

ATTITUDES AND KNOWLEDGE OF MULTI-ETHNIC 5TH AND
6TH GRADE STUDENTS CONCERNING SELECTED
ASPECTS OF WILDLIFE

By

KIMBERLY DIANA ROBINSON

Bachelor of Science

Oklahoma State University

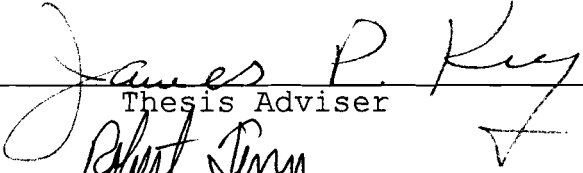
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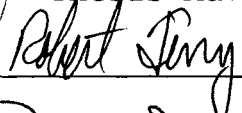
Submitted to the faculty of the
Graduate College of the
Oklahoma State University
In partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
July, 1995

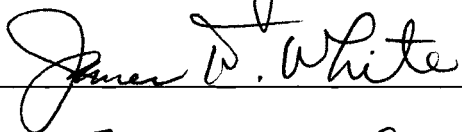
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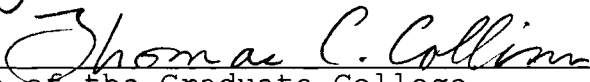
Thesis Approved:



Thesis Adviser







Dean of the Graduate College

ACKNOWLEDGMENTS

Upon completion of my research and the forth coming Masters degree, there a few people I would like to thank.

To my committee chair Dr. Key, members Dr. Terry, and Dr. White for providing direction for this study.

I would also like to thank Dr. Shaw in the Wildlife and Ecology Department at OSU for helping me go in the right direction with my instrument.

To my friends Kelly Lee-Cooper and Tania Criner without their help and computers this paper would not have been finished on time, and their understanding husbands.

And finally, to my family, who supported me all the way through my college education.

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CHAPTER I

INTRODUCTION

With the growth of environmental awareness at its peak, there is concern about how knowledgeable children are of wildlife problems and how the problems may affect them and the environment as a whole. Kellert (1981) stated:

The general presumption of most analysts of environmental and wildlife perception is that Americans are more concerned about the state of the natural world today than at any time in this country's history. (p.1)

Kellert is not the only person that feels Americans are concerned about the environment and the destruction that is happening. J. W. Krutch (1969) also stated:

"Never in the history of the world has there been so much concern over man's violation of the natural environment and the disappearance of what was once an abundant wildlife." (p.7)

He also stated that "Destroyed buildings can be rebuilt; destroyed works of art may possibly be replaced by new creations; but every animal and flower which

becomes extinct is lost forever in the most absolute of all deaths." (p.7)

Some animals have recently been under attack. They are the spotted owl, blue whale, and gray whales. The spotted owl needs a mature forest to survive because of their specialized genetics. The forests were almost destroyed because the wood was sent to Japan. One way to solve this problem is by selective harvesting-cutting only what is needed. The blue whales' population has declined from 210,000 during 1850 to 1,100 in 1985, a loss of 95%. The gray whale almost disappeared from the Eastern Pacific and did disappear from the Western Pacific.

A difference that is worth researching is diverse ethnicity within the children and how that influences them in their thinking. Some of the differences can be based on several items which could include: socioeconomic status, personal priorities, mythology, lack of access to wildlife, and specifically for blacks, the identification with slavery.

Socioeconomic Status

As stated by Dolin (1988): "The theory that disinterest in wildlife is related to socioeconomic status is predicated upon Maslow's hierarchy of needs theory and assumes that interest in wildlife is a luxury that can be pursued only after more basic material needs, e.g., adequate food and financial security, are satisfied." (p.18)

Personal Priorities

Personal problems such as survival and discrimination are more of an everyday occurrence.

Mythology

The "Garden of Eden" myth is where people can feel close to nature and where all Americans think like kings and can control limitless game preserves. Except for African Americans whose roots view man in harmony with nature. A flaw in this is that African Americans belong to various religious organizations that use the Bible and, consequently, support the Garden of Eden myth.

Lack of Access to Wildlife

Segregation of public places including some parks may have played a part in this problem. Although the parks did not have a policy on segregation. Some parks went along with local practices. This may have kept the black population from interacting with wildlife.

Identification with Slavery

Cleaver (1967) stated that "some African Americans have come to measure their own value according to the number of degrees they are away from the soil." (p.19)

Statement of the Problem

It was determined that a research project was needed to find out how students of multi-ethnic backgrounds perceive or feel about wildlife issues.

Purpose of the Study

The purpose of the study was to characterize attitudes and knowledge of multi-ethnic children toward selected aspects of wildlife.

Objectives of the Study

To accomplish the purpose of the study, the following objectives were established:

1. To determine the background of the respondents.
2. To determine the attitudes among African Americans, Caucasians, and American Indians about wildlife.
3. To determine how much contact the subjects have with wildlife.
4. To determine the knowledge of the students about wildlife.
5. To determine the overall responses of the students.

Assumptions

For the purpose of the study, the following assumption was accepted by the researcher:

1. That the questions were answered honestly.
2. That the attitudes learned will be carried on to adulthood.

Scope

The scope of this study included 228 fifth and sixth grade students during the school year of 1994-1995. Hominy, Coyle, Boley, and Red Rock elementary schools were chosen.

Limitations

1. The results of this study were limited to 5th and 6th grade children enrolled in the Hominy, Coyle, Boley, and Red Rock elementary schools.
2. Results are generalized only to this study.

Definitions of Terms

The following definitions are presented as they apply in the study.

Wildlife-Animals that are not tamed or domesticated; these may be small organisms only visible to humans if seen

through a microscope. It includes, but is not limited to:
insects, spiders, birds, reptiles, fish, amphibians and
mammals, if not domesticated.

Chapter II

Review of Literature

The purpose of this chapter is to show relevant literature. Involved in this review were journals and books which had applicable information to the study topic.

This review is divided into the following sections:

- 1) Human and animal relations;
- 2) Attitudes toward wildlife;
- 3) Ecology ethics; and
- 4) Education
- 5) Summary

Human and Animal Relations

The relationship between humans and animals has changed throughout the centuries: As stated by Kellert (1981)

Among the most basic changes contrasting the 20th from the 19th centuries was a decreasing reliance on animals as beasts of burden. After untold years of employing animals to haul,

transport, till and convey, a profound revolution had occurred with the ascendancy of the internal combustion engine. (p.2)

The dominance by humans of wildlife and the environment has changed throughout the years. In the past, humans believed that they were the masters of the environment. As time has changed the attitudes have also toward the dominance of wildlife. In more recent years people have come to appreciate what the Earth has to offer.

The relationship between humans and wildlife go from the pet owner, to the hunter, to the observer, to no interest at all.

Jack Hope (1978) remarked: "Due to the visibility of its impact, hunting has become something of a symbol among the many human activities that have had (impact) on wild animals." (p.2)

Attitudes Toward Wildlife

Muffitt and Eagles (1990) conducted a study of children, ages 12-14 living in an urban community, to analyze the children's attitudes toward animals. In this study the attitudes that were most prevalent were of affection, attraction, and interest in wildlife. This seemed to be caused by the high connection with pets. Stated by Muffitt and Eagles (1990):

An analysis was undertaken of the attitude differences between those children who had pets in the home and those that did not. The students who reported having a pet indicated that most urban children of this age primarily relate to animals as pets. Thus, they are relating to animals with feeling of affection and interest. (p.43)

Muffitt and Eagles also found that:

The children who watched wildlife programs had significantly higher attitude scores in the humanistic, naturalistic, ecologicistic, and scientific categories. These children can be described as valuing wildlife in its natural environment, with high levels of interest in viewing wildlife. (p.43)

A primary assumption of this research is that the attitudes learned as children will be carried on to adulthood.

Wildlife management is dependent upon the interaction of people, wildlife, and the environment on which they both rely.

Muffitt and Eagles (1990) described nine different attitudes that were found to be evident in the children that they studied. These attitudes are shown in Table I.

TABLE I

| Attitude | Definition |
|---------------|---|
| Naturalistic | Primary interest and affection for wildlife and the outdoors. |
| Ecologicistic | Primary concern for the environment as a system, for interrelationships between wildlife species and natural habitats. |
| Humanistic | Primary interest and affection for individual animals, principally pets. |
| Moralistic | Primary concern for the right and wrong treatment of animals, with strong opposition to exploitation of cruelty toward animals. |
| Scientistic | Primary interest in the physical attributes and biological functioning of animals. |
| Aesthetic | Primary interest in the artistic and symbolic characteristics of animals. |
| Utilitarian | Primary concern for the practical and material value of animals or animal habitat. |
| Dominionistic | Primary interest in the mastery and control of animals, typically in sporting situations. |
| Negativistic | Primary orienting an active avoidance of animals due to indifference, dislike. or fear. (p.42) |

Joseph W. Krutch (1969) stated that: We in America, have just recently reached the point where saving rather than clearing the forests typifies what ought to be our ambition, although many continue to talk as though we were still pioneers in an empty land and to boast of inexhaustible resources when, in fact, resources as indispensable as space, pure air, and pure water are approaching exhaustion. (p.2)

So it is important to realize that the earth works as an whole entity.

William M. Bart (1972) stated that:

A basic law in ecology is that the more complicated the ecosystem, the more stable it is. In other words, the more forms of life that interact successfully in a given region, the more stable is the region with respect to sustaining life. Only through the behaviors of men will... species of animals either grow in number or face extinction. If the number of species entering into extinction continues to increase, the balance of nature and conditions for life in America will become precarious indeed. (p.4)

A way to overcome this problem is by education. Bart

(1972) also stated that the simplification of the ecosystem can be attributed primarily to the behaviors of man; thus, the correction of this situation may be viewed as a problem for the educator and the behavioral scientist.

One task that the schools must address themselves to is that of changing the attitudes of children and adults toward many animal species, including rare and endangered species, that have been improperly prejudged by many people. (p.4)

Improperly judging animals can come from the surrounding culture which may have a negative impact on children. Bart stated (1972):

It is conjectured that there are cultural agents acting on each of us to determine what animals we should not like and what animals we should like. These cultural agents include fairy tales (e.g., "Little Red Riding Hood"), Children's stories (e.g., "Peter and the Wolf"), and movies (e.g., some of the movies of Walt Disney Productions). Also, those agents are directive in that the animals that are portrayed as malicious by the agents (e.g., timberwolf) are often those animals which man has severely threatened the species'

existence.(p.4)

In his 1972 study, Bart determined the attitudes of eighty-eight volunteer college students toward thirty animals. He had them rate whether they liked or disliked the animals by circling one of the two answers. One conclusion was interesting to note: The animals that received the low rankings and the low percentage of positive responses were species such as the alligator, wolf, falcon, hawk, and vulture. These animals are either endangered or rare. "Those indices provide evidence to support the contention that even among college students, there is substantial disdain and dislike for animals that are rare and endangered." (p.6)

Ecology Ethics

Ethics also plays a vital role in the relationships between humans and animals.

Ralston (1991) stated:

...environmental ethics in a deeper sense stands on a frontier, as radically theoretical as it is applied. It alone asks whether there can be nonhuman objects of duty...but environmental ethics must be more biologically objective-nonanthropocentric. Environmental ethics

seeks to escape relativism in ethics, to discover a weepiest culturally based ethics. However much of our world views, ethics included, are embedded in our cultural heritage's, and thereby theory-laden and value-laden all of us know that a natural world exists apart from human cultures. Humans interact with nature. Environmental ethics is the only ethics that breaks out of culture. It has to evacuate nature, both wild nature and the nature that mixes with culture, and to judge duty thereby. With no understanding of how everything is interconnected by mutilating or destroying the environment, the realization of it being lost or impaired will not be as quickly felt. (p.12)

Education

There are some educational programs that will teach children about the environment such as educating them on the Great Lakes. It is called "Great Minds? Great Lakes?" This program is divided into three subjects: history, social studies, and environmental sciences. There

are also educational guides about wildlife refuges. One in particular is for the Lee Metcalf National Wildlife Refuge which gives the background on animals, some identification tips and natural history on behavior and adaptations of some of the animals.

There have been some specific educational curriculum developed for schools. The common ideas behind them are to make them interdisciplinary and holistic. The idea is to be able to use them with the creative arts, theater, reading, writing, science, social studies, mathematics, and sensory awareness. There are books that deal with the environment as a whole. Some titles are Nature for the Very Young, Integrating Environmental Education, Earthchild, Hug a Tree, Living Lightly on the Planet. Three books were created specifically for wildlife education. They are: If you have a Duck, Keepers of the Animals, and Project Wild. Keepers of the Animals deals with understanding the Native American folklore and how close they are with the animal world and the earth. These stories have been told generation to generation. As stated by Caduto and Bruchac (1991) "As the stories unfold and you help the children bring the activities to life, a holistic, and an interdisciplinary approach to teaching about the animals and Native North American cultures begins...the wisdom of Native North Americans can speak in today's language, fostering listening

and reading skills and enhancing understanding of how the native people traditionally live close to the animals." (p. XVII).

Project WILD and Project Aquatic WILD Education Activity Guides deals with wildlife and it is also an interdisciplinary, supplementary environment and conservation education program. "The goal of Project WILD is to assist learners of any age in developing awareness, knowledge, skills and commitment to result in informed decisions, responsible behavior and constructive actions concerning wildlife and the environment upon which all life depends" (p.vii). An activity in the Aquatic WILD book deals with aquatic words. The objective of the study will be that the students are able to describe why water is important to animals and people. The subjects that are used will be language arts and science. The skills the students will achieve after the exercise will be analysis, discussion, listing, and writing.

There have only been two studies done on Project WILD to measure if it has an affect on student learning. One research project was conducted by Fleming (1983), and showed that Project WILD, with teacher interest, and knowledge about wildlife had a positive effect on students. A study done in Colorado found the opposite to be true: As stated by Race and Decker (1990). There were no significant

differences. However, in Colorado there appeared to be inconsistencies within the control group that was used.

The previously mentioned educational books are fairly new. Nature for the Very Young was one of the first books printed in 1989 for the pre-school age. The school system can be a major vehicle in teaching children about the environment. It is best to start teaching as soon as possible. As stated by Marcia Bowden (1989) "Nature study capitalizes on young children's characteristics; it wants them to touch, to move actively, to ask questions. This can be done as early as preschool. The curiosity in the children just comes naturally." (p.iii)

Summary

For children to be more knowledgeable about wildlife and to have more appreciative attitudes about rare and endangered species the children need to be educated. This needs to start at an early age so when they grow into adults their attitudes and behaviors will be positive. Then these children may grow to teach their own children positive attitudes about animals. Fear and hatred are taught, not born within people. Maybe at an early age this fear and hatred can be turned around into appreciation.

CHAPTER III

METHODOLOGY

Introduction

The purpose of the study was to characterize attitudes and knowledge of children toward wildlife. The objectives of the study were the following:

1. To determine the background of the respondents.
2. To determine the attitudes among African Americans, Caucasians, and American Indians about wildlife
3. To determine how much contact the subjects have with wildlife.
4. To determine the knowledge of the students about wildlife.
5. to determine the overall responses of the students.

Institutional Review Board (IRB)

Federal regulations and Oklahoma State University policy require review and approval of all research studies that involve human subjects before investigators can begin

their research. The Oklahoma State University Office of University Research Services and the IRB conduct this review to protect the rights and welfare of human subjects involved in biomedical and behavioral research. In compliance with the aforementioned policy, this study received the proper surveillance and was granted permission to continue, approval number AG-94-023.

Design

All 5th and 6th grade students of Hominy, Coyle, Boley, and Red Rock elementary schools were identified and administered a questionnaire by either a teacher or the Principal of their school.

Population

The population of this study consisted of 228 5th and 6th graders from the four elementary schools. The schools were located in Oklahoma. The population consisted of boys and girls of three different ethnic backgrounds including American Indian, African American, and Caucasian. The population was purposive from the ethnic diversity among the four schools.

Instrument development

The questionnaire was developed by the researcher and used quantitative data (See Appendix A). Questions contained in the survey were derived following a review of the literature of past evaluation studies and instruments used in related studies of other environmental surveys.

The survey consisted of four objectives which included: Demographics, attitudes about wildlife, also to determine how much contact the subjects have with wildlife, and to determine the knowledge of the students toward wildlife. The survey instrument was reviewed for content by faculty and individuals at Oklahoma State University.

A pilot test of the instrument was conducted by the researcher by using a graduate level Agricultural Education seminar course and a sixth grade class in Bartlesville, Oklahoma. After the pilot test was completed, some of the questions were simplified and the questionnaire shortened.

Collection of Data

The questionnaire was duplicated on three sheets of colored paper and was hand delivered to the schools during the school year of 1994 and 1995. After the questionnaires

were delivered the Principal or the teachers in each class administered the surveys to their students. The completed questionnaires were picked up three days later.

Analysis of Data

The data from the survey were then analyzed using descriptive statistics including frequency distributions and percentages. All findings were reported in the aggregate.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

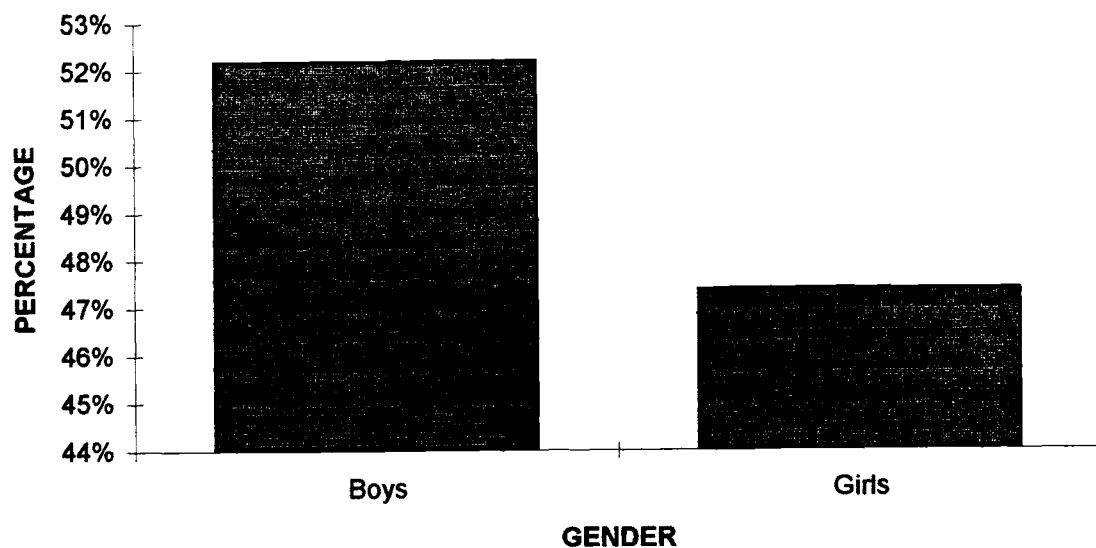
The purpose of this chapter was to present data that were collected to measure the attitudes and knowledge of the 5th and 6th grade students concerning wildlife. The data are organized according to and corresponding with the objectives of the study.

Findings Related to the Background of the Students

The first objective of the study was to determine the background of the respondents. The background included: gender, heritage, and grade.

As shown in Figure I, there were 53% boys as compared to 47% girls.

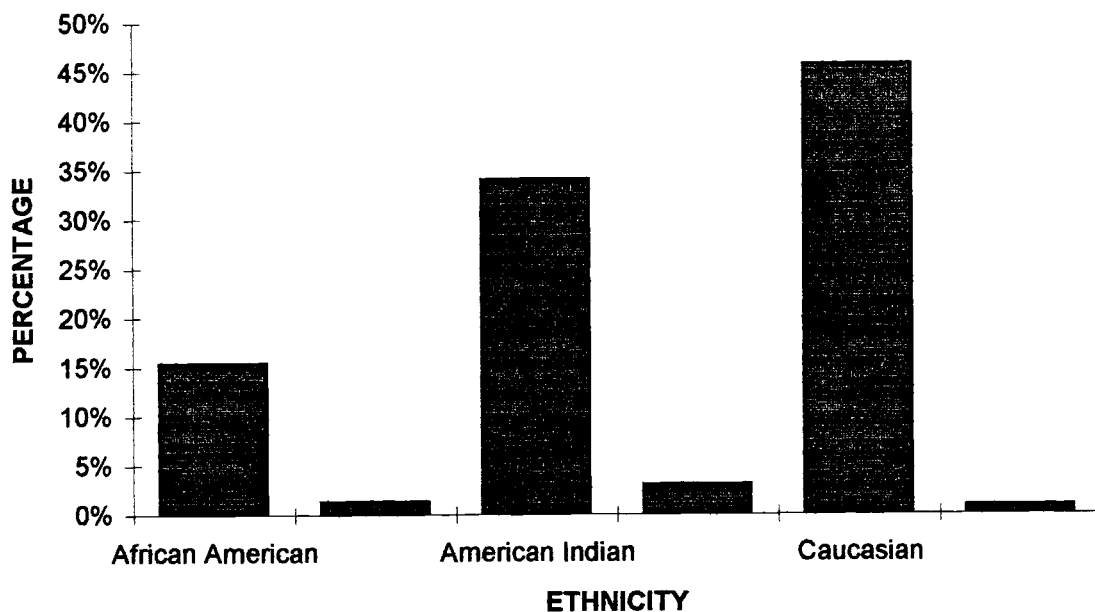
FIGURE I
DISTRIBUTION OF RESPONDENTS
BY GENDER



Data in Figure II show that the respondents were 46% Caucasian, 34% American Indian, 15% African Americans and the last 5% were made up of Asian, Hispanic, and other.

FIGURE II

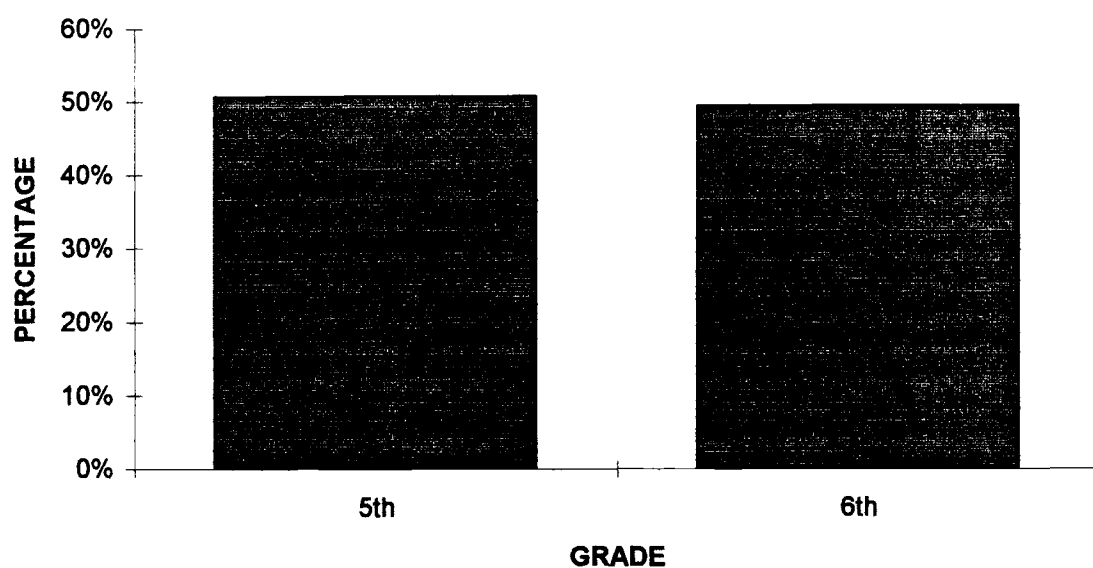
DISTRIBUTION OF RESPONDENTS BY HERITAGE



Data in Figure III shows that 49% of the students were sixth graders and 51% of the respondents' were fifth graders.

FIGURE III

DISTRIBUTION OF RESPONDENTS BY GRADE



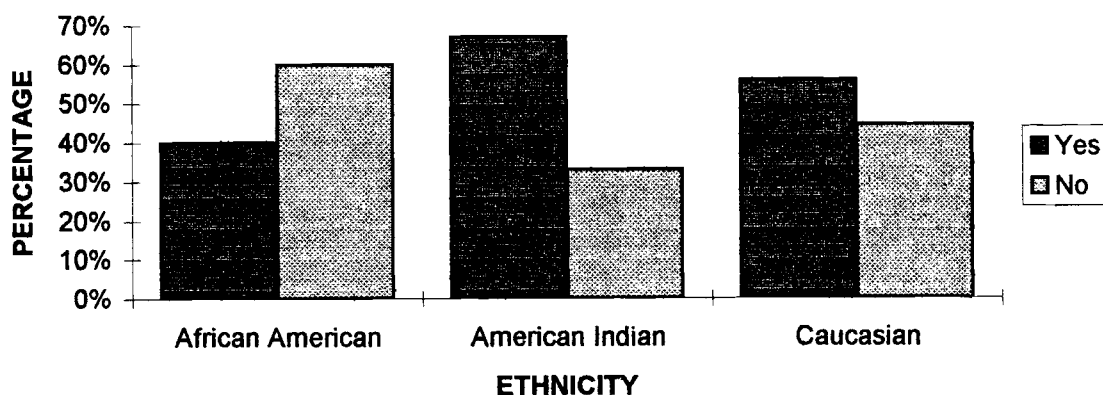
Findings Related to Attitudes among African Americans, Caucasians, and American Indians about wildlife.

Objective two of the study was to determine the attitudes and perceptions among African Americans, Caucasians, and American Indians about wildlife.

As shown in Figure IV, 67% of the American Indians would be in favor of saving the spotted owl even if it meant the loss of jobs, as compared to 56% of the Caucasian and 40% of the African Americans that answered yes.

FIGURE IV

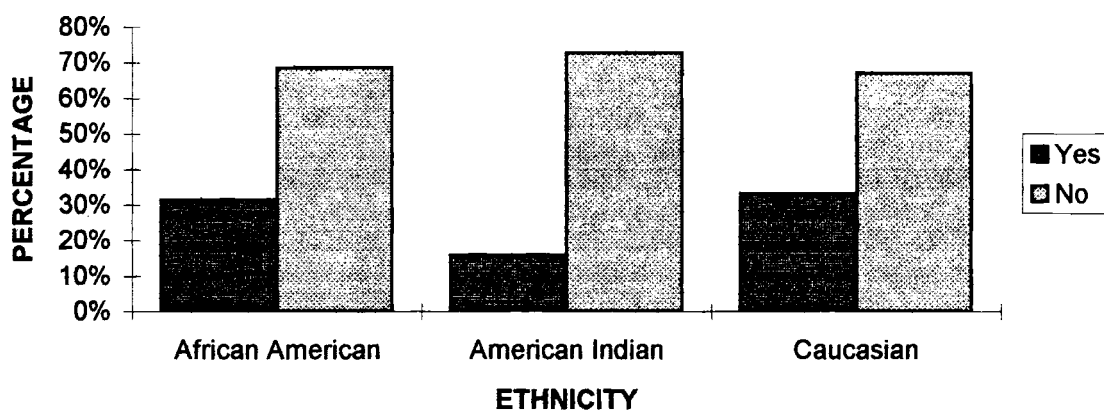
DISTRIBUTION OF RESPONDENTS IN FAVOR
OF SAVING THE SPOTTED OWL



Data in Figure V, shows that a majority of all groups did not favor hunting whales for food as indicated by 71% of the American Indians, 68% of the African Americans and 67% of the Caucasians.

FIGURE V

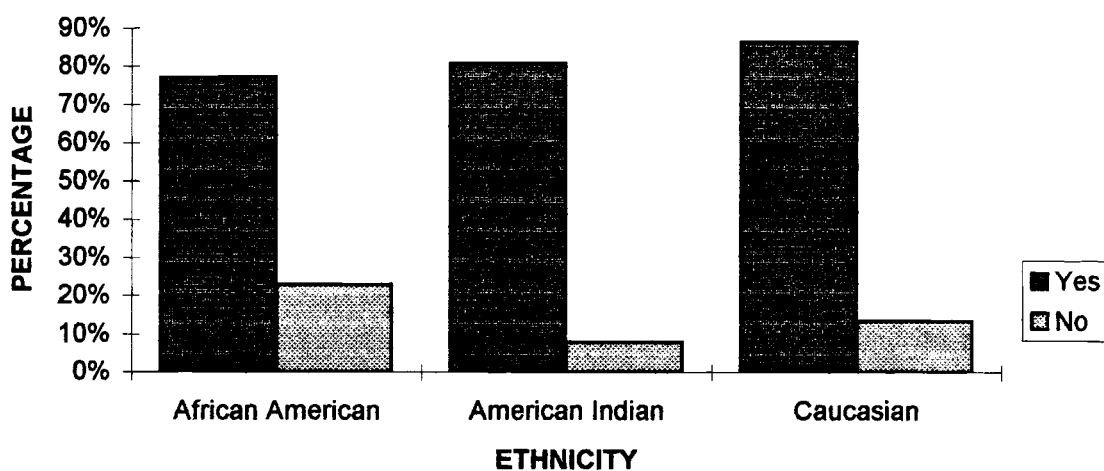
DISTRIBUTION OF RESPONDENTS IN
FAVOR OF HUNTING WHALES



As shown in Figure VI, all groups answered similarly that they believed all animals in the world do serve a purpose with 77% of the African Americans, 81% of the American Indians and 86% of the Caucasians answering yes.

FIGURE VI

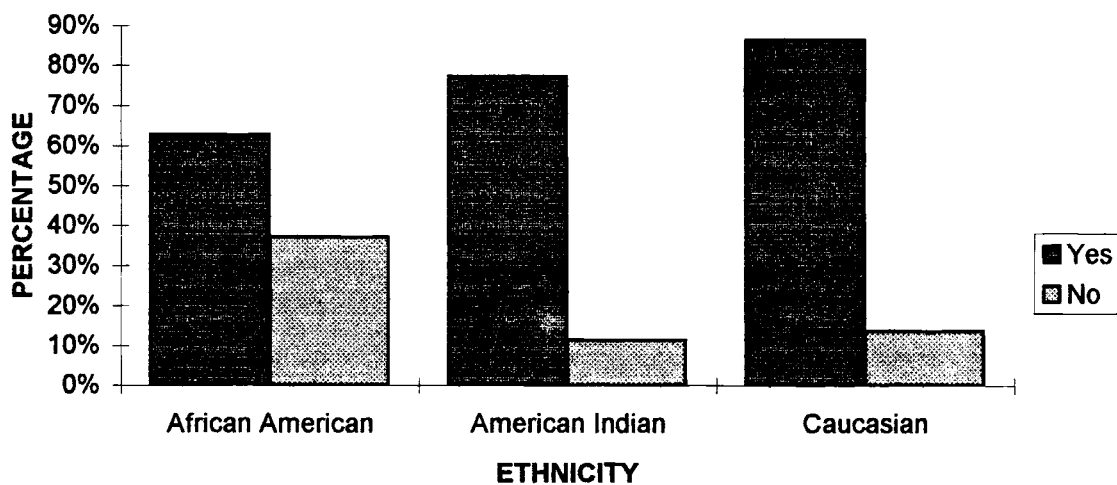
DISTRIBUTION OF RESPONDENTS BY THE OPINION
THAT ANIMALS DO SERVE A PURPOSE



Data in Figure VII, shows that of the groups, 86% of the Caucasians believe that any animal threatened with extinction should be protected regardless of cost, as compared to 77% of the American Indian and 63% of the African American.

FIGURE VII

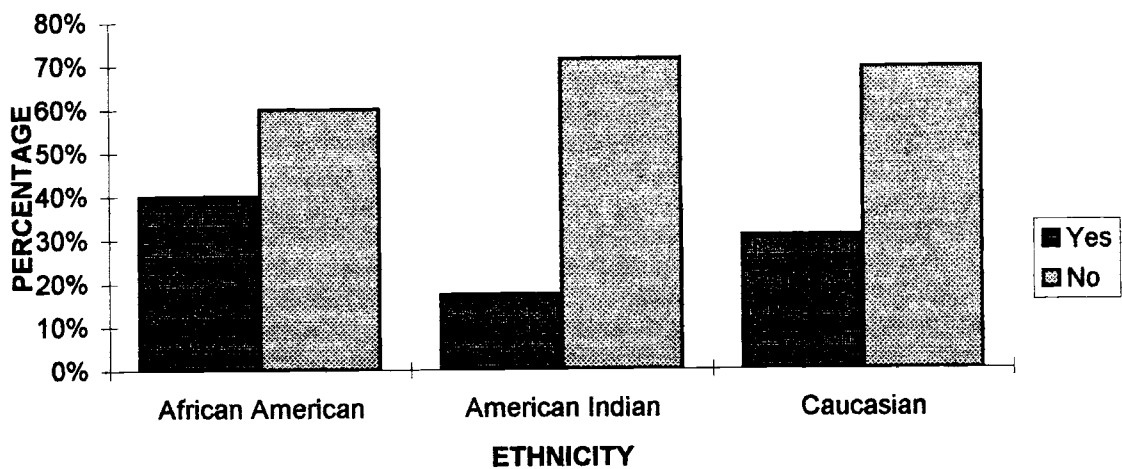
DISTRIBUTION OF RESPONDENTS BY THE BELIEF THAT
ANIMALS SHOULD BE PROTECTED



As shown in Figure VIII, a majority of all the groups were in agreement that Tiger bone should not be used as medicine with 71% of the American Indian, 69% of the Caucasian students and, 60% of the African American.

FIGURE VIII

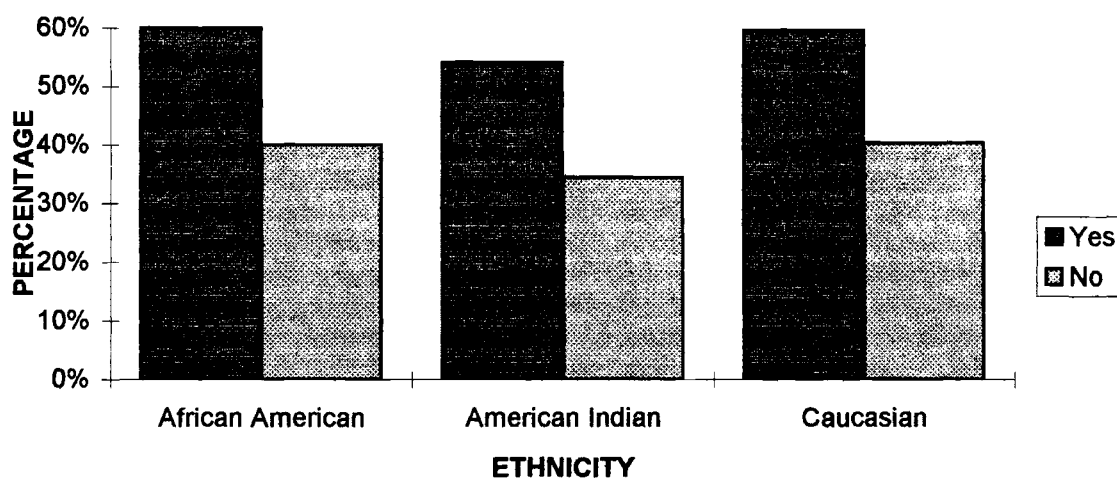
DISTRIBUTION OF RESPONDENTS BY
USE OF TIGER BONE AS MEDICINE



Data in Figure IX, show that majority of the groups were in agreement that giant pandas should be taken from the wild and put in zoos for their protection with 54% of the American Indian, 60% of the Caucasian students and 60% of the African Americans answering yes.

FIGURE IX

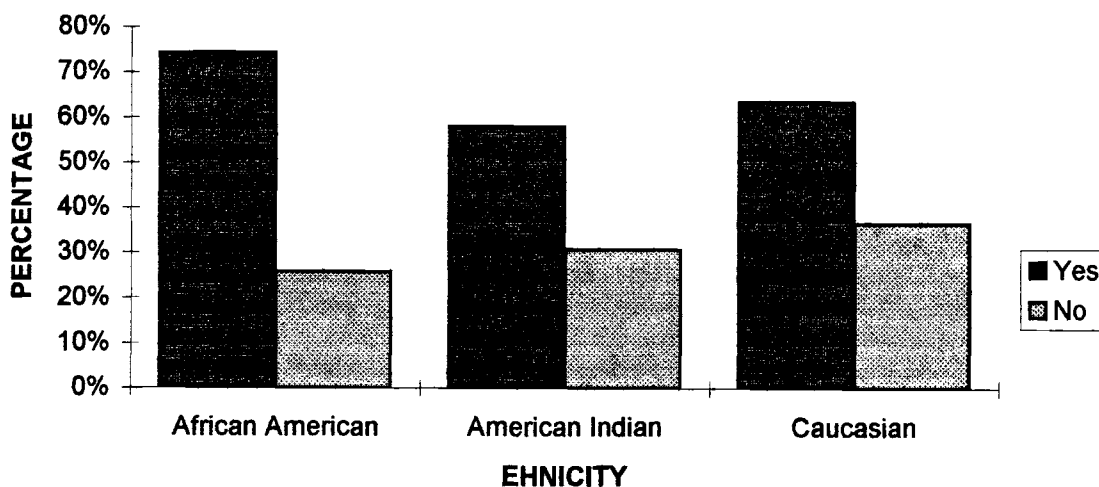
DISTRIBUTION OF RESPONDENTS BY BELIEF THAT
GIANT PANDAS SHOULD BE IN ZOOS



As shown in Figure X, 74% of the African Americans believe that the threat of animal extinction in other countries do affect them as an United States citizen, as compared to 63% of the Caucasian students and 58% of the American Indians that believe this.

FIGURE X

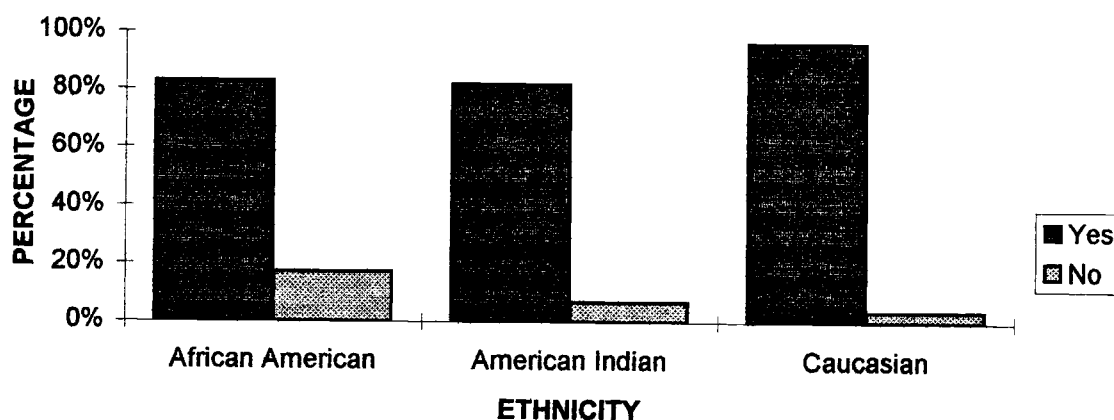
DISTRIBUTION OF RESPONDENTS BY THE BELIEF THAT
EXTINCTION OF ANIMALS IN OTHER COUNTRIES DO AFFECT THEM



Data in Figure XI, show that a majority of all groups were in agreement that oil companies should pay damages when they destroy the environment with 82% of the American Indians, 83% of the African Americans, and 96% of the Caucasian agreeing.

FIGURE XI

DISTRIBUTION OF RESPONDENTS IN FAVOR OF
OIL COMPANIES PAYING FOR DAMAGES



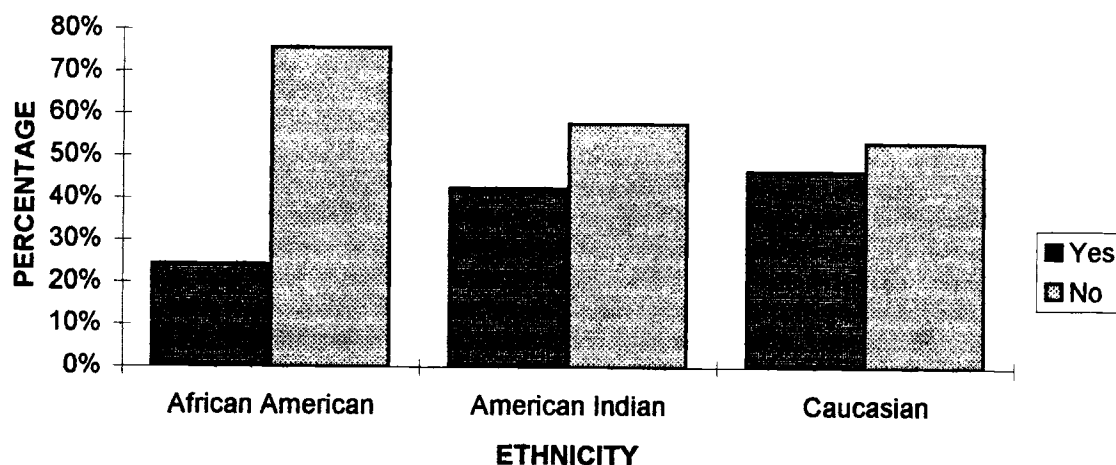
Findings Related to How much Contact the Subjects have with Wildlife

Objective three of the study was to determine how much contact the subjects have with wildlife.

As shown in Figure XII, 76% of the African Americans do not hunt as compared to 58% of the American Indians and 53% of the Caucasian students that do not hunt.

FIGURES XII

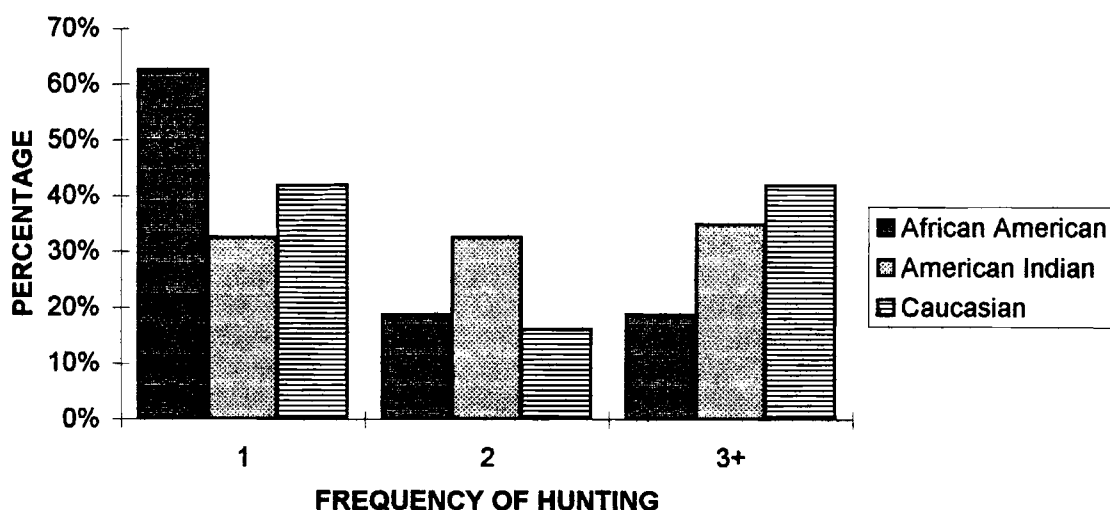
DISTRIBUTION OF RESPONDENTS THAT HUNT



Data in Figure XIII show that there was a great diversity of time spent hunting among the three groups. Sixty-three percent of the African American group hunt once a year or less as compared to 19% two or more times a year. Of the American Indian group all the results were similar with 33% hunting once a year, 33% twice a year and 33% three times a year. Of the Caucasian students, 16% hunted two times a year as compared to 42% that chose once a year or three times a year.

FIGURE XIII

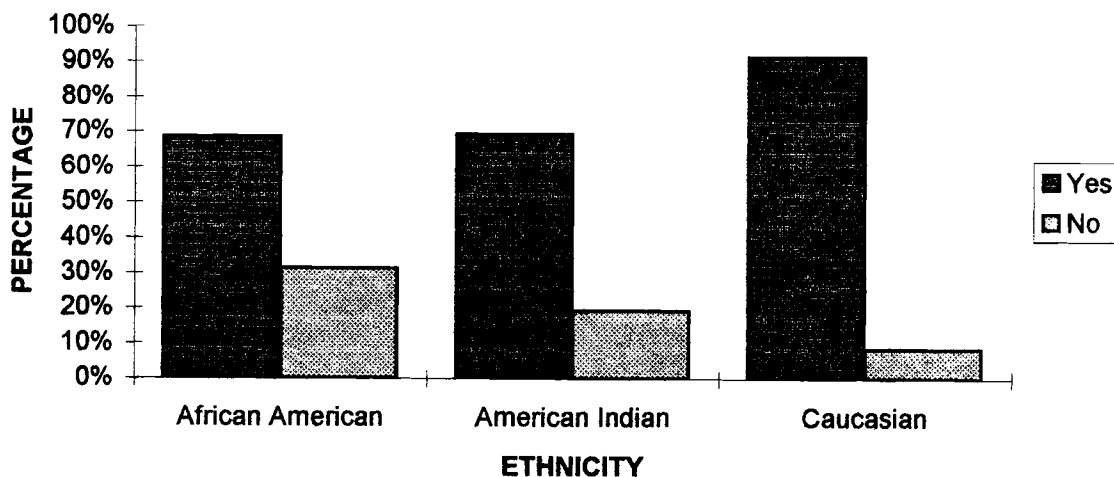
DISTRIBUTION OF RESPONDENTS BY
FREQUENCY OF HUNTING



As shown in Figure XIV, of the groups, 91% of the Caucasian students have gone fishing in the past year, as compared to 69% of the African Americans and 69% of the American Indians.

FIGURE XIV

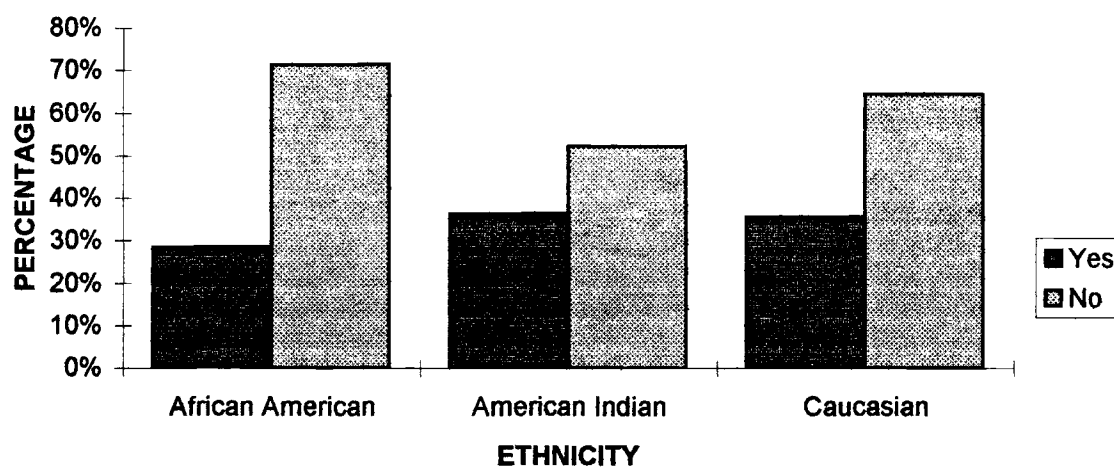
DISTRIBUTION OF RESPONDENTS THAT
HAVE GONE FISHING IN PAST YEAR



As shown in Figure XV, a majority of the students have not gone birdwatching in the last year with 54% of the American Indians, 64% of the Caucasian students, and the biggest group, 72% of the African Americans responding no.

FIGURE XV

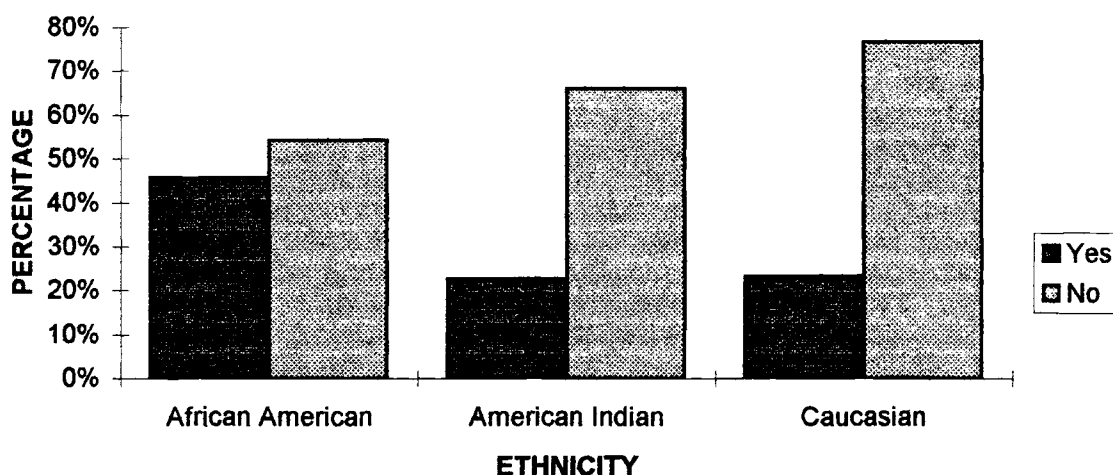
DISTRIBUTION OF RESPONDENTS THAT
HAVE GONE BIRDWATCHING



Data in Figure XVI, show that of the groups, the African American respondents answered more equally with 46% of the students answering yes and 54% answering no to whether or not they have gone on a trip to see or learn about animals, as compared to 65% of the American Indians and 77% of the Caucasian students that did not go on a field trip.

FIGURE XVI

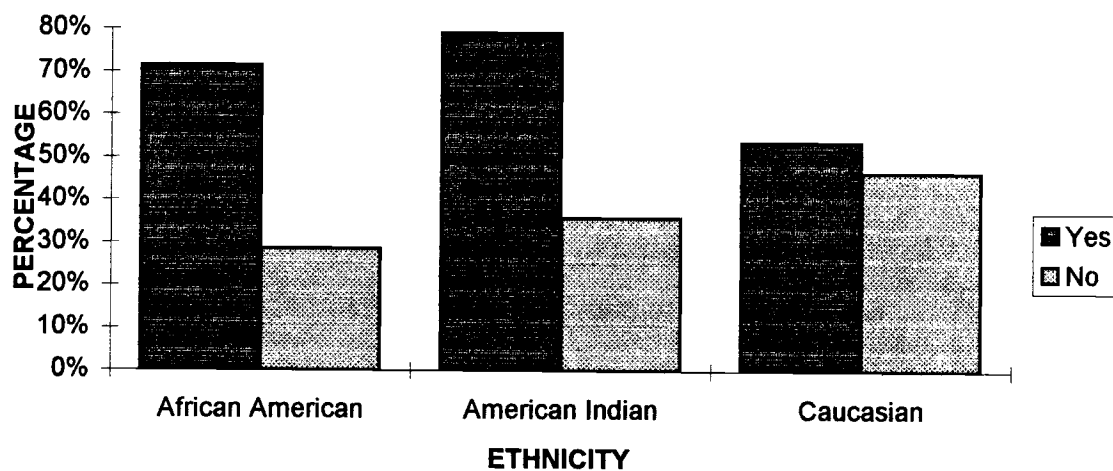
DISTRIBUTION OF RESPONDENTS THAT WENT
ON A TRIP TO LEARN ABOUT ANIMALS



As shown in Figure XVII, the Caucasian students were split with 53% that had gone to a zoo in the past year compared to 47% that did not. This compared to 79% of the American Indians and 71% of the African Americans that went to a zoo.

FIGURE XVII

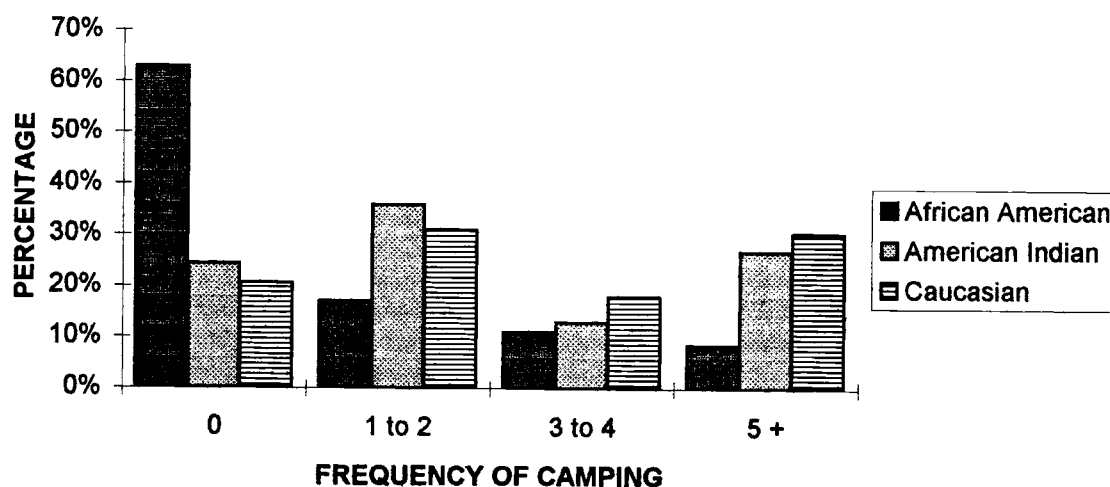
DISTRIBUTION OF RESPONDENTS
THAT WENT TO A ZOO



As shown in Figure XVIII, the African American group camped the least, with 63% that did not camp, as compared to 17% one to two times a year, 11% three to four times a year and 9% five or more times a year. Of the American Indian group 36% camp one to two times a year, as compared to 13% three to four times a year, 24% zero times a year, and 27% five times a year. The Caucasian students camp the most, with 31% choosing one to two times a year, 30% five times a year, as compared to 21% zero times, and 18% three to four times a year.

FIGURE XVIII

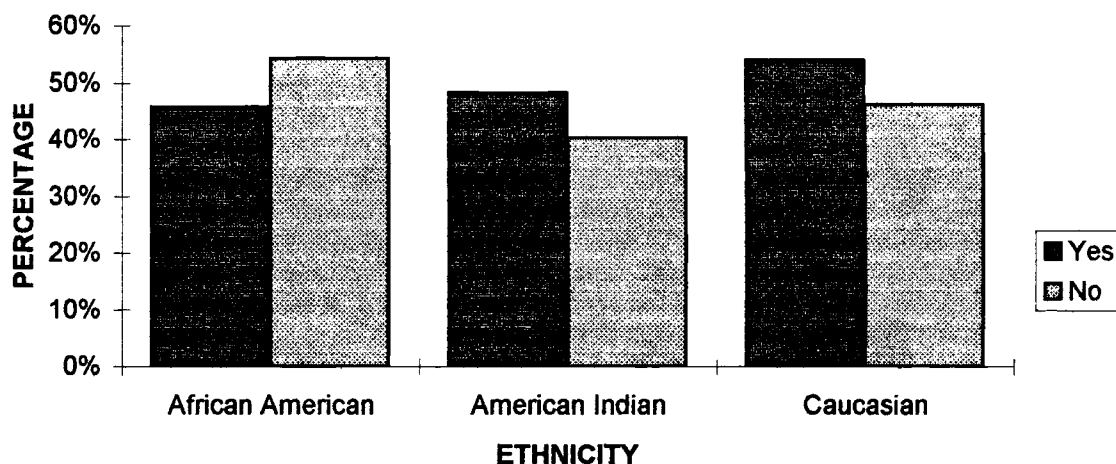
DISTRIBUTION OF RESPONDENTS BY
LEVEL OF CAMPING ACTIVITIES



Data in Figure XIX, show little difference between the yes and no answers among the three groups that they have kept a wild animal as a pet; with 54% of the Caucasian students answering yes and 46% answering no, 48% yes and 40% answering no of the American Indian students, and 46% of the African Americans indicating yes and 54% answering no.

FIGURE XIX

DISTRIBUTION OF RESPONDENTS THAT HAVE
KEPT A WILD ANIMAL



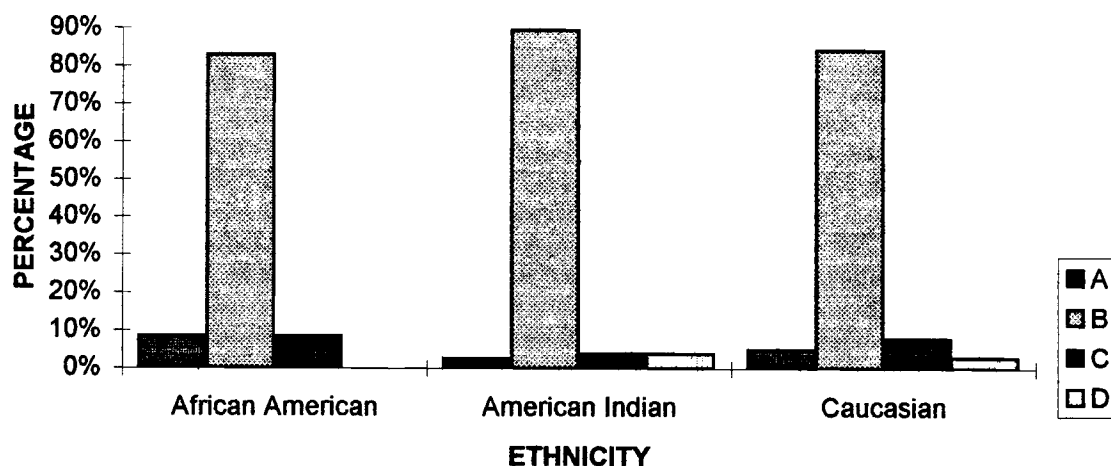
Findings Related to the Knowledge of Students about wildlife

Objective four of the study was to determine the knowledge of the students about wildlife.

Data in Figure XX, show that a majority of all groups answered similarly that the study of nature and the way it interacts is ecology with 89% of the American Indians, 84% of the Caucasian respondents', and 83% of the African American students answering correctly.

FIGURE XX

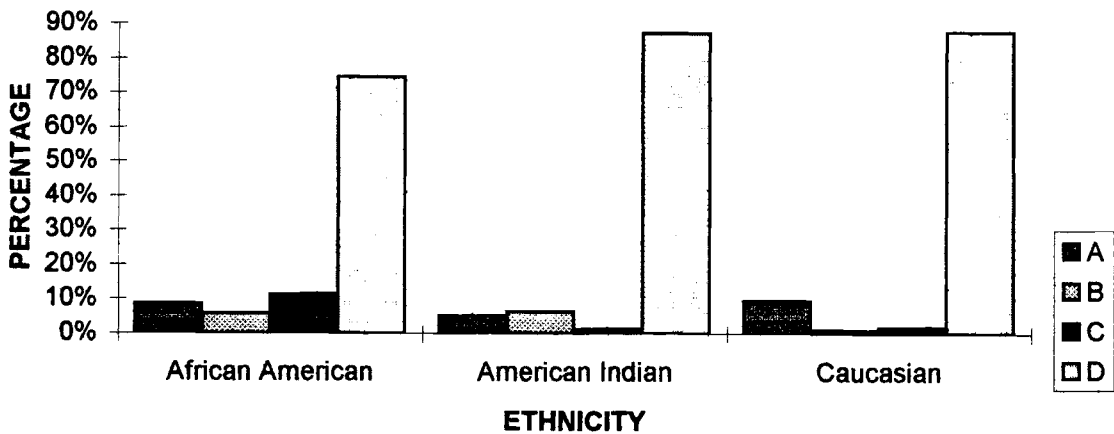
DISTRIBUTION OF RESPONDENTS BY DEFINITIONS OF ECOLOGY



As shown in Figure XXI, 87% of the American Indians and 88% of the Caucasian students answered correctly as compared to 74% of the African Americans that an animal or plant that has vanished from our world is extinct.

FIGURE XXI

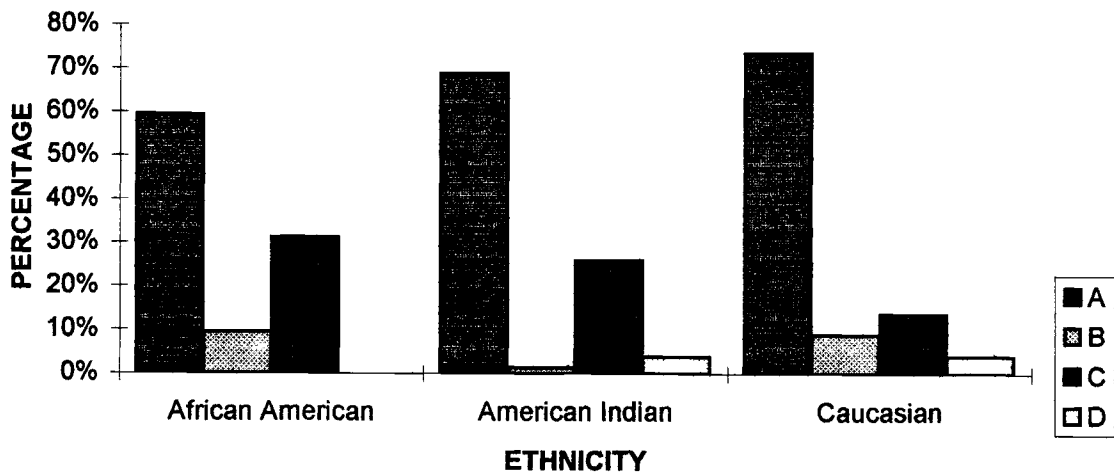
DISTRIBUTION OF RESPONDENTS BY
DEFINITIONS OF EXTINCTION



Data in Figure XXII, show that 74% of the Caucasian respondents' had correct answers as compared, to 69% of the American Indians, and 59% of the African Americans that an endangered species is an animal or plant which is in danger of becoming extinct.

FIGURE XXII

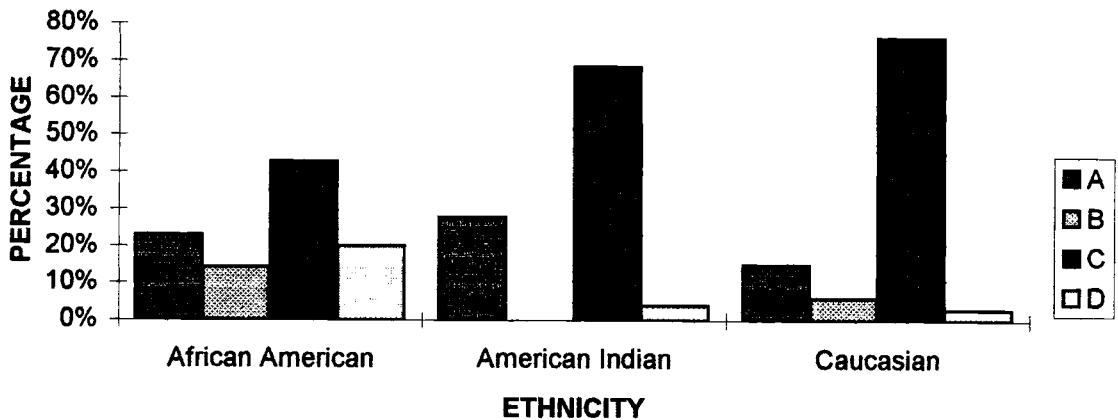
DISTRIBUTION OF RESPONDENTS BY
DEFINITIONS OF ENDANGERED



Data in Figure XXIII, shows that 76% of the Caucasian respondents' and 68% of the American Indians answered correctly that an animal or plant that is likely to become endangered is threatened, as compared to 43% of the African Americans that answered correctly.

FIGURE XXIII

DISTRIBUTION OF RESPONDENTS BY
DEFINITIONS OF THREATENED



CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of the study was to characterize attitudes and knowledge of the children toward wildlife. The objectives of the survey were the following:

1. To determine the demographics of the respondents.
Which were: Gender, grade and ethnic background.
2. To determine the attitudes among African Americans, Caucasians, and American Indians about wildlife.
3. To determine how much contact the subjects have with wildlife.
4. To determine the knowledge of the students about wildlife.
5. To determine the overall responses of the students.

For the purpose of this study the following assumption was made:

1. That the questions were answered honestly.

The population of this study consisted of a total of 228 students with an actual enrollment of 263. Thirty-five students were absent the day of testing. The schools were chosen for their best ethnicity make up. These schools had the largest enrollment of Caucasian, American Indian, and African American students. The schools were located in Oklahoma in the rural towns of Hominy, Coyle, Boley, and Red Rock.

Major Findings

The first objective asked the demographics of the students. The demographics show that the students' gender was made up of boys (53 percent), and girls (47 percent). The respondents were 46 percent Caucasian, 34 percent American Indian, 15 percent African Americans, and the last 5 percent were made up of Asian, Hispanic, and other. In this study only three were used for comparison. They were African American, American Indian, and Caucasian. The last demographic question asked the grade of the students. Fifty-one percent were in 5th and 49 percent were in 6th grade. Objective two was to determine the attitudes concerning wildlife between the African American students, American Indian students, and the Caucasian students. Seventy-two percent of the Caucasian students answered with the most positive responses, 70 percent of the American Indian students second, and 65 percent of the African

American students were third. The third objective to be answered was how much contact the three ethnic groups had with wildlife. The African American (52 percent) students had the most contact, with of the Caucasian students second (50 percent), and the American Indian (44 percent) students third. The last objective to be answered was how knowledgeable the three ethnic groups were about the terms ecology, extinction, endangered, and threatened. The Caucasian students (80 percent) answered most of the terms correctly, the American Indian students (78 percent) were second, and the African American students (64 percent) were third. The fifth objective was the overall responses of the students. Overall the students responses about attitudes toward wildlife were slightly higher than 60 percent. The question about oil companies paying for damages had the highest positive response rate of over 80 percent. For the questions regarding how much contact the groups have with wildlife, a high percent of the students do not hunt with 62 percent answering no compared to 76 percent that fish. A majority of the students (65 percent) do not birdwatch or go on trips to learn about animals. The last questions regarded environmental terms. Students were split with higher responses for ecology at 85 percent and extinction at 83 percent. The last two knowledge questions concerning endangered species and threatened species were answered less accurately, at 67 percent and 62 percent consecutively.

Conclusions

Based on the information received from the questionnaire, the analysis of the questions, and the assumption made at the beginning of the survey, the following conclusions were made.

Conclusions Relating to the Demographics of the Students

1. In the survey, the typical respondent was male, Caucasian, and in 5th grade.

Conclusions Relating to Objective two: To determine the attitudes among African Americans, Caucasians, and American Indians about Wildlife

1. A majority of all the respondents in all the ethnic groups agree that tiger bone should not be used and whales should not be killed.

2. The American Indians were more in favor of saving the spotted owl as compared to the African Americans and the Caucasian students.

3. The three ethnic groups strongly feel that wildlife should be protected, that wildlife does serve a purpose, and that extinction in other countries does affect them.

4. A majority of the three ethnic groups were in favor of protecting the giant pandas and putting them in zoos.

5. The three ethnic groups strongly feel that oil companies should pay for damages.

Conclusions Relating to Objective three: How much

Contact the Subjects have with Wildlife

1. The majority of the American Indian and Caucasian students hunt more often than the African American students. Compared to fishing the Caucasian students fish more than the African American and the American Indian respondents. Camping is more of an activity done between the American Indian and Caucasian students versus the African American students.

2. To take a trip and learn about animals the African American students have gone more often as compared to the American Indian and Caucasian students. The African American students responded the highest of not going birdwatching as compared to the American Indian and the Caucasian students. The African American and the American Indian students went to a zoo more often last year as compared to the Caucasian students.

3. There was little significance difference between the American Indian, African American, and the Caucasian students about keeping a wild animal.

Conclusions Relating to Objective Four:

The Knowledge about Wildlife

1. The definition of terms ecology and extinct were answered correctly by the African American, American Indian, and the Caucasian students.

2. The terms endangered and threatened were answered more correctly by the American Indian and Caucasian students, as compared to the African American Students.

Conclusions Relating to Objective Five: The Overall Responses of the Students

1. A majority of the respondents have a high regard for protecting animals such as the spotted owl, giant pandas, and whales.

2. The groups understand that all animals in the world do serve a purpose.

3. Most of the students in this survey believe that any animal should be protected regardless of cost.

4. The students believe that tiger bone should not be used as medicine.

5. The respondents basically feel that all animals do affect them as U.S. citizens.

6. The students felt that damages done to the environment should be paid for by the individual or group that inflicted the damage.

Contact the Subjects have with Wildlife

1. Hunting is not popular among the responding groups, however fishing is popular among the students.

2. Visiting and learning about animals was not a high priority with the students.

3. Camping is done periodically among the groups throughout a year.

The Knowledge about Wildlife

1. The students' responses were more correct for the terms ecology and extinction. The responses were less correct for the terms threatened and endangered.

Recommendations

Based on the previous findings and conclusions, the following recommendations were made for consideration:

1. A larger number of ethnic groups and more diverse ethnicity needs to be used.

2. Children should be aware of the implications of the animals to their lives and that every animal is important. It is important to see that everything has a place and should stay in its niche.

3. Children should be taken out to have more contact with animals, based on the fact that the respondents did not frequent zoos or any other type of learning facility.

4. More environmental and natural resource education should be integrated into the elementary school curriculum so the children will have a better understanding of the environmental terms.

Recommendations for Additional Research

1. A larger population should be used.
2. Qualitative questions need to be asked.
3. A study should also be done on natural resources and its importance.

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APPENDIXES

APPENDIX A

SURVEY OF ATTITUDES AND KNOWLEDGE OF WILDLIFE

INSTRUMENT

1. Mark only one: A. Boy B. Girl
2. What is your heritage: (Mark only one)
A. African American _____ D. American Indian _____
B. Asian American _____ E. White _____
C. Hispanic _____ F. Other _____
3. What grade are you in? A. 5th B. 6th
4. If saving the spotted owl meant the loss of jobs would you be in favor of it?
A. Yes _____ B. No _____
5. Is it OK to hunt whales for food as long as there are a lot of them left in the world?
A. Yes _____ B. No _____
6. Do all the animals in the world serve a purpose?
A. Yes _____ B. No _____
7. Do you think that any animal threatened with extinction should be protected regardless of cost?
A. Yes _____ B. No _____
8. Do you think that Tiger bone should be used as medicine.
A. Yes _____ B. No _____
9. Do you feel that giant pandas should be taken from the wild and put in zoos for their protection?
A. Yes _____ B. No _____

10. Does the threat of extinction of animals in other countries affect you as a United States citizen?
A. Yes_____ B. No_____
11. Do you think that oil companies should pay damages when they destroy the environment?
A. Yes_____ B. No_____
12. Do you hunt? A. Yes_____ B. No_____ If no skip the next question.
13. How often do you hunt: A. Once a year_____ B. Twice a year_____ C. More_____
14. Have you gone fishing in the past year?
A. Yes_____ B. No_____
15. In the past year, have you gone bird-watching (gone outside or taken a trip just to see or identify birds)?
A. Yes_____ B. No_____
16. In the past year, have you gone to a zoo?
A. Yes_____ B. No_____
17. In the past year, did your school or class go on a trip to see or learn about animals?
A. Yes_____ B. No_____
18. How often (if ever) do you go camping?
A. Never_____ C. 3-4 times a year_____ B. 1-2 times a year_____ D. 5 or more times_____
19. Have you ever kept a wild animal as a pet?
A. Yes_____ B. No_____

MULTIPLE CHOICE

Match the word to the appropriate definition.

- | | |
|-----------------------|------------|
| A. Endangered species | B. Ecology |
| C. Threatened | D. Extinct |

20. _____ The study of nature and the way it interacts.
21. _____ An animal or plant that has vanished from our world.
22. _____ An animal or plant which is in danger of becoming extinct throughout all or a part of the world.
23. _____ An animal or plant that is likely to become endangered.

VITA

KIMBERLY DIANA ROBINSON

CANDIDATE FOR THE DEGREE OF

MASTER OF SCIENCE

Thesis: ATTITUDES AND KNOWLEDGE OF MULTI-ETHNIC 5TH AND 6TH
GRADE STUDENTS CONCERNING SELECTED ASPECTS OF
WILDLIFE

Major field: Agricultural Education

Biographical:

Personal Data: Born in Bartlesville, Oklahoma on
November 18, 1967, the daughter of Robert
Robinson and Phyllis Sims.

Education: Graduated from Bartlesville High School,
Bartlesville, Oklahoma in May 1986; received
Bachelor of Science degree in Animal Science from
Oklahoma State University, Stillwater, Oklahoma in
December 1990. Completed the requirements for the
Master of Science degree with a major in
Agricultural Education at Oklahoma State
University in July 1995.

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 04-19-94

IRB#:AG-94-023

Proposal Title: ATTITUDES AND PERCEPTIONS OF CHILDREN CONCERNING
WILDLIFE

Principal Investigator(s): Dr. James P. Key

Reviewed and Processed as: Exempt

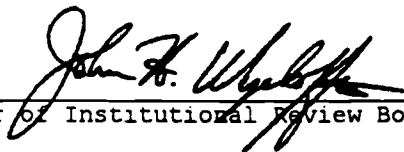
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MEETING.

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Comments, Modifications/Conditions for Approval or Reasons for
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Chair of Institutional Review Board

Date: April 19, 1994