where it is presently prohibited.	1	2	3	4	5

---

## GENERAL CHARACTERISTICS

III. In the final section of the questionnaire, I would like you to provide information on a few general characteristics about yourself that are not necessarily related to trapping. Please remember that your responses will be kept completely confidential.

1. In what year were you born? \_\_\_\_\_

2. What is your gender?    \_\_\_ Male    \_\_\_ Female

3. What is your ethnic background? (Check one.)

- |                      |                     |
|----------------------|---------------------|
| ___ African American | ___ Native American |
| ___ Caucasian        | ___ Oriental        |
| ___ Hispanic         | ___ Other           |

4. How would you describe the place where you: (a) lived most of your childhood?  
(b) currently live? (Check ONE choice in each column.)

CHILDHOOD	CURRENT	
___	___	Rural Area (less than 2,500 people)
___	___	Town (2,500 to 9,999 people)
___	___	Small City (10,000 to 24,999 people)
___	___	Medium City (25,000 to 100,000 people)
___	___	Large City (over 100,000 people)

5. What is your primary occupation? (Examples: farmer, rancher, accountant, teacher student, retired, etc.)  
Please specify: \_\_\_\_\_

6. In 1997, what was the primary source of income for YOUR household? (Check one.)

- \_\_\_ self-employed  
 \_\_\_ wages/salary  
 \_\_\_ pension and/or social security  
 \_\_\_ public assistance  
 \_\_\_ Other (please specify) \_\_\_\_\_

7. In which of the following outdoor related activities do you participate each year.  
(Check ALL that apply.)

- |                                  |   |
|----------------------------------|---|
| ___ hunt furbearers with dogs    | ___ photograph wildlife   |
| ___ hunt furbearers without dogs | ___ bird watch  |
| ___ hunt small game              | ___ plant your own vegetable garden   |
| ___ hunt big game                | ___ cut and use firewood  |
| ___ fish                         | ___ raise farm animals  |
| ___ feed wildlife                | ___ gather wild plant resources (i.e. nuts,<br>wild berries, mushrooms, etc.) |

8. Including yourself, how many people are in your household? \_\_\_\_\_ people
9. Which of the following best describes your trapping income during the most recent season that you trapped? (Check one.)
- I lost money
  - I broke even
  - I made money
10. Which of the following best describes the importance of trapping income to your household? (Check one.)
- trapping is an unimportant source of household income
  - trapping is a slightly important source of household income
  - trapping is an important source of household income
  - trapping is a critical source of household income

**Your comments about trapping will be appreciated, either here or in a separate envelope.**

*Thank you for your time and assistance*

**Please return your completed questionnaire  
in the enclosed envelope to:**

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**Emporia State University**

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**Emporia, KS 66801-9903**

I, Matthew S. Peek, hereby submit this thesis to Emporia State University as partial fulfillment of the requirements for an advanced degree. I agree that the Library of the University may make it available to use in accordance with its regulations governing materials of this type. I further agree that quoting, photocopying, or other reproduction of this document is allowed for private study, scholarship (including teaching) and research purposes of a nonprofit nature. No copying which involves potential financial gain will be allowed without written permission of the author.

Matthew S. Peek

Author

4-24-00

Date

Attitudes and characteristics of Kansas trappers

Title of Thesis

Way Coogan

Graduate Office Staff

5-16-00

Date Received

*Matthew S. Peek*