

A QUALITATIVE INVESTIGATION OF THE
URBAN MINORITY ADOLESCENT EXPERIENCE WITH WILDLIFE

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by
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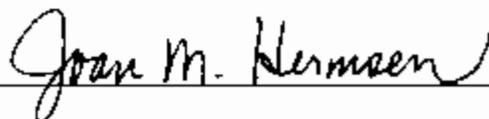
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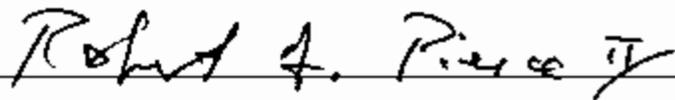
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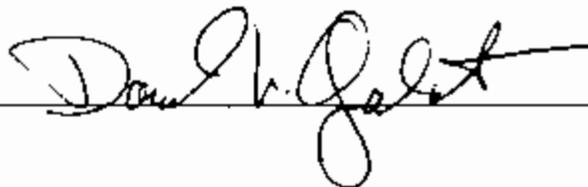
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ABSTRACT

An increase in urbanization has contributed to an increase in the general public's isolation from traditional uses of wildlife and led to changes in attitudes toward wildlife. Although the majority of people live in urban areas, urban wildlife has received relatively limited attention from public wildlife agencies. Additionally, the information that has been gathered is based on the attitudes of predominately White Americans in suburban environments. Ethnic minorities make up a significant percentage of the urban population in the United States, yet few studies have investigated the wildlife-related experience of these citizens. Understanding the urban realities and subjective meanings that shape people's lives is essential to effectively addressing the human dimensions of wildlife management programming in an urban environment.

Using a grounded theory research approach (dimensional analysis), I identified 5 conditions in the lives of the study participants (i.e., attitudes toward wildlife, demographic characteristics of the participants, socialization, place of residence, and wildlife encounters) which are important factors in shaping 5 general processes (i.e., connecting with wildlife, negotiating safety, selective engagement with wildlife, enduring wildlife, wildlife disconnect) that describe the differing experiences of urban African American and Latino adolescents with respect to wildlife.

The implications of these findings suggest that urban African American and Latino adolescents will demonstrate differing levels of engagement with wildlife management programming depending on their experience with wildlife, ranging from active engagement in wildlife management issues to complete disengagement with wildlife. These findings suggest that to foster an appreciation for the multiple values of wildlife and encourage supportive behavior for wildlife management programming, several conditions should be present in a developing child's life: 1) childhood access to and immersion in natural areas, 2) supportive mentoring from adults important in a child's life, 3) positive encounters with a variety of wildlife species, and 4) involvement in a variety of wildlife-related activities in a supportive environment.

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CHAPTER 1. INTRODUCTION AND OVERVIEW.

Background

Increased urbanization over the past several decades has led to changes in the attitudes of the general public toward wildlife (DiCamillo 1995, Kellert 1987, Leedy and Adams 1986, Mankin et al. 1999, Penland 1986). Shaw (1974) initially reported this change noting that human attitudes were shifting from consumptive values such as hunting and trapping to non-consumptive values such as bird watching and photography. Changing demographics in the United States, particularly an increase in urbanization, has contributed to an increase in the general public's isolation from traditional uses of wildlife (DiCamillo 1995). Wildlife professionals face a major challenge in responding to these changes in ways that meet the needs of a diverse citizenry (Brown et al. 1979, Conover 1997, Dawson et al. 1978, Mankin et al. 1999, Thomas and DeGraaf 1973).

In recent years, the American public has demonstrated a heightened awareness and increased sensitivity to the need for non-game species management and conservation (Mankin et al. 1999). The traditional wildlife values that emphasize the use and management of wildlife for human benefit are declining (Manfredo et al. 2003). Recent studies suggest that American citizens care deeply for and hold a strong personal interest and concern for wildlife. They place a high value on the life of wild animals and believe that wild animals add value to the lives of humans (Conover 1997, Duda et al. 1998, Mankin et al. 1999, Reiter et al. 1999). Kellert (1996) suggests that humans yearn to

establish a connection with nature and wild animals, not only to meet their material and physical well being, but also to satisfy their emotional, intellectual, and spiritual needs.

The problem

According to the U. S. Census Bureau (2000a), approximately 80% of United States residents lived in urban areas in 2000. Although the large majority of people in the United States live in urban areas, urban wildlife and wildlife habitat has received relatively limited attention from public wildlife agencies (Kellert 1984). Recent studies that have focused attention on the attitudes of urban residents toward wildlife (Brown et al. 1979, Conover 1997, Dagg 1974, Dawson et al. 1978, Gilbert 1982, Harrison 1998, Kellert 1984, Miller et al. 1999, Missouri Department of Conservation 1990, Wittmann et al. 1995) have been based primarily on the attitudes of White adults living in urban/suburban environments. Only limited information has been collected on the perceptions and attitudes of adolescents in minority ethnic groups living in urban environments (Dolin 1988, Taylor 1989).

Ethnic diversity is rapidly increasing in North America and is one of the most powerful demographic forces shaping society in the United States (Gramann and Allison 1999). As a result of immigration over the past two decades, there has been a sharp increase in ethnic and cultural diversity (Simcox 1993). Between 1990 and 2050 the ethnic proportions within the population will change considerably: the proportion of White Americans will decline from 76% to approximately 59%, the proportion who are Latino will increase from 9 to 21% and the proportion who are African American will increase from 12 to 15% (Cordell and Overdevest 2002). The increase in minority ethnic

groups is projected to account for 78% of the net growth in the United States population between 1980 and 2025. Minority ethnic groups will account for one-third of the United States population by 2025 compared to one-fifth in 1980 (Gramann et al. 1993, Parker and McDonough 1999).

Although the increase in ethnic diversity has been experienced nationwide, the growth in urban centers has been the most dramatic (Simcox 1993). The rapid rise of the Latino population has been a major factor in this demographic transformation. The number of Hispanic-origin persons living in the United States between 1980 and 1990 increased by 53.1%, compared to a 9.8% increase in the population as a whole (Gramann and Allison 1999).

As cultural diversity increases in the United States so does the need for information that accurately reflects different ethnic attitudes. Dramatic changes in the ethnic mix of the population, especially in urban centers, reinforce the importance of serving a culturally diverse citizenry (Pfister 1993). This increased diversity places greater pressures on public agencies to respond appropriately to the needs of diverse cultural publics and provide equitable access to social services and benefits (Simcox 1993). Consequently, the long standing practice of assigning attitudes of the dominant White culture to all Americans is no longer acceptable (Milbrath 1984, Olsen et al. 1992, Parker and McDonough 1999).

Wildlife managers rely on existing information and their perceptions of how stakeholders and the general public value wildlife when making management decisions (Miller and McGee 2001). In many cases, however, the perceptions of wildlife managers may not be consistent with the value that different ethnic groups place on wildlife. To

ensure that the views of all citizens are included in wildlife management decision making, wildlife professionals must obtain an accurate and reliable understanding of the attitudes of all segments of society (Bengston 2000, Duda and Young 1998, Kellert 1984, Shaw 1974). Considering the current lack of information on the attitudes of minority ethnic groups toward wildlife, the purpose of this research study is to address a portion of this problem by investigating how adolescents from minority ethnic groups (i.e., African American and Latinos) living in urban communities experience wildlife.

Race and ethnicity

Conducting a research study into the attitudes of adolescents from minority ethnic groups requires a substantive understanding of issues related to race and ethnicity. The following discussion attempts to not only strengthen the author's knowledge base in this area, but also provide the reader with a general background on these issues.

Defining race and ethnicity

Race vs. ethnicity. The relationship between the terms "race" and "ethnicity" has caused much confusion in the literature over the years (Cox 1990). The term race, which really "has no standing of any kind as a scientific concept" (Green 1999:10) but does still exist as a cultural construct and is important to the extent that it influences the actions of people, has been used to highlight phenotypical differences (e.g., skin color, eye shape) between groups of people (Eriksen 1993). Ethnicity, on the other hand, has been used to describe cultural differences (e.g., country of origin, language, religion) between groups of people (Cox 1990). For example, African Americans and Whites have been referred to

in terms of race, while Latinos have been referred to in terms of ethnicity. Cox (1990) maintains that labeling groups as biologically or culturally distinct is inappropriate because often they are both (Cox 1990). Although many ethnic groups in the United States are racially distinct, this is not always the case. For example, Hispanic Americans can be White, Black or Asian. To address some of this confusion in the context of this study, the racial and ethnic classifications established by the U. S. Census Bureau (2000b) will be used as a guide. The race categories include White, Black or African American, Asian, and American Indian. The ethnic category includes Hispanic or Latino (of any race). Because of the previously stated concerns and for ease of communication, the race and ethnic categories utilized by the U. S. Census Bureau has been combined into one general term (i.e., ethnic) for this dissertation.

Because of the complexity of ethnicity and the political issues associated with labeling, it can be challenging to develop appropriate terminology for describing an ethnic group (Keefe and Padilla 1987). While the U.S. Census Bureau uses White, African American or Black, and Hispanic or Latino as ethnic labels, the literature uses other terms interchangeably depending to some extent on the particular issue and ethnic group under investigation (e.g., Chicano, Mexican American). For the purposes of this study, I have used the terminology established by the U.S. Census Bureau (i.e., White, African American and Latino) except when discussing literature with specific descriptive intent and then I used the terminology identified by the author(s) of that particular publication.

Ethnic group. People with similar ethnic backgrounds develop shared understandings that are communicated to others in their group. Through interaction,

observation, and imitation, the patterns of behavior and ways of thinking of members from various ethnic groups become internalized and habitual (Samovar and Porter 2001). Marger (1997) defines ethnic group as a group of people within a larger society that displays a common set of cultural traits, a sense of community based on a presumed common heritage, a feeling of ethnocentrism, ascribed group membership, and, in some cases, a distinct territory. By socializing with others of similar backgrounds, groups act collectively to maintain their ethnic identity. This socialization process promotes group cohesiveness and helps sustain and enhance the ethnic identity of group members and contributes to one's thinking, perceptions, feelings, and behavior (Rotheram and Phinney 1987). Marger (1997) suggests that ethnic group membership fosters self-identification, moderates behavior in various areas of social life, is important in shaping primary relationships, and is a key source of social-psychological attachment for individuals that reside in multicultural societies.

Ethnicity. Ethnicity is a relatively new term, appearing in the standard English dictionaries in the 1960s, however, a sense of kinship and common culture have existed throughout recorded time (Glazer and Moynihan 1975, Hutchinson and Smith 1996). Ethnic communities have played an important role in all societies and have represented one of the basic modes of human association and community (Hutchinson and Smith 1996). A sense of common ethnicity remains an important focus for identification by individuals.

Definitions of ethnicity have stemmed from various disciplines such as sociology, anthropology, and geography, and have generally encompassed four conceptualizations, which include primordial, symbolic, interest group, and invented (Sasidharan, 2002).

The primordial conceptualization constitutes ethnicity as an unchanging socially structured principle that provides group identity based on shared ancestry and culture (Conzen et al. 1992).

Symbolic ethnicity is viewed more or less as a leisure time activity. Individuals choose their ethnicity at will based on a consumption of ethnic products (e.g., food, music, etc.) while being free from group and cultural affiliation (Waters 1990).

Interest group ethnicity, initially proposed by Glazer and Moynihan (1963), equates ethnic groups with interest groups or organizations that serve as a means for groups to mobilize around socioeconomic interests within the larger society. In response to the uneven distribution of power, prestige, and wealth among groups in a polyethnic society, people can be organized more effectively on the basis of ethnicity than social class (Sasidharan 2002).

The invented ethnicity approach is viewed as a contextually sensitive concept whereby groups are constantly recreating themselves through “a process of construction or invention which incorporates, adapts, and amplifies preexisting communal solidarities, cultural attributes, and historical memories. That is, it is grounded in real life context and social experience” (Cozen et al. 1992:5).

Ethnicity has generally been viewed in the United States as having a biological and primordial basis with distinct ethnic boundaries based on inherited cultural traits and characteristics (Nagel 1994, Waters 1990). However, Waters (1990) promotes a position consistent with the concept of invented ethnicity, contending that people’s perception of themselves along ethnic lines, especially their ethnic identity, is situational and changeable. Arguing that ethnicity is the product of social construction, Barth (1969)

first articulated the notion of ethnicity as changeable. This perspective views one's ethnic identity as a composite of one's own view of self as well as the views held by others. Consequently, the ethnicity of an individual can change according to variations in the situations and audiences encountered on a daily basis (Nagel 1994). "Ethnic identity, then, is the result of a dialectical process involving internal and external opinions and processes, as well as the individual's self-identification and outsiders' ethnic designations--i.e., what you think your ethnicity is, versus what they think your ethnicity is" (Nagel 1994:154). Nagel (1994) also views ethnicity as invented suggesting that ethnicity is a process of constructing boundaries through identity and culture. She states that "ethnicity is socially constructed out of the material of language, religion, culture, appearance, ancestry or regionality" and that ethnic boundaries are continuously negotiated, both by ethnic group members and outsiders (Nagel 1994:153). Waters (1990) cautions, however, non-white ethnic groups like African Americans for example, are much more socially constrained to identify with a particular group due to biological attributes that allow far fewer ethnic group options than non-African Americans.

Ethnicity is also thought of as group differentiation (Baas et al. 1993, Erikson 1993, Martin 1997). Erikson (1993) suggests that ethnicity relates to relationships between groups that consider themselves distinctive. He believes that for ethnicity to be a factor, groups must have a minimum of contact with each other and must consider themselves culturally different from the other group. "Only in so far as cultural differences are perceived as being important, and are made socially relevant, do social relationships have an ethnic element" (Erikson 1993:10). Individuals are either insiders

or outsiders as a result of their ethnic affiliations and if no such principle exists there can be no ethnicity (Eriksen 1993, Martin 1997).

Cultural change theories

For the past 150 years, social theorists have predicted that ethnic, racial, and national ties would disappear in favor of the unification of the world through international trade and mass communication (Hutchinson and Smith 1996). They predicted that culturally homogeneous societies would emerge through the assimilation of ethnically distinct immigrant groups into host cultures (Glazer and Moynihan 1975, Gramann and Allison 1999). Three major schools of thought have been used by social scientist over the past few decades to characterize the dynamics of intercultural contact, which include 1) Anglo-conformity, 2) melting pot, and 3) cultural pluralism (Allison 1988, Gramann and Allison 1999). The Anglo-conformity and melting pot models are driven in part by the assimilation perspective, while the cultural pluralism paradigm states that ethnic group differences will be maintained and accommodated within a single sociopolitical system (Gramann and Allison 1999).

The Anglo-conformity model suggests that over time, ethnic minorities will be motivated to give up their distinctive cultural characteristics and assimilate into the dominant mainstream by adopting the behaviors, values, and norms of the majority group (Gordon 1964). The melting pot orientation adheres to the position that through prolonged and continued contact with the majority group, ethnic differences are dropped and a new culture is formed that is distinct from the cultures that formed it (Gordon 1964, Gramann and Allison 1999).

The Anglo-conformity and melting pot models, however, do not adequately describe the assimilation experiences of many United States ethnic groups. Resurgence of ethnic nationalism in the United States and around the world has prompted social scientists to question the inevitability of assimilation (Nagel 1994). Nagel (1994:152) states that “the resiliency of cultural, linguistic, and religious differences among populations has led to a search for a more accurate, less evolutionary means of understanding not only the resurgence of ancient differences among peoples, but also the actual emergence of historically new ethnic groups”. Rather than fading away, ethnicity has become a central issue of social and political life (Hutchinson and Smith 1996). In fact, the social distance separating ethnic groups in the United States has remained relatively stable over the past 7 decades (Kleg and Yamamoto 1995).

The cultural pluralism paradigm, advanced by sociologists and anthropologists in the 1970s, suggests that interethnic contact, by its very nature, reinforces rather than reduces the development of ethnic boundaries (Barth 1969). Ethnic distinctions and maintenance can provide the very foundations on which social systems are built and may serve positive functions within and between social groups (Barth 1969). Keefe and Padilla (1987) advanced a variation on the cultural pluralism paradigm labeled selective acculturation. Selective acculturation is a process in which ethnic groups quickly adopt certain strategic traits from the dominant social group (i.e., language, education) to improve their economic opportunity but retain a large measure of their native heritage by maintaining traditional cultural values like family organization, native foods, music preferences, and child-rearing (Gramann et al 1993, Gramann and Allison 1999). Rather

than eradicating ethnic differences, the American experience has created a new form of self-awareness, which is expressed in a concern for roots and origin (Eriksen 1993).

Although all three cultural change theories offer insight into the dynamics of intercultural contact, it is the cultural pluralism theory that provides the basis for the purpose of my research study. The cultural pluralism theory would suggest that through a form of “ethnic boundary maintenance” (Barth 1969), adolescents from different ethnic groups call attention to cultural differences between themselves and out-group members while at the same time developing solidarity within their own ethnic group (Gramann and Allison 1999). This tendency of ethnic group members to emphasize cultural differences may influence how adolescent living in a multicultural urban environment experience wildlife, and consequently, has bearing on my research.

Methodological and epistemological issues in ethnic research

Conducting research in ethnic minority communities poses a variety of methodological and epistemological issues (Andersen 1993). Because my research investigates the experiences of adolescents in minority ethnic groups, I believe it is important to understand and address these issues and attempt to ameliorate the negative consequences that they may have on the research process.

Due to the historically emotional nature of race and ethnicity, few if any individuals can be completely removed from the emotionally charged thoughts and discussions that often form the foundation for unconscious biases in race and ethnicity research (Gramann and Allison 1999). As a result, the findings of research conducted with minority ethnic groups have often been distorted, having been centered in the

perspectives and experiences of majority group members (Andersen 1993). Members of minority ethnic groups have consistently been measured by an alien set of norms that is considered a deviation from the ambiguous White middle-class model (Lander 1973). Social scientists are continually challenged to deal with the emotionally charged politics that exist in our society and try to systematically understand the perspectives and experience of ethnic minorities (Gramann and Allison 1999).

Epistemology is the study of the nature of knowledge (Schwandt 2001) – how we come to know the things around us. How we think about things, the questions we ask, and the interpretations that we make of the things we come to know, is significantly influenced by our overall life experiences (Gramann and Allison 1999). Because of these formative experiences, some social scientists question the ability of those who come from positions of power in the dominant society to understand the experiences of oppressed or disenfranchised groups, including ethnic populations (Gramann and Allison 1999). Individuals trained and socialized in institutions of privilege and power have little grounding in the lives of ethnic minorities and many social scientists question if members from dominant groups can understand the experiences of outsiders (Anderson 1993, Gramann and Allison 1999). This elitism may also reside in the intellectual and academic grounding of science itself. Due to the differential life experiences of the privileged and the oppressed, Anderson (1993) questions if those in institutions of privilege and power are capable of understanding the experiences of disenfranchised groups.

A related epistemological concern is centered on the logical positivistic approach to science based on the premise of objectivity and value neutrality. Gramann and Allison

(1999) point out that these research approaches may foster a sense of detachment from human problems and issues. Stanfield (1993) suggests that prior ideological and cultural biases that determine the creation of “objective knowledge” form the basis of the conceptualization of research problems. He further maintains that “the gathering and interpretation of statistical and ethnographic data in ethnic research frequently serves to lend a professional gloss to what are in reality nothing more than cultural and social stereotypes and presumptions derived from historically specific folk wisdom” (Stanfield 1993:4). Samdahl (1999) cautions that our research focus and the questions we ask are not value neutral but often reflect personal interests while ignoring other areas of importance. To address these issues and improve the likelihood of meaningful inquiry into racial and ethnic questions, Anderson (1993) recommends that individuals from the dominant culture avoid taking a color-blind position and critically examine the influence of institutional racism on the formulation of their research. She further states that “this is a fundamentally different posture from that advocated by the norms of unbiased, objective scientific research, in which one typically denies the influence of one’s own status (be it race, gender, class or other social status) in shaping of knowledge” (Anderson 1993:43).

Another epistemological issue concerns the propensity to characterize an entire group of people based on their racial or ethnic category (Gramann and Allison 1999). Ethnic populations are not homogenous entities, yet categories such as Black or African American are often used to define and promote stereotypical images of one group of people. For example, the term Hispanic can include individuals with Puerto Rican, Mexican, Spanish or Cuban heritage, even though these groups have very different

historical and political backgrounds (Gramann and Allison 1999). Researchers have often regarded racial and ethnic groups as homogenous, overlooking considerable spatial and socioeconomic differentiation within ethnic populations (Johnson et al. 1997). The dynamic elements of ethnicity have been undervalued in prior research studies and the uncritical use of race and ethnic categories can lead to oversimplified views of behavior (Floyd 1998, Gramann and Allison 1999). Allison (1993) cautions that variability within an ethnic group may be as large as the variability between groups and suggests that this variability may be related to age, gender, income, and education as much as it is a function of culture. Anderson (1993) stresses that the major epistemological problem occurs when social scientists treat minority groups as culturally homogeneous and assume to know what it means to be a member of another ethnic group.

While the issues discussed above highlight the major concerns in conducting research in ethnic communities, the literature provides several suggestions for how researchers can overcome these potential pitfalls (Anderson 1993, Gramann and Allison 1999):

1. remain reflective about issues of race and ethnicity within ones own life history;
2. avoid taking a color-blind position and critically examine the influence of institutional racism on the formulation of one's research;
3. critically question the role and quality of one's own research within changing social and cultural contexts;
4. use participatory research to foster an enhanced quality of life as a result of participant involvement in the research process;

5. design studies that recognize the participants as “experts” in their lives and experiences.

Literature review

Ethnicity and attitudes toward wildlife

Limited research has been conducted on the attitudes of minority ethnic groups toward wildlife. African Americans have been the focus of a few attitude studies on wildlife, however, relatively little information has been collected on Latinos, Asians, or American Indians. Washington conducted one of the first studies in 1976 on the attitudes of African Americans toward wildlife (as reported in Dolin 1988, Taylor 1989). Washington administered a nineteen-question survey to 100 people (30 adults, 30 college students, and 40 junior high and high school students), living in a predominantly African American area of northeast Denver. Washington concluded that the interests of African Americans are not significantly oriented toward wildlife and that wildlife plays an insignificant role in their lives. However, based on an independent review of the survey responses, Dolin (1988) concluded that urban African Americans are interested in wildlife stating that 82% of the respondents indicated an interest and concern for wildlife. Dolin (1988) states that Washington downplays the meaning of the statistics basing his conclusions on anecdotal information gathered during the survey, which led him to believe that the interest expressed was only cursory.

A second study documenting the attitudes of African Americans toward wildlife was conducted by Kellert and Berry (1980). They gathered information on the attitudes of African Americans towards wildlife as part of a national study documenting the

knowledge, affection, and attitudes of Americans towards animals in American society. The national study included a sample of 3,107 randomly distributed Americans residing in the 48 contiguous states and Alaska. The urban portion of the national study consisted of 1,392 individuals above the age of 18, 150 of which were African Americans (Kellert 1984).

Kellert and Berry (1980) found that African Americans had significantly different scores than Whites on every measure of knowledge, appreciation, interest, and concern for wildlife. Their findings suggest that African Americans are much less interested and informed about wildlife and the natural world than Whites, particularly in more educated individuals and individuals at the middle to higher end of the socioeconomic spectrum. The differences in the attitudes of African Americans and Whites from lower socioeconomic levels, however, were often small or insignificant (Kellert and Berry 1980).

In a study conducted by Kellert and Westervelt (1983), 267 adolescents were surveyed (207 Whites, 42 African Americans, and 18 others). The results of their study indicated that African American children expressed less affection for and general interest in wildlife. The study also suggested that White children had greater knowledge of animals and the natural environment than members of other ethnic groups.

A survey conducted by the Missouri Department of Conservation (1990) reported that both African Americans and Whites expressed a positive interest in wildlife, although African Americans somewhat less interest than Whites. The survey consisted of a random sample of 3,427 Missouri adults residing in seven cities throughout Missouri. A stratified sample was used to survey 293 African American adults from neighborhoods

in St. Louis and Kansas City. Additionally, two focus groups were conducted to provide insights into the survey results. Each focus group consisted of 14 African American adults from the middle socioeconomic group. Comments made by the focus group participants are displayed in parentheses below.

The Missouri Department of Conservation (MDC) survey reported that Whites were somewhat more interested in suburban wildlife and African Americans more interested in inner city wildlife (African American focus group participants indicated that they utilized facilities within the metro area.). African Americans strongly supported fishing, (African American focus group participants used fishing as an opportunity for social interactions and a way to enjoy the outdoors.) but were less supportive of hunting and trapping. African Americans were supportive of aquaria and other recreational facilities like nature centers (African American focus group participants expressed an interest in recreational facilities close to home and lamented the loss of familiar outdoor areas resulting from urbanization.). The MDC (1990) survey also reported that while African Americans were supportive of feeding and seeing wildlife around their homes, they were less supportive than Whites. Although African Americans expressed an interest in spending time in natural settings, they indicated some discomfort being in the woods (African American focus group members expressed fear of racial intimidation and the lack of time as explanatory factors for low African American involvement in outdoor recreation.). While the majority of African Americans surveyed expressed a personal interest in wildlife, they perceived their friends to be less interested (African American focus group participants had positive perceptions of the outdoors but also expressed misconceptions about the dangers in the outdoors.).

Although the attitudes of minority ethnic groups toward wildlife have received limited attention, two other areas of research may provide some helpful insight into how ethnicity and ethnic group membership may influence attitudes toward wildlife: 1) environmental concern, and 2) recreation-leisure participation. While studies in these topical areas have not directly measured attitudes toward wildlife, they do reflect a general perception of the overall concern for the environment and may be instructive in developing an understanding of the attitudes of minority ethnic groups toward wildlife.

Ethnicity and environmental concern

Despite thirty years of research on the demographic correlates of environmental concern, there is little consensus regarding which demographic variables are reliably associated with environmental concern (Klineberg et al. 1998). Researchers have found few correlations between standard demographic variables (i.e., income, gender, urban vs. rural residence, religiosity, ethnicity) and environmental concern. The most consistent findings suggest that individuals supportive of environmental issues tend to be younger, better educated, and politically moderate or liberal (Klineberg et al. 1998).

In the 1970s and 1980s it was generally assumed that African Americans were less concerned than Whites about environmental issues. Early studies investigating environmental concern found African Americans less interested and concerned about environmental issues than Whites (Hershey and Hill 1977-78, Hohm 1976, Kreger 1973). These perceived ethnic differences in level of concern were explained by suggesting that the attention of minority ethnic groups was focused on higher priority issues, like housing, education, jobs, discrimination, and other “survival concerns” (Mohai and

Bryant 1998). Taylor (1989) questioned the measurement validity of these early studies suggesting that the studies were: 1) not built on past research, 2) only percentages were reported in many of the studies, 3) the sampling techniques were problematic, and 4) the research methods used for the studies varied. Taylor (1989) cautioned that the perceived differences in environmental concern between African Americans and Whites purported by these studies may reflect the effects of education, occupation, and income-related factors rather than sub cultural differences. More recent studies using improved research methodology have challenged the claims of the studies conducted in the 1970s and 1980s providing evidence that African American and other ethnic minority groups are as concerned about the environment as Whites (Caron 1989, Jones 1998, Jones and Carter 1994, Mohai 1990, Parker and McDonough 1999, Taylor 1989).

Because of the growing interest in developing a better understanding of the general public's level of environmental concern, there has been an effort to standardize the survey research. Dunlap and Van Liere (1978, 1984) and Dunlap et al. (2000) developed one of the most widely used scales measuring environmental concern – New Environmental Paradigm (NEP). However, a series of studies conducted over the past decade using the NEP scale have also not resulted in a consensus regarding the influence of ethnicity on environmental concern. Some studies identified culture as an important determinant of environmental attitudes (Corra-Verdugo and Armendariz 2000, McMillan et al. 2003, Noe and Snow 1990, Schultz et al. 2000) while other studies suggested that culture has very little influence on environmental concern (Caron 1995, Parker and McDonough 1999). For example, in a study of 1,047 people in North Carolina and Southeast Virginia, McMillan et al. (2003) found that younger people, women, Whites

and people of higher education levels hold more environmental attitudes. The study found that environmentalism, as conceptualized and measured using the NEP scale, is largely a cause among well-educated Whites and that African Americans with lower levels of education are less likely to hold a general environmental orientation. Schultz et al. (2002) examined environmental attitudes among foreign born Latino Americans using the NEP scale and found that culture is an important determinant of environmental attitudes. They found that less acculturated Latino immigrants scored higher on the NEP scale than more acculturated Latino immigrants, suggesting that the mainstream environmental view in the U.S. is fundamentally different from that of Latinos. Caron (1995), on the other hand, found little or no cultural influence on level of environmental concern. She surveyed 72 White and 40 African Americans from a metropolitan area of Virginia using the NEP scale and found some differences between African Americans and Whites in their perceived level of environmental concern, however, she considered the differences to be small and speculated they may rise out of the complex issues that African Americans face and not from the lack of concern for the environment. Parker and McDonough (1999) surveyed a stratified sample of 720 people (180 Whites, 300 mixed race and 240 African American) in the Detroit Metropolitan area using several scales including the NEP and found African Americans and Whites demonstrate similar levels of environmental concern, however, they also found that African Americans and Whites express their concerns in different ways. For example, African Americans reported higher rates of attending rallies and picking up litter while Whites reported higher rates of recycling, composting and reducing the use of plastics.

Recent reviews of the research literature (McMillan et al. 2003, Mohai 2003) investigating direct comparisons between minority ethnic groups and Whites found that African Americans and Latinos sometimes evidence stronger environmental concern and sometimes less. Most often, however, no ethnic differences were found, particularly when controls are introduced to dampen the effects of group differences in socioeconomic status. Although recent research supports the assumption that Whites and other ethnic groups have similar levels of concern for the environment, several studies also suggest that different ethnic groups may demonstrate concern for different environmental issues (Mohai and Bryant 1998, Morrissey and Manning 2000, Parker and McDonough 1999, Vaughan and Nordenstam 1991). Mohai and Bryant (1998) found that most of the existing studies investigated only general level of environmental concern and did not distinguish among the different environmental issues that Whites and other ethnic groups may be concerned about. Mohai (2003) speculates that the particular environmental issue under consideration may have the biggest influence on the existence and nature of the perceived ethnic differences in environmental concern. For example, the outcome of the studies may depend on whether the focus of the study is: 1) on pro-environmental behaviors (e.g., reported participation in recycling), 2) on the specific environmental problems that are under consideration (e.g., neighborhood air or water pollution vs. global warming), or 3) on the tradeoffs that are implicitly or explicitly associated with environmental initiatives (e.g., environmental initiatives result in higher taxes or fewer jobs).

The growing evidence supporting the view that Whites and other ethnic groups share similar levels of environmental concern is further supported by the growing

visibility and influence of the environmental justice movement (Bullard 1993, Taylor 1992). The growth in this movement has been precipitated by the mounting evidence that communities of color are being disproportionately burdened with environmental hazards (Bullard 1993, Mohai and Bryant 1992).

Theoretical explanations for perceived ethnic differences. The explanations most widely cited to help explain the perceived difference in environmental attitudes between Whites and other ethnic groups include: 1) hierarchy of needs, 2) cultural (ethnicity) differences, and 3) environmental deprivation (Jones and Carter 1994, Mohai 1990, Mohai and Bryant 1998, Parker and McDonough 1999, Taylor 1989). All three of these explanations have been used with varying degrees of success to help explain the difference in level of environmental concern identified primarily between Whites and African Americans.

According to the “hierarchy of needs” explanation, adapted from Maslow (1954), people must satisfy their basic survival needs before they can begin to focus on higher order needs like aesthetics (Caron 1989, Hershey and Hill 1977-78, Mohai 1990, Mohai and Bryant 1998). A clean and aesthetic environment is considered a higher order or luxury need (Hershey and Hill 1977-78). Consequently, people who are disproportionately poor (African Americans and other people of color are generally less affluent than Whites) will be less concerned about environmental quality than affluent Whites. Most studies, however, have found socioeconomic status to be only weakly related to the level of concern that is expressed for environmental quality (Mohai 1990).

The “cultural differences” explanation purports that attitudes toward nature and the environment are conditioned by a person’s cultural background and experiences

(Caron 1989, Mohai 1990, Mohai and Bryant 1998, Taylor 1989). Because ethnic groups have different backgrounds and experiences they should also have different values and norms regarding the environment. As with the hierarchy of needs explanation, the cultural differences explanation has very little support in the literature (Mohai 1990). However, Mohai and Bryant (1998) maintain that the cultural differences explanation may have some relevance as it relates to particular environmental issues. Recent studies suggest that different ethnic groups may demonstrate concern for different environmental issues (Mohai and Bryant 1998, Morrissey and Manning 2000, Parker and McDonough 1999, Vaughan and Nordenstam 1991).

The “environmental deprivation” explanation asserts that when people are directly exposed to pollution and conditions of low environmental quality this leads to greater levels of environmental concern (Lowe and Pinhey 1982, Tremblay and Dunlap 1978, Van Liere and Dunlap 1980). Consequently, if African Americans and other ethnic minorities are disproportionately burdened by pollution, they would be expected to be more concerned about environmental quality than Whites who are more likely to live in areas with less environmental pollution. If African Americans and other ethnic minority groups were disproportionately burdened by poor environmental quality in their neighborhoods, the environmental deprivation explanation could be helpful in explaining ethnic differences in environmental concern (Mohai and Bryant 1998). Mohai and Bryant (1998) found that African Americans living in neighborhoods with poor environmental quality compared to Whites were significantly more concerned about neighborhood pollution than Whites. However, when multivariate controls were applied,

the ethnic difference in concern about neighborhood pollution disappeared (Mohai and Bryant 1998).

Ethnicity and leisure-recreation participation

In addition to the research studies that have addressed the influence of race and ethnicity on “environmental concern,” there is a significant body of literature that addresses racial and ethnic differences in leisure behavior. Again, while these studies do not directly consider wildlife, an indirect connection can be established when considering the preference and participation patterns associated with certain wildlife-related recreational activities like fishing, hunting and nature study (e.g., birding). Studies conducted on the behavior of individuals engaged in wildlife-related activities can provide relevant information on attitudes toward wildlife.

Much of the early research on ethnicity and leisure activity focused on differences in recreational activity patterns and preferences between African Americans and Whites (Allison 1988, Gramann and Allison 1999, Kelly 1980, Washburne 1978). More recent research has been conducted on the outdoor recreation behavior of Mexican Americans as well. In general, research findings have revealed differences in participation patterns between ethnic groups and that minority ethnic group members tend to participate less frequently than Whites in a wide range of outdoor activities (Gramann and Allison 1999).

Two primary contrasting conceptual approaches have been cited in the leisure-recreation literature to account for racial and ethnic variation in participation patterns, the marginality (or opportunity) hypothesis, and the ethnicity hypothesis (Allison 1988, Floyd 1998, Philipp 1998). The marginality hypothesis, first articulated by Washburne

(1978), maintains that the leisure participation patterns (i.e., under-participation) of ethnic minorities (particularly African Americans) differ from the patterns of Whites due to the limited socioeconomic resources of African Americans (e.g., lack of adequate transportation, underdeveloped community programs in inner city neighborhoods), which in turn are a function of historical patterns of discrimination (Allison 1988, Floyd and Gramann 1993, Johnson et al. 1997). Proponents of this view argue that a history of inequity in public and private recreation resource allocations and opportunities, as well as differences in socioeconomic status has resulted in differential participation patterns (Allison 1988).

The ethnicity hypothesis, also developed by Washburne (1978), suggests that the difference in participation patterns between ethnic/racial groups is due to subcultural variations in norms, values, and expectations of the respective groups. This hypothesis suggests that the perceived differences in participation patterns between ethnic groups is more a function of culturally transmitted norms, value systems, and social organization rather than economic variables (Allison 1988). Minority ethnic groups possess distinctive cultural value systems that shape and dictate their recreation behavior (Johnson et al. 1997). The ethnicity thesis assumes that ethnic groups interact and maintain contact with the dominant cultural group while at the same time preserving a distinct subcultural identity and integrity (Gramann and Allison 1999). Consequently, the difference in cultural norms and values is expressed in differential recreational activity preferences.

A few researchers have proposed a third, less researched explanation for racial and ethnic differences in leisure preferences and participation: racial discrimination

(Philipp 1995, West 1989). These researchers have argued that prejudice and discrimination is an important leisure research issue that should be considered in discussions about leisure preferences and participation and could easily be lost in discussions which only address the issues of social class (marginality) and subcultural values (Philipp 1998).

Demographic factors have been cited as a fourth explanation for the differential leisure preference and participation rates seen among ethnic groups (Floyd et al. 1994, Shinew et al 1995). Shinew et al. (1995) proposed the multiple hierarchy theory of recreation participation, suggesting that race, gender, class, and age are all potential factors that can influence recreation participation under certain circumstances.

Although several conceptual models have been proposed in the leisure-recreation literature to account for racial and ethnic variation in participation patterns, the marginality and ethnicity models have been most often cited. The ethnicity model in particular continues to receive attention and support (Gomez 2002). However, Gramann and Allison (1999:291) caution that these models are “simplistic versions of social processes. When people, regardless of their race or ethnicity, have limited access, resources, and opportunities to learn and engage in recreational pursuits, their participation will usually be low.”

Most of the studies that have tested the marginality-ethnicity models, have found some support for the ethnicity hypothesis (Allison 1988, Dwyer and Hutchison 1990, Hutchison 1987, Irwin et al. 1990, Klobus Edwards 1981, Stamps and Stamps 1985, Washburne 1978). For example, O’Leary and Benjamin (1982) and Washburne (1978) found that African Americans participated less in outdoor recreational activities than

Whites even when residence and socioeconomic variables were controlled. Klobus Edwards (1981) reports that Whites favored skill classes and organized outdoor recreational activities, whereas physical conditioning and dance instruction was favored by African Americans. Whites tend toward a higher participation in wildland activities such as camping and hiking while African Americans are generally more likely to recreate in team sports and fitness activities (Dwyer 1994, Floyd et al. 1994). Cordell et al. (1999) report that African American participation in most forms of forest-based wildland recreation is noticeably less than Whites and there is a general consensus that African Americans show a preference for developed settings and Whites tend to prefer more natural areas (Johnson and Bowker 1999). Philipp (1995) compared the tourism destination preferences for African Americans and Whites and found that African Americans were significantly less likely than Whites to choose wildland-type areas as preferred vacation sites.

The influence of cultural values in leisure activities has also been demonstrated in studies including Latinos. The results of an on-site survey in Chicago's Lincoln Park conducted by Gobster (2002) found significant differences in participation between the Whites, African Americans, and Latinos in 24 out of the 34 activities included in the survey. Minority ethnic groups were more likely to engage in passive, social park activities (e.g., picnicking, visits to the zoo) while Whites tended more toward active pursuits like bicycling and jogging (Gobster 2002). Differences in the use patterns of different ethnic groups were also recorded. Whites tended to use the park as individuals or couples while ethnic minorities were often seen in ethnic groups. Latinos generally

recreated with larger family groups than either Whites or African Americans (Baas et al. 1993, Gobster 2002).

Irwin et al. (1990) conducted a study of Mexican American and White campers in U.S. Forest Service managed campgrounds in New Mexico during the summer of 1985. They found significant differences between the groups, especially in relation to the larger group sizes of the Mexican American campers. The Mexican Americans also tended to use more highly developed campgrounds as opposed to roadless area campgrounds (Irwin et al 1990). Irwin et al. (1990) also noted the difference in facility design preference, with Whites showing a preference for quiet surroundings, privacy, and open space between campsites, while Mexican Americans identified toilets, more camping spaces at each site, and fire rings as important features of the campground.

Several authors suggest that White and Latino cultures differ in terms of their social, behavioral, and perceptual patterns (Hall 1983, Samovar et al. 1998, Stewart and Bennett 1991). Simcox (1993) identified four cultural patterns as key descriptors of difference in leisure and environmental orientation: 1) humankind-nature orientation, 2) time orientation, 3) activity orientation, and 4) relational orientation. In a study comparing the perceived benefits of recreational fishing to White and Latino anglers, Hunt and Ditton (2001) used the four cultural patterns identified by Simcox (1993) and developed and tested four constructs related to the perceived benefits of recreational fishing (i.e., escaping individual stressors, being in a natural environment, interacting with fish, and achievement). Using secondary data from four Texas statewide angler surveys of male fishers conducted from 1989-1997, Hunt and Ditton (2001) found a significant difference on three of the four constructs. White male fishers placed

significantly greater importance on escaping individual stressors and being in the natural environment than Latino male fishers, which was consistent with their original hypothesis. Contrary to what was hypothesized, however, the importance placed on achievement was higher in Latino male fishers than White male fishers.

Summary

Research that has been conducted on ethnic group variation in the three general disciplinary areas reviewed above -- attitudes toward wildlife, levels of environmental concern, and participation in leisure-recreation -- suggest the possibility of differences between ethnic groups. In the case of environmental concern the differences may not be overall level of concern so much as concern for different environmental issues. It is important to note, however, that there is no clear consensus in the literature linking ethnicity or cultural background with attitudes toward the environment in general or wildlife in particular. Researchers have found few correlations between standard demographic variables (i.e., income, gender, urban vs. rural residence, religiosity, ethnicity) and environmental concern. The most consistent findings suggest that individuals supportive of environmental issues tend to be younger, better educated, and politically moderate or liberal (Klineberg et al. 1998). Although recent research provides evidence that Whites and other ethnic groups have similar levels of concern for the environment, several studies also suggest that different ethnic groups may demonstrate concern for different environmental issues.

In general, the recreation-leisure participation literature suggests cultural differences in participation exist in outdoor recreation patterns. Ethnic minority group

members tend to participate less than Whites in a variety of outdoor recreation activities and the pattern of participation tends to differ. The marginality thesis and the ethnicity thesis are two contrasting explanations that have been used to illustrate cultural differences in recreation participation rates. However, Gramann and Allison (1999:294) caution that the marginality-ethnicity tradition “fails to consider such equally significant topics as the expression of cultural meaning in leisure and the real and perceived institutional barriers to recreation participation.”

Although there is not widespread agreement linking environmental attitudes to cultural background, there is enough evidence to warrant further investigation. Several explanations have been proposed to help explain the perceived cultural differences in environmental attitude/concern/participation with varying degree of success. However, the particular theory or explanation of the perceived cultural differences in these areas is not as relevant for informing my research study as is the consistent reporting of cultural differences in the literature in all three of the disciplinary areas discussed above.

Purpose of study

Increased urbanization over the past several decades has led to changes in the attitudes of the general public toward wildlife (DiCamillo 1995, Kellert 1987, Leedy and Adams 1986, Mankin et al. 1999, Penland 1986). Although the majority of people live in urban areas, urban wildlife and wildlife habitat has received relatively limited attention from wildlife professionals especially in center city areas.

Based on a review of the literature as described above there is consistent evidence that cultural differences in environmental attitudes/recreational participation exist. While

there is no consensus in the literature providing an explanation for these cultural differences, there does seem to be agreement that cultural differences persist in some situations and under certain circumstances.

Wildlife managers rely on existing information and their perceptions of how stakeholders and the general public value wildlife when making management decisions (Miller and McGee 2001). In many cases, however, the perceptions of wildlife managers may not be consistent with the value that different ethnic groups place on wildlife. To ensure that the views of all citizens are included in wildlife management decision making, wildlife professionals must obtain an accurate and reliable understanding of the attitudes of all segments of society (Bengston 2000, Duda and Young 1998, Kellert 1984, Shaw 1974).

Considering the current lack of information on the attitudes of minority ethnic groups toward wildlife, the purpose of this research study is to address a portion of this problem by investigating how adolescents from minority ethnic groups (i.e., African American and Latinos) living in urban communities experience wildlife and how the meaning and processes associated with their experience help to form their attitudes and perspectives toward wildlife. My goal in conducting this research is not to make a comparison of attitudinal differences between ethnic groups, but to conduct an in-depth investigation of how urban African American and Latino adolescents experience wildlife. I seek to determine the underlying structures of the adolescent's experience and derive a general theoretical framework that helps to describe the complex interactions and meanings associated with the attitudes that these urban residents have toward wildlife.

CHAPTER 2. PROCESS OF INQUIRY.

Introduction

The literature reviewed in Chapter 1 reveals three important issues: 1) a lack of information on the attitudes of minority ethnic groups toward wildlife, especially those ethnic groups living in urban communities; 2) evidence from the literature reviewed (i.e., attitudes toward wildlife, environmental concern, and recreation/leisure participation) suggests that cultural differences exist in how ethnic groups view environmental issues; and 3) previous research lacks a focus on the processes and meanings associated with how minority ethnic groups experience wildlife. These issues are important because understanding the “contextual realities and subjective meanings that shape people’s interactions with their world” is essential to effectively address the human dimensions of wildlife management programming (Samdahl 1999:126). The research studies discussed in the previous chapter, have been primarily in the quantitative tradition using traditional research designs such as structured surveys, which concentrate on clear “objective” constructs that can be easily measured (Hemingway 1995, Hemingway and Kelly 1995). Traditional research design narrows the focus of a study by testing a particular hypothesis and confirming what is already suspected about a particular issue, thus precluding the discovery of radically new insight (Samdahl 1999). Traditional research design fails to capture the emotions and subjective phenomena associated with the study of human experience and by focusing on isolated variables ignores the richly complex meanings and interactions so important to people’s lives (Samdahl 1999). My goal is to investigate

and develop an understanding of the processes and meanings associated with how adolescents experience wildlife, which are difficult to capture using traditional empirical design. I believe this can best be accomplished by using qualitative research methodology.

Qualitative research is better suited, than quantitative research, for investigating the meaning individuals attach to a particular experience. In investigating the meaning of an experience, I will not be looking to reduce the data into summaries or statistics as is common in quantitative methodology, but to enhance the data by increasing its content and complexity. Qualitative analysis tends to be based on interpretative philosophy, which suggests that people are constantly interpreting the events in their lives and trying to understand the world around them (Gibbs 2002). My goal then, in using qualitative research methods to investigate how urban minority adolescents' experience wildlife, is to capture the interpretations of their experiences and derive a general theoretical framework that helps to describe the complex interactions and meanings associated with the urban experience with wildlife.

Research methodology

Qualitative research methodology is “multimethod in focus and involves an interpretive and naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (Denzin and Lincoln 1994:2). In other words, the interpretation of phenomenon takes place in the context or setting where they occur and the meaning it has for participants is understood in relation to the

society as a whole (Gibbs 2002). Qualitative analysis is generally based on interpretative philosophy, which suggests that people are constantly interpreting the events in their lives and trying to understand the world around them (Gibbs 2002). Guba and Lincoln (1989:86) suggest that “there exists multiple, socially constructed realities” that are created by individuals (and usually shared by others) to make sense of their experience. In qualitative research, the researcher tries to mirror as closely as possible those realities by viewing events, actions, norms, and values from the study participant’s perceptive (Gibbs 2002). An emphasis is placed on trying to understand what is going on in relation to the context of the particular setting in which the phenomenon occur. There is an unwillingness in qualitative research to impose *a priori* theoretical frameworks at the beginning of the study, preferring to develop concepts and theories concurrently with data collection (Gibbs 2002).

There are a variety of different traditions of qualitative inquiry (e.g., phenomenology, grounded theory, ethnography, case study). Due to the nature of my research question and because there has been limited formal investigation into how urban minority adolescents experience wildlife, I have chosen grounded theory as the tradition of inquiry for my study. However, because of what I perceive to be limitations in the analytic procedures and research strategies set forth in the grounded theory methods developed by Glaser and Strauss (1967) and further refined by Glaser (1978) and Strauss and Corbin (1990), which will be discussed in more detail later in this section, I will use an alternative form of grounded theory called dimensional analysis (Schatzman 1991). Before describing the dimensional analysis approach, however, I will provide a brief

overview of the traditional grounded theory method, which is the foundation for the development of the dimensional analysis method.

Grounded theory method

Grounded theory involves developing theory from the systematic collection and analysis of data as part of the research process (Glaser 1978, Schreiber 2001, Strauss and Corbin 1998). By using a set of systematic guidelines for collecting and analyzing data, the researcher strives to build theoretical frameworks that explain the collected data. In grounded theory, a close relationship exists between data collection, analysis, and theory development. Concepts and properties emerge as the researcher collects, codes, and analyzes data. Throughout the process, analytic interpretations are developed and data collection is further focused, which in turn informs and refines the developing theoretical analyses (Charmaz 2003). The overall strategies associated with the grounded theory method include: 1) simultaneous collection and analysis of data, 2) two-step data coding, 3) constant comparative methods, 4) construction of conceptual analyses through memo writing, 5) theoretical sampling, and 6) integration of the theoretical framework.

In grounded theory, the researcher does not begin with an existing theory or pre-defined concept. Instead, the researcher initiates an investigation of a particular area of interest and then allows the theory to emerge from the data (Glaser and Strauss 1967). Theoretical categories must be developed from analysis of the collected data and not taken from the preconceived disciplinary notions of the researcher. Relevant concepts must emerge from the data and earn recognition into the analysis (Glaser 1978). A grounded theory analysis remains very close to the data and because theories are drawn

from data and not forced upon the data they are likely to provide meaningful insight into the experience of the research participants and yield dense conceptual analyses of empirical phenomenon (Strauss and Corbin 1998).

Constant comparative method. Grounded theory is often referred to as the “constant comparative method” (Glaser and Strauss 1967) because there is a constant interplay between the data collection, coding, and analyses at each level of theory development (Schreiber 2001). The making of comparisons is an essential feature of the grounded theory method (Strauss and Corbin 1998). Researchers use the method as a tool for developing and fine-tuning theoretical categories and their properties. Hypotheses or hunches are continuously generated about relationships between and among categories that are tested against the data. Based on the hypotheses tested, emerging conceptualizations are compared against the data with the goal of developing core categories and a theory that furthers the understanding of human experience from the perspective of the research participant (Schreiber 2001). More specifically, the constant comparative method in grounded theory means comparing the views, situations, actions, and experiences of different people; comparing data from the same people at different times; comparing incidents; comparing the data with categories; and comparing categories with other categories (Charmaz, 1995, 2003, Glaser 1978, 1992). By using this constant comparative process, hypotheses are allowed to emerge from the data resulting in a theory that is truly grounded in the data (Schreiber 2001, Strauss and Corbin 1990).

Theoretical sensitivity. An important issue of concern in qualitative research is the perception of researcher bias because it is a potential threat to the rigor of a study.

Grounded theory incorporates the technique of theoretical sensitivity as a way to guard against this bias. Theoretical sensitivity is an attribute that helps a researcher think inductively and build theory from observing specific situations. Strauss and Corbin (1990:41) define theoretical sensitivity as the “attribute of having insight, the ability to give meaning to data, the capacity to understand, and capability to separate the pertinent from that which isn’t.” In developing theoretical sensitivity, the researcher must be open to a variety of explanations for the data and be able to imagine and test these explanations against the data (Schreiber 2001). Consequently, theoretical sensitivity requires creativity and an open-minded approach to analyzing the data.

There are several sources where one can acquire theoretical sensitivity including, the literature, personal experience, and professional background. These sources help sensitize the researcher to what is going on with the phenomenon under study and acts as a filter of salience through which data are strained (Schreiber 2001, Strauss and Corbin 1990). The process of sensitizing oneself to the data begins when the very first data is gathered and continues throughout the data collection and analysis process. As the researcher interacts with the data through the intermingling of data collection and data analysis there is an increasing sensitivity to concepts, their meanings, and relationships. During this process the researcher memos (i.e., keeps journal of thoughts) her or his own hypotheses and is constantly challenging them against the data. By developing one’s theoretical sensitivity, the risk of compromising the study through a hasty conclusion based on the researcher’s pet theory can be lessened (Glaser 1978, Schreiber 2001, Strauss and Corbin 1990).

Memo writing. Memo writing is an ongoing process, which begins with initiation of the research and continues throughout analysis of the data and write-up of the findings. Memos are a specialized type of written records (i.e., code notes, theoretical notes, operational notes) that are intended to be analytical and conceptual in nature rather than descriptive (Strauss and Corbin 1998). “Memos are important documents because they record the progress, thoughts, feelings, and directions of the research and researcher—in fact, the entire gestalt of the research process” (Strauss and Corbin 1998:218). Memo writing helps one to think more critically about the process and look at the data in new ways. Through memo writing, the researcher records leads for collecting data both for initial coding and later theoretical sampling. Charmaz (2003) maintains that memo writing helps to elaborate processes, assumptions, and actions that are illuminated through the coding process. The goal in grounded theory is to link interpretation and empirical reality. Memos rely heavily on raw data to help maintain the connections between interpretation and observation by examining them directly. Raw data from many different sources are used to “provide the grist for making precise comparisons, fleshing out ideas, analyzing properties of categories, and seeing patterns” (Charmaz 2003:262).

Theoretical sampling. The goal of grounded theory is discovery, and consequently, the data collection process must accommodate this goal (Strauss and Corbin 1998). The technique developed to facilitate this discovery process is *theoretical sampling*. Glaser (1978) defines theoretical sampling as the “process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his

theory as it emerges” (1978:36). The sampling process is completely controlled by emerging theory, which is in contrast to the positivist tradition whereby the sampling procedure is determined at the beginning of the study and is rigorously adhered to (Glaser and Strauss 1967, Strauss and Corbin 1990). Through the use of theoretical sampling, the emerging theory can be extended and broadened by identifying circumstances that might challenge the limitations of the theory, thereby, requiring a modification of the emerging theory.

Limitations of grounded theory method. As I indicated in my introductory comments, the grounded theory method as conceived and developed by Glaser and Strauss (1967), Glaser (1978), and Strauss and Corbin (1990, 1998), has some limitations that I consider problematic from the standpoint of my research project. The original grounded theory method developed by Glaser and Strauss (1967) was in the forefront of the “qualitative revolution” providing written guidelines for systematic qualitative data analysis (Denzin and Lincoln, 1994). However, I find the analytic procedure and research strategies prescribed by Glaser and Strauss (1967) to be vague and not well defined. While Glaser’s 1978 book *Theoretical Sensitivity* provided more clarification of grounded theory methods, the analytic procedures remained vague and lacked clear steps. Additionally, in an effort to promote more rigor in the grounded theory method, Strauss and Corbin (1990) produced a level of complexity that makes it difficult for the researcher to remain close to the empirical data, which may result in the reduction of theoretical sensitivity (Glaser 1992, Robrecht 1995). The multiple coding procedures (e.g., open, axial, selective) and prescribed comparison techniques developed by Strauss and Corbin (1990) to enhance data analysis, have also created a level of complexity that

may divert the researcher from generating theory directly from data (Kools et al. 1996). Robrecht (1995) cautions that an overemphasis on detailed mechanics has the potential of reducing the sense of emergence and theoretical sensitivity.

Schatzman (1991) criticized the original grounded theory method suggesting that the operations involved in theoretical development remained largely puzzling and undisclosed. He felt that the structural foundation necessary for clear articulation of the analytic process was inadequate. Because of problems that he perceived inherent in the original grounded theory method, Schatzman (1991) developed an alternative method of generating grounded theory, which he called dimensional analysis. From my perspective and research position, the Schatzman model seems more manageable, providing clearly prescribed step-by-step procedures for data analysis and theoretical development.

Method of dimensional analysis

Dimensional analysis was developed by Schatzman (1991) to address what he perceived as a lack of “overarching models – substantive and methodologic – to orient to the substance of problematic experience and to work analytically with its complexity” (Schatzman 1991:306). Regarding the issue of methodologic limitation, Schatzman (1991) suggests that the original grounded theory method does not have a clear research paradigm that portrays how the operations link together concretely as a system. He points out that because the research operations are performed virtually simultaneously or in parallel processes it can be very challenging for those individuals that are inclined to follow linear, analytical work, with clear, step-by-step progression. Schatzman (1991) maintained that the natural inclination of many researchers, especially in the context of

student research, is to follow a linear, step-by-step approach or, failing that, resort to intuitive processes (Schatzman 1991). Because traditional grounded theory does not offer a step-by-step approach, the prescribed method can seem confusing and unworkable to many first-time researchers. Although data collection and analytic activities inherent in grounded theory methods -- including dimensional analysis -- often occur simultaneously or in circular fashion, the process of dimensional analysis is more clearly elucidated and may be easier for inexperienced researchers, like myself, to follow (Kools et al. 1996).

Schatzman (1991) also questioned the lack of a clear substantive model for conducting grounded theory. Although symbolic interactionist vocabulary proliferates the pedagogy, Schatzman (1991) suggests that grounded theory is designed primarily for method (which he considered somewhat confusing), having no particular substantive paradigm, due in part to the many transformations occurring since the original method was developed by Glaser and Strauss (1967). The theory of symbolic interactionism rests on three key premises, "human beings act toward things on the basis of the meanings that things have for them; the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows; these meanings are handled in, and modified through an interpretative process used by the person in dealing with the things he encounters" Blumer (1969:2). Schatzman (1991) elaborated on the general principles of symbolic interactionism and conceptualized the construct of dimensionality. To address what he perceived to be limitations of the grounded theory method, Schatzman developed the parsimonious alternative method of dimensional analysis by embedding the construct of dimensionality into the symbolic interactionist ideology.

Dimensionality. A theoretical underpinning for dimensional analysis is “dimensionality” (Schatzman 1991:309). Schatzman (1991) conceived dimensionality as a cognitive property of human thinking and language focused on the interrogative and analytic process associated with situationally based cognitive problems. Under circumstances where individuals confront problematic experiences, dimensionality affords an understanding into the complexity of a phenomenon calling for “an inquiry into its parts, attributes, interconnections, context, processes, and implications” (Schatzman 1991:309). Through social interaction and language development, human beings engage in *natural analysis* and develop the cognitive attribute of dimensionality. Dimensionality involves the construction of a complex social phenomenon through the designation of pieces of data into their various dimensions and properties (Kools et al. 1996). A dimension can be defined as “an abstract concept with associated properties that provide quantitative or qualitative parameters or modifiers for the purpose of description” (Kools et al. 1996:316). For example, the dimension of gender would have the properties of male and female. Or, the dimension physical environment might have urban as a subdimension with built environment and natural habitat as sub subdimensions of urban. The properties of the sub subdimension of natural habitat would be riparian areas, woodlots, and vacant lots. Basically, dimensionality is a type of thinking that directs attention to a human experience or particular phenomenon for purposes of examining it analytically to gain a complex conceptualization of the overall attributes associated with the phenomenon or experience (McCarthy 1991).

The primary objective of grounded theory method as conceived by Glaser and Strauss (1967) was to answer the question “What is really going on?” (Glaser and Strauss

1967). In contrast, the primary question when dimensionalizing a phenomenon is “What all is involved here?” (Schatzman 1991). The symbolic interactionist perspective is reflected in this question by encouraging the researcher to develop in-depth conceptualizations and discover the meanings of the interactions observed in situations (Kools et al. 1996). In the case of my research, I am developing an in-depth conceptualization of the meanings that adolescents place on their interactions with wildlife and the conversations engaged in with other individuals about wildlife/human interactions, based not only on the direct interaction with a particular animal species (e.g., opossum in the garbage can) but also the verbal interactions that the adolescents have with other members of their community as a result of their interactions with wildlife.

Natural Analysis. Consistent with traditional grounded theory methodology (Glaser and Strauss 1967, Strauss and Corbin 1990), dimensional analysis seeks to describe the features of a particular social context as well as combine those features into patterns and relationships to explain them (Kools et al. 1996). Although dimensional analysis and grounded theory share the same general procedures and principles (i.e., simultaneous collection and analysis of data, constant comparative methods, memo writing, theoretical sampling) dimensional analysis has its own epistemology and unique set of operations.

Dimensional analysis is based on a normative cognitive process called “natural analysis” (Schatzman 1991:307), which is generally used by people to interpret everyday situations and experiences (Kools et al. 1996). Consistent with the tenets of symbolic interactionism, individuals learn the natural analytic process through early socialization, which provides individuals with a schema to structure and analyze the experiences of

ordinary life (Schatzman 1991). In order to better understand a problematic life situation, individuals construct, analyze and define situations. The construction of a situation, conceived dimensionally, is considered analysis (Schatzman 1991). According to Schatzman (1991), situational construction, analysis, and definition are inseparable processes. By incorporating this conceptualization into dimensional analysis, Schatzman (1991) extended the human tendency of natural analysis into the development of theory. Theory development in this context is an exaggerated and intentional form of natural analysis and the primary difference between the natural analysis of ordinary life and complex scientific problem solving is the expanse of the dimensions identified (Kools et al. 1996).

Explanatory Matrix. Schatzman (1991) considered the absence of a theoretical paradigm, which can provide a structural schema or matrix for analysis, as a significant limitation to conducting grounded theory. To address this limitation, he developed the explanatory matrix, considered to be the cornerstone of the analytic process in the dimensional analysis method (Kools et al. 1996). Schatzman (1991) advances the explanatory matrix as essential for analyzing the complexity of a problematic situation, providing the researcher with the necessary structure and context for an explanation of the situation. McCarthy (1991) characterized the matrix as the framework of a story. The components of the matrix represent different parts of the story. Assorted data pieces are assigned as components of the explanatory matrix, which are in turn used by the analyst to develop an explanation about the relationships among the different people, events, and objects associated with the phenomenon under investigation (McCarthy 1991).

Essentially “the explanatory matrix represents an organizational prototype that further differentiates the innate characteristics of identified dimensions into various conceptual components such as context, conditions, process (actions and interactions), or consequences” (Kools et al. 1996). These components are organized around a central perspective that is selected as the dimension that offers the most compelling explanation for the relationship among the dimensions (Schatzman 1991).

The components of the explanatory matrix are regarded as analytic tools considered to be fundamental in all human thinking and include: designation, dimension, property, context, perspective, condition, interaction, and consequence (Schatzman 1986). Schatzman believes these components are involved in constructing meaning around a particular situation.

When telling a story or attempting to explain an event the analyst must first *designate* words or concepts which identify elements included in the analysis. Basically, designation is the construction of a language that is used to represent all things and processes involved in the analysis (McCarthy 1991). Designation is an essential first step in the analysis because without an appropriate vocabulary little progress can be made.

A *dimension* is a universal abstract concept which directs attention to any idea or object under consideration (Schatzman 1986). Dimensions are a reference point for *properties* which are the quantitative or qualitative parameters or descriptors of dimensions (Kools et al. 1996). For example, if the dimension is ethnicity the property is African American, Latino, Asian, Native American, or White.

Context consists of the boundaries or parameters of the situation under inquiry. Context is the most static component of the matrix because it contains givens in the

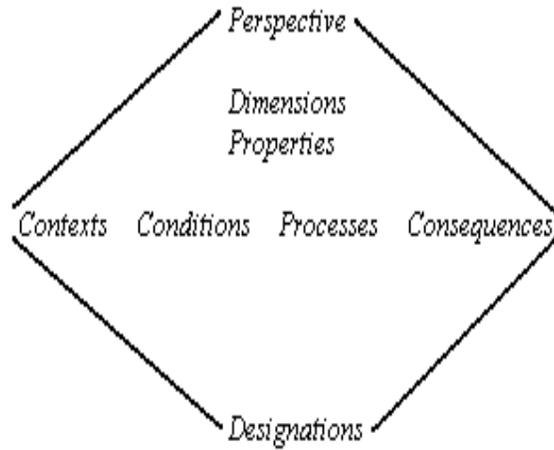
situation to be analyzed (Schatzman 1986, 1991). For example, in this study, experience with wildlife has been explored in the context of wild animals. This context excludes interactions the adolescents may have had with domesticated animals.

Conditions are considered the most salient dimensions in relation to the central perspective. Conditions play the role of facilitating, blocking, or shaping the actions and interactions in the context of the situation analyzed (McCarthy 1991). The *actions and interactions* are the intentional and unintentional processes of a given phenomenon (Kools et al. 1996). *Consequences* are the outcomes of the actions and interactions that have been prompted by specific conditions (Schatzman 1991).

Perspective is the dimension that is most central to the developing theory and the one that provides the analyst with the most fruitful explanation of a phenomenon (Kools et al. 1996). The perspective is the most salient of dimensions and assumes the key position within the matrix due to its explanatory power. The perspective provides the greatest explanation for the relationship among dimensions and directs further analysis by organizing or “choreographing” the data (McCarthy 1991, Kools et al. 1996, Schatzman 1991). “In short, perspective provides the experience with a point of view or angle of vision from which to examine the data through” (McCarthy 1991:47).

For a diagrammatic presentation of the explanatory matrix see figure 2.1

Figure 2.1. The conceptual components of the explanatory matrix. The explanatory matrix represents an organizational prototype that differentiates the dimensions and properties into the conceptual components of context, conditions, processes (actions and interactions), or consequences (Kool et al.1996).



Data collection and analysis in dimensional analysis

In grounded theory methods (including dimensional analysis) the data collection and analysis process are not considered as two separate processes but as interactive in nature (Glaser and Strauss 1967). Analysis takes place as the data are collected and used to guide further data collection, resulting in a refinement of the analysis and more focused data collection and so forth until theoretical saturation is reached. The particular data sources and collection strategies will vary depending on the study parameters and conditions, but are identical in both grounded theory and dimensional analysis (McCarthy 1991).

Data collection

Grounded theory practitioners recognize a variety of options as acceptable data sources including interviews, observations, conversations, diaries, and literature. However, dialogue and the long interview are considered the primary mode of inquiry through which data is collected using the grounded theory method (Creswell 1998). In an interview, the goal is to attain first-person description of a particular experience. Pollio et al. (1997) recommends that the interview begin with minimal pre-set questions concerning the particular topic and allow the questions to flow from the dialogue as it unfolds. Rubin and Rubin (1995) describe qualitative interviewing as iterative, stating that you repeat the basic process of gathering information, analyzing it, winnowing it, and testing it through many stages until you come to a clear and convincing model of the phenomenon. The iterative process is complete only when each additional interview adds no more ideas or issues to the themes on which you are questioning, at which point, you will have reached *theoretical saturation* (Glaser and Strauss 1967). Consequently, the

exact size of the sample population cannot be established *a priori*. Sampling will continue until theoretical saturation is complete.

Sampling. In a grounded theory it is important that all participants experience the phenomenon being studied (Creswell 1998). Consequently, I utilized the “criterion” sampling method to ensure that all cases meet the same criterion (i.e. experience with wildlife). However, in my research study the criterion used has been somewhat general in the sense that the participants have an experience with wildlife but not necessarily the same experience. For example, some participants may experience wildlife through the act of backyard bird feeding, others may experience wildlife through fishing, and still others may experience a wildlife intruder in their house or backyard.

The goal of grounded theory (including dimensional analysis) is discovery, and consequently, the data collection process must accommodate this goal (Strauss and Corbin 1998). The technique developed to facilitate this discovery process is *theoretical sampling*. Theoretical sampling is cumulative in nature, whereby concepts and their relationships accumulate based on the interaction of the data collection and analysis (Strauss and Corbin 1990).

My initial data collection was broad and all-inclusive to generate as many dimensions as possible. As the data gathering and analysis progressed, however, I began to focus my attention on specific areas and to concentrate on the development of conceptual linkages to the overall guiding perspective. Once a “critical mass” (Schatzman 1991) of data was assembled and analyzed for dimensions and properties, my sampling continued theoretically (Glaser and Strauss 1967).

I integrated theoretical sampling into every level of the research process. As dimensions were identified and formulated, I made comparisons among the emerging dimensions and properties and focused my attention on developing the theoretical framework. I based the selection of subsequent study participants on information obtained through analysis of emerging conceptualizations and testing of initial assumptions. It is important to note that the basic units of analysis in grounded theory methodology are concepts or incidents and not persons (Strauss and Corbin 1990). Consequently, selection of participants was based to some extent on their particular experiences with wildlife.

As stated previously, in grounded theory research the final sample size and composition is determined when a point of conceptual saturation is achieved. Theoretical sampling is focused on maximizing variation rather than on statistical subject selection. Creswell (1998) suggests that a grounded theory researcher typically conducts 20-30 interviews. In my study, a sample size of 34 participants was needed to achieve a comfortable state of conceptual saturation. Theoretical saturation was reached after approximately 20 interviews and the additional 14 interviews were conducted to test and clarify conceptual linkages within the data generated by the sample group.

Permission to conduct the research project was granted from the Campus Institutional Review board at the University of Missouri-Columbia (Project #1034545). Institutional consent forms were developed and approved by the IRB. I received approval from the Kansas City, Kansas Public Schools to conduct my research at Wyandotte High School.

The participant recruitment process began with an initial meeting with the Wyandotte High School principal and several coordinating teachers to develop an effective process for recruiting student participants. The planning group determined that a form explaining my research project (Appendix 1) would be passed out to the students by the teachers – teachers were given a prepared statement to read to the students (Appendix 2). The teachers were asked to return to me the completed form of any student interested in participating. I reviewed the forms and eliminated those students that described an unacceptable experience with wildlife (e.g., experience with pets). I then contacted the students individually by going to their classroom and asking them if they were interested in participating in my research study. If they agreed to participate, I gave them a consent form to complete. If they were 18 years of age or older they signed their own consent form (Appendix 3). If they were under 18 years of age, I gave them a form for their parent or legal guardian to complete (Appendix 4). As an incentive to participate the students were offered \$10. Participation in the study was voluntary and informed consent was given by all of the participants.

Research participants. The research was conducted with high school sophomores, juniors, and seniors at Wyandotte High School in Kansas City, Kansas. I selected Wyandotte High School because of its urban location and because of the ethnic diversity in the high school community. The student body at Wyandotte High School is comprised of approximately 10% White students, 60% African American students, 26% Latino students, and 4% Asian students all from similar socioeconomic backgrounds (i.e., approximately 80% of the students at Wyandotte receive free or reduced lunch). A high school setting was chosen as the location for the study to provide ready access to a large

population of adolescents in a relatively controlled environment. Student participants ranged in age from 14-19 years with a mean age of 16.5 years. Twenty four of the participants were African American and 10 were Latino. Nineteen of the African American participants spent most of their lives in the Kansas City urban area. All of the Latino participants lived in the area for a much shorter period of time, varying from 1 year to 7 years. The participants that were not long-time residents of the Kansas City urban community had lived in urban areas before moving to Kansas City. There were 18 females and 16 males in the study population. All of the participants lived in the neighborhoods surrounding Wyandotte High School.

Research setting. To establish a general sense of the urban environment within the study area I drove through the neighborhoods and made casual observations of the composition of buildings and green space. The neighborhoods surrounding the high school consisted of a combination of buildings (e.g., single family homes, multifamily units, and commercial development) and green space (e.g., undeveloped water courses, unmaintained vacant lots, unmaintained backyards, parks, cemeteries, small lakes). Some parts of the community consisted primarily of built environment (e.g., commercial development, large multifamily units), while other areas contained a combination of buildings and green space. The green space existing in the neighborhoods provided the majority of habitat for the wildlife species encountered by the study participants. However, some wildlife species that are well adapted to human habitation also use the built environment for habitat support. For example, some species of birds (e.g., English sparrow - *Passer domesticus*) and mammals (striped skunks – *Mephitis mephitis*) use buildings for nesting and cover.

Based on my neighborhood drive-through observations, I determined that there was considerable green space in the neighborhoods surrounding the school, considering Kansas City is a metropolitan area of approximately 600,000 residents. This is due in part, I surmise, to a lack of economic development and low property values in Wyandotte County, Kansas, where the school is located. Because property values are low, the vacant lots are generally undeveloped as is the water courses that traverse Wyandotte County. There also seems to be less emphasis on manicured landscaping in some neighborhoods. The vegetation in backyards and on property lines is allowed to grow naturally. There are also several city parks and cemeteries in the vicinity of the school and 2 small lakes that are frequented by some of the students. Additionally, the Missouri River borders Wyandotte County on the north and the Kansas River borders Wyandotte County on the south. Because of the available green space in the vicinity of the school and the student's neighborhoods, there is abundant habitat for wildlife species.

The amount of wildlife habitat in any given area or neighborhood varied depending on the concentration of built environment. While a detailed analysis of the percentage of natural vegetation was not conducted, approximately 60% of the participants expressed the opinion that there was a "fair" amount of vegetation in the vicinity of their home. For example, one participant indicated that "we lived out on 78th street and behind our house was a lot of woods." A second participant stated "there are a lot of vacant lots in our neighborhood and there are lots of rabbits in the vacant lots." A third participant expressed this perception "there are lots of houses but it's like a whole bunch of field and grass too. We have a whole bunch of trees and bushes in our backyard." The perception of approximately 40% of the participants was that a small amount

of vegetation existed in the vicinity of their homes. For example, a participant stated “my neighborhood is mainly just plain houses. That’s about it because I live in West Heights.” A second participant stated “there is not much vegetation around, they have already killed all of the trees.”

The research setting also includes locations outside the school and neighborhood communities. Because my overall goal is to investigate how adolescents experience wildlife, I decided that all experiences were pertinent to the research not just urban experiences. Besides, there is no practical way within the scope of this study to separate the urban from the non-urban experiences. While the majority of experiences described by the study participants were in the urban setting, many students also had experiences in non-urban settings. For example, several students described experiences at Wyandotte Lake, a County Park on the outskirts of Kansas City. Other students spent time with relatives in rural communities. Still other students experienced fishing trips to non-urban lakes or camping trips to public parks.

Data collection strategies. The primary mode of data collection for my study is individual interviews. I did not attempt other data collection strategies because of the nature of the study (i.e., students in a high school setting). Observation, which is another common method of data collection in grounded theory, was not an option because of the difficulty in observing the research participants with wildlife. There were minimal opportunities to observe the research participants in more formal settings with wildlife. I could not accompany them to their homes and there were no opportunities through the school for field trips where the students would experience wildlife. Although single observation events might have shed light on how the participants react to wildlife, my

investigation focused on life-long experience with wildlife and the meaning that these experiences have for the participants, which are best captured through conversation.

I interviewed 34 students to gather data for my investigation. The interviews were conducted with African American and Latino students, the two primary ethnic groups in the school. The interviews were approximately 30-45 minutes in length, depending on the verbosity of the research participant and my assessment of the completeness of the information provided. The data for this study was collected using open-ended and semi-structured questions. With open-ended questions “you want to cast your net initially as broadly as you can, both to get a range of responses and to make sure that what you later ask has meaning to the conversational partners” (Rubin and Rubin 1995:46). The semi-structured questions are designed more to focus attention on areas of particular interest, while still allowing considerable flexibility in scope and depth. During the discovery phase or initial interviews, the interview questions were open-ended and expansive. As the study progressed the questions became more focused to explore areas of special interest, to begin preliminary findings, and to identify areas of commonality and variation.

Rubin and Rubin (1995) recommend preparing conversational guides for linking the introductory questions to sub questions for the purpose of keeping the interviewer focused on the topic and main themes. These guides are not intended to be rigid frameworks, rather they are customized for each interview and evolve throughout the work (Rubin and Rubin 1995). The interview guide for this study evolved over the course of the interview process and the final version is displayed in Appendix 5. Several themes were eventually explored including: 1) the participant’s encounters with wildlife,

2) the physical environment and the participant's perception of wildlife and habitat abundance, 3) the perceptions and feelings of the participants toward wildlife, 4) the behaviors associated with wildlife/participant interactions, 5) the cultural norms/values associated with the place of wildlife in an urban community, 6) and the source of participants' knowledge about wildlife.

As previously stated, data for this study were collected using both open-ended and semi-structured questions. The interviews were audio taped with the permission of the participants and each interview was transcribed by the author and inputted into the NUD*IST data base. I used the database primarily to aid in data management during the coding process.

Data analysis

Data for this study were analyzed according to the techniques of dimensional analysis in which conceptualizations emerge from the data to specify and define the multiple components of a complex social phenomenon. In relation to this study, the phenomenon under consideration is the "the urban minority adolescent experience with wildlife." I used adolescent attitudes toward wildlife as the sensitizing framework to enhance and facilitate the organization and initial analysis of the data.

Dimensional analysis incorporates three main stages of analysis including: 1) dimensionalizing/designation, 2) differentiation, and 3) integration/reintegration (Kools et al., 1996). While this process is designed to provide a linear framework from which to operate, it is important to note that analysis in these stages occurs simultaneously and interactively (Schatzman 1991).

Dimensionalization/designation. Designation begins with early analysis and is the process of describing data according to their dimensions and properties irregardless of the position in the explanatory matrix (Kools et al. 1996). This provisional coding process involves the naming of dimensions and properties observed in the data for the purpose of developing a vocabulary to facilitate continued analysis. The coding of data in dimensional analysis is similar to the *open coding* technique used in grounded theory. Strauss and Corbin (1990:62) describe open coding as the process whereby “data are broken down into discrete parts, closely examined, compared for similarities and differences, and questions are asked about the phenomena as reflected in the data.” They suggest that it is through this initial step in the data analysis that one’s own assumptions are challenged, leading to new discoveries. In the open coding phase the researcher examines minute sections of the text made up of individual words, phrases, and sentences to identify salient categories or dimensions that are supported by the text (Creswell 1998). The researcher attempts to conceptualize an observation of a particular event or situation in a more abstract fashion (Kools et al. 1996). The designation of dimensions and properties is a methodological strategy that facilitates the expansion of the data by helping to reveal the potential abundance of dimensions and corresponding properties. Kools et al. (1996) suggests that exploring and expanding the data in this way can expose the full breadth of conceptual possibilities.

As a way of addressing the central question of “What all is involved here?” the process of dimensionalizing continues until a “critical mass of dimensions is assembled, which represent emerging pathways that possess some explanatory power” (Kools et al. 1996:317). At the dimensionalizing stage of analysis, there is no consideration given to

the relative importance, relationship, or meaning of specific concepts and the determination of saliency is delayed until a “critical mass” is achieved (Kools et. al. 1996). Once the “critical mass” is reached, the explanatory matrix gains operational importance and aids the analyst in differentiating the relative importance of dimensions. This represents a conceptual point in the process at which time formulation of a clearer theoretical path or story line of the emerging theory becomes more prominent to the researcher (Kools et al. 1996).

During the dimensionalization/designation stage, my goal was to develop a vocabulary that allowed me to perform the necessary cognitive work of analysis. I generated a number of dimensions from the initial analysis (Appendix 6). A partial list of these include the following: demographic characteristics of the participants, physical environment of participants’ lived experience, participant feelings/attitudes toward wildlife, participant encounters with wildlife, participant knowledge about wildlife, participants’ perceived abundance of wildlife and natural vegetation, participant behavior toward wildlife, participant involvement with family and friends in wildlife-related activities, and participant access to natural areas.

Following the initial development of dimensions, I further expanded the data by subdimensionalizing the set of original dimensions, focusing on the question “What all is involved here?” My goal in this step was to explore the density of the experience to reveal the complexity involved in understanding how minority adolescent urbanites experience wildlife. As the dimensions were subdimensionalized, I strived to identify the range of properties attributed to each dimension. In the process of expanding the data, however, it became apparent that some of the initial dimensions were in actuality

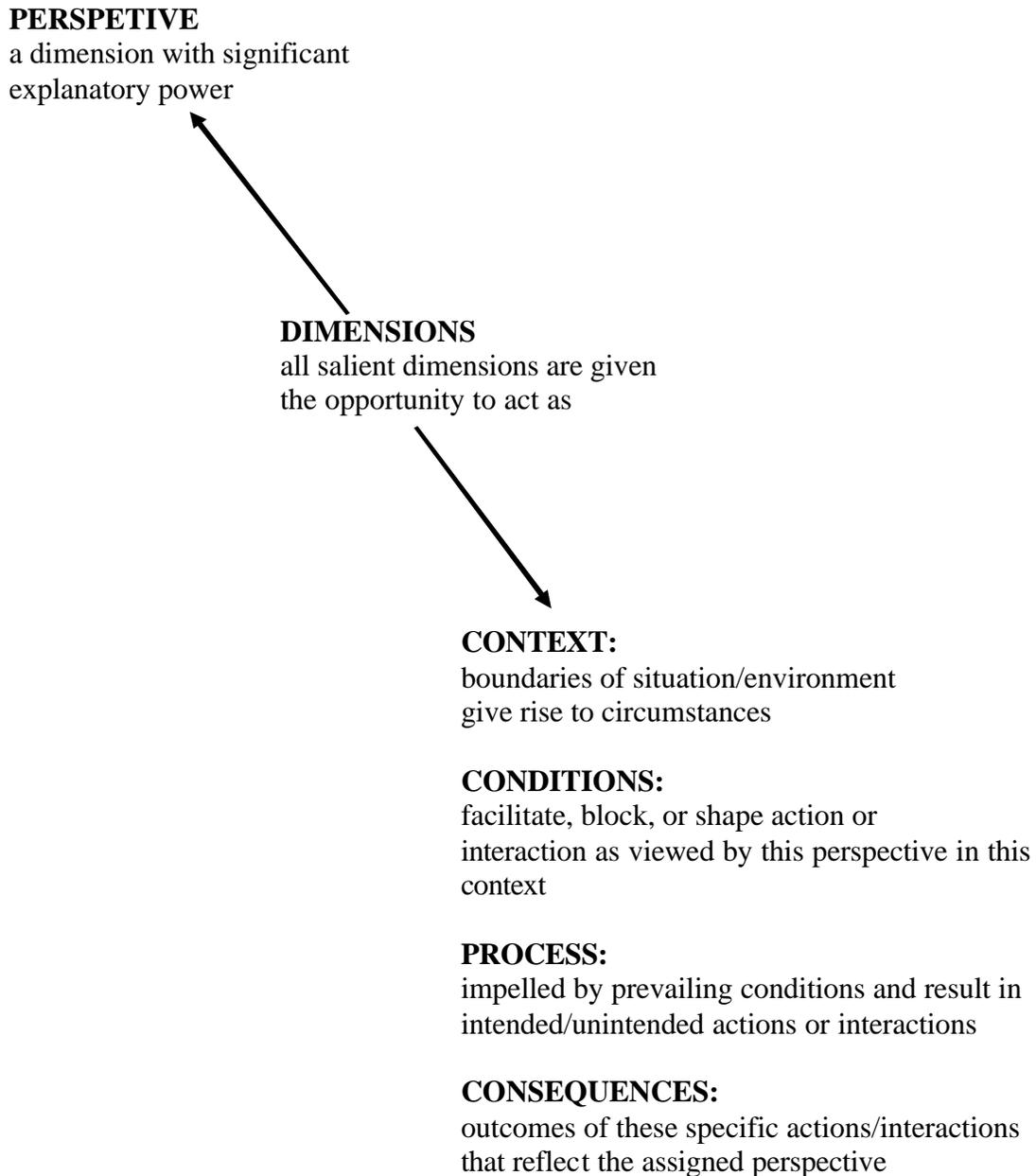
subdimensions of other dimensions. Consequently, some of the original dimensions were combined and became subdimensions to better reflect the evolving process (Appendix 7).

To demonstrate the process involved in data expansion, I will use the dimension *demographic characteristics of participants* as an example. The dimension, demographic characteristics of participants was subdimensionalized to age, ethnicity, gender, socioeconomic status, and family structure. Each identified subdimension was further characterized by its respective set of properties. For instance, the sub-subdimensions for ethnicity are ethnic group and cultural values. The properties of ethnic group are African American and Latino.

My inquiry at this stage involved using the dimensions and their assigned subdimensions and properties to focus my analysis by organizing questions around the general concepts developed in the initial stage of analysis. For example, a concept that emerged early in the analysis process involves the research participants' encounters with wildlife. By dimensionalizing the concept of encounters, I developed a wide breadth of dimensions and properties by asking many questions that helped me expand on the initial conceptualization (e.g., What was the type of encounter, source of the encounter, and location of the encounter? Were the encounters conflicting or non-conflicting? Were they threatening or non-threatening in nature? What emotional response was elicited? What was the nature of the situations associated with the encounters?). Through this process, I was able to explore the many issues associated with the concept of participant/wildlife encounter and advance the complexity of the analysis. My interviews at this stage of analysis focused primarily on the exploration of the range and depth of the dimensions and subdimensions.

Differentiation Stage. Toward the end of the designation stage of analysis the relative importance of each dimension becomes more apparent and the complexity of the phenomenon tends to be exposed. In the differentiation stage, data expansion is greatly reduced and data collection and analysis becomes focused more on differentiating the current set of dimensions and properties. The primary objective at the differentiation stage is to limit the data and determine the salience of the various dimensions (Kool et al. 1996). The differentiation of data is accomplished mainly by engaging in a process that identifies a perspective or central dimension to provide purposeful orientation for further analysis (Schatzman 1991). All dimensions and subdimensions should be given the opportunity to be raised to the status of the central dimension or perspective and once this occurs the central perspective “appreciably controls the line of inquiry and reasoning” (Schatzman 1991:311). The central perspective is used to organize or choreograph the data, and consequently, the dimension that offers the most compelling explanation for the relationship among the dimensions is selected (Schatzman 1991). At this point, the explanatory matrix is used to configure the salient dimensions in a fashion that will provide meaning for the overall phenomenon (Figure 2.2). All but the irrelevant dimensions within the explanatory matrix are configured as either, context, conditions, processes, or consequences. Data collection at this stage of the process is focused primarily on the observation and verification of the central perspective and the conceptualization of the developing theory (Kools et al. 1996).

Figure 2.2 Model for selecting the central perspective and organizing the placement of all relevant dimensions (Kools et al. 1996).



In the process of selecting the central perspective for my study, the dimensions and sub-dimensions were further refined to raise the level of conceptualization. All of the dimensions and sub-dimensions were evaluated for elevation to the level of central perspective. My initial inclination was to elevate the dimension “participant attitudes toward wildlife” to the level of central perspective. However, after further investigation and analysis of the data I determined that while participant attitudes play a central role in the inquiry, they do not alone provide enough analytical substance to serve as the central perspective for explanation of the phenomenon -- the urban minority adolescent experience with wildlife. Over time I came to view attitudes as a window into the adolescent’s experience, a means of capturing and describing their experience with wildlife. Rather than playing the central role in explaining the relationship between all of the dimensions, participant attitudes serve more appropriately as the sensitizing framework for the phenomenon.

After evaluating all of the dimensions for possible elevation to the role of central perspective, it became clear that no single dimension was comprehensive enough to explain the relationships among the dimensions from which to organize the data. Further analysis, however, revealed a set of dimensions that emerged as conceptually important. The new concept *varied experience with wildlife* was invoked to more completely capture the essence of the data. After establishing varied experience with wildlife as the central perspective the remaining relevant dimensions and sub-dimensions were placed into the explanatory matrix as either, context, conditions, processes, or consequences (Figure 2.3) and was used to direct the integration and conceptual development of the emerging theory.

Figure 2.3 Central perspective and relevant dimensions and subdimensions placed in positions of context, condition, processes, or consequences.

PERSPECTIVE

Varied experience with wildlife

DIMENSIONS

CONTEXT:

The urban environment

CONDITIONS:

1. Attitudes toward wildlife
2. Demographic characteristics
 - a. age
 - b. gender
 - c. ethnicity
 - d. socioeconomic status
3. Place of residence
 - a. built environment
 - b. natural areas
4. Socialization
 - a. family and friends
 - b. education
 - c. media
5. Encounters with wildlife
 - a. extractive encounters
 - b. appreciative encounters
 - c. wildlife support

PROCESSES:

1. Connecting with wildlife
2. Negotiating safety
3. Selective engagement with wildlife
4. Enduring wildlife
5. Wildlife disconnect

CONSEQUENCES:

1. Involvement with wildlife
 - a. active involvement
 - b. cautious or passive involvement
 - c. selective involvement
 - d. conflict management
 - e. no involvement

I designated the dimension, *urban environment* as the context for this inquiry. The context of the explanatory matrix establishes the boundary of inquiry and identifies the situation or environment in which the dimensions are embedded (Kools et al. 1996). The urban environment consists of the urban community in which the adolescents live, encompassing not only the physical environment (i.e., spatial organization, communication systems, semi-fixed features, ambient properties, fixed physical features) but also the societal conditions associated with living in an urban setting. Ahrentzen (2002) argues that urban communities should be viewed as a physical environment within a social context (i.e., individual, social, organizational, institutional). “The physical environment is an active, manipulable ingredient that, along with the social context in which that environment is embedded and represents, and with the human actions of the participants in that setting, produces and reproduces social life” (Ahrentzen 2002:128). Because the social lives of the participants in my study include experiences not inclusively urban in nature, the context on the inquiry necessarily includes limited excursions into non-urban settings to capture the adolescents’ experiences with wildlife that impact the overall wildlife experience of an urban resident. For example, fishing trips to regional lakes or picnicking at the local county park.

The conditions of the explanatory matrix facilitate and shape the processes of the phenomenon. Five primary dimensions emerged as conditions: 1) attitudes toward wildlife, 2) demographic characteristics of the participants, 3) socialization, 4) participants’ place of residence, and 5) participant encounters with wildlife. These 5 general conditions form the basic framework of the urban adolescent experience with wildlife and play an important role in shaping the actions and interactions that moderate

the experience. The actions and interactions are the intended and unintended processes that occur under the aforementioned conditions and the consequences are the perceived outcomes or implications of these actions and interactions.

Integration/reintegration. Integration is the final stage in the dimensional analysis method. The primary objective in this stage is to describe and explain the patterns and relationships between the dimensions according to the central perspective. The final product “gives theoretical and explanatory form to a story that would otherwise be regarded, at best as fine description” (Schatzman 1996:313). The overall grounded theory is then translated into narrative form using the functional structure of the explanatory matrix.

Following the selection of the central perspective and subsequent development of the explanatory matrix, I continued sampling to clarify and solidify the conceptual linkages of the theory until the categories had been saturated and the depth of conceptual linkage achieved. I then reconstituted the data into a narrative that provides a substantive grounded theory that explains how multiple conditions in the lives of urban minority adolescents shape their varied experience with wildlife. In subsequent chapters, I will provide an analytic framework and describe in detail the relationship between the interconnected conditions, processes and consequences that form the basis for the grounded theory.

CHAPTER 3. CONDITIONS THAT SHAPE THE VARIED EXPERIENCE OF URBAN ADOLESCENTS WITH WILDLIFE.

Introduction

The central perspective of this inquiry is the *varied experience with wildlife*. As stated previously, the central perspective directs the logic of inquiry by stimulating the integration and conceptual development within the developing theory. Consequently, the varied experience of urban minority adolescents with wildlife is the focal point for all subsequent theoretical development.

The context *urban environment* provides parameters for the inquiry and controls the inclusiveness and relevance. The urban environment consists of the urban community in which the adolescents live. As stated in the previous chapter, the urban environment encompasses not only the physical environment but also the societal conditions associated with living in an urban setting. Because the social lives of the participants in my study include experiences not exclusively urban in nature, the context on the inquiry necessarily includes limited excursions into non-urban settings to capture the adolescents' experiences with wildlife that impact the overall wildlife experience of an urban resident.

The purpose of this chapter is to describe the conditions of the explanatory matrix as it relates to the central perspective *varied experience with wildlife*. The conditions, described in detail below, are the most salient dimensions of the inquiry because they

shape and/or facilitate the actions and interactions – processes - in relation to the adolescent experience with wildlife and the eventual consequences of these processes.

Conditions

The conditions of the explanatory matrix facilitate and shape the processes of the phenomenon. Five primary dimensions emerged as conditions: 1) attitudes toward wildlife, 2) demographic characteristics of participants, 3) socialization, 4) participants' place of residence, and 5) participant encounters with wildlife. These 5 general conditions form the basic framework of the varied experiences of urban minority adolescents with wildlife and play an important role in shaping the actions and interactions that moderate the experience.

Attitudes toward wildlife

As stated previously, I consider attitudes as a window into an adolescent's experience with wildlife and it is through this window that a deeper understanding of experience may be acquired. Katz (1960) asserted that attitudes function to organize and simplify people's experience and are needed to help people make sense out of their experience. In the context of my study, the participants' attitudes toward wildlife serves 2 purposes: 1) to develop an understanding and provide a description of the meanings urban minority adolescents attach to their experience with wildlife, and 2) as a condition of the inquiry in shaping the actions or interactions (processes) of the participants in respect to their experience with wildlife. Because attitudes have an affective and

behavioral influence on people, the attitudes of the participants may influence their approach to wildlife encounters as well as their overall experience with wildlife.

Attitudes. Ajzen (1988) defines attitude as a disposition to respond favorably or unfavorably to an object, person, institution or event. Although formal definitions of attitudes vary, most definitions share the understanding that attitudes are an evaluation or feeling state about a person, object, or action (Ajzen 1988, Manfredo et al. 1995).

Evaluation refers to the assertion of some degree of like or dislike to the object, person, or action (Fazio et al. 1982). Evaluative responses of attitudes express approval or disapproval, favor or disfavor, liking or disliking, approach or avoidance, attraction or aversion, or similar reactions (Eagly and Chaiken 1993). Eagly and Chaiken (1993) suggest that evaluative responses that reveal peoples attitudes can be divided into three classes or categories – cognition, affect, and behavior.

Cognition. The cognitive category refers to people's thoughts and ideas about an attitude object. People's thoughts and ideas are often conceptualized as beliefs, whereby beliefs are considered links between the attitude object and various attributes of the object (Fishbein and Ajzen 1975). In essence, people who evaluate an attitude object favorably tend to associate it with positive attributes, whereas if they evaluate the attitude object unfavorably they will likely link it with negative attributes. For example, the belief that snakes are poisonous will link the attitude object of snakes with a negative attribute. Conversely, the belief that snakes control rodent populations will link the snakes with a positive attribute.

Affect. The feelings and emotions that people have for an attitude object are reflected by the affective category (Eagly and Chaiken 1993). In general, favorable

evaluations of an attitude object will elicit positive affective reactions and unfavorable evaluations of an attitude object will result in negative affective reactions. For example, an adolescent contemplating taking out the trash may experience a feeling of fear at encountering a raccoon, while others may experience a feeling of pleasure with the possibility of seeing a raccoon.

Behavior. Evaluative responses in the behavioral category relate to overt actions that people take with respect to the attitude object (Eagly and Chaiken 1993). Consequently, people who view the attitude object favorably tend to engage in supportive behavior and people who view the attitude object unfavorably tend to engage in unsupportive behavior. For example, an adolescent who evaluates snakes favorably may promote habitat improvement for snakes. Conversely, an adolescent who evaluates snakes negatively may kill snakes when they are encountered.

Attitudes have been used to describe the fundamental values and meanings people attach to wildlife (Kellert 1984, Purdy and Decker 1989) and attitude surveys are a common tool in assessing human behavior. Wildlife managers have used attitude surveys extensively to gather information on a diverse array of client groups and to help gain a better understanding of public preference for a variety of wildlife management actions (Bright and Manfredi 1996). In the context of this study, attitudes were used in primarily two ways: 1) to develop an understanding and provide a description of the meanings urban minority adolescents attach to their experience with wildlife, and 2) as a condition of the inquiry in shaping the actions or interactions (processes) of the participants in respect to their experience with wildlife. In order to use attitudes for the purposes

mentioned, however, it is necessary to have the ability to measure the attitudes of the study participants.

Attitude measurement. A variety of attitude measurement techniques have been developed for the assessment of attitudes and the literature describes attitude measures in specific circumstances such as public opinion polling and survey research (O'Keefe 2002). Attitudes are hypothetical constructs that are not directly observable, and consequently, the existence of attitudes can be determined only through direct responses or from indicators (Eagly and Chaiken 1993). Traditional procedures for measuring attitudes can be divided into two categories, direct and indirect (Eagly and Chaiken 1993, O'Keefe 2002, Petty and Cacioppo 1996). Direct techniques ask the respondents for an evaluative judgment of an attitude object and indirect techniques attempt to measure a person's attitude without them knowing it (O'Keefe 2002, Petty and Cacioppo 1996). The techniques most often used incorporate some form of quantitative measure like the Likert Attitude Scales.

For this study, I used a modified version of both the direct and indirect approaches to attitude measurement by using a qualitative format (i.e., individual interview). I used the direct approach by deliberately asking the participant's impression of a particular item or issue, which elicited an evaluative response to the attitude object. For example, I asked each participant their feelings about snakes. I used the indirect approach throughout the interview process to acquire a sense of participants' attitudes from statements they made in describing their experiences with wildlife. For example, one participant, in describing an encounter with a snake, indicated that she was afraid of snakes.

I relied on a modified version of the typology developed by Kellert (1980) for the attitude classification scheme for this study. Kellert (1980, 1984) identified 7 attitudes toward animals in his typology that were typical of urban residents – naturalistic, ecologicistic, humanistic, moralistic, utilitarian, dominionistic, and negativistic. I modified Kellert’s attitude classifications somewhat to more closely reflect the participant responses that emerged in this study. The attitude classifications used in this study include, naturalistic, ecologicistic, positivistic, moralistic, utilitarian, and negativistic. In modifying Kellert’s typology, I removed the humanistic attitude type, which emphasizes strong affection for individual animals like pets and I created a new attitude type labeled positivistic. The positivistic attitude more closely reflected the evaluative responses of the participants from the standpoint of positive feelings, thoughts, and behaviors toward wildlife. I combined the dominionistic and negativistic values into one attitude. The following table provides a brief definition of the attitudes used in this study (Table 3.1).

Table 3.1 Typology of attitudes toward wildlife. Adapted from Kellert 1984.

Naturalistic

Primary interest and affection for wildlife and the outdoors. The naturalistic attitude is closely related to the outdoor recreational benefits of wildlife. Observation and personal involvement with wildlife in a natural setting are important aspects of the naturalistic attitude, with wildlife providing the context and meaning for active participation in natural settings.

Ecologistic

Primary concern is for wildlife and the conceptual understanding of the interrelationships between animals and their natural habitats. The ecologistic attitude shifts the focus of attention from individual animals to the behaviors of groups of wildlife species.

Positivistic

An affinity for particular wildlife species. The positivistic attitude is closely related to feelings of pleasure and enjoyment in experiencing wildlife species wherever encountered (i.e., urban or non-urban setting). An appreciation and interest in the specific characteristics and behavior (e.g., birds singing outside window) of wildlife species highlight the positivistic attitude.

Moralistic

Primary concern is for the ethically appropriate treatment of wildlife by humans. The moralistic attitude includes a strong opposition to afflicting pain, harm or suffering on wildlife. Wildlife is recognized as having the right to exist and the moralistic attitude reflects a commitment to protect wildlife from human domination.

Utilitarian

Primary attribute is the concern with the practical and material value of wildlife. A basic tenet is that wildlife should serve some purpose for humans. The utilitarian attitude is generally people-oriented allocating significance to wildlife species based on their material value to humans.

Negativistic

An active dislike or fear of wildlife in general or for specific species. The negativistic attitude also includes a passive avoidance of wildlife due to indifference. Harassment and killing of wildlife is also reflected in the negativistic attitude.

Each attitude in the typology was formulated to a large extent by the information gathered in the participant interviews. A general content analysis was done to determine the percentage of participant evaluative responses in each attitude type. To provide the reader with a sense of the linkage between the evaluative responses made by the participants and the established attitudes types, I have provided examples below of participant responses taken from the interview data. Also included is the percentage of evaluative responses for each attitude type. It is important to note that all of the study participants expressed evaluative responses reflecting different attitudes, depending on the wildlife species and circumstances of the human/wildlife encounter. None of the participants demonstrated only a single attitude toward wildlife.

Negativistic attitude type. The negativistic attitude type was the most prevalent attitude expressed by the study participants (97%). All but 1 participant expressed a negative attitude about wildlife and the majority of the participants responded negatively to at least 3 different wildlife species. The wildlife species most often discussed in negative terms were snake (unidentified species), raccoon (*Procyon lotor*), and opossum (*Didelphis virginiana*). Negativistic attitudes were evidenced most often in statements about fear and dislike of particular wildlife species based on their physical characteristics and/or threatening behavior or perceived threat (e.g., “I am afraid of snakes.”). The following examples from the data demonstrate negativistic attitude statements made by 2 different study participants:

Ken

I came across this big ole snake. The inside of my body was just shaking. I tried to stay real still. The snake rubbed against my leg and shoe. I was about to run but my feet were like stone so I didn't. I guess it was just smelling me to see if I

was scared or something. I just stood there and it kinda slithered somewhere else. Very scary experience!

Cora

I just think possums are nasty. They just ugly to me, ya know. I think all rodents are nasty like mice and all that stuff. I don't know why. I just find them nasty, especially a possum.

Positivistic attitude type. Virtually all of the participants expressed positive attitudes toward at least one wildlife species -- approximately 91%. The positivistic attitudes were evidenced most often in statements about likes and dislikes of particular wildlife species based on their physical characteristics and/or behavior (e.g., "I like to hear the birds singing."). Although the participants responding positively did not express positivistic attitudes toward all wildlife species, the majority responded positively to at least 3 different wildlife species. The wildlife species that received positive evaluative responses most often were birds (generally unidentified), squirrels (*Sciurus carolinensis*), rabbits (*Sylvilagus floridanus*). The following examples from the data illustrate positivistic attitudes expressed by 2 different participants:

Izetta

I like humming birds the most. They are pretty. I like how they flap their wings real fast and you don't see them. It is like a little blur. I think that looks neat.

Fran

When I was younger me and my mom were sitting in the yard one time and a squirrel came down from the tree and it was real close to me. I was just really shocked at how close it would get to me because normally they run away. It sat right at my foot and ate its little nut. I thought it was fascinating because normally squirrels are scared of us and sometimes children tend to be scared of them also.

Moralistic attitude type. The moralistic attitude type was evidenced in approximately 82% of the study participants. While this attitude type was reflected less frequently in the data than the positivistic and negativistic attitudes, there was evidence of

moralistic attitudes in a large majority of the study participants. The moralistic attitude was reflected most often in comments relating to the right of wildlife to exist. The following examples embody the moralistic attitude in statements made by 2 different participants:

Edwardo

I don't care that a possum is in the trash. They are just animals trying to live. Trying to survive and stay alive.

Ken

We got a couple birds in the attic and my mom was scared to get up there. She is going to make me get up there, put some gloves on, take a trash bag, try to catch them. But then let them free outside. Don't want to kill them or nothing, just want to get them out. That's cool, I can respect that.

Utilitarian attitude type. The utilitarian attitude type was expressed by approximately 20% of the study participants. This attitude type was evidenced most often with respect to fishing activities. The participants commented that the main reasons they went fishing were for fun and to catch fish to eat. The following example from the data illustrates utilitarian attitudes expressed by a study participant:

Elizondo

When I lived with my dad I went fishing about three times a month. We caught mostly bass and trout. Sometimes we would catch real big fish or real little fish. If the fish was real little we just let them go but if they were big enough we took them home and my mom would cook them.

Naturalistic attitude type. The naturalistic attitude type is represented by a relatively small percentage of the participants (5%) and this was associated primarily with fishing and observing wildlife in natural areas. The low evidence of the naturalistic attitude type may be associated with time spend by the participants in natural settings. Here is an example that demonstrates the naturalistic attitude:

Cora

I go fishing a lot. My family are people that like to go fishing. So, we go fishing. Birds will come and we'll feed them. We will pull out a fish that will be too small and let it get back in the water, catch another one and let it go back in.

Ecologistic attitude type. Similar to the naturalistic attitude type, the ecologistic attitude was also expressed by a relatively small percentage of the participants (8%). Only 3 of the participants discussed the interrelationship between animals and their natural habitats. For example, the quote that follows reflects a participant's recognition of the importance of habitat for wildlife:

Edwardo

Every tree has a squirrel. If you cut the trees then the squirrels are not going to live anymore. It is like you would be destroying their homes.

Demographic characteristics of participants

Demographics characteristics has several subdimensions including age, gender, ethnicity and socioeconomic status, all of which interact with the other conditions of the inquiry as well as contribute to shaping the actions or interactions (processes) of the participants in respect to their experience with wildlife.

Age. Inglehart (1997) suggests that a generational shift in how we value the environment is occurring in our society and that the values of current generations are shifting away from utilitarian values toward more protectionist values. Recent research indicate that levels of environmental concern are higher among young age groups (Jones and Dunlap 1992, Klineberg et al. 1998, McMillan et al. 2003) and that younger age groups (18-25 years of age) tend to be more wildlife rights oriented while older adults (35-55 years of age) tend to be more wildlife use oriented (Duda and Young 1998, Manfredo and Zinn 1996).

Although my study is not comparative in nature, the interview data demonstrates that the adolescent participants, ranging in age from 14-19 years, were more wildlife rights oriented than wildlife use oriented as a group. A majority of the participants expressed a moralistic attitude toward issues dealing with wildlife, indicating a support for the rights of wildlife to exist. In contrast, approximately 20% of the participants evidenced some support for the wildlife use orientation primarily through involvement in fishing. However, many of the participants also stated their reasons for fishing were for fun or to be with family members, with less emphasis placed on fishing for sport or for food. Here are examples from the data that illustrate how 2 of the participants viewed consumptive wildlife activities differently than older family members:

Mark

Q: Do you fish?

A: I went fishing last Saturday. I don't like fishing, I just go. I had nothing else to do. If the fish ain't biting, I go sit in the truck.

Q: Who do you fish with?

A: With my grandpa and uncle. They go fishing all of the time.

Q: Why do you think your grandpa and uncle fish?

A: They go fishing to fish. They like to eat the fish. They like to fish. They are probably fishing right now.

Paul

Q: Does anyone in your family go camping, hiking or hunting?

A: My uncle hunts, but the rest of us no. He hunts deer, but I never go.

Q: What is your feeling about hunting?

A: I wouldn't really kill an animal right now in my life. I don't think there is nothing fun about going out and shooting an animal. I think there's nothing fun about that, but some people find it fun and call it a sport. I wouldn't feel that way. It don't excite me.

Gender. Gender seems to have at least a partial influence on how people view wildlife and the environment. Kellert and Berry's (1987) pioneering study found that males held more utilitarian values toward wildlife and females held more protectionist values toward wildlife. A study by Czech et al. (2001) generally supports these findings

asserting that females place a higher priority on species preservation than males, and more females than males exhibit a greater concern for conservation of wildlife habitat over property rights. Research conducted in the area of environmental concern also demonstrates some difference in gender preference and behavior. Mohai (1992) found that women show greater concern for environmental issues overall than men but are less likely to be involved in environmental organizations.

A relationship between gender and the adolescent wildlife experience was somewhat apparent in my study. Incidents where harassment and/or killing of animals occurred were associated primarily with males and the incidents where supportive behavior (i.e., feeding, first aid) occurred was associated primarily with females. Approximately 35% of the male participants engaged in harassment/killing compared with only 1 female participant. Approximately 65% of the female participants engaged in some form of supportive behavior compared to approximately 35% of the males. The following statements offer examples of participant behaviors in relation to treatment of animals. The first statement is from a female and the second is from a male:

Cora

Once we went fishing and there was a raccoon that had a hurt paw and it just sat there. At first we were scared to go near it because we thought it was going to attack. We thought we would give it hot dogs and stuff so it could get comfortable with us and after so long we could get close to it and put on a glove or like tape or something on it's paw so he wouldn't move it. After that he was ok, we just kept feeding him.

Paul

When I was about 8 years old me and my big brother were outside and we saw a lot of garter snakes. We were afraid and threw a whole bunch of rocks and stoned one. The next day we came out and we took the snake inside and were feeling it because it was dead and it felt like rubber. My momma got mad at us for killing an animal and I got in trouble for that.

Ethnicity. As discussed in detail in Chapter 1 of this document, research conducted on ethnic group variation in the three general disciplinary areas reviewed -- attitudes toward wildlife, levels of environmental concern, and participation in leisure-recreation -- suggests the possibility that differences exist in how the environment and wildlife are viewed by members of different ethnic groups. However, there is no clear consensus linking ethnicity or cultural background with attitudes toward the environment in general or wildlife in particular. Researchers have found few correlations between standard demographic variables (i.e., income, gender, urban vs. rural residence, religiosity, ethnicity) and environmental concern. The most consistent findings suggest that individuals supportive of environmental issues tend to be younger, better educated, and politically moderate or liberal (Klineberg et al. 1998).

Ethnicity is a central issue in my study because there is a serious lack of empirical information about the attitudes and perceptions of urban minority ethnic groups toward wildlife. Consequently, the intent of the study is to develop an understanding of how African American and Latino adolescents experience wildlife. The study was not designed to make comparisons between ethnic groups with respect to their attitudes and perceptions toward wildlife. However, because ethnicity may influence how adolescents experience wildlife, there are cultural patterns that warrant consideration in the context of this study.

Simcox (1993) identified 4 cultural patterns as key descriptors of difference in environmental orientation: 1) humankind-nature orientation, 2) time orientation, 3) activity orientation, and 4) relational orientation. Two of these cultural patterns, human-

nature orientation, and activity orientation, were to some extent evidenced in the interview data collected for my study.

Humankind-nature orientation. There are 3 value orientations associated with this cultural pattern: 1) dominant over nature, 2) subjugated to nature, and 3) harmony with nature (Simcox 1993). The first value orientation, “dominant over nature,” views humans as separate from and above nature. Humans use nature to provide the greatest good for humans. The second value orientation, “subjugated to nature,” views humans as powerless against the forces of nature. In the third value orientation, “harmony with nature,” humans are considered to be integrated into the process and elements of nature and equal in status with other natural entities (Simcox 1993).

Participants in this study, at least to some extent, reflected the “subjugated to nature” value orientation in their responses to the interview questions. Many of the participants expressed the feeling that wildlife in their neighborhood was a fact of life and that wildlife would continue to exist even if they were not welcome. This attitude was most prevalent with respect to animals causing problems for humans, like opossums (*Didelphis virginiana*) in the trash cans. This general feeling was expressed equally by the African American and Latino study participants. The following quote provides an example of the “subjugated to nature” value orientation as expressed by 2 study participant:

Cora

Q: What happens when an opossum gets in your trash? Does anyone in your family try to chase it out? How do you deal with it?

A: We just let them go away cause everyone is scared of them possums. They will jump on you.

Mark

Q: Do the rabbits get in your garden?

A: Yes. They eat the greens, they be eating the vine on the peas.

Q: Is that a problem?

A: It's not a problem for me. It's a problem for my grandpa. He doesn't like the rabbits eating the greens.

Q: Does he try to fence them out.

A: Yes. He put a little white picket fence around it but they just hop right over.

Activity orientation. The activity value orientation relates to values held by cultural groups toward decision making, goal attainment, and initiation of behavior (Simcox 1993). There are 3 common modes of activity orientation: 1) doing, 2) being, and 3) being-in-becoming (Kluckhohn and Strodtbeck 1961). The “doing” orientation is predominant in Western cultures and represents the belief that there is always an action that can be taken to achieve the desired benefits. The focus is on activity, rationality, and efficiency (Simcox 1993).

The “being” orientation is predominant in the non-western world, where goal oriented behavior is subordinated by concerns for societal norms and collective approaches to task achievement (Samovar et al. 1981). Group cohesiveness, belonging, and reaching consensus among group members are valued in the “being” orientation. A strong emphasis is placed on experiences where family cohesiveness, relaxed social interaction, and tranquility are virtuous (Diaz-Guerrero 1967). Eastern and Hispanic/Latino cultures tend to reflect the “being” orientation.

The “being-in-becoming” orientation toward activity places the primary emphasis on the individual instead of the group. In this orientation, the rewards and achievements of the individual are measured intrinsically (Simcox 1993). A primary goal in the “being-in-becoming” orientation is the development of all aspects of the self as an integrated whole (Kluckhohn and Strodtbeck 1961).

The participants in my study tended to reflect the “being” orientation. This was most evident in the wildlife-related activities the participants engaged in (i.e., fishing) and was reflected in the desire to spend time with family members. Family involvement in wildlife-related activities was consistent with many of the study participants and there was no evidence from the interview data that suggested a difference between the African American and Latino participants in this regard. When asked why a participant went fishing, a common response was “to be with my family.” The following statements provide examples of the “being” activity orientation as expressed by 2 participants:

Cam

Q: Why do you go fishing?

A: Because my auntie and uncles ask me too. I would go again if someone asked. I go because I do be wanting some fish and I just like chilling with my family a lot.

Ester

Q: Do you ever go fishing or camping?

A: Every year me and my grandma (well I call her my grandma) go camping. They bring all there friends and children.

Q: What do you like about camping?

A: The surroundings, most of the surroundings. You get to be there with your family and all that.

Socioeconomic status. Children from families with low socioeconomic status tend to have less access to the financial, social, and educational support available to children living in families with a higher socioeconomic status. Access to community resources that promote and support a child’s development is also less available for children in lower socioeconomic levels (Demarest et al. 1993). Due to the lack of resources and educational preparedness associated with socioeconomic status, access to information about and experience with wildlife could be less available for children in lower socioeconomic groups. In the most comprehensive sense of the term,

socioeconomic status is based on family income, parental education level, parental occupation, and social status in the community (Demarest et al. 1993). However, in the context of my study, parental education level and family income were the primary areas focus.

Parental education level. Kellert (1984) found that individuals with higher levels of education tend to foster greater concern and knowledge of animals and the environment. This was especially true of college educated individuals. College educated individuals held much higher ethical standards for the natural world and were less utilitarian in their attitudes toward the natural world than were less educated individuals (Kellert 1984). In recent studies, the level of concern that people have for the environment was also found to be higher in individuals with higher education levels (Klineberg et al. 1998, McMillan et al. 2003).

The education level of the participants' parents in my study varied from middle school education to college education. However, the majority had less than a college education. Approximately 20% of the parents had some college experience.

Family income. Kellert (1984) found income to be much less relevant than parental education on people's attitudes toward the natural world. He did find, however, some evidence that the moralistic attitude was higher in lower income groups than in higher income groups. In general, Kellert (1984) maintained that a greater affinity for the natural world is not necessarily related to level of affluence. However, in a recent study exploring the association between societal factors (i.e., income, urbanization, education) and a shift in wildlife value orientations, Manfredo et al. (2003) surmised that changes in these societal factors over time have contributed to a shift from traditional utilitarian

orientation toward wildlife to a more protectionist orientation. Empirical research suggests that increasing affluence is an important factor in driving a shift away from the traditional wildlife value orientation that emphasizes the use of wildlife for human benefit (Manfredo et al. 2003).

Some researchers argue that a history of inequity in public and private recreation resource allocations and opportunities, as well as differences in socioeconomic status has resulted in differential participation patterns between affluent and less affluent citizens (Allison 1988). This argument is based on the “marginality hypothesis,” first articulated by Washburne (1978), which maintains that the leisure participation patterns (i.e., under-participation) of ethnic minorities (particularly African Americans) differ from the patterns of Whites due to the limited socioeconomic resources of African Americans (e.g., lack of adequate transportation, underdeveloped community programs in inner city neighborhoods). While the marginality theory was not applied toward addressing wildlife attitudes or value orientations per se, it does speak to the possibility that limited resources could inhibit access to wildlife-related activities, which in turn could influence people’s experience with wildlife.

I did not collect family income data on the participants in my study. I assume, however, that the study participants were from lower socioeconomic status due to the fact that 80% of the students at Wyandotte High School were on the free or reduced lunch program and because the majority of the participants’ parents had less than a college degree. Additionally, the majority of study participants identified infrequent opportunities to engage in wildlife-related activities, like fishing, camping, and nature hikes, however, infrequent engagement in wildlife-related activities by itself is not a

predictor of socioeconomic status. Approximately 85% of the participants described few wildlife-related activities other than an occasional trip to the zoo or local park.

Place of residence

Recent research implies that the place where a person lives or was raised (i.e., urban, rural, suburban) has an influence on environmental attitudes and values. Manfredo et al. (2003) suggest that as societies become more urbanized there is a shift in values from a traditional utilitarian orientation toward wildlife to a more protectionist value orientation. People living in urban communities tend to be more biocentric in their view of the natural world than are rural residents (Steel et al. 1994). Kellert (1984) found that suburban and urban residents were less utilitarian and more moralistic in their attitudes toward wildlife than rural residents, which suggests that urban and suburban residents have a deeper concern for the rights of wildlife. Mankin et al. (1999) reported similar attitudes stating that urban residents were less likely than rural residents to support consumptive wildlife practices, but also more prone to attribute imperiled species to over exploitation than habitat destruction. They also speculated that urban residents tend to value wildlife similar to the way pets are valued. The following statements taken from the interview data provide examples of how the study participants view the rights of wildlife:

Ken

Q: Do you see wildlife around your house?

A: We got a couple birds that made a nest in my gutter. They got in the attic and my mom was scared to get up there and she is going to make me get up there and run them out. They are in the attic now.

Q: What do you think about that?

A: I think it's not bad. They are just trying to find a place to live. I guess the attic would be a good place for them to stay. No danger can get in but it's not

good for me having birds living in the attic. Because if they get in the house it will be bad. I will have to chase them all around.

Izetta

Q: What about animals that might be a problem, like raccoons or opossums that get into your trash. What do you think should be done with them?

A: I think people should just leave them alone. That is just a part of nature, that is just what they do. They have to survive somehow. Maybe it ain't what we want them to do, but it's what they do to survive, so I think people should respect that and leave them alone. Just let them do their own little business. So you got to pick up trash every once in a while, life ain't fair.

The literature is fairly consistent in establishing place of residence as having an influence on how people view and experience wildlife. However, the particular residence categories identified in the literature are generally quite broad and encompassing. An urban category could encompass a variety of different metropolitan situations depending on an array of factors like population size, socioeconomic status of the residents, ratio of built environment to green space, and structural mix and condition of the built environment. Consequently, when considering the term urban in the context of my study, it is necessary to establish the unique character of the urban environment where the study participants reside.

Participants' place of residence. The metropolitan area where the study site is located has a population of approximately 600,000 people. The neighborhoods where the participants reside consist of a combination of buildings (e.g., single family homes, multifamily units, commercial development) and green space (e.g., undeveloped water courses, unmaintained vacant lots, unmaintained backyards, parks, cemeteries, small lakes). Some parts of the community consist primarily of built environment (e.g., commercial development, large multifamily units), while other areas contain a combination of buildings and green space. The study area has a significant amount of

green space relative to more heavily built urban environments like St Louis or Chicago. Manicured landscaping is less prevalent in some neighborhoods and the vegetation in backyards and on property lines is allowed to grow naturally in many cases. There are several city parks and cemeteries in the vicinity and two small lakes. Additionally, the Missouri River borders Wyandotte County on the north and the Kansas River borders Wyandotte County on the south. Because of the available green space in the vicinity there is considerable habitat for opportunistic wildlife species more accustomed to human habitation.

Natural places. Contact with natural places in childhood has emerged as an important influence on how people value the natural world (Chawla 1998, Palmer et al. 1999, Palmer and Suggate 1996). Although there was a relative abundance of wildlife habitat for certain wildlife species in the study area, the occurrence of relatively undisturbed “natural areas” was much more limited. Because contact with extensive green space is considered to have an important influence on environmental perceptions, the participants’ “place of residence” in my study necessarily includes locations outside the urban environment where natural areas are more frequently encountered.

The experience of urban residents is not exclusively urban. They do take forays (frequency depends on the individual circumstances of the participants) into non-urban environments as part of their life activities. Because the overall goal of this study is to investigate how adolescents experience wildlife, it is necessary to include all pertinent experiences, including those in non-urban natural areas. While the majority of experiences described by the study participants were in the urban setting, many participants also had experiences in non-urban settings that provided access to natural

areas. For example, several students described experiences they had at Wyandotte Lake, a County Park on the outskirts of Kansas City. Other students spent time with relatives in rural communities. Still other participants experienced fishing trips to non-urban lakes or camping trips to state parks. The following participant descriptions provide examples of meaningful experiences in natural settings:

Melinda

My grandfather lived next to the woods so me and my brothers and sister always go and explore. On many occasions I have seen deer. We see that a lot. Once I remember seeing wild turkeys. That was the only time I have ever seen that. They came from the woods and walked next to my grandfather's house. It was a shock because I never thought I would ever see that. There were like 20 of them. I was like, whoa.

Shantee

We lived near a little woods, nobody knew about it but it had like water, kinda like a stream. We went to this little stream by the woods and we saw frogs and spiders. There was a lot of stuff. That's where all of the little animals were. That's where we collected little tadpoles.

Socialization

In addition to an adolescent's individual demographic characteristics (i.e., age, gender, ethnicity) and their place of residence, there exist a variety of societal factors that influence their lives in general and their experience with wildlife in particular. All humans are subject to these societal forces to varying degrees as part of a socialization process that begins at birth and continues through adulthood.

Socialization can be defined as "the process by which we learn the ways of a given society or social group so that we can function within it" (Elkin and Handel 1989:2). In general terms, this learning involves developmental change and occurs primarily through interactions with individuals important in a person's life. These interactions are in the form of communication (verbal and nonverbal) in an emotionally

significant relationship, which are shaped by social group membership (Elkin and Handel 1989). Socialization processes have most commonly been considered in the context of family, peer group, school, and the media (Handel 1988).

The adolescent experience with wildlife is subject to this socialization process in meaningful ways. DeRuiter and Donnelly (2002) found that these socializing agents, particularly family members, played a very significant role in influencing people's values toward wildlife. In the following sections, I will provide an overview of how family, peer group, education, and media play a role in how the participants in this study experience wildlife.

Family. The family has a significant influence on the attitudes and values of children and is crucially important as a socializing agent (Elkin and Handel 1989). The family has a socializing influence on the child in at least 2 important ways: 1) family in community, and 2) family as interaction structure (Elkin and Handel 1989). "Family in the community" refers to the status in which a child is placed. A child's status in the community has a bearing on how others will respond to him or her and mediates the culture in the larger society available to the child. Elkin and Handel (1989:140) state that "the family is not simply a passive transmitter of subculture to children but plays an active role in screening in and screening out elements of available subcultures."

The participants in my study were from lower socioeconomic levels, which is often associated with low status in the community from the standpoint of access to influence and resources. Consequently, the status of the participants in the community may play a role in how they experience wildlife. For example, many of the participants were resigned to the fact that nothing could be done about problem animals, such as

opossums in the trash. In most cases, neither the study participants nor their family members attempted to access help from governmental bodies to help resolve the issue of problem animals. In contrast, individuals from higher socioeconomic groups with greater influence and resources would most likely contact a government agency or animal control organization seeking help to deal with problem animals.

Family also plays a role in the socialization process through the “structure of interaction” by introducing children to intimate and personal relationships. The family into which a child is born is their reference group for values, norms and behaviors (Elkin and Handel 1989). Family members are role models for the developing child. Parsons and Bales (1955) argue that the child identifies with the family group and thus adopts its ways.

In the context of my study, it was apparent in many instances that the study participants may have been influenced by interactions with family members in both positive and negative ways. Approximately 75% of the participants described either an experience or conversation with a family member that involved wildlife. Because I am only taking a brief snap shot of family relationships regarding wildlife, I can only surmise that the family interactions influenced the study participants’ experience with wildlife. The following statements provide examples of how the family may have influenced the study participants’ view of wildlife. These examples are divided into 3 categories, experiences with family members, conversations with family members, and role modeling by family members.

Experience with family members. Experiences shared with family members were often associated with wildlife-related activities, like fishing or animal observation. Two of the following participant statements are associated with wildlife-related activities:

Fran

My mother is an open person, where you learn many different things. When I was very young she brought me in the yard and we looked at different books, about how would animals react to us being there. How they live in their habitat versus ours.

Ken

Along time ago my mother used to cut my hair. She also cut my cousin's hair. My cousin took his hair and threw it outside. I don't know if this was a superstition but birds started getting his hair. I guess they were going to use it for their nest. They started pecking at it and going everywhere with it. My momma told my cousin he would have to stop doing that because the birds pecking at your hair will make you crazy. I never really believed it. She kept cutting his hair and he kept throwing it outside and the birds were attracted to it. Probably because he had a lot of grease and stuff in his hair. So he ended up doing some crazy, unexplainable stuff. I never really questioned it or asked my mother if it was true. I would throw my hair in the trash. I think my cousin is crazy.

Paul

When I was little I was scared of fish. I caught a fish one time and my uncle wanted me to pick it up and I didn't want to because it was squirming around and it was opening its mouth and stuff. So he got mad at me because I wouldn't pick it up. He said throw it there or he was going to whup me. So, I picked it up and I threw it back in the water. I didn't want to go fishing no more after that.

Conversations with family members. The following series of examples are descriptions of conversations the participants had with family members. The conversations about wildlife were often associated with warnings about the dangers of animals (e.g., snakes are poisonous). However, there were also conversations centered around wildlife-related activities like bird-feeding or fishing.

Marta

Q: Have you talked with family members about wildlife recently?

A: We have a conversation about snakes when we do the laundry. We talk about when we put the laundry out to dry there might be snakes crawling on your feet. But they say the snakes are not poisonous. I don't know.

Q: Are you afraid of snakes?

A: Yes, because they are poisonous, scary and hairy. They are just too scary.

Q: Has your mother or father or other relatives talked to you about staying away from snakes?

A: Yes.

Q: So, did your mother talk to you about snakes when you were doing laundry?

A: Yes, she said to grab the snake from the back and just throw it away. Just throw it as far as you can.

Cora

Q: What other birds do you see around the house?

A: Robins always come around on the porch. I was told they were for good luck. So every time I see them I kiss at them.

Q: Who told you that?

A: My momma and them told me that and my grandma, everybody.

Q: Does your momma and grandma kiss at them?

A: Yea, practically my whole family.

April

One time a bird fell out of a nest in a tree. My momma said I couldn't touch it. She said it would get sick or something and it could die. So we couldn't touch it but we were up there trying to get the whole nest down to see how many other birds would hatch.

Janet

Q: Why does the thought of snakes make you scared?

A: Because there are a lot of poisonous snakes out there and I don't want to be bitten by anything. I remember my cousin had a dream and there was a snake under her and she had woke up and she said there was a snake crawling out from under the couch. That was pretty scary and I wasn't even there. It was scary for me to even hear it.

Role modeling by family members. Role modeling was apparent in

several of the participant interviews and was associated with a variety of wildlife-related situations like ownership of feral animals (e.g., caged birds), participation in wildlife-related activities, (e.g., fishing, bird-feeding) and actions taken toward problem animals. For example:

Robin

I use to stay with my grandma and my grandma do all kinda stuff. She use to catch turtles and stuff. She use to cut there backs off and make them into

ash trays. She likes wildlife. My grandma had birds, snakes, butterflies, worms. She would go in the back yard and dig worms to go fishing. She taught me how to fish. She taught me how to put my worm on the end my stick for the bait. She has lizards at her house, but she only had them for a short time. She use to have snakes in big old cages at her house.

Jake

My grandma likes to feed the birds a lot. She dumped out a whole cake from her house that went bad. She threw it outside. There was also some cereal but she wetted it so the birds could eat it. See feeds them every day. I live at my grandmother's house. I watch them with her, she likes birds whatever, she likes feeding them. She watches them a lot.

Friends (peer group). A peer group is the group of children that form in the street, on the playground, in the classroom, and in any other situation where children congregate for extended periods. While peer group activities are influenced to some degree by adults, the peer group generally has an autonomy of its own with distinct norms, values, and symbols that are sometimes in opposition to the adult culture (Elkin and Handel 1988, Fine 1988, Handel 1988). Fine (1988) argues that through interactions with friends, children develop social meanings and these meanings influence behavior and self-indication. These friendships provide a forum for developing techniques for negotiating social reality. "Friendships provide, a context for the growth of the child's social self, a context within which he or she can learn the appropriate self image to project in social situations" (Fine 1988:229).

Although significant life experiences and family relationships tend to have the greatest influence on the development of a person's environmental sensitivity and awareness, friends or peer groups also play an important role (Palmer et al. 1999). In my study, participant involvement in wildlife-related interactions with friends was much less prevalent than with family members. Approximately 20% of the study participants described an experience or conversation with a friend regarding wildlife. The following

examples from the participant interviews describe incidents where the participants shared a wildlife-related experience with friends:

Ester

I get bored with fishing and I want to do something else. I don't fish all the time and sometimes I just hang around with my friends. We walk on the trails and stuff.

Jake

My grandmother had a problem with snakes in her yard. Snakes dig some holes, big holes in the ground. So my friends and I use to catch them. Get pop bottles and try to scoop them up with the bottles or grab them by their mouth so they can't do nothing but wrap around your arm. We put them in a garbage can and kept them to see how long they would stay in there. They always seemed to get out.

Bill

Q: Have you ever talked with friends about experiences with wildlife?

A: Yes, my friend Gary. He said these two squirrels were fighting and he was walking down the street. They were in the middle of the street so he didn't know what to do. He tried to go around them and they started getting closer to him. He didn't know what to do. They were so fast they could have caught him if he was going to run so he just walked. He was scared.

Education. Education can have a positive influence on a person's attitudes and behaviors toward the environment (Chawla 1999, Palmer and Suggate 1996, Palmer et al. 1999). In a study conducted by Palmer and Suggate (1996), 60% of the respondents mentioned education as influential in their pro-environmental behaviors. Many of the respondents mentioned the enthusiasm and environmental concern of particular teachers as important as well (Palmer and Suggate 1996). Chawla (1999) interviewed a group of environmentalist regarding their motivation to take direct action on environmental issues and found education as a source of new and deepened environmental attitudes for the environmentalists, especially when involving experiential education. Additionally, theory and empirical research suggests that education is an important factor in the gradual

shift away from traditional wildlife value orientations that emphasize the use of wildlife for human benefit (Inglehart 1997, Manfredi et al. 2003).

Educational experiences that focus on the environment consist of a variety of opportunities for the personal and intellectual development of children, from formal situations like schools to more informal experiences like guided nature hikes or visits to the zoo. Educational opportunities are generally perceived as important contributors to the developing environmental attitudes and behavior of children and adults (Chawla 1999, Corcoran 1999, Palmer and Suggette 1996). Exposure to environmental education in general and wildlife in particular, however, depends to a large extent on the priority these issues receive in the particular community where a child lives and on the formal and informal educational opportunities available in the community.

In the context of my study, the wildlife-related educational experiences of the participants appeared to be rather limited. Approximately 35% of the participants indicated receiving some instruction (i.e., one class) in wildlife-related topics in elementary school, often times associated with a particular teacher. Approximately 12% received instruction in middle school and only 3 participants indicated receiving environmental/wildlife-related information in high school. Approximately 70% of the participants mentioned visiting the zoo at least once in their life, however, I question the educational benefits of these zoo visits based on the comments made in the participant interviews, which alluded more to the entertainment benefits of the zoo. The following statements provide examples of wildlife-related educational experiences from 3 different participants:

Shantee

Q: What did you do with the tadpoles you caught?

A: We had these little books and then we had some kits that gave the instructions on how to take care of them.

Q: Where did you get the kits?

A: We got the kits from this science catalog in my science class in elementary school. My teacher had it and I saw it and I wanted it.

Q: So your teacher helped you get it?

A: Yes. We did a lot of experiments in that class. We had little pets like chicks and stuff. We learned how to feed birds and make sure they were safe.

Q: Have you had experiences like that in school since then?

A: No, not in high school. The only experiments we did was dissecting and I don't like dissecting.

April

Q: Did you learn about wildlife in school?

A: Only my third grade teacher, Ms Dowd.

Q: What would she do with you?

A: If I asked her a question she would explain it too me. Actually, Ms. Hall, our high school physical science teacher, had us do some assignments on animals. She taught what I already knew though. She had us do assignments about how animals live and give examples about what would happen if something happened to the animals. We watched movies about it.

Robin

Q: Did you learn about wildlife in school?

A: In the 5th grade my teacher's daughter brought a garter snake and another kinda snake to class. She let the snake crawl on these big old tables we use to have. We could touch the snake and hold it in our hand. At first I was kinda scared to touch it, but then I just got use to it and I was holding the snake and stuff and I'm really not scared of snakes no more.

Media. Experimental studies and societal trends suggest that the content and nature of the media (e.g., TV, movies, computers, books and periodicals) influence our character, values, and expectation of reality (Kane et al. 2000). Kane et al. (2000) maintain that the media can influence values through unintentional learning. "The stories found in literature, music, and television, promote values simply by individuals' attention to their existence. This learning forms the knowledge base from which individuals construct a sense of being, a sense of others, and a sense of place in the world" (Kane et al. 2000:60). The interactive or electronic media (e.g., TV, Internet, movies) plays the

biggest role in this process. The electronic media not only shapes the perceptions of children, but also that of adults, including teachers and parents (Hepburn 1998).

Television has become the main source of news, information, and entertainment and is in over 99% of the households in the United States (Hepburn 1998).

The media is also having a growing influence on environmental attitudes in the United States (Bousé 2003, Champ 2002, DeRuiter and Donnelly 2002). Wildlife media experienced a steady development from the late nineteenth century to the early 1980s, but has virtually exploded recently with the advent of cable and satellite television (Champ 2002, Mitman 1999). Champ (2002) notes that *Animal Planet* has experienced the fastest growth of any other basic cable network and is in over 61 million United States households. Contemporary media is ubiquitous in nature, leaving virtually no individuals untouched. In a study conducted on the formative influences of environmental educators, Corcoran (1999) identified media as having a significant influence on their lives and over 50% of the individuals interviewed in a study conducted by DeRuiter and Donnelly (2002) identified the media as influential in their participation in activities.

The media (primarily television) also seemed to be an important source of information for the participants in my study. Approximately 65% of the participants indicated that they watch wildlife programs like the *Discovery Channel* and *Animal Planet*. Many of the participants considered television wildlife programs as a primary source of entertainment and information about wildlife. Several of the participants attributed their fear of particular wildlife species (e.g., snakes) to television programs. The following excerpts from the interview data provide examples of the potential influence of television on the participants' knowledge and perspectives of wildlife:

Adam

Q: Why are you afraid of birds?

A: I just don't like them. I always use to think, because you know when you see the cartoons and birds be pecking on their head and the knots be coming and I just think they will trip out one day and just get me. I just don't like them.

Shayla

Q: Where did you get the information about animals biting?

A: Just from watching animals attack on TV. Like the *Discovery Channel*?

Carl

Q: Why do you think you are afraid of snakes?

A: I don't know. Probably because when I was young I use to watch the *Discovery Channel* and seeing all the poisonous snakes you think every snake is poisonous.

Kate

Q: Do you ever watch animal programs on TV?

A: My Daddy do all the time. I watch them until a snake pops up and then I cover my eyes. We watch things about the desert and like every part of Africa. My daddy will just sit there and I got nothing to do and I like being around my Daddy, so I just be there with him watching the animal channels.

Encounters with wildlife

Contact with natural places in childhood has emerged as an important influence on how people value the natural world (Chawla 1998, Chawla 1999, Palmer 1993, Palmer and Suggate 1996, Palmer et al. 1999). Chawla (1999) identifies these places as part of the regular rhythm of daily life, like the family garden, a nearby lake or woods where people played as children, or a grandparents' farm. It is in these places that people become comfortable with the natural world.

Personal encounters with wildlife may also have an influence on how people value wildlife (Newhouse 1990, Tarrant et al. 1997). For example, Kellert (1984) found that children involved in hunting or birding were more knowledgeable and concerned than children not involved in those activities. Tanner (1980) demonstrated similar results

suggesting that experiences with hunting, fishing, and bird watching have an influence on the environmental values of children. In a study on outdoor recreation patterns and concern for the environment, Jackson (1986) found that people involved in appreciative recreational activities (e.g., hiking, camping) had a higher level of concern for the environment than those involved in consumptive activities (e.g., hunting, fishing). Recent empirical studies have found that involvement in wildlife-related activities like wildlife viewing, nature photography, and hunting result in significantly higher levels of concern for the environment than non-participation (Teisl and O'Brien 2003, Theodori et al. 1998).

In a study conducted on the determinants of wildlife value orientations, DeRuiter and Donnelly (2002) found that experiences from childhood, including encounters with wildlife, were important influences on people's values toward wildlife. DeRuiter and Donnelly identified three categories of experiences as influencing wildlife values and attitude formation: 1) extractive experiences (i.e., hunting, fishing), 2) appreciative experiences (i.e., of wildlife's beauty or role in ecosystems), and 3) negative or fear experiences. The data gathered for my study generally fit into these three categories with the following modifications. First, in the extractive encounter category, I included harassment/killing as an activity type. Second, in the appreciative encounter category, I added two additional, more specific activity types, wildlife viewing (e.g., birds at a bird feeder, visits to zoo) and wildlife support (i.e., feeding, providing nesting structures, first aid). Third, in the anxiety or fear encounter category, I included direct encounters (e.g., accidental encounters and wildlife/human conflict), instruction/information (e.g., family members, educational institutions, media), and perceived animal characteristics. I also

re-labeled the negative or fear category to anxiety or fear, which more closely reflects the interview data from my study. Additionally, I re-labeled the categories as encounters rather than experiences to prevent any confusion with the overall central perspective of the inquiry “varied experience with wildlife.” In the following sections, I will provide data from the participant interviews as examples of each encounter category.

Extractive encounters. As indicated in the previous section, extractive encounters include hunting, fishing, and harassment/killing activities engaged in by the study participants. Hunting was an insignificant activity for the participants in this study. Several of the participants talked about family members hunting, however, only 1 participant engaged in hunting and that was only as an observer.

Fishing. Fishing tended to be the activity with the most adherents. Approximately 60% of the participants described experiences with fishing. Based on the descriptions supplied by the participants, I would classify the majority of those that fished as infrequent fishers, however, several of the participants described family members as regular fishers. Approximately 35% of the participants found their fishing experience to be rather negative, due to boredom or unpleasant circumstances. The following participant statements provide examples of both positive and negative fishing experience:

Cora

Q: Do you ever go fishing?

A: I go fishing a lot. My family are people that like to go fishing. So, we go fishing. Birds will come and we’ll feed them. We will pull out a fish that will be too small and let it get back in the water, catch another one and let it go back in.

Q: How often does your family go fishing?

A: Every time it gets warm.

Q: Who all goes?

A: My momma, my two sisters and their daddy. Sometimes my auntie and grandma.

Q: What kind of fish do you catch?

A: I catch catfish, bluegill, bass, crappie. Any fish there is in there.
Q: Who takes the fish off the line?
A: I do.
Q: So, you don't have a problem taking fish off the line.
A: No, except for catfish. I am scared they might spear me.
Q: Who baits your hook?
A: I do.
Q: When you go fishing do you go for fun, to catch the fish, or to be with your family?
A: All of them.
Q: Would you go fishing by yourself?
A: Yes

Ken

Q: Have you ever been fishing?
A: I fished one time. I can't swim. I have a fear of drowning, it's like my worst fear. My dad really, really forced me to go fishing when I was younger. We went a fair distance from shore. There must have been a big fish that hit the boat when I was standing up. I was shaken and real scared so I sat down. My daddy showed me how to throw the line out. I caught my first fish and my daddy said we were going to cook it. I wanted to keep it as a pet but there wasn't a bowl big enough to hold it.
Q: What kind of fish did you catch?
A: I don't know, a gray fish maybe. I only fished that one time.

Fran

Q: Does you family fish or hunt or camp?
A: We fish. I caught my first fish in the 5th grade. I went on a camping trip with the DARE community service people at my elementary school. I was so excited. I was just sitting there fishing and I felt something tugging on the pole and it was like what is it. I got a fish and I reeled it in. I was like yeah! I called my momma, I was like momma guess what? I caught my first fish. It was fun and she was happy for me.
Q: So, did you take it off the line yourself?
A: No, one of the police officers was there as an advisor and he took the fish off.
Q: Have you had other fishing experiences?
A: Yes, when my father was alive we went fishing at the Wyandotte County Lake. I use to like the worms that you put on the hooks but I am not too fond of them now.
Q: So, you use to put your own worm on and now you are not necessarily interested in doing it.
A: Not to much.
Q: Why do you think that is?
A: I am not sure. I know when it rains the worms just look nasty on the streets now. You know it use to be you could just sit in the grass and one would crawl past you and that would be ok but now they just look nasty.

Q: Do you still fish?

A: Yes, when I get a chance to. Not very often.

Q: Do you go by yourself?

A: I go with family. Me and my ex-employer use to sit out in a boat in the Wyandotte County Lake. She would be doing her paperwork to relax and I would sit there and fish.

Q: Do you fish for the enjoyment of fishing or do you catch fish to eat?

A: I like fishing. I think it is just a relaxing process. Fishing is quiet. There is something about the water. Just sitting there you get a chance to relax. You don't have to have anything on your mind and just fish. I fish for relaxation and also to eat the fish. I enjoy fishing a lot.

Q: So, you eat the fish you catch. Do you clean them?

A: No, I leave that to my momma.

Edwardo

Q: Have you ever been fishing or hunting?

A: Yes, we went to Smith Lake. I don't have the license for fishing so I was just watching.

Q: Who fished?

A: My dad. He caught too little fish, but he threw them back because they were too little to cook. When they become bigger you can fish them later.

Q: Does he fish often?

A: No

Q: Have you been fishing only once?

A: Yea, I don't think I will go back because it's so boring because I can't fish.

Q: So, what if you got a license?

A: It's still boring because you are just throwing the line in.

Harassment/killing. Although harassment/killing is not generally considered a wildlife activity in the traditional sense, it is a behavior engaged in by many youth (Arluke 2002). Arluke (2002) suggests that animal abuse is a kind of unsavory or dirty play that is involved in adolescent socialization. Approximately 20% of participants in my study (only one female participant) engaged in activities that involved harassing or killing wildlife. In general, this harassment/killing had three motivations for the study participants, curiosity/entertainment, fear, and capture/domination. One participant attempted to catch an opossum to keep it as a pet and a second tried to catch a baby bird just to hold it. Snakes were killed out of fear or captured as trophies to show off to

neighborhood friends. The following participant statements provide examples of harassment/killing:

Donnie

I knocked down a bird's nest and the momma came and tried to peck me in the head. I ran home and stayed there the whole day because I thought the bird was going to get me. I was in the tree messing with the nest and it fell and the bird came and started pecking. There were eggs in the nest.

Robin

My grandma she lives on 6th street. There is a big creek near her house and we use to go down there -- my uncle and me. My uncle and his friends would go down there with a BB gun and try to shoot at the birds that landed down on the creek. Me and my cousin went down there one day and we had a little blanket and we tried to catch a bird. We chased after the bird and you know how birds jump up and keep running. We were not going to keep the bird, we just wanted to see if we could catch the bird. So we kept running and chasing after it. We threw the blanket over the bird and we caught it. I put my hand over the bird, like I grabbed him and I pulled the blanket off him. I didn't have a tight grip and he pecked me a little bit and I just let him go and he flew away.

Paul

When I was about 8 years old me and my big brother were outside and we saw a lot of garter snakes. We were afraid and threw a whole bunch of rocks and stoned one. The next day we came out and we took the snake inside and were feeling it because it was dead and it felt like rubber. My momma got mad at us for killing an animal and I got in trouble for that.

Appreciative encounters. The appreciative encounter category generally consists of two activity types, wildlife observation (e.g., birds at a feeder, visits to zoo) and wildlife support (i.e., feeding, providing nesting structures, first aid). This category represents the large majority of participant experiences with wildlife. Wildlife observation was reported by 100% of the participants, with varying degrees of interest, and approximately 40% of the participants engaged in some form of supportive behavior like bird-feeding.

Wildlife observation. All of the study participants reported engaging in some form of wildlife observation with varying levels of involvement, ranging from casual observation of squirrels running up a tree to identifying birds with a bird book. The large majority of observations, however, were casual in nature, generally involving observations during the participants' day-to-day life activities. For example, most of the participants reported common occurrences of watching squirrels or rabbits in the yard or birds in the trees. Approximately 25% of the participants mentioned isolated cases of observing less common wildlife species like deer, fox, and turkey. Only about 10% of the participants sought out observation opportunities of native wildlife species, like viewing birds at bird feeders or going to a park in part to see wildlife. In contrast, approximately 60% of the participants mentioned visiting the zoo to see exotic animals. Generally speaking, the majority of study participants enjoyed seeing wildlife if the occasion arose, but did not pursue wildlife viewing opportunities. The following interview statements provide examples of participant experiences observing wildlife:

Sam

Q: Do you see wildlife in your neighborhood?

A: When I was in elementary school my school was set off back in the woods and there were white tail deer that would occasionally come up on the campus. We would be in class and the teacher would be like everyone can stand and look out the window. There would be like a dozen white-tailed deer outside. Something might happen and they would get scared and run off in the woods. I think I saw a fox back there one time.

Q: What animals do you see around your house or your neighborhood?

A: Actually, last week I saw a squirrel, an opossum and a rabbit in my yard. The rabbit was on the side walk. The opossum, I guess it was looking for food, so it came up in our yard but we didn't have any garbage so it just went around my house and went to the next door neighbors house. And like the squirrels, I see them all the time. They run around getting ready for winter.

Kate

My favorite is the gray squirrels. I see them off and on, maybe twice a week. I am afraid when I see them on the street and cars are about to hit them. I am

nervous and my heart's beating really fast. I don't like it when somebody kills them.

Shayla

Q: Do you observe animals in your neighborhood?

A: Really, I don't observe animals, around here, I mean I see them all the time. That one time I went camping I liked it because there were a lot of animals I had never seen before. A normal bird is nothing, it's not like the birds that were out there. They were different and had different patterns. A lot different than regular city birds. I don't really notice them.

Sam

Q: Have you ever been to the zoo?

A: Yes. Since they have redone the Kansas City Zoo I have been out there like twice. I like it out there. It is different than how it was with animals in cages. Now they are out walking around. It is good to see them like that. Animals like you wouldn't see any normal day. Like a lion, or tiger or giraffe. It's different. Ya, I like the zoo.

Q: So, you prefer the new format of the zoo?

A: Yes, because it shows how they act in their original environment. I am not able to go where they live. Like a giraffe is like in African, and I am not allowed to go to African and look at a giraffe. If I can go to the zoo I can see them just walking around.

Wildlife support. Approximately 45% of the participants were involved in some form of supportive behavior toward wildlife (i.e., feeding, nest structures, first aid). The majority of supportive activities were associated with wildlife feeding. However, 1 participant mentioned providing a bird house and 2 mentioned aiding injured animals. The feeding activities consisted primarily of single events, such as feeding ducks at the park, or putting bread out for the birds on infrequent occasions. Additionally, several of the participants indicated their relatives (e.g., parents, uncles/aunts, grandparents) fed wildlife. The feeding activities were usually associated with birds, however, a few of the participants fed squirrels and rabbits on infrequent occasions. Several participants reported letting squirrels and ducks eat food out of their hand. In general, the participants found the feeding experiences to be enjoyable and worthwhile from the standpoint of

helping the wildlife and viewing them up close. None of the participants, however, engaged in long-term feeding, such as maintaining a bird feeder on a regular basis. The following excerpts from the interview data describe wildlife support activities engaged in by the study participants:

Cora

Sometimes we go to Wyandotte Lake. Rather than go fishing we feed the ducks. We bring like two loaves of bread and just throw it out to the ducks. The ducks get kinda angry if you don't throw bread their way. When you throw bread the other way some birds get mad. Sometimes you got to throw it in the water at them. They are scared to come near. And sometimes if you throw too little of it out they will come rushing at you and make you kinda scared.

Marta

One time we gave some tortillas to a squirrel and he was eating it from our hands but he didn't bite or anything. We were just sitting there giving him tortillas and he was just eating them.

Melinda

Q: Does anyone in your family feed birds, squirrels, or rabbits?

A: My grandmother feeds birds and I throw popcorn out. She has me throw out her old popcorn. We throw some out at my grandfather's house also because there are a lot of birds back there.

Jake

My grandma likes to feed the birds a lot. She dumped out a whole cake from her house that went bad. She threw it outside. There was also some cereal but she wetted it so the birds could eat it. At first the birds came and started eating it and then pretty soon some squirrels came and then they were all eating together and then a dog came. None of them moved, they were all eating together – a bird, squirrels and a dog. Then a cat came up and started eating too and none of them moved. Some of the birds would like eat and then leave and come back again. They were not afraid and that was kinda weird like wow why aren't they running? That was something kinda weird.

Anxiety or fear encounters. A review of the literature on fear suggests that people who have limited experience with wildland areas may respond negatively to these environments because of the novelty involved (Bixler et al. 1994, Kaplan and Kaplan 1982). People with limited experience in natural environments will be overwhelmed by

the unrecognizable objects and associate dangerous events with natural areas. Bixler et al. (1994) found that urban students with limited exposure to wildland areas express a wide range of fearful responses to natural environments, including fear of wildlife. Although extreme novelty plays a role in avoidance of natural areas, fear of specific natural objects, such as wildlife, may also influence how people perceive and react to nature and natural areas.

Rachman (1977) described three major ways fear is acquired: 1) traumatic experience with an object or situation, 2) vicarious learning, and 3) instruction or information about potentially dangerous objects. This multipath fear model demonstrates that fears and phobias do not require direct experience with the fear object to develop, but can develop vicariously and through instruction (Ollendick and King 1991).

Certain types of animals like snakes and spiders, generally elicit a more fearful reaction than other animals (Bixler et al. 1994). Seligman (1971) postulated that humans and other animals learn through natural selection to be cautious of objects that are consistently hazardous to survival (e.g., bad/poisonous food, snakes, spiders, stinging insects). However, other researchers maintain that aversions to snakes, spiders, insects and other undesirable animals are fairly widespread in society and can be easily learned through direct, vicarious, and instructional avenues (Ollendick and King 1991). Yet other researchers suggest that humans respond not to the particular animal, such as snakes and spiders, but to certain perceptual characteristics, such as body size and shape. (Davy 1994, Merckelbach et al. 1987). Davy (1994) reported that disgust sensitivity may exert a causal influence on animal fears. For example, animals being directly or indirectly

associated with the spread of disease, and disgust-evoking stimuli such as mucus or feces (e.g., animals perceived as slimy such as snakes, worms, frogs).

Bixler et al. (1994) conducted a study of urban students on field trips to wildland centers and found that natural environments elicited a wide range of fearful responses from the students. Fear of snakes was reported as the number one concern of the students. Fear of insects was the second most expressed fear followed by fear of non-indigenous animals. The students made frequent use of the terms diseased, dirty, and disgusting when referring to animals, such as snakes, insects, and ticks. Anxiety and fear can present significant barriers to enjoying and learning about wildlife, which may influence an individual's overall experience with wildlife. Rozin and Royzman (2001) suggest that negative events tend to be more salient than positive events.

In the context of my study, anxiety or fear of wildlife was associated with 3 primary sources, direct encounters with wildlife (i.e., accidental encounters and wildlife/human conflict), instruction/information (i.e., family members, educational institutions, media) and perceived animal characteristics. Although the influence of family members, educational institutions, and the media were addressed in other sections of this document, I will also discuss the influence of instruction/information here due to the heightened emotional nature of fear and anxiety.

Fear or anxiety of wildlife was very salient for the participants in my study. All but 1 of the participants expressed fear and/or anxiety about at least 1 animal. Snakes, opossums, and raccoons were the animals most often cited by the participants as eliciting fear. Approximately 75% of the participants expressed some fear or anxiety associated with snakes, primarily based on information they had acquired from family members,

school, or the media. Although 12 participants mentioned a direct encounter with a snake, my impression from their descriptions of the encounters was that the fear or anxiety existed prior to the interaction. Eight of the participants referred to the general characteristics of snakes (e.g., feel of skin, movements, noise it makes) as the reason for being fearful.

Approximately 35% of the participants expressed anxiety or fear of opossums and 30% indicated they were fearful of raccoons. Although the majority of participant fears associated with opossums and raccoons were based on information they had received from other sources, 10 of the participants described an actual fearful encounter with an opossum or raccoon, (e.g., encounter in trash cans), where the participants felt physically threatened by an animal. Many of the participants perceived they were being attacked by the animal. Seven of the participants also described characteristics about opossums and raccoons that were disturbing (e.g., ugly, nasty, long claws, big teeth). The following excerpts from the interview data provide examples of how wildlife elicited expressions of anxiety or fear from the study participants. The excerpts are broken into 3 categories, direct encounters, information/instruction, and perceptual characteristics.

Direct encounters.

Mark

I got chased by a possum when we use to live on 80th street by the woods. Possums use to be in the back of our yard all of the time because we lived behind the woods. One time I lifted up the trash can and a possum was in it and jumped out. It got on my shirt but it didn't get me. At first I thought possums were just big rats. My daddy told me they would bite.

Jake

One time 3 raccoons were on top of our car. At first I thought they were possums because their eyes were looking kinda weird in the dark. So, I went over there and tried to get them off the car and they chased me. I had a broom to get them off the car because we were trying to leave to go some where and they were on

top of it. I went out there and tried to hit the raccoons off and two of them ran but 1 of them ran after me. At first the raccoon just jumped and I thought he wasn't going to do nothing because I had the broom. I thought it was going to leave with the other ones, but then the raccoon started running towards me so I started running but it was chasing me until I got to my porch and then it turned around.

Ken

When I was in middle school, the first year at the Science and Technology Program, we had field trips. One trip was to examine wildlife out in this area. We were conducting an experiment which involved samples of soil, water and stuff. I went somewhere by myself and I came across this big old snake. I saw some eggs so the snake may have thought I was trying to get the eggs or something. It was huge so I just stopped. I remember seeing this *Discovery Channel* program where they tell you the best thing to do is stay still. So I just stood there. The inside of my body was just shaking. I tried to stay real still. The snake rubbed against my leg and shoe. I was about to run but my feet were like stone so I didn't. I guess it was just smelling me to see if I was scared or something, I don't know. I just stood there and it kinda slithered somewhere else. Very scary experience.

Instruction/information.

Elena

Q: Why are you afraid of snakes?

A: They are nasty. Cause they bite. They are big.

Q: Has anyone ever warned you about snakes?

A: My mom, she said be careful because they could bite.

Carl

Q: Why do you think you are afraid of snakes?

A: I don't know. Probably because when I was young I use to watch the *Discovery Channel* and seeing all the poisonous snakes you think every snake is poisonous.

Sam

Q: What is your impression of opossums?

A: I wouldn't mess with the possum because they can have rabies so if I see one of those I really won't go up to it and try to touch it.

Q: Where have you learned that opossums have rabies?

A: I just like heard it around. People say that possums can have rabies because they eat trash. They don't keep clean a lot. They just look nasty.

Adam

Q: Why do you think you are afraid of birds?

A: I just don't like them. I always use to think, because you know when you see the cartoons and they be pecking on their head and the knots be coming. I

just think they will trip out one day and just get me. I just don't like them.

Perceived characteristics.

Kate

Q: Why do you think you are afraid of snakes?

A: I don't know. I am scared of even stuffed animal snakes. That's one big thing I'm scared of. I don't know why. I don't have a clue. It's just the snake, how it looks, and how it moves and the noise it makes. It scares me.

Izetta

Q: What are your feelings on snakes?

A: I don't like snakes. I know they are more scared of me than I am of them but they be biting people. I don't like snakes. They are nasty and slimy. They are not really slimy, they just got a weird feel to them.

Carmona

Q: What do you think about raccoons?

A: I don't like.

Q: Why don't you like raccoons?

A: Their eyes. It might bite me. It looks like a mouse and I don't like mice.

Elena

Q: Why were you afraid of the raccoon?

A: I think it was going to bite and he had big nails. He might scratch me.

Summary

The conditions of the explanatory matrix facilitate and shape the processes associated with the central perspective of the inquiry, namely the “varied experiences of urban minority adolescents with wildlife.” The 5 conditions identified and discussed above are the primary factors that influence the actions and interaction (processes) of the participants in the context of the urban environment. Using the literature and the interview data from my study as a basis for understanding the potential influence of the 5 conditions, I provided examples from the interview data to demonstrate how these conditions may play a role in shaping the actions and interactions of the participants.

Attitudes toward wildlife

Attitudes toward wildlife is a condition that serves 2 purposes in this study: 1) to develop an understanding and provide a description of the meanings urban minority adolescents attach to their experience with wildlife, and 2) as a condition of the inquiry in shaping the actions or interactions (processes) of the participants with respect to their experience with wildlife. Because attitudes have an affective and behavioral influence on people, the attitudes of the participants may influence their approach to wildlife encounters as well as their overall experience with wildlife.

Demographic characteristics

Demographic characteristics influence the actions and interactions (processes) of the participants in 4 ways, age, gender, ethnicity and socioeconomic status. The interview data suggest that all four of these properties may play a role in shaping the processes. The age, gender, and ethnicity of the participants indicates they will be more inclined to support a protectionist value orientation toward wildlife, females may be less likely to harass and harm wildlife than males, and their human-nature orientation is one of subjugation to nature and family oriented with respect to involvement in wildlife related activity. The influence of socioeconomic status was reflected most through access to resources and opportunities to experience wildlife. The data suggested that the majority of the study participants had a narrow base of experience with wildlife, which could be a function of limited resources from parents and the community.

Place of residence

According to the research literature, people living in urban communities tend to be more protectionist in their values toward wildlife than utilitarian and are more likely to have a deeper concern for the rights of animals than their rural counterparts (Manfredo et al. 2003). The interview data from my study supports these contentions. Approximately 80% of the participants expressed a moralistic value for wildlife and only 20% of the participants subscribed to a utilitarian attitude. Another important consideration with respect to place of residence is contact with natural areas. Recent research suggests that contact with natural places in childhood has an important influence on how people value the natural world (Chawla 1998, Palmer and Suggate 1996, Palmer et al.). The majority of participants in my study generally had limited access to natural areas.

Socialization

All humans are subject to a variety of societal forces that influence their lives in general and their experience with wildlife in particular. This socialization process begins at birth and continues throughout adulthood. The socializing agents most salient with respect to the adolescent experience with wildlife include family, peer group, education, and media.

The family has an important socializing influence on children. The family into which a child is born is their reference group for values, norms, and behaviors (Elkin and Handel 1998). Family seemed to have an important influence on the participants in my study as well. Approximately 75% of the participants described an experience or conversation with a family member that involved wildlife.

Although significant life experiences and family relationships tend to have the greatest influence on the development of a person's environmental sensitivity and awareness, friends or peer groups also may play an important role. In my study, participant involvement in wildlife related interactions with friends was much less prevalent than with family members. Approximately 20% of the study participants described an experience or conversation with a friend regarding wildlife.

Recent research suggests that education can have a positive influence on a person's attitudes and behaviors toward the environment (Chawla 1999, Palmer and Suggate, Palmer et al. 1999). Educational opportunities are generally perceived as important contributors to the developing environmental attitude and behavior of children. The educational opportunities of the participants in my study were rather limited. Only 35% of the participants indicated receiving some formal education on wildlife.

Media is having a growing influence on the environmental attitudes and perceptions of children and adults in the United States (Bousé 2003, Champ 2002, DeRuiter and Donnelly 2002). Wildlife media experienced a steady development from the late nineteenth century to the early 1980s but has virtually exploded recently with the advent of cable and satellite television. Contemporary media is ubiquitous in nature, leaving virtually no individuals untouched. The interview data from my study reflects the pervasiveness of the media. Approximately 65% of the participants indicated that they watch wildlife programming. The majority of participants considered television wildlife programs as a primary source of entertainment and information about wildlife.

Encounters with wildlife

Recent research suggests that contact with natural places in childhood has emerged as an important influence on how people value the natural world (Chawla 1998, Palmer 1993, Palmer and Suggate 1996, Palmer et al. 1999). Personal encounters with wildlife may also have an influence on how people value wildlife (Newhouse 1990, Tarrant et al. 1997). Involvement with wildlife related activities like wildlife viewing, nature photography and hunting and fishing may have an influence on the environmental values of children (Teisl and O'Brien 2003, Theodori et al. 1998). In my study I divided encounters with wildlife into 3 categories: 1) extractive encounters (i.e., fishing, hunting, harassment/killing), 2) appreciate encounters (i.e., wildlife viewing, wildlife support), and 3) anxiety or fear encounters (i.e., direct encounter, instruction/information, perceived animal characteristics).

Extractive encounters with wildlife consisted primarily of fishing related activities. Approximately 60% of the study participants described a fishing experience, however, the majority of the experiences were infrequent. Approximately 35% of the participants described their fishing experience as negative due to boredom or unpleasant circumstances. A few of the participants (all males except 1) were involved in harassment/killing activities. These activities seemed to be motivated by curiosity/entertainment, fear, or capture/domination.

Appreciative wildlife encounters received a much higher level of involvement by the participants. Wildlife observation was reported by 100% of the study participants, with varying levels of involvement, ranging from casual observation of squirrels to using a bird book to identify birds. Generally, the majority of the study participants enjoyed

seeing wildlife if the occasion arose, but did not pursue wildlife viewing opportunities. Approximately 45% of the study participants were involved in some form of wildlife support, such as bird feeding. These activities consisted primarily of infrequent events, such as feeding ducks at the park, or putting bread out in the back yard for the birds. None of the participants engaged in long-term feeding activities, such as maintaining a bird feeder on a regular basis.

A review of the literature suggests that people who have limited experience with wildland areas may respond negatively to these environments because of the novelty involved (Bixler et al. 1994, Kaplan and Kaplan 1982). Although extreme novelty plays a role in avoidance of natural areas, fear of specific natural objects, such a particular wildlife species, may also influence how people perceive and react to nature and natural areas. In the context of my study, anxiety and fear was associated with 3 primary sources, direct encounters with wildlife, instruction/information (i.e., family members, educational institutions, media), and perceived negative animal characteristics. Fear and anxiety of wildlife was very salient for the participants in my study. All but 1 of the participants expressed fear and or anxiety about wildlife. Snakes, opossums and raccoons were the animals most often cited by the participants as eliciting fear. Approximately 75% of the participants expressed some fear or anxiety associated with snakes, primarily based on the information they had acquired from family members, school, or the media.

It seems evident from the literature and the data generated by the interviews with my study participants, that the 5 conditions identified likely have an influence on the adolescent experience with wildlife. The most obvious influence is that the experience with wildlife of the adolescents in my study is quite varied. It is clear from the interview

data that the study participants perceive wildlife very differently depending on the particular combination of conditions that helped form the life experiences of the participants. The nature of this influence is revealed through a set of processes that are shaped by the 5 conditions identified above and are detailed in Chapter 4.

CHAPTER 4. PROCESSES AND CONSEQUENCES OF THE VARIED EXPERIENCE OF URBAN MINORITY ADOLESCENTS WITH WILDLIFE.

Introduction

The purpose of this chapter is to describe the processes (actions and interactions) that occur as a result of the conditions identified in Chapter 3, and identify the outcomes or implications of these processes. I accomplish this by utilizing processual models inherent in dimensional analysis and the symbolic interactionist perspective (Charon 2001). Traditional social science uses mechanical models of causation that emphasize single variables inevitably leading to certain outcomes (Blumer 1969). Mechanical models of causation assume that specific antecedent factors will cause certain observable outcomes under predetermined conditions (Athens 1984). In contrast, processual models adhere to the principle that “observable phenomena are produced by developmental processes whose initial stages do not automatically determine their later ones” and therefore “the job of the scientist is to discover the stages which are necessary for a given phenomenon to come into existence and once in existence to sustain itself” (Athens 1984:244).

The central perspective of my study is the varied experience of urban minority adolescents with wildlife. As demonstrated in Chapter 3, there are a variety of conditions (i.e., attitudes toward wildlife, place of residence, demographic characteristics, socialization, and encounters with wildlife) that shape and influence the processes (actions/interactions) involved and ultimately the outcomes or implications of these

processes. It is not any one of these conditions that shape and influence the processes, but the conditions in some combination.

The social interactions of the participants with respect to wildlife play an important role in the experiences of the participants and their behavioral responses to those experiences. It is through social interaction that the processes are manifested. Consequently, before I describe the processes and consequences of this inquiry, it is important to discuss the nature of social interaction.

Social interaction

Social interaction is a situation where actors take one another into account, communicate, interpret that communication, and act upon each other's actions (Blumer 1969). It is a give and take process, whereby a person acts based on the actions of the other person. The actions of people unfold over time as acts are tried out in particular situations and altered based on what others do (Charon 2001). Social interaction is symbolic and involves taking the role or considering the perspective of others (Mead 1934). Because most social interaction is symbolic, symbolic interactionism offers an important perspective on this complex issue.

Symbolic interactionism. Symbolic interactionism is “the study of human beings interacting symbolically with one another and with themselves, and in the process of that symbolic interaction making decisions and directing their streams of action” (Charon 2001:151). Symbolic interactionism has 5 general core ideas that define the perspective: 1) role of social interaction, 2) role of thinking, 3) role of definition, 4) role of the present, and 5) role of the active human being (Charon 2001).

Role of social interaction. The role of social interaction refers to the social and dynamic activities between actors and among actors (Blumer 1969). Interaction is continuous and humans act in the company of others and act in response to the acts of others. Rather than simply responding to others in the environment, actors constantly influence one another as they act back and forth (Blumer 1969). As a result of this give and take between actors, a more dynamic and active human being emerges (Charon 2001).

Role of thinking. Social interaction, however, is not limited to the interaction between individuals. Individuals also interact within themselves and act based on their thinking in specific situations (Blumer 1969). Actors process interactions and carry on internal conversations about their actions and the actions of others. Thinking is an active and ongoing process that is viewed as more important than attitudes or values (Charon 2001).

Role of definition. Humans interpret and define their situation as action unfolds and then act on those definitions (Blumer 1969). By interacting with others and with ourselves we begin to develop a definition of a situation and base future actions on how we define that situation. “Definition is everything; what we do does not result simply from reality as it is but from how we define what it is” (Charon 2001:28).

Role of present. Our present situation is the key to understanding the cause. Our actions are based on the definition of the present, our thinking in the present, and our interaction in the present. The past is relevant only because it comes into play and is defined in the present (Charon 2001).

Role of active human beings. The symbolic interactionist perspective differs from other social-scientific perspectives in that the symbolic interactionist perspective views human beings as active participants in their behavior rather than passive players in a deterministic society (Blumer 1969). Joel Charon provides the following description of the active human being from the symbolic interactionist perspective:

Symbolic interactionism describes the actor as a being who interacts, thinks, defines, applies his or her past, and makes decisions in the present based on factors in the immediate situation. We, in fact, use our environment rather than respond to it, define our environment in relation to our goals in the particular situation rather than act as passive products of that environment, define our past in terms of the present rather than see the present as caused by that past. We are here conceptualized as active participants in what we do, even perhaps “free,” at least to some extent” (Charon 2001:28)

Summary. Charon (2001) characterizes social interaction as central to the human being. It shapes our identities, creates our qualities as human beings (i.e., social objects, symbols, mind), and is a cause of action in its own right. Social interaction is mutual social action that involves role taking, symbolic communication, and interpretation of the acts of others and one’s self. Social interaction focuses on the present situation as the cause of our actions and emphasizes the view that humans define and act upon their environment rather than simply respond to it (Charon 2001).

Symbolic interactionism is a unique perspective on human social interactions, which challenges the determinism in much of social science and places the human being as active in the environment (Blumer 1969). The symbolic interactionism perspective views humans as dynamic beings, interacting symbolically with self and with others in immediate situations based on definitions developed and altered in ongoing interactions (Charon 2001, Warriner 1970). Symbolic interactionism broadens the understanding of

cause by including the definition of the situation in the present and views cause as highly complex strings of factors instead of a single variable (Charon 2001).

Processes and consequences

Social interaction and the symbolic interactionist perspective are relevant to my study because the experience with wildlife, to a large extent, involves interaction between people and the objects in their lives. The participants in my study generally encounter wildlife when in the company of other individuals. The participants engage in some level of social interaction with regards to their encounters with wildlife, such as fishing with a family member or engaging in a conversation about an opossum in the trash can. Even when an individual encounters wildlife alone, social interaction occurs through the “role of thinking” about the interaction, as well as the influence the animal/human interaction may have on future interactions with other humans.

The conditions of the explanatory matrix (i.e., attitudes toward wildlife, place of residence, demographic characteristics, socialization, and encounters with wildlife) have been gleaned from the data as the most salient dimensions of the inquiry because they shape and/or facilitate the intended and unintended processes that occur under the set of conditions identified. These conditions are interdependent and all play a role in shaping the processes. However, some of the conditions may play a larger role than others depending on the particular circumstances and situations involved in the participant’s life experience. Each condition also has a set of properties that interact with other conditional properties and in combination with the overall conditions. The properties of

the overall conditions were described in Chapter 3 and are reiterated here: the condition “attitudes toward wildlife” has the associated properties of negativistic, positivistic, ecologicistic, naturalistic, utilitarian, and moralistic; the condition “place of residence” has the properties of natural areas, and built environment; the condition “socialization” has the properties of family, peer groups, school, and media; the condition “encounters with wildlife” has the associated properties of extractive encounters, appreciative encounters, and anxiety or fear; and the condition “demographic characteristics” has the associated properties of age, gender, ethnicity, and socioeconomic status. Additionally, some of the conditional properties have sub-properties that add an evaluative component to the property. For example, the condition “encounters with wildlife” has the evaluative sub-properties of positive encounter or negative encounter.

While all of the 5 conditions were involved in shaping the processes described below, the conditions and properties that played a more prominent role in shaping and differentiating the processes include place of residence (experience in natural areas vs. experience in built environments), socialization (positive and valuing messages vs. negative and devaluing messages), and encounters with wildlife (i.e., positive encounters vs. negative and conflictual encounters).

Demographic characteristics generally played a less important role overall in differentiating the processes. The participants are from the same age group and therefore they tend to have a protectionist value orientation to wildlife. The participants are also from the same socioeconomic level, which may influence access to resources and level of involvement with wildlife. These factors likely influence the overall urban adolescent experience with wildlife as components of the social context of the urban environment,

rather than conditions that play a role in differentiating the processes. However, gender and ethnicity may have played a role in shaping the “enduring wildlife” process and ethnicity may have played a role in shaping the “selective engagement with wildlife” process.

As stated in Chapter 3, the participants’ attitudes toward wildlife serves 2 purposes in this study: 1) to develop an understanding and provide a description of the meanings urban minority adolescents attach to their experience with wildlife and, 2) as a condition of the inquiry in shaping the processes of the participants with respect to their experience with wildlife. Attitudes have an affective and behavioral influence on how the participants feel about and respond to wildlife. While the participants’ attitudes toward wildlife were formed to a large extent by the other 4 conditions, their attitudes also interact with the other conditions. For example, the attitudes of a participant may influence how that person approaches a particular wildlife encounter, which will ultimately impact the overall outcome of that encounter. If an individual has a negative attitude toward snakes, that individual will be less likely to frequent areas where they believe snakes to exist, which will reduce the participants’ potential encounters with other wildlife species that they may find enjoyable and positive. Additionally, the attitudes expressed by the participants in the interviews reflect current attitudes which may have evolved over time. Therefore, I consider attitudes toward wildlife as an important condition in shaping the overall processes, but not a condition that can be readily seen as having a direct influence on the processes similar to socialization, encounters with wildlife, and place of residence.

I have identified 5 general processes occurring under the conditions discussed above: 1) connecting with wildlife, 2) negotiating safety, 3) selective engagement with wildlife, 4) enduring wildlife, and 5) wildlife disconnect. In the following sections, I will describe each process and identify the primary conditions that shape and/or facilitate the process, provide examples of how these processes are revealed through the experiences of individual participants, and give my interpretation as to the outcomes or implications of the processes.

Connecting with wildlife

Positive personal encounters with nature and wildlife in a safe and supportive environment, and mentoring by parents or adults important in a child's life seem to be the most prominent conditions shaping the "connecting with wildlife" process. Connecting with wildlife is a process that develops a cognitive and affective bond with wild animals. Being connected with wildlife is a belief that wildlife has intrinsic value and the recognition that humans and wildlife are destined to share the same environment. The participants associated with this process express an appreciation for the characteristics and behavior of wildlife and a feeling of connectedness to the other non-human beings that comprise nature and natural systems. To help illuminate the process of "connecting with wildlife" and the resulting implications of this process, I provide the following two participant examples, Fran and Elizondo.

Fran. Fran is an 18 year old, African American female who has lived in the study area all of her life. Fran lives with her mother.

In general, Fran has very positive attitudes toward wildlife. Positivistic attitudes were expressed consistently in the comments Fran made during the interview. On only one occasion did she express negative feelings toward a particular wildlife species (i.e., worm). There was also evidence of ecologicistic and naturalistic attitudes in Fran's comments. Fran has one of the most consistently positive attitudes toward wildlife of all the participants in my study.

Fran's interview demonstrated an intimate relationship with nature as a child. When Fran was young, she spent a great deal of time outside in natural settings. Fran and her family lived close to a natural area where Fran spent much of her time growing up. They also had a garden that Fran was involved in and enjoyed. This seemed to be a very special place for Fran. The following excerpt from the interview with Fran demonstrates the pleasure she gained from spending time in natural areas:

Special Place

I was raised having a big garden. I could just run up and down the hill and pretty much do anything. In my old house where I use to live there were a lot of butterflies because there was open space and a big yard. Our house was near the Missouri River and a turtle came. We always had rabbits. We use to catch them in little strawberry baskets.

Fran's parents, and her mother in particular, seemed to play an important role in Fran's experience with wildlife and the natural world. Fran mentioned several times in my interview with her the significance of her mother's teaching. The following excerpts from Fran's interview provide examples of the mentoring role her mother played:

Mother as Mentor

My mother is an open person, where you learn many different things. When I was very young she brought me in the yard and we looked at different books, about how animals would react to us being there. How they live in their habitat versus ours.

Enjoying the Outdoors

All I can say is my mom is a very open person, you know. You never stop learning whether it's with wildlife or school, like formal education and post secondary education. She loves being outside and I do to. I spent most of my spring break outside. She was raised in the country.

Observing a Squirrel

When I was younger me and my mom were sitting in the yard one time and a squirrel came down from the tree and it was real close to me and I was just really shocked at how close it would get to me because normally they run away. It sat right at my foot and ate its little nut. I thought it was fascinating because normally squirrels are scared of us and sometimes children tend to be scared of them also.

The Butterfly

I was coming in from outside and there was a butterfly stuck in a fan on the porch and my dad said just close the door and it will get out somehow. But me and my mom moved the fan and the butterfly got outside. It seemed like it was happier outside instead of cooped up on the porch. I like butterflies.

Fran has a comfort level with nature and wildlife that most of the other participants did not demonstrate. She never mentioned being afraid of any animal. Although she did indicate that her perception of worms had changed over the years to one of disgust. It is apparent from the following comments that Fran has an overall positive attitude toward wildlife:

Squirrels on a Limb

My mom has a day care and sometimes the squirrels would come down on a limb near our upstairs window where the kids were. The kids use to make little faces and tap on the window. The squirrels would just sit there with the kids and watch them. I kinda thought the whole family of squirrels liked being there.

Family of Raccoons

We had a family of raccoons that would come upstairs in the back of our house because we had our day care exit door. The raccoons would come up there and she had her nest up there on top of our roof. I thought it was crazy because my room was towards the back and I could hear this bumping noise or scratching. We would be upstairs sometimes and hear scratching also at night. One day my dad took me up the back stairs and let me look at the raccoons. Then eventually they moved on.

Forget the Spiders

I went on a camping trip with the DARE community service people at my elementary school. I was so excited. There were spiders crawling everywhere because we were near this condemned cabin. All the girls were hollering about the spiders and I was like, you know forget about the spiders. They are going to crawl on you whether you want them to or not.

Although Fran's attitudes toward wildlife tend to be primarily positivistic she also expressed naturalistic attitudes toward wildlife in the form of fishing. She views fishing as a way to spend time in nature relaxing and enjoying time with family and friends. The following statements describe the benefits Fran gains from fishing.

My First Fish

I caught my first fish in the 5th grade. I was just sitting there fishing and I felt something tugging on the pole and it was like what is it, I got a fish. I reeled it in. I was like yeah! I called my momma, I was like momma guess what, and she was like what? I caught my first fish. It was fun. She was happy for me.

Fishing for Relaxation

I like fishing. I think it is just a relaxing process. Fishing is quiet. There is something about the water. Just sitting there you get a chance to relax. You don't have to have anything on your mind and just fish. For whatever reason. I fish for relaxation and also to cook and eat the fish. I enjoy fishing a lot.

In general, Fran has a very positive perspective and overall attitude toward wildlife and nature. She spoke with fondness of her experiences when young, romping through the fields exploring the out-of-doors. These early positive life experiences in natural areas seemed to have an important influence on the shaping of Fran's feelings toward and comfort with nature and wildlife. It also seems apparent that Fran's mother played an important role in guiding Fran's budding curiosity and appreciation for nature.

Process of connecting with wildlife. Several conditions and properties were involved in shaping the "connecting with wildlife" process for Fran. The most prominent of these conditions include Fran's place of residence (experience in natural areas), encounters with wildlife (positive encounters), and socialization (positive and supportive

messages) provided by her parents. All of these conditions contributed in some way to shaping the process of connecting to wildlife and to the outcomes and implications of the process.

Fran and her parents, particularly her mother, seem to have a strong appreciation for nature and wildlife. Fran's attitudes toward wildlife are very positivistic, leading to continued engagement with wildlife. The process of connecting with wildlife started for Fran when she was quite young. She lived near a natural area and the family had a big garden. Fran's parents allowed her the freedom to explore the natural world and experience nature and wildlife for herself, as evidenced by the description of her "special place." Fran's comments in the interview indicate that her encounters with wildlife throughout her life have generally been quite positive. She described with affection several encounters she had while growing up, for example, sitting in the grass with her mother watching a squirrel eat a nut. Fran's interactions with family members also provided positive messages about wildlife. Fran's mother made nature-related books available to her, engaged Fran in conversations about the value of wildlife, provided positive role modeling with respect to wildlife, and afforded Fran direct encounters with wildlife in a safe situation. Fran's description of her mother helping to free the butterfly is a good example of the role she played in shaping Fran's perspective on wildlife. Fran's early access to natural space in addition to the support and mentoring she received from her parents, especially her mother, helped form the basis for Fran's positive attitudes and perceptions toward nature and wildlife, which contributed to her motivation for future experiences with wildlife.

Consequences of connecting with wildlife. Fran began developing a connection to nature and wildlife as a young child. As she became more intimate with nature and her encounters with wildlife continued, under the mentoring of her mother, the connection to wildlife grew stronger. Consequently, as Fran progressed through life she sought out experiences with wildlife. Fran's description of her fishing trip with the DARE program is an example of how Fran welcomed opportunities to encounter and experience wildlife. With each new experience with wildlife her connection to wildlife and nature deepened. Based on my interpretation of Fran's interview, I suspect she will continue to develop her connection with wildlife by not only welcoming opportunities to experience wildlife but also actively seeking out those opportunities.

Elizondo. Elizondo is a 15 year old, Latino male who has lived in the study area for 5 years. Prior to that he lived in Los Angeles, California. Elizondo lives with his mother.

Elizondo has a fairly positive view of wildlife overall. The interview with Elizondo reflected primarily two attitude types, positivistic and naturalistic. Elizondo values wildlife for the naturalistic benefits that wildlife provides as well as the enjoyment he gains through observing wildlife. In the interview for this study, Elizondo described only positive encounters with wildlife. He never mentioned being fearful or anxious around wildlife, and in fact, would seek out encounters with species that other adolescents often shunned, such as snakes. Elizondo's experiences hunting, fishing, and camping seemed to provide a great deal of pleasure for Elizondo. The following excerpts from the interview with Elizondo provide examples of these wildlife-related experiences:

Fishing

Q: Do you fish often?

A: When I lived with my dad we went fishing about three times a month. We went to the Kansas River sometimes or Prairie Lake. Sometimes we would catch real big fish or sometimes real little fish.

Q: What would you do with the fish?

A: If it was real little we just let them go, but if they were big enough we took them home and my mom would cook them.

Q: Do you like fishing?

A: Yes

Q: Why do you go fishing?

A: For leisure time.

Hunting

Q: You mentioned seeing deer. What are your impressions of deer?

A: They are cool! I went hunting with my dad twice in Mexico.

Q: What do you think of hunting?

A: I like it because you walk a lot and you can think of a lot of things and your mind is just clear.

Camping

We go to Wyandotte Lake sometimes for family reunions. We use to go to Perry Lake camping at least twice. We saw deer and birds there.

Elizondo's parents were also involved in wildlife-related activities, which provided role modeling for Elizondo as well as opportunities to encounter wildlife.

Elizondo's father appears to be an avid hunter and fisherman. Elizondo's mother also demonstrates an interest in wildlife through bird feeding and wildlife photography.

Elizondo described experiences with his mother as follows:

Feeding the Birds

My mom use to feed the birds. She would by bird seed. My little brother had this one class where he made a house for a bird and they would feed the birds. She did it mostly for my little brother but she also did it for the birds.

Video Taping Deer

We went to Wyandotte Lake to see if we could see any animals like deer because my mom wanted to video tape them. My cousins in California have never seen a deer before and my mom wanted to video tape it for them.

Elizondo's personal encounters with wildlife were complimented by the wildlife-related information he received in school as well as the information he sought out through the media (i.e., *Discovery Channel*).

Education

When I was in 5th grade my teacher had *National Geographic* books for us to read and sometimes do little reports on. Sometimes she would show us videos of *National Geographic*. I guess she really liked animals. In middle school we learned about how animals lived, how their cells are different from ours. In high school biology we learned about how animals live and survive.

Elizondo is somewhat unique in the pool of study participants because he only described positive feelings toward wildlife. He did not discuss situations where he was fearful or in anyway disgusted with animals. He also expressed positive feelings about animals that most of the study participants feared or looked on with disgust, such as snakes. Elizondo demonstrated an appreciation for the benefits provided by wildlife through extractive activities like hunting and fishing, as well as for the enjoyment gained by observing and experiencing wildlife in his daily life.

Process of connecting with wildlife. Fran and Elizondo had life experiences that were influenced by a similar set of conditions and properties. They both expressed primarily positivistic attitudes toward wildlife. They share similar relationships and interactions with their parents with respect to nature and wildlife. Fran and Elizondo have parents that are interested in and foster an appreciation for wildlife. They also experienced nature and wildlife at a young age in a positive and supportive environment and have had primarily positive encounters with wildlife. Elizondo also received wildlife-related instruction in school.

Elizondo has a fairly positive view of wildlife overall and his comments reflected primarily two attitude types, positivistic and naturalistic. Growing up, Elizondo had the

opportunity to experience nature and wildlife through hunting, fishing, and camping trips with his family. These experiences provided Elizondo the occasion to encounter wildlife in natural settings under the mentoring and guidance of his parents. Elizondo's parents were also involved in wildlife-related activities, which provided role modeling for Elizondo as well as opportunities to encounter wildlife. In addition to the information and guidance Elizondo received from his parents, he received wildlife-related information throughout his schooling; elementary, middle and high school. It is apparent from Elizondo's comments that he has been involved and interested in wildlife from a fairly young age and this interest has been fostered by personal experiences and the adults in his life. The combination of these factors contributed to shaping Elizondo's experience with and connection to wildlife.

Consequences of connecting with wildlife. Elizondo grew up in a situation and under circumstances where he was able to experience nature and wildlife on a regular basis. He began the process of connecting with nature and wildlife as a child. Because of his positive encounters with wildlife and the mentoring from adults in his life, he sought out opportunities to experience wildlife, which furthered his connection to nature and wildlife. Elizondo has an affinity for all wildlife, including those species other people often shun (e.g., snakes). He seems to have very little anxiety or fear around wildlife and is willing to encounter wildlife openly and with little caution. This openness broadens Elizondo's opportunities to experience wildlife and will likely foster a continued interest and connection with wildlife.

Negotiating safety

Children, by their nature, tend to be curious and will explore their surroundings if given the opportunity. The role of adults in society is to protect children from harmful situations. Children are not aware of the potentially harmful elements in their environment and it is incumbent on the adults in a child's life (i.e., family, relatives, teachers) to teach them about the dangers in the world without stifling their exploration and curiosity. There are certain species of wildlife that pose a potentially serious threat to a child's well being, such as poisonous snakes and spiders, or rabid animals. Because of conflicting goals, (i.e., the child's desire to explore and the adult's need to keep the child safe) a natural tension exists that must be negotiated. Adults recognize that children may be confronted by these potentially harmful animals, and therefore, create ways to reduce the risk of harm. For example, adults may inform the child of the dangers of particular animals, or restrict the child's activities. Children, on the other hand, may push the boundaries set by the adults.

The child also plays a role in negotiating their own safety. Although a child may not have information about the dangers of certain wildlife species initially, once they are made aware of the dangers they become active participants in negotiating their own safety. As stated previously, children are naturally curious and are prone to experiential learning, which may place them in dangerous situations. Knowing the dangers involved, a child takes on the responsibility of protecting themselves from danger. Consequently, children will establish their own limits and boundaries for engaging wildlife.

The process of "negotiating safety" between the child and adult, and the child and themselves, is shaped by several of the conditions and properties, but socialization in the

form of messages from family members and other adults important in the child's life (i.e., warning messages of danger) and personal encounters with wildlife (i.e., negative and positive encounters) are the primary conditions shaping this process. Involvement with wildlife-related activities in natural areas provides the participants with positive experiences with wildlife in a safe and supportive environment. However, heightened warning messages of danger with respect to certain wildlife species cause a certain amount of anxiety as well. To help illuminate the process of "negotiating safety" and the resulting implications of this process, I provide the following 2 participant examples, Cora and Sam.

Cora. Cora is a 17 year old, African American female who has lived in the study area all of her life. Cora lives with her mother and stepfather.

Cora has an interesting combination of attitudes toward wildlife, which plays a role in how she approaches present and future experiences with wildlife. In the interview with Cora, she expressed four attitude types, negativistic, positivistic, naturalistic, and utilitarian. Cora's negativistic attitude is associated with specific wildlife species that she perceives as threatening or in some way distasteful. She expressed positivistic attitudes toward wildlife species that tend to be less threatening for her. Her naturalistic and utilitarian attitudes are associated with the fishing activities she engaged in with her family.

Cora has had a high level of wildlife-related experience relative to many of the participants in the study. Cora spoke fondly of family fishing experiences at non-urban lakes as well as a local recreation area on the outskirts of the study area. Cora and her family appear to participate in wildlife-related activity (primarily fishing) on a fairly

regular basis. The following excerpts from the interview with Cora demonstrate this involvement:

Family Fishing Trips

Q: Describe an experience you had with wildlife.

A: I go fishing a lot. My family are people that like to go fishing. So, we go fishing. Birds will come and we'll feed them. We will pull out a fish that will be too small and let it get back into the water, catch another one and let it go back in.

Q: How often does your family go fishing?

A: Every time it gets warm.

Q: Who all goes?

A: My momma, my two sisters and their daddy. Sometimes my auntie and grandma.

Cora has had many direct encounters with wildlife, which have been both positive and negative in nature. For the most part, Cora's encounters with wildlife were initiated by Cora or her family and were associated with the wildlife-related activities the family pursued. However, some of Cora's encounters with wildlife were associated with wildlife/human conflicts. Cora seemed to welcome the wildlife encounters, even though some of the encounters generated a certain amount of fear and anxiety and resulted in what appeared to be a negative experience. The following statements provide examples of Cora's encounters with wildlife in both the urban and non-urban setting.

Aiding a Raccoon

Once we went fishing and there was a raccoon that had a hurt paw and it just sat there. At first we were scared to go near it because we thought it was going to attack. We thought we would give it hot dogs and stuff so it could get comfortable with us and after so long we could get close to it and put on a glove or like tape or something on it's paw so he wouldn't move it. After that he was ok, we just kept feeding him.

A Snake

We went fishing one day, but I went off by myself. I was standing on a rock and when I moved away from the rock I seen something under there. So I lifted the rock up and there was a snake under it. Boy was I scared! So I ran. Mom and them came up there and the snake was gone. It was more scared than I was.

Baby Birds

It seems like birds love our porch or something. Once we had like a little plastic nest or something and birds were actually living in there. The momma would come in and feed the babies and the father would stand on the light pole and watch and if the mother wasn't there yet he would stand there and watch over the children while the mother went to get food to feed them. I would watch them every day. We couldn't get to close because I guess you would scare them. After the birds grew up they left.

Feeding the Ducks

Q: What other birds do you see?

A: We see ducks when we go fishing. Sometime we go to Wyandotte Lake and rather than go fishing we feed the ducks. We bring like two loaves of bread and just throw it out to the ducks. The ducks get kinda angry if you don't throw bread their way. When you throw bread the other way some birds get mad. Sometimes you got to throw it in the water at them. They be scared to come near. And sometimes if you throw too little of it out they will come rushing at you and make you kinda scared.

Q: How about the big Canada geese?

A: They are the black ones with the long necks? They are scary. They will run at you.

Q: Have you ever had them take bread out of your hand?

A: No, I'm scared. They get that close but I wouldn't, I'm scared. I just throw it out at them.

Opossums in the Trash

Q: Do you ever see opossums?

A: Eating trash in the backyard. They will get at you too.

Q: How do they get at you?

A: They make a funny sound if you get too close. They do not want you to mess with their trash as they call it. They seem like it is their trash instead of yours.

Q: What happens when an opossum gets in your trash?

A: We just let them go away because everyone is scared of them possums. They will jump on you and bite you or something. The way they make that sound it is like they are going to fight back.

Although Cora's first-hand experiences with wildlife influenced her perceptions, interactions with family members with respect to these encounters may have influenced her perspectives on certain wildlife species as well. These influences were manifested in primarily three ways, providing wildlife-related opportunities, conversation, and role modeling. The wildlife-related activities that Cora's family pursued are significant

because of the increased opportunities provided for Cora to encounter wildlife. However, comments that family members made regarding wildlife, and the behavior of family members around wildlife, were evidenced in the interview and also made an impression on Cora. The following excerpts from the interview with Cora provide examples of family members' comments and behaviors.

Turtles Scare Me

Q: What do you catch when you go fishing?

A: Not a lot of fish. I catch turtles sometime. Whooo! I do not like turtles. They scare me.

Q: Why?

A: I just don't like how they look.

Q: Are you afraid they might do something to you?

A: Snapping turtles or something, I don't like to touch them. They might bite my finger.

Q: Has someone told you that turtles bite?

A: My momma. I have been knowing that since I was younger.

Kissing At Robins

Q: What other birds do you see around the house?

A: Robins always come around on the porch too. I was told they were for good luck. So every time I see them I kiss at them.

Q: Who told you that?

A: My momma and them told me that and my grandma, everybody.

Q: Does your momma and grandma kiss at them?

A: Yea, practically my whole family.

Feeding the Birds

Q: Do you feed the birds?

A: Sometimes we throw corn bread out in the yard so they can just eat it.

Q: Who throws the cornbread out?

A: My momma, and sometimes I do.

The media played a less important role in Cora's experience with wildlife. She indicated that she watches the *Discovery Channel* occasionally and mentioned liking to see wolves fight. She also expressed an interest in seeing animals in person that she had only seen on TV, such as lions, leopards, and monkeys.

Cora expressed a variety of attitudes toward wildlife during the interview for this study. Cora has a naturalistic attitude toward wildlife because of the recreational benefits provided by wildlife. However, she expressed negative attitudes toward certain wildlife species (e.g., turtles, snakes, opossums) due at least in part to the anxiety and fear associated with these animals, as well as the danger warnings from family members. Although Cora expressed negative attitudes toward these animals, except in the case of the opossum, her negative attitudes did not necessarily prevent her from engaging in the wildlife-related activities that resulted in the encounters with these animals. Consequently, it seems that the pleasure she gains from the overall recreational benefits from wildlife outweighs the negative encounters with certain animals. Cora also expressed positive attitudes about animals she encountered in her urban neighborhood, such as birds and rabbits. Cora was not fearful of these animals and her encounters with them were positive, such as the incident where the robins were nesting on Cora's porch. Cora also received positive messages from her family members regarding the value of these animals.

Process of negotiating safety. Several conditions and conditional properties were involved in shaping the "negotiating safety" process for Cora. The most prominent of these include Cora's personal encounters with wildlife (i.e., positive and negative), her place of residence (i.e., natural areas and built environment), and the socialization (i.e., warning message and positive messages) provided through her family. All of these conditions contributed in some way to shaping the "negotiating safety" process and to the outcome and implications of this process.

Cora and her family spend a fair amount of time together engaged in wildlife-related activities, especially fishing. Cora gave the impression that these outings with family were enjoyable and important to her. Cora appears adventuresome in her behavior, describing situations where she encountered wildlife either by herself or with peers. Cora's attitudes toward wildlife vary. She expressed negative attitudes toward certain species and positive attitudes toward others, which may influence how she approaches certain wildlife species. Cora's family provided many opportunities for Cora to associate with nature and wildlife, however, they also tried to influence those opportunities by giving Cora warnings about the dangers of particular animals. The passage in the interview describing how Cora's mother warned her about turtles is an example of attempts by Cora's parents to steer her away from certain animals. On the other hand, Cora's family provided positive messages about wildlife as well. Cora's story about the family kissing to robins for good luck is an example of this. It appears that family members gave Cora positive messages about wildlife through their behavior (e.g., feeding the ducks, fishing, backyard bird feeding) and comments, while at the same time made her wary of other wildlife species through warnings (e.g., possums will jump on you). Because of her place of residence in an urban setting, Cora was confronted with the possibility of threatening situations with wildlife (i.e. opossums in the trash), which resulted in very negative perceptions of opossums and raccoons.

Consequences of negotiating safety. It is evident from Cora's description of her experiences with wildlife that the process of "negotiating safety" consisted of a certain amount of cognitive and behavioral uncertainty. Cora received warning messages from her parents regarding certain wildlife species yet they allowed her to be exposed to those

species through activities that the family engaged in. Cora seemed to internalize some of the warnings, yet tested them by seeking out situations where she encountered the species her parents warned her against. Cora seems to possess an overall positive interest in wildlife and the benefits that wildlife can provide. Based on her comments, I suspect she will likely continue to pursue wildlife-related activities, although the activities she chooses will be influenced by the desire to be safe.

Sam. Sam is an 18 year old, African American male who has lived in the study area his entire life. Sam lives with his mother.

Sam generally expressed a positivistic attitude toward wildlife. However, there are certain wildlife species (e.g., snake, opossum) that Sam is uncomfortable with, resulting in a negative attitude toward those species. Sam's comments in the interview also reflected a moralistic attitude through his support for the right of animals to live unharmed in their habitat. Sam's general interest in wildlife seemed to be higher than the majority of the participants in the study.

Sam's encounters with wildlife occurred in both the urban community as well as non-urban natural areas. Sam and his family visited a local lake and natural area several times per year. Sam also participated in several fishing trips when he was young. The following descriptions provide examples of Sam's encounters with wildlife:

Animals in the Neighborhood

Q: What animals do you see around your house or your neighborhood?

A: Actually, last week I saw a squirrel, a possum and a rabbit in my yard. The rabbit was on the side walk. The possum, I guess it was looking for food, so it came up in our yard but we didn't have any garbage so it just went around my house and went to the next door neighbor's house. And like the squirrels, I see them all the time. They run around getting ready for winter.

Fishing with Family

Q: Have you ever been fishing?

A: When I was a kid. I went with my cousins and uncles. I have been fishing with my daddy once.

Q: What was it like fishing?

A: It was fun because you had to put the line out there and had to wait for the fish to bite. If you caught something you would look at it and you are kinda scared of it because it's a fish but fish can't do nothing. Sometimes if the fish was too small or not edible we would throw it back. We just fished for fun.

Visits to the Zoo

Q: Have you ever visited the zoo?

A: Since they have redone the local zoo I have been out there like twice. I like it out there. It is different than how it was with animals in cages. Now they are out walking around. It is good to see them like that. Animals like you wouldn't see any normal day. Like a lion, or tiger or giraffe. It's different. Ya, I like the zoo.

Q: You prefer the new format of the zoo?

A: Yes, because it shows how the animals act and their original surroundings. I am not able to go where the animals live. Like a giraffe is like in African, and I am not allowed to go to African and look at a giraffe. If I can go to the zoo, I can see them just walking around.

In addition to Sam's personal encounters with wildlife, he received information about wildlife in school and through the media. The elementary school that Sam attended provided some level of environmental education through an adjacent natural area.

Additionally, Sam mentioned reading books about wildlife and watching the *Discovery Channel* on TV. The following examples provide a glimpse of the instruction Sam received on wildlife:

School Nature Center

When I was in elementary school, my school was set off back in the woods and there were white tail deer that would occasionally come up on the campus. We would be in class and the teacher would be like, everyone can stand and look out the window. There would be like a dozen white-tailed deer outside. Something might happen and they would get scared and run off in the woods. I think I saw a fox back there one time.

Books and TV

Q: Where do you think you have gotten most of your information about wildlife?

A: Teachers and books or magazines.

Q: Do you read magazines about wildlife?

A: Sometimes, like if I see an animal that interests me I will watch it on the

Discovery Channel. Sometimes I watch the *Discovery Channel* if they do the specials about alligators and stuff.

Sam not only received information about wildlife from school and the media, he also received information through interacting with family members and from the nebulous “they.” For example, when Sam discussed his feelings about opossums and snakes he had this to say:

Opossums Have Rabies

Q: Why do you feel threatened by opossums?

A: I just like heard it around. People say that possums can have rabies because they eat trash. They don’t keep clean a lot. They just look nasty.

Q: What happens if you see an opossum?

A: If I see a possum I stay in the house. I will observe it to see what it did.

Terrified of Snakes

Q: What are your feelings on snakes?

A: For some reason I am just terrified of snakes. I don’t like them. When I was younger I heard that snakes were poisonous and I thought all snakes were poisonous. So when I see a snake in my yard even though I know it is not poisonous, I would think it’s a snake, it’s poisonous. I don’t mess with any kind of snake because I can’t tell the difference.

Q: What do you do when you see a snake?

A: I avoid it. I let it go where it gotta go. Say, if I was on my porch and I seen one go into our plants, I wait and look around to see if it’s going to come out. If I see that it is going to stay there I go right past it fast.

Momma is Scared of Opossums

My momma will get up and yell at a possum and tell them to get out. I guess she is scared of them too.

Although Sam has a definite distaste and fear of particular wildlife species, he also commented on the right of animals to exist. He would prefer that problem animals be removed from the situation or area, but he also expressed the opinion that the problem animal needs to have a place. For example:

We All Have a Place to Be

Q: What do you think should be done to an animal that is causing problems, such as getting into your trash?

A: I think it should be caught and released in the wild. Like out in the woods or something. Because, like a possum can bite some unsuspecting kid, thinking it was a cat or something. They could bite the kid and then the kid would be hurt and maybe infected with rabies. So I think possums should be caught and released in the wild. If they got rabies it should be taken care of. I don't want to say put down, but then again that is probably what needs to happen.

Q: Are there circumstances where you feel an animal should be killed.

A: Not unless they are attacking someone, but if they are not attacking then there is not need to.

Q: Do you feel that wild animals have a right to exist in the city?

A: Yes. We all have a place to be. Maybe that's just where they fit in. I observe them because it is really weird to see a raccoon where I live. I thought, that's a raccoon. So, I just looked out the window because it was at night. I followed it until I couldn't see it anymore. I thought it was cool that it was a raccoon.

Process of negotiating safety. Sam and Cora have had life experiences that were influenced by a similar set of conditions and properties. Sam and Cora expressed both positivistic and negativistic attitudes toward wildlife, generally associated with particular species. Both received heightened messages from important adults in their lives about the dangers of certain wildlife species. They also observed these species in their day-to-day lives (e.g., opossums in the trash), as well as on occasions to natural areas outside the urban community. Although Sam and Cora expressed a high level of fear and anxiety about certain wildlife species, neither Sam nor Cora had threatening encounters with those species. Their affective response to these species seems to be a result of information and instruction they received from other sources (e.g., family, peer group, media).

Sam expressed a positivistic attitude toward wildlife, however, he has negative feelings about certain wildlife species (e.g., snake, opossum). Sam's attitudes played a role in how he approached wildlife experiences and ultimately how he negotiated his own safety. Sam's encounters with wildlife involved both urban and non-urban settings and

consisted of fishing trips and family outings to a local lake. Sam's encounters with wildlife in the urban community consisted primarily of observation. His encounters were moderated to some extent by his attitudes and perceptions of wildlife, which were further moderated by the information Sam received about wildlife from school, the media, and the infamous "they." Sam's approach to negotiating his own safety seemed to be based more on information he received from outside sources rather than his own personal experiences with wildlife. For example, Sam's mother warned him about the dangers of spiders and demonstrated her fear of opossums through role modeling. The warnings that Sam received from the infamous "they" and his teachers also seemed to carry some significance with him.

Consequences of negotiating safety. Sam had personal positive encounters with wildlife but much of the wildlife-related information that he received from other sources (e.g., family, school, media) was laced with warnings. Sam negotiated a complete avoidance behavior for himself with respect to certain wildlife species. For example, he stays in the house when he sees an opossum outside or he avoids areas where snakes might be lurking. Sam seems to have an interest in wildlife and he supports their well being, however, his personal safety is an important consideration when engaging in wildlife-related activities. Sam tends to prefer settings where he can experience wildlife in a safe and secure environment. Sam will likely continue to pursue a "wildlife at a distance approach" to future wildlife experiences.

Selective engagement with wildlife

The process of “selective engagement with wildlife” involves the discrimination between wildlife species based to a large extent on the perceived fear or threat posed by particular species. Lack of encounters with wildlife and socialization are the conditions that are most salient in this process. The participants associated with this process tend to have positive feelings about animals that they perceive as inoffensive and harmless (e.g., birds, squirrels) and negative feelings about those animals perceived as dangerous and threatening (e.g., snakes, opossums). The negative feelings come primarily from warning messages from adults important in the participants’ lives. These individuals have a relatively limited amount of experience with wildlife and a superficial understanding of the characteristics and behaviors of wildlife. To illustrate the process of “selective engagement with wildlife”, I will use the wildlife experiences of 2 different participants, Carmona and Marta.

Carmona. Carmona is a 15 year old, Latino female who has lived in the study area for 1 year. Prior to that she lived in El Salvador. Carmona lives with her aunt, uncle, and father.

Comments made by Carmona during her interview reflected primarily three attitude types, negativistic, positivistic, and moralistic. The negativistic attitudes expressed by Carmona are associated with fearful situations with wildlife, such as her experience with a snake eating a chicken, or with animals she perceived to be dangerous due to threatening characteristics (e.g., “raccoons have long nails”). The positive attitudes are associated with particular animals that Carmona found to be pleasurable due to some physical characteristic or behavior trait and that she perceived as non-

threatening. In general, Carmona's attitudes are balanced between the positivistic and negativistic types, with a moralistic attitude toward the humane treatment of animals in general.

Carmona did not discuss involvement in wildlife-related activities in her interview. She mentioned that her father, brother, and uncle fished occasionally, however, Carmona did not participate in any extractive wildlife-related activity such as hunting or fishing, and has had minimal involvement in appreciative wildlife-related activities (e.g., bird feeding). Additionally, Carmona has not spent time in natural areas. Her encounters with wildlife have been primarily associated with observations in her day-to-day life. The following excerpts from Carmona's interview provide examples of her wildlife encounters both negative and positive:

Chicken Eating Snake

Q: Tell me about your experience with the snake.

A: A snake was eating a chicken. It was scary. I called my mom and my mom called my neighbor who then killed the snake. It was a big snake.

Q: What was that like for you?

A: I was scared.

Q: Why are you afraid of snakes?

A: They might bite. I don't like snakes.

Q: Has anyone told you about snakes being dangerous?

A: My teachers in El Salvador. They said that snakes could kill you.

Q: What do you do when you see a snake?

A: I scream and run.

Raccoon in the Trash

I saw a raccoon in the back yard getting in the trash. I don't like raccoons. Their eyes. It might bite me. It looks like a mouse and I don't like mice.

Turtle in the House

Q: What other wild animals have you seen?

A: Once a turtle came in the house when it rained. It was beautiful. I like turtles.

Q: What did you do with the turtle?

A: I gave it food like tomatoes and then it left.

Funny Squirrels

Q: What do you think about the squirrels?

A: I like them, they are funny.

Q: Why are they funny?

A: When they run and play in the trees.

Birds are Beautiful

Q: What do you think about birds?

A: I like them, they are beautiful.

Q: What do you like about the birds?

A: I like the singing.

In addition to Carmona's limited personal encounters with wildlife, she received information about wildlife from other sources. Carmona lives with her aunt and uncle and they feed birds and talk with Carmona about the birds. Carmona also mentioned receiving some instruction on wildlife-related topics in school and from animal shows on TV, which she watches frequently with her cousin. Carmona recalls receiving warnings from her father about how certain animals can be dangerous. Carmona also spoke fondly of viewing exotic animals in the zoo.

Process of selective engagement with wildlife. Several conditions and conditional properties were involved in shaping the process of "selective engagement with wildlife" for Carmona; ethnicity and gender, place of residence (i.e., build environment), encounters with wildlife (i.e., limited encounters), and the socialization (i.e., warning messages) provided by her family members. In the interview with Carmona, she expressed both positivistic and negativistic attitudes toward wildlife, depending on the particular species involved. Her attitudes likely moderate her approach to these species as well as her inclination to experience similar species.

Carmona has had limited experience in natural areas and has not participated in extractive wildlife-related activities, such as fishing or hunting, which may be associated

with her gender and ethnicity. None of the Latino female participants in my study indicated participating in extractive wildlife-related activities. Carmona's personal encounters with wildlife have also been limited and it appears that her perceptions of particular wildlife species are based on few wildlife encounters. Although Carmona's personal encounters with wildlife were minimal, her perceptions of those encounters may have been reinforced by information from family members and the media. For example, her father and teachers warned her about the dangers of snakes. The combination of limited personal experience with wildlife and the random information she received from family members and the media, may have contributed to the formation of Carmona's intense negative feelings about certain wildlife species and positive feelings about other species.

Consequences of selective engagement with wildlife. Through the process of "selective engagement with wildlife," Carmona developed a positive perception about some wildlife species and a negative perception about other species. As a result, Carmona avoids situations where she might encounter wildlife species she feels threatened by (e.g., her backyard at night) and pursues experiences with wildlife that are not threatening (e.g., visiting the zoo). Because of the pleasure Carmona gains from certain wildlife species and an expressed desire to see them, she may continue to pursue opportunities to experience those animals, resulting in an expansion of her knowledge about and comfort level with an increasing number of wildlife species. However, because of Carmona's anxiety about encountering threatening species, and because there appears to be limited opportunity for Carmona to pursue wildlife-related activities, she may not develop beyond the "selective engagement with wildlife" process.

Marta. Marta is an 18 year old, Latino female who has lived in the study area for 7 years. Prior to living in the study area, she lived in Ciudad Juarez, Mexico. Marta lives with her mother and father.

Marta expressed both positivistic and negativistic attitudes toward wildlife. Her negative attitudes are associated primarily with animals that she perceives as a threat, such as snakes and raccoons. Marta expressed positive attitudes towards animals that she perceives as non-threatening and provides enjoyment, such as birds singing. It was apparent from Marta's interview that she was pleased to have the opportunity to observe and appreciate certain wildlife species, but would prefer that other species leave the area where she lives. Marta mentioned how much she likes viewing wildlife at the zoo because "they won't do anything to me."

Marta did not mention involvement in wildlife-related activities in her interview, other than casual viewing. She mentioned that her father and brother-in-law fished occasionally; however, Marta has not participated in any extractive wildlife-related activity such as hunting or fishing. Additionally, Marta has not frequented natural areas. Her encounters with wildlife have been primarily associated with day-to-day life, however, the frequency of those encounters tends to be low. The following excerpts from Marta's interview, provides examples of her wildlife encounters:

Tortillas for a Squirrel

Q: What other experiences have you had with wildlife?

A: One time we gave some tortillas to a squirrel and he was eating it from our hands, but he didn't bite or anything. We were just sitting there giving him tortillas and he was just eating them.

Q: What gave you the idea of feeding the squirrel tortillas?

A: I don't know, we just got some tortillas. I think it was my mom said to. She was with me.

Q: What did the squirrel do?

A: It just came up to us and grabbed the tortilla and left.

Q: The squirrel grabbed the tortilla out of your hand?

A: Yes. It would come back for more and more and more.

Q: Have you tried feeding other squirrels that way?

A: No, just that one time.

Birds Singing

Q: What kinds of birds do you see in your backyard?

A: Blue jays and I don't know the other ones, the red ones, and the gray ones, the regular ones. When I see them I just think of spring and summer.

Q: So when you see the birds you think about spring and summer?

A: Yes, because they will sing like during the morning. I like it when they sing.

Although Marta has never negative encounters with a snake, spider or raccoon, she has negative attitudes toward those species. Marta made the following comments in her interview:

Watch Out for Snakes

Q: Have you had a conversation with your family about snakes?

A: We have a conversation about snakes when we do the laundry.

When we put the laundry out to dry we talked about that there might be snakes crawling on your feet. But they say the snakes are not poisonous. I don't know.

Q: Have you seen snakes when you have been putting out your laundry?

A: No, I would scream, I would run. Because I am scared.

Q: Are you afraid of other animals besides snakes?

A: Only spiders.

Q: Why do you think you are afraid of snakes and spiders?

A: Because they are poisonous, scary and hairy. They are just too scary.

Q: So, did your mother talk to you about snakes when you were doing the laundry?

A: Yes, she said grab the snake from the back and just throw it away. Just throw it as far as you can.

Q: Have you seen her do that?

A: No

Based on the interview with Marta, I suspect that she has relatively little experience with nature and wildlife. She has spent very little time in natural areas and has had few encounters with wildlife. Her primary information about wildlife seems to be from conversations with family members. She did express an interest in wildlife as long as it was confined, such as in an aquarium or zoo.

Processes of selective engagement with wildlife. Carmona and Marta have had life experiences that were influenced by a similar set of conditions and properties. Marta and Carmona both have positivistic and negativistic attitudes toward wildlife which are associated with particular wildlife species. Their involvement with wildlife-related activities has been limited and neither Carmona nor Marta has frequented natural areas. They both have male family members that participate in fishing activities, however, Carmona and Marta do not. It is possible that their Latino ethnicity and gender may have contributed to this lack of involvement in extractive wildlife-related activities. Both participants have intensely negative attitudes toward certain wildlife species (e.g., raccoons, snakes) that they perceive as threatening and positive attitudes toward those species that they perceive as non-threatening (e.g., birds).

Green space in Marta's neighborhood is scarce and Marta has not frequented natural areas in other locations nor has she participated in wildlife-related activities, such as fishing, hunting, or bird feeding. Marta's negative attitudes are associated primarily with animals that she perceives as a threat, such as snakes and raccoons. Her positive attitudes are associated with animals she perceives as non-threatening, such as birds. It appears that Marta's negative perceptions have been influenced by interactions with family members (e.g., conversation with mother about snakes) and her positive perspectives have been influenced more by direct encounters with wildlife (e.g., feeding the squirrel). The combination of limited personal experience with wildlife and the threat skewed information she received from family members may have contributed to the formation of Marta's intense negative feelings about certain wildlife species and positive feelings about other species.

Consequences of selective engagement with wildlife. Through the process of “selective engagement with wildlife,” Marta developed a positive attitude about some wildlife species and a negative attitude about other species. Her negative attitudes, however, tend to be more intense than her positive attitudes and may be more influential in the “selective engagement with wildlife” process. As a result, Marta avoids situations where she might encounter wildlife species she feels threatened by (e.g. her backyard at night), which reduces her opportunity for positive encounters with wildlife. Marta tends to restrict her activities to locations where she feels safe with wildlife, such as the zoo. Because of Marta’s anxiety about encountering threatening species, and because of her limited involvement with wildlife-related activities, she will likely not develop beyond the “selective engagement with wildlife” process.

Enduring wildlife

The participants experiencing the “enduring wildlife” process have had primarily negative encounters with wildlife most often associated with situations of human/wildlife conflict, particularly with common wildlife species found in urban settings (e.g., opossums, raccoons, snakes). The socialization messages they have received have been generally negative or relatively absent and they have had limited involvement in wildlife related activities. These participants do not seem to value or appreciate wildlife to any extent, yet they seem resigned to the fact that wildlife will continue to be a part of their lives. There is a shared belief that nothing can be done to prevent wildlife/human conflicts. Interestingly, the participants associated with this process generally express a moralistic attitude concerning the right of wildlife to exist, even though wildlife cause

problems for the participants. To illustrate the process of “enduring wildlife,” I will use the wildlife experiences of 2 different participants, Donnie and Jake.

Donnie. Donnie is a 16 year old, African American male who has lived in the study area his entire life.

In general, Donnie has a fairly negative attitude toward wildlife. Donnie’s attitudes are one of the most consistently negative of the participants in my study. Donnie tends to view wildlife as something to confront and/or endure. In the interview with Donnie, he did not express any positive feelings toward wildlife. He did express a utilitarian attitude in association with fishing activities and a moralistic attitude when confronted with the solution to dealing with a problem animal.

The wildlife encounters that Donnie described in his interview were primarily confrontational in nature and they tended to be associated with anxiety or fear. The following statements offer examples of Donnie’s fearful encounters with wildlife:

The Bird Attack

My friend and I knocked down a bird’s nest and the momma came and tried to peck me in the head. I ran home and stayed there the whole day because I thought the bird was going to get me. I was in the tree messing with the nest and it fell and the bird came and started pecking.

Messing with an Opossum

Q: Have you had similar encounters with other animals?

A: I had a thing with a possum. I am scared of them.

Q: Why?

A: Because they will bite you.

Q: Have you had one try to bite you?

A: Yea, I ran from that mother. It was my first time messing with one. I was playing with it and stuff. It was right there in my trash can and I was trying to get it out of my trash can. It started to run at me, so I backed up and went in the house and told my uncle, and he got it out. He grabbed the trash can and threw it off the balcony and the possum ran into the weeds.

Q: Is that the only time you have seen an opossum at your house?

A: No, I have seen them a whole bunch of times but I don’t mess with them.

Although the wildlife encounters that seemed most salient for Donnie were those associated with fearful interactions, Donnie did describe more positive occasions where he went fishing with a friend. The primary reason expressed for fishing was for fun and to sell the fish at the bait shop. Generally, Donnie's attitude about fishing is utilitarian.

Fishing with a Friend

Q: Have you ever been fishing?

A: Last summer at big eleven lake. I was with my friend. We were fishing for crawdads. One caught on my friends arm. He was a little boy and he started to crying.

Q: How do you catch crawdads?

A: Put a hot dog on a string, don't need a hook, and dip it in the water. Bring it up and keep doing it. I sell them to the bait shop. Big eleven lake is just a little pond where drunks go to drink.

Q: What do you catch at big eleven lake besides crawdads?

A: Catfish, crappie, bluegill.

Q: What do you do with the fish you catch?

A: Take them to the bait shop.

Donnie received limited information about wildlife from outside sources (i.e., family, friends, school, media). He indicated never watching wildlife programming on TV or receiving information about wildlife in school. On one occasion, however, Donnie did have a conversation with his father about rabbits. Donnie's description of that conversation follows:

How to Catch a Rabbit

They say if you scream the rabbit will stay still. I tried that but the rabbit wouldn't stay still. The rabbit kept skipping around. My daddy said that. He lived on a farm.

Although Donnie expressed primarily negative feelings toward certain wildlife species like birds and opossums, an interesting contrast was revealed in his discussion

about how to deal with opossums in the trash. The following statement is an example of a moralistic attitude expressed by Donnie:

God's Creatures

Q: What do you think about possums coming around your house?

A: I hate the mothers. Because they are always in my trash.

Q: What would you like to have happen to them.

A: I don't do nothing. I don't kill them because they are God's creatures.

Q: What might you do to keep them from coming.

A: They ain't going to stop so I just keep running them off.

Q: How do you run them off?

A: Brooms. I hit the trashcan with a broom. They hiss at me and then run off.

In general, Donnie has a negative feeling toward wildlife except when there is an opportunity to gain some monetary benefit (i.e., selling the fish to the bait shop). The interview with Donnie contained virtually no positive statements about wildlife and Donnie's perspective seems to be one of enduring the existence of wildlife and the problems that they can cause.

Process of enduring wildlife. Several conditions were involved in shaping the process of "enduring wildlife" for Donnie; gender, place of residence (i.e., built environment), encounters with wildlife (i.e., negative and conflictual encounters), and socialization (i.e., limited messages). The condition that seemed to be the most salient for Donnie was the direct encounters he had with wildlife.

Donnie's encounters with wildlife occurred almost entirely in the urban setting and in his immediate neighborhood. Based on Donnie's comments, the area had a thriving opossum population. In the interview with Donnie he described having had no experiences in natural areas. His encounters with wildlife have been generally conflictual and rather negative. Donnie also has a tendency to harass wildlife (behavior that may be

linked to gender), which may have increased his conflicts with wildlife as well as his negative attitudes and perspectives toward wildlife. His overall attitudes toward wildlife are primarily negativistic, which may contribute to his general avoidance approach to wildlife. The 1 wildlife-related experience that provided some enjoyment for Donnie was fishing, and he did that primarily for utilitarian purposes. Thus, he values wildlife for the monetary benefit only and sees no intrinsic value in wildlife. Donnie's knowledge about wildlife has been gained largely from his own encounters with wildlife. He received limited information about wildlife from educational sources, or the media, although he may have received some negative messages from family members as evidenced by the rabbit story and the encounter with the opossum in the trash can. Generally, Donnie's knowledge about wildlife is based predominately on his own experience, which tends to be negative. However, an interesting tension exists in Donnie's attitudes toward wildlife. In Donnie's interview, he made the statement that animals "are God's creatures" which suggests he believes in the moral right of animals to exist. Consequently, Donnie is somewhat conflicted in his perspectives on wildlife in that he considers wildlife to be a real nuisance, especially opossums in his trash, yet he is resigned to the fact that they have a moral right to exist and that he is powerless to prevent the conflicts.

Consequences of enduring wildlife. It is apparent from Donnie's comments that he considers wildlife to be an unavoidable nuisance. Although there were occasions in Donnie's life when he engaged in harassing wildlife, he now deals with wildlife by avoiding encounters if possible. For example, he sought the assistance of his uncle in getting the opossum out of the trash can. Because Donnie can not avoid wildlife encounters entirely, due to the invasion of his trash by opossums, he has developed

techniques to make the encounters less unpleasant and threatening. For example, he uses a broom to chase opossums from the trash cans. Based on Donnie's overall negative feelings about wildlife and the disempowerment and frustration associated with the continued conflicts, I suspect that Donnie's perception of wildlife will either not change or will become more negative and his involvement in wildlife-related activities, such as fishing, will gradually end.

Jake. Jake is an 18 year old, African American male who has lived most of his life in the study area. Jake lives with his grandmother.

Jake expressed both positivistic and negativistic attitudes toward wildlife. While he accepts wildlife as a part of life, he did not portray wildlife as particularly beneficial to himself. Jake's positive attitudes are associated primarily with fishing experiences and his grandmother's bird feeding activities. Jake's comments about fishing reflected utilitarian attitudes. The negative attitudes expressed by Jake were primarily associated with conflictual encounters with particular wildlife species such as opossums and raccoons.

The majority of Jake's encounters with wildlife have been associated with day-to-day life in and around his home. Jake has not spent much time in natural areas outside the urban community except through fishing activities with his father when Jake was younger. The wildlife encounters most salient in Jake's discussions are associated with opossums and raccoons invading his living space. These encounters did not seem to be particularly threatening for Jake, but certainly a nuisance. He also expressed some concern that "opossums might have rabies and if they bite you then you would have to

get a shot.” The following excerpts from Jake’s interview provide examples of his encounters with wildlife:

Chased by an Opossum

One time I was taking the trash out and like there was a possum right there and I wasn’t scared of it, whatever. So I threw something in the trash but I didn’t know the possum was in there. He started making a hissing noise. I looked at it and then I walked away. Then it started chasing me. I ran up to my porch and he left.

Raccoons on the Car

One time 3 raccoons were on top of our car. At first I thought they were possums because their eyes were looking kinda weird in the dark. So, I went over there and tried to get them off the car and they chased me. I had a broom to get them off the car because we were trying to leave to go somewhere and they were on top of it. I went out there and tried to hit the raccoons off, and two of them ran but 1 of them ran after me. At first the raccoon just jumped and I thought he wasn’t going to do nothing because I had the broom. I thought it was going to leave with the other ones, but then the raccoon started running towards me so I started running, but it was chasing me until I got to my porch and then it turned around.

Snakes in the Grass

We have snakes in our yard in the summer. I was cutting the grass one day and I had my head phones on. I felt something on my leg and I looked down and snakes were going everywhere and it kinda scared me. One of them slipped passed my leg and I looked down but I didn’t want to run them down with the lawn mower.

Jake expressed positive feelings about his grandmother’s bird feeding activities.

However, Jake’s comments in the interview suggest that the positive attitudes shown toward birds may have been more about respecting his grandmother’s bird feeding activities, than his personal enjoyment of the birds. The following description provides an example of Jake’s relationship with his grandmother and her bird feeding activities:

Grandmother’s Bird Feeding

Q: Does your grandmother feed the birds?

A: See feeds them every day.

Q: Do you pay attention to birds? Do you watch them?

A: I watch them, like she likes birds whatever, she likes feeding them. She watches them a lot.

Q: How about you?

A: I watch them sometimes. I talk with her when she is looking out the window.

I look with her.

Q: Does she ever talk to you about what kind of birds they are?

A: Na, she don't know what kind of birds they are. Sometimes it's like some black birds, sometimes red and blue jays, whatever comes around. It be crows but when the crows come all of the others leave.

Q: What does she talk to you about as far as why she feeds the birds?

A: She is like religious, and she says she feeds the birds and God will feed her.

Q: What do you think about having the birds in the back yard?

A: I don't have a problem with it, whatever.

Q: Do you like seeing them?

A: Sometimes, and then sometimes when she's feeding the birds and I'm ready to go somewhere, she won't let me go outside until the birds leave because she thinks I am going to scare them off.

Although Jake's conflictual encounters with wildlife have been primarily defensive in nature, he also described a situation where he was involved in the killing and harassment of snakes. Interestingly, his grandmother was also involved in this activity.

For example:

Killing and Capturing Snakes

My grandmother had a problem with snakes in her yard. Snakes can dig holes, big holes in the ground. One day she put gasoline in the hole and burned it up, but the snakes still came back every summer. So, we use to catch them. We would get pop bottles and try to scoop them up with the bottles or grab them by their mouth so they couldn't do anything but wrap around your arm. We would put them in a garbage can and try to keep them to see how long they would stay in there, but they always seemed to get out.

As I indicated above, Jake went fishing on a few occasions with his father or uncle. He indicated that he went fishing to have fun and catch fish to eat. Jake seemed to enjoy his fishing experiences as is reflected in the following description:

Six Pound Catfish

I caught a 6 pound catfish one time at the Missouri River. I got a picture of it. We were about to go but I was like, let me throw it in one more time. I said just let me cast it out one more time, but they were like let's go. I was like let me throw it in one more time and my dad said ok. We didn't have much bait left. I used corn this time. I threw my line in and in about 30 seconds my pole just like bent (John showed how his pole bent) and I looked and I saw it and I just yanked

it. It was hard to get in. I was there about 15 minutes trying to reel him in. But I got through it.

Process of enduring wildlife. Jake and Donnie experienced a similar set of conditions and properties with respect to wildlife. They both have negativistic attitudes toward wildlife. Their encounters with wildlife have been primarily conflictual and negative, and they both have engaged in harassment activities. Their attitudes tend to be negativistic, utilitarian, and moralistic. Neither received information about wildlife from outside sources like school or the media. The primary difference between Donnie and Jake is that Jake participated in fishing activities with family members and received mentoring from his grandmother on supporting birds.

The same set of conditions involved in shaping the “enduring wildlife” process for Donnie were also involved in shaping the process for Jake; gender, place of residence (i.e., built environment), encounters with wildlife (i.e., negative and conflictual), socialization (i.e., limited messages). In the interview with Jake, he expressed both positivistic and negativistic attitudes toward wildlife; however, the negativistic attitudes were more prevalent. He also expressed utilitarian and moralistic attitudes.

Jake’s experience with wildlife has been limited primarily to the urban environment in the vicinity of his home. He has had minimal experience in natural areas, except for fishing trips with family members. The area around his home seems to be a haven for opossums and raccoons and wildlife encounters most salient to Jake have been associated with these animals invading his living space. These encounters did not seem to be particularly threatening for Jake, but certainly a nuisance. Jake also engaged in harassment activities with wildlife (behavior that may be gender linked). Similar to

Donnie, Jake's information about wildlife has been gained largely from his own encounters with wildlife and the majority of those encounters have been negative. He received very little information about wildlife from family members, educational sources, or the media. Jake's grandmother, however, provided some role modeling for him through her activities feeding the birds. She also instilled in Jake that humans have a moral responsibility as guardians of wildlife, as evidenced by Jake's statement "she feeds the birds and God will feed her." However, Jake's grandmother also demonstrated a devaluing of wildlife by attempting to kill snakes. Jake's encounters with wildlife have been predominately conflictual in nature, which influenced his perception of wildlife as largely a nuisance, having few benefits for humans. Jake seems resigned to the fact that wildlife will likely continue to cause him problems, yet he seems to believe that wildlife have a moral right to exist and so he must endure them.

Consequences of enduring wildlife. Jake views most wildlife species as a nuisance, especially those species that cause problems for him (e.g., opossums, raccoons, snakes). Jake can not control the invasion of these animals into his private space (e.g., trash cans, automobile, yard) so he responds by either avoiding a confrontation or attempting to remove the offending animal in a non-lethal manner (e.g., such as chasing the raccoons with the broom). Jake has developed a behavior strategy that allows him to manage the human/wildlife conflict with the lowest possible impact on himself and the wildlife. It appears that Jake no longer participates in fishing activities, which provided some positive benefits from wildlife. Most recently, Jake's encounters with wildlife have been primarily conflictual. Jake's behavior and encounters with wildlife suggest that he is enduring their presence, because he is unable to prevent the conflicts and believes they

have a moral right to exist. If these conditions continue to have a predominant influence on Jake's experience, this could reduce the likelihood that Jake will pursue wildlife-related activities in the future. However, because of his past positive experiences fishing and his appreciation for his grandmother's bird feeding activities, Jake may demonstrate supportive wildlife-related behavior in the future. It will depend on his future interactions and experiences.

Wildlife disconnect

Participants associated with the "wildlife disconnect" process view wildlife as having little value in their lives and prefer to have no association with wildlife.

Threatening experiences with wildlife at a young age accompanied by either minimal support from adults or shared messages of anxiety and fear contribute to shaping their negative perspectives toward wildlife. A lack of positive experiences with wildlife and access to only negative messages and misinformation further promote the feeling of separation or disconnect from wildlife. The "wildlife disconnect" process involves a state of detachment with wildlife. Individuals associated with this process have no affinity for wildlife and generally prefer to have minimal contact with wildlife. They place no intrinsic value on wildlife and generally promote a separation of humans and wildlife (i.e., humans and wildlife should occupy different habitats). To help explain the process of "wildlife disconnect" and the resulting implications of this process, I provide the following 2 participant examples, Robin and Janet.

Robin. Robin is an 18 year old, African American female who is a life-long resident of the study area. Robin lives with her mother.

Robin generally has negativistic attitudes toward wildlife, although it seems her attitudes were more positive when she was younger. As a child Robin spent time with her grandmother and uncle fishing. Robin mentioned a creek near her grandmother's house where Robin and her cousins would play, but lamented the deterioration of the area.

The Creek

It don't look the same. It use to be nice down there. There use to be flowers growing, nice looking water and stuff, but now it don't look right. The little board and wooden stairs they use to have down there is all torn up. The water is a green color. The grass and weeds and stuff it don't look right. Nobody goes down there no more. It's not the same.

The following excerpt from Robin's interview provides an example of a fishing experience with her grandmother:

Fishing with Grandma

Q: Have you ever been fishing?

A: Oh, I use to do that, I don't like that either.

Q: Tell be about your fishing experiences?

A: The last time I went fishing was when I was little too. I use to stay with my grandma and my grandma do all kinda stuff.

Q: Do you remember catching a lot of fish?

A: I only remember catching one fish. I was happy because I use to go all the time and I never caught no fish. The first time I caught a fish it was little and my grandma said I had to put it back. Then I caught another fish and it was just the right size. So she said I could keep it.

Q: What did you do with it?

A: She cut the shells off it and she cut it all open and she cleaned it and we ate it.

Q: What did you think?

A: It was good. I like fish anyway. It was just kinda funny eating a fish you see your grandma cut open and take the guts out and do all that stuff to it. It was kinda weird.

When Robin was young she was involved with her grandmother in wildlife-related activities. Based on Robin's description of her experiences with her grandmother, it seems those experiences may have had both a positive and negative influence on Robin's feelings about wildlife. For example:

Grandma's Animals

Grandma likes wildlife. My grandma had birds, snakes, butterflies, worms. She would go in the back yard and dig worms to go fishing. She got three dogs, a lot of cats. Everything, she likes wildlife. That's why I don't like going down there either, because I like dogs and cats but all that other stuff. She has lizards, but she only had them for a short time.

She use to catch turtles and stuff, and she use to cut there backs off and make them into ash trays. She use to have chickens and she use to freak their necks for thanksgiving and stuff. She use to cook them and stuff. She taught me how to fish. She taught me how to put a worm on the end of my stick for the bait. I didn't like touching the fish because they were all slimy. I didn't like fish, I was like ooh. She use to make us wash our hands in the lake to eat and she was like that's the cleanest water, and I was like oh no, and I need to wash my hands. I didn't like that kinda stuff.

Robin appeared to have some interest in wildlife when she was young, but her interest in and comfort level with wildlife seemed to change over the years. During the interview she expressed generally negative feelings about seeing wildlife or having wildlife near her home, with the exception of birds. Robin likes to hear birds singing.

The following comments demonstrate this change in perspective:

Changing Perspective

Q: When you were young you said you enjoyed wildlife, but now you don't. Why do you think that is?

A: I don't like animals like that. Some of them stink. But I would have a dog.

Q: Do you have a sense of why your ideas on wild animals changed?

A: I guess because when I was younger I had a lot of experience with animals, but now I really don't care. Because I done touched probably almost ever animal there is, at least the most common ones.

Q: When did that change take place?

A: I guess when I got older in high school, but in middle I didn't really care too much for that either.

Q: When did you stop hanging out with your grandma and doing things with animals?

A: The last time I ever been down to my grandma's house was the 4th or 5th grade.

Q: So, that's probably the last time you went fishing?

A: That's probably the last time I did anything that had to do with wildlife.

Process of wildlife disconnect. Several conditions and properties were involved in shaping the process of “wildlife disconnect” for Robin; place of residence (i.e., built environment), encounters with wildlife (i.e., negative), and socialization (i.e., positive and negative messages, role modeling). The conditions most prominent in Robin’s experience with wildlife are the influence of her family members, especially her grandmother, and her personal encounters with wildlife. Robin’s experiences with wildlife seemed to be somewhat positive as a child, however, there also seemed to be anxiety and disgust associated with the activities that her grandmother was involved in. When the relationship with her grandmother ended, Robin’s association with wildlife and wildlife-related activities also ended and any positive feelings that she once had for wildlife declined. The apparent negative nature of her encounters with wildlife and the interactions she had with family members with respect to wildlife, in some way skewed Robin’s feelings in a negative direction. Robin’s developing negative attitudes toward wildlife influenced how she approached wildlife and likely resulted in less involvement with wildlife.

Consequences of wildlife disconnect. As a child, Robin seemed to have positive feelings toward wildlife. As she grew older, however, her feelings changed and as a result, Robin discontinued participating in wildlife-related activities. She developed a general aversion to wildlife over time and was content never having any encounters or experience with wildlife, with the exception of hearing birds singing. I suspect that this aversion will continue to deepen as Robin avoids any association with wildlife, which will further the process of “wildlife disconnect.”

Janet. Janet is a 17 year old, African American female who has lived in the study area her entire life. Janet lives with her father and mother.

Janet has a negativistic attitude toward wildlife and considers wildlife to be of very little value to humans, except for fishing. One of her first statements in the interview was “I don’t like no kind of animals.” Janet does, however, enjoy the sport of fishing. She has a utilitarian attitude toward fishing in that she views it as a sport and a challenge. Janet is actively involved in fishing with her family and she has also been on camping trips. Her grandfather is an avid hunter and fisher and Janet seems to enjoy spending time fishing with him. For example:

Fishing with Grandpa

Q: So your Grandfather does a lot of things with wildlife, like hunting and fishing?

A: He fishes every day. I mean I go with him too. I like fishing on a boat. I just don’t like touching the minnows and all that.

Q: What happens when you catch a fish?

A: I take the fish off the hook. Yea, it’s scary but I take it off. I don’t like getting that thing out though. It’s fun fishing, it really is.

Q: When you fish who else goes along?

A: My grandma, probably my mom. It depends on whoever wants to go because my grandpa goes every day. So you can get a ride everyday if you want to. I don’t ice fish so I don’t ever go with him in the winter time.

Q: What do you do with the fish you catch?

A: I eat them.

Q: What is it like for you when you have the fish on the line?

A: Oh, its fun because I be trying not to lose it. It’s like an adrenalin rush for me. I like fishing. When I get the fish up there my grandpa just takes the net and brings it in.

Q: But he makes you take the fish off the line yourself?

A: I take it off myself because I want to. I just don’t like putting the minnows on there. I tell my grandma or grandpa to do that.

Q: Why do you go fishing?

A: It’s fun and I also like to catch fish. I am not going to let fish die for no reason so I am going to eat it too. It serves some purpose.

Janet's fishing experiences seem to be fairly positive, however, her other encounters with wildlife have generally been quite negative. There appears to be an element of fear associated with wild animals for Janet. For example:

Attacked by a Raccoon

We were at home and everybody was sleeping and I heard something like rattling at the door. I thought it was somebody coming because it was real late. So I went up to check and when I turned on the back porch light the trash had tipped over and the next thing I knew a raccoon had come out of the trash can. I ran in the house and I was running from it. I tried to jump on our wooden table and before I knew it I had slipped and fallen. I busted my head and I was like just out. After that I don't know what else happened. All I remember is I woke up and my momma was like are you ok. I don't know how they got the raccoon out or nothing. All we have had are horrible experiences with wildlife, no good experiences.

Snakes on My Leg

Q: Have you ever seen any snakes?

A: I was walking through the grass in this big lot. The next thing you know I felt something slither on my foot. I looked down and it was a long snake crawling on my foot. I kicked the snake off my foot and I ran because I knew that thing was going to crawl up my leg. Me and my friend were so scared.

Q: What do you think it was going to do to you?

A: Probably bite me, I don't know. Yes, I am scared to death of snakes.

Q: Why do you think that is?

A: These snakes here are probably not poisonous, but there are a lot of poisonous snakes and just the thought of a snake makes me scared. I don't like snakes at all.

Q: What is it about snakes that makes you scared?

A: Because there are a lot of poisonous snakes out there and I don't want to be bit by anything. And a snake bite, I really don't want to be bit by that. They have long sharp teeth. I remember my cousin had a dream and there was a snake under her and she woke up and she said there was a snake crawling out from under the couch. That was pretty scary and I wasn't even there.

Q: Is that the only time you have seen a snake?

A: I see snakes when we go fishing, but my grandpa is always in front of me so he can get them out of the way. I mean, I just seen some real big snakes up there but just for me to be walking in the city and see a snake crawl on my foot that's wild.

Q: You make sure when you are out hiking and fishing that someone is walking in front of you?

A: Pretty much, and I'll be walking with big footsteps. I don't want nothing crawling on me. I don't like mosquitoes, I don't like nothing.

Tics While Camping

Q: Have you ever been camping?

I went up to camp for like a month and they had bad tics. I was scared of the tics. I use to wake up in the middle of the night like every night thinking I had tics on my neck. I got like a lot of moles so I was paranoid.

Q: Did you ever find any on you?

A: No, they were in everyone else's bed. Every night before I went to sleep I sprayed OFF around my bed. Every one else had tics in their bed and that's why I was so paranoid and scared.

Rabbits in the Yard

Q: What other animals have you seen around your house?

A: We have a fence but they still get in some how. We have rabbits in our yard and the rabbits are not scared. I mean you can really walk this close (the distance between us in the interview) to the rabbit and it would not run. I don't know why that is.

Q: What are the rabbits doing in your yard?

A: I don't know. They are just walking around looking for something to eat probably.

Q: What do you think about having the rabbits there?

A: As long as they don't hop on me it's cool. I don't mess with them. I try to get in my car real fast.

Q: So you don't mind the rabbits being there.

A: No, I don't mind. If they got teeth that's when I am really going to be scared. Rabbits, I don't really care about their teeth. If they had sharp pointy teeth, I would probably be running somewhere.

Bird Poop on My Car

The only thing I don't like about the birds is they all fly back to the trees and they mess up my car every day. So I'm washing my car every day. That's the only problem I have with birds.

Janet's information and knowledge about wildlife has been gained largely from her own encounters with wildlife. She received very little information about wildlife from family members, educational sources, or the media. Even though her grandpa is an avid hunter and fisher, it appears that she did not receive wildlife-related information and knowledge from him. If he did talk with her about wildlife she didn't appear to retain the information. Janet's mother on the other hand, has given Janet the impression that she dislikes wild animals. For example:

Momma Doesn't Like Animals

Q: What do other members of your family think about wildlife?

A: I don't know. I asked my momma and she was like, I didn't know rabbits just be sitting there. She doesn't really say too much. I mean she doesn't like animals neither, like pets or anything.

Process of wildlife disconnect Robin and Janet share a negativistic attitude toward wildlife. They both have experienced negative encounters with wildlife and generally would prefer to have very little association with wildlife. Both Robin and Janet have grandparents that were actively involved with wildlife-related activities, however, it is clear from the interviews that Robin and Janet's parents were not actively involved in wildlife-related activities or appreciative of wildlife.

Several conditions were involved in shaping the process of "wildlife disconnect" for Janet; place of residence (i.e., built environment), encounters with wildlife (i.e., negative), and socialization (i.e., negative messages). The conditions that seem most prominent in Janet's experience with wildlife are the very negative encounters she had with wildlife while growing up, as well as her interactions with family members. Janet has had several very threatening encounters with wildlife that may have helped shape this disconnect. She also received messages from her mother that de-valued wildlife. Janet's grandfather, on the other hand, was a positive role model with respect to the recreational/family involvement benefits of wildlife and Janet seemed to gain pleasure spending time fishing with him. Janet's motivation for going fishing, however, was more about the challenge of catching the fish than spending time with family, which reflects a more utilitarian attitude toward wildlife. Based on the interview data, it appears that Janet has developed an aversion to wildlife overall, however, she maintains a strong interest and involvement in fishing. Her utilitarian attitude and perspective on fishing

outweighs her very negative attitude toward wildlife per se. It seems that Janet has separated the activity of fishing from the actual wildlife species involved, leading to a disconnection with wildlife.

Consequences of wildlife disconnect. Janet has developed an aversion to all wildlife species except for fish and that is primarily because she enjoys the act of fishing, not necessarily because she appreciates fish. Janet attempts to avoid wildlife species that she encounters in her day-to-day life. For example, when she sees rabbits in the yard she hurries and gets in her car. Because Janet loves to fish, she puts herself in situations where she may encounter wildlife species she is adverse to, such as snakes. Consequently, Janet manages these situations by having her grandfather walk in front of her or she modifies her walking behavior to reduce the chance of encounters. Because of Janet's general aversion to wildlife, I suspect she will continue to pursue behavior patterns that reduce the chance of encountering wildlife. Over time, Janet's general dislike and fear of wildlife will likely interfere with her fishing activities and the "wildlife disconnect" will be complete.

Summary

The interview data from my study reveals 5 general processes that are shaped and facilitated by the conditions associated with the participants' varied experience with wildlife. Each participant has a different set of life experiences. Consequently, the conditions (i.e., attitudes toward wildlife, demographic characteristics, socialization, place of residence, encounters with wildlife) and the properties of each condition interact in different combinations and degrees of influence to shape and facilitate the processes

(i.e., connecting with wildlife, negotiating safety, selective engagement with wildlife, enduring wildlife, and wildlife disconnect) that fashion the participant's overall experience with wildlife.

The 5 processes described above were developed from similarities and differences in the experiences of the participants and based on a common set of conditions. Although the participants experienced many of the same general conditions in their lives, the differing properties of the conditions and the combination of properties in the participants' lives were instrumental in shaping the processes. For example, participants allied with the processes of "connecting with wildlife" and "wildlife disconnect" were influenced by a similar set of conditions (i.e., socialization, personal encounters with wildlife, place of residence). However, the properties of the conditions experienced by the participants differed and it was the interaction of the properties that were instrumental in shaping the processes in a way that resulted in very different outcomes for the participants. The conditions most prominent in shaping the "connecting with wildlife" process include place of residence, socialization, and encounters with wildlife. The properties that influenced the combination of these conditions include access to natural areas with respect to place of residence, positive and supportive socialization messages about wildlife from adults important in the participants' lives, and positive encounters with wildlife. In contrast, the properties most prominent in the "wildlife disconnect" process consist of limited time spent in natural areas, negative or devaluing socialization messages about wildlife from adults important in the participants' lives, and negative encounters with wildlife. The participants associated with the "connecting with wildlife" process had very positive encounters with wildlife while growing up and received

messages that portrayed wildlife as a valued component of nature and something to be respected and enjoyed. In contrast, the participants associated with the “wildlife disconnect” had primarily negative and threatening experiences with wildlife and received socialization messages from parents and other adults that validated the anxiety experienced by the participant while growing up.

Connecting with wildlife

Positive personal experiences with nature and wildlife in a safe and supportive environment, and mentoring by parents or other important adults in the participant’s life seems to be the most prominent set of conditions and properties shaping the “connecting with wildlife” process. Individuals in this category have positive attitudes toward most wildlife species shaped by positive experiences in natural settings generally under the guidance of a supportive adult. Their extensive experience in natural areas in conjunction with the instructive influence of family members/other adults also contributes to the development of ecologicistic and naturalistic attitudes toward wildlife. Involvement with wildlife and nature at a young age fosters positive feelings about wildlife, rewards curiosity, and promotes further explorations and connections with wildlife. Instructive and supplemental guidance from adults important in participants’ lives contribute to positive experiences that broaden the individual’s understanding and connection with wildlife. As the participants experiencing the “connecting with wildlife” process progress in age, they continue to seek encounters with wildlife, and under the mentoring of adults in their life, the connection to wildlife grows stronger. With each new experience, their connection to wildlife and nature deepens. Consequently, the

“connecting with wildlife” process will likely foster a long-term appreciation for the value of wildlife and result in the continued involvement in wildlife-related activities and the active engagement in wildlife management issues.

Negotiating safety

Socialization in the form of warning messages from family members and other adults important in the participants’ lives, and personal encounters with wildlife were the primary conditions and properties shaping the “negotiating safety” process. Participants experiencing this process have both positive and negative attitudes toward wildlife, which are generally associated with particular wildlife species. Their negative attitudes and perceptions have been fostered primarily by warning messages from family members or other adults important in the participants’ lives; however, because the participants live in an urban community they have had the opportunity to encounter some of these threatening species first hand. Involvement with wildlife-related activities in natural areas provided the participants with positive experiences with wildlife in a safe and supportive environment, which fosters positive attitudes and perspectives. Because of the positive experiences and feelings associated with particular wildlife species and the heightened warning messages received from family and media, participants in this category are conflicted between the enjoyment they gain from wildlife and the concern for their own safety. Consequently, they tend to pursue wildlife-related activity with a certain amount of caution, attempting to avoid situations where they feel at risk yet seeking opportunities to experience and enjoy the benefits of wildlife. The “negotiating safety” process will likely foster a developing appreciation for wildlife and the continued

cautious involvement in wildlife-related activities, resulting in a long-term interest and passive engagement in wildlife management issues.

Selective engagement with wildlife

Place of residence (i.e., built environment), encounters with wildlife (i.e., limited encounters, negative, positive), and socialization (i.e., warning messages, positive messages) are the primary conditions and properties that are most salient in the “selective engagement with wildlife” process. Individuals associated with this process have both positivistic and negativistic attitudes toward wildlife shaped primarily by information they received through socialization (i.e., family, school, media). These individuals have had minimal direct encounters with wildlife and limited involvement with wildlife-related activities, such as fishing, hunting, or bird feeding. The observational encounters that the participants have had with wildlife have been limited to the urban community, which is populated by many of the animals that the participants perceive as threatening. It is possible that ethnicity may play a role in shaping this process with the Latino females because involvement in extractive wildlife-related activity may not be an accepted practice for Latino females. None of the Latino females in my study participated in extractive wildlife-related activity. This was not the case, however, with the African American females in the study. Many of the African American females participated in fishing activities.

Individuals experiencing the “selective engagement with wildlife” process have intensely negative attitudes and perceptions toward wildlife species (e.g., raccoons, snakes) that they perceive as threatening or dangerous, and positive attitudes toward

those species that they perceive as non-threatening (e.g., birds). Consequently, the “selective engagement with wildlife” fosters a situation where individuals avoid circumstances where they may encounter wildlife that they perceive to be threatening and pursue experiences with preferred wildlife species. However, because their negative attitudes and perceptions tend to be more affectively salient, the “selective engagement with wildlife” process may result in a reduction in opportunities for positive encounters with wildlife, which could erode the development of a broadened appreciation for wildlife, resulting in support for wildlife management activities that focus on containment programs, such as zoos and aquariums.

Enduring wildlife

The most salient condition and properties associated with the “enduring wildlife” process is negative and conflictual encounters with wildlife. Individuals experiencing this process generally have negativistic attitudes toward wildlife shaped by the conflictual and negative encounters that they have had with wildlife on a somewhat regular basis. These conflictual encounters tend to be associated with animals that invade the participant’s personal space, (e.g., such as opossums in the trash) and occur primarily in the urban community. Gender may also be a factor in this process because some of the conflictual situations arise from harassment activities, which is a behavior that tends to be associated with males.

Another condition and set of properties that play a role in shaping this process is socialization and the general lack of information about wildlife. Participants associated with the “enduring wildlife” process gain information about wildlife primarily through

personal experience alone and receive very little information from other sources (i.e., family members, school, or media), which may contribute to misconceptions about the behavior of wildlife. The participants also share a moral belief that animals have a right to exist and the participants may also be influenced by the ethnically linked human-nature orientation of “subjugated to nature,” which views humans as powerless against the forces of nature. Consequently, in the “enduring wildlife” process, individuals continue to experience conflict from problem animals, however, can not solve the problem and so they must just endure the conflict. They attempt to avoid the conflictual situations where possible but when not possible they develop techniques to make the encounters less unpleasant and threatening. Due to the disempowerment and frustration resulting from the perceived lack of control associated with continued wildlife conflicts, the “enduring wildlife” process will likely foster an increase in aversion to wildlife and avoidance behavior, reduce the likelihood of pursuing wildlife-related activities in the future, and result in a disengagement in wildlife management issues, unless directed specifically at animal control efforts.

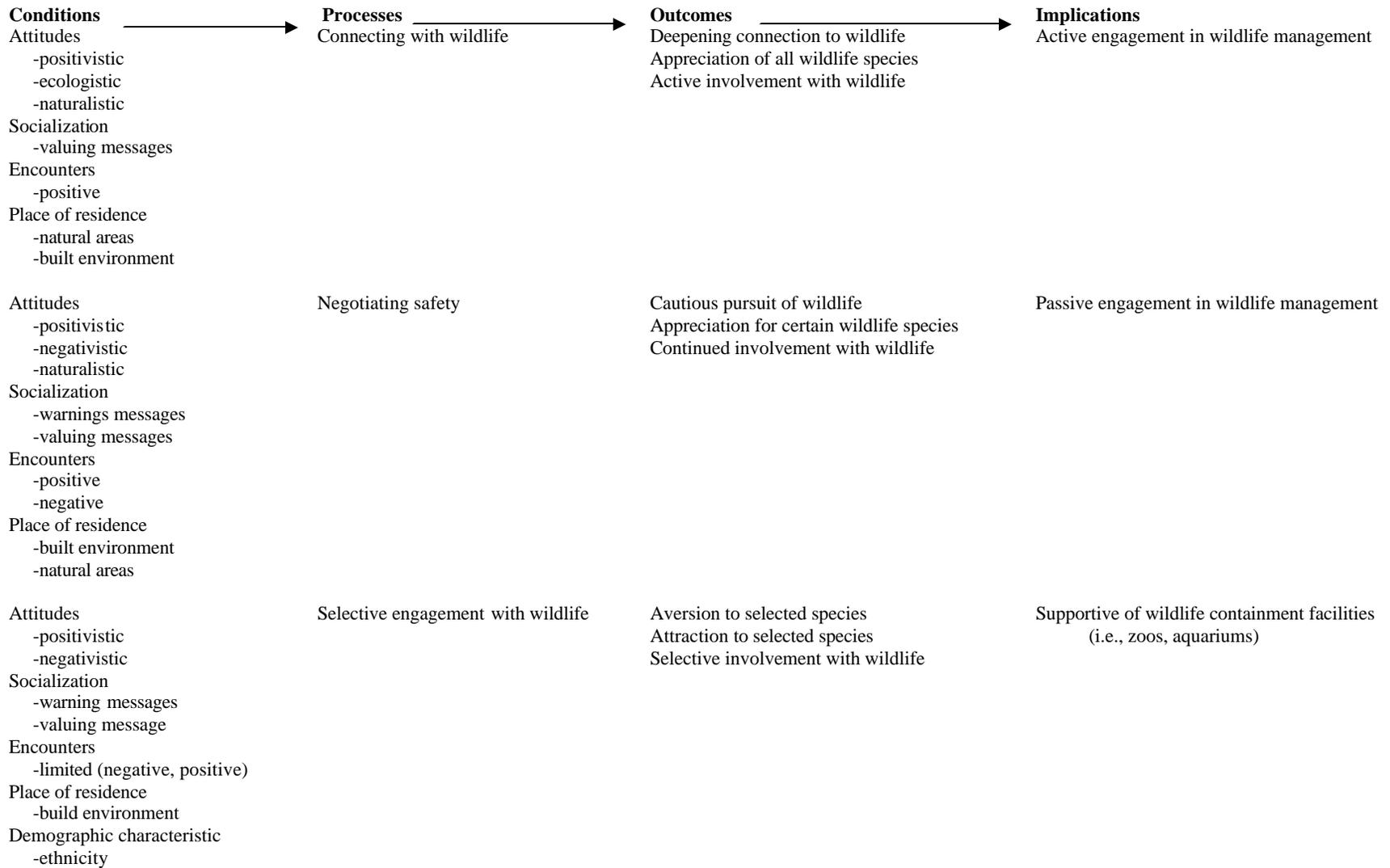
Wildlife disconnect

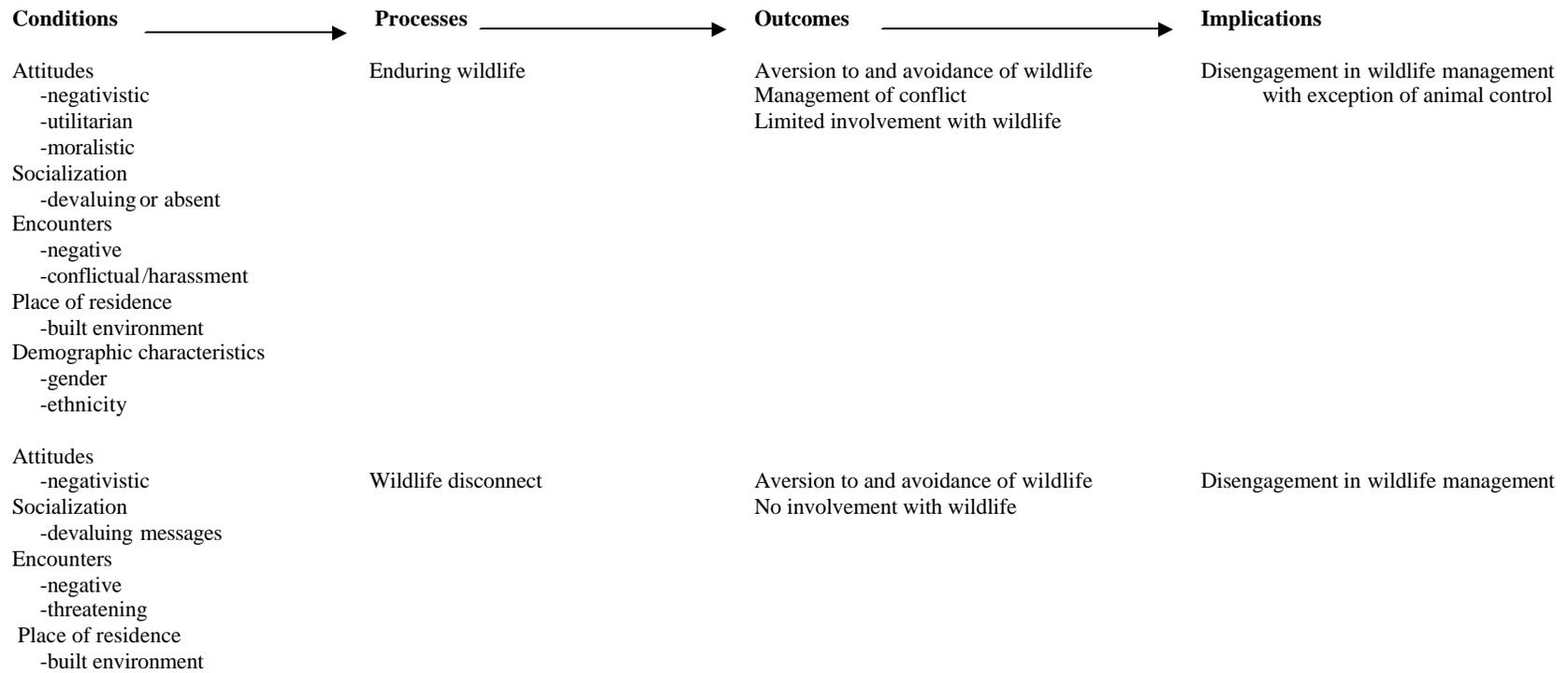
Participants associated with the “wildlife disconnect” process generally have negativistic attitudes and perspectives toward wildlife shaped by negative experiences with wildlife and negative messages from adults important in their lives. Participants in this category view wildlife as having little value in their lives and would prefer to have no association with wildlife. Threatening experiences with wildlife at a young age accompanied by either minimal support from adults or shared messages of anxiety and

fear contribute to shaping the participant's perspectives of particular wildlife species. A lack of positive experiences with wildlife and access to only negative messages and misinformation further promote the feeling of separation or disconnect from wildlife. As these participant age and continue to have negative experiences with wildlife (which tend to be more prevalent in an urban community) their negative feelings about wildlife will deepen. Consequently, the "wildlife disconnect" process will foster a long-term aversion to and avoidance of wildlife, and will likely result in complete disengagement with wildlife management issues.

As previously stated, the interview data from my study reveals 5 general processes that are shaped and facilitated by the conditions associated with the participants' varied experience with wildlife. Each participant has a different set of life experiences. Consequently, the conditions and their associated properties interact in different combinations and shape the processes that fashion the participant's overall experience with wildlife. Table 4.1 displays the conditions, processes, outcomes, and implications that contribute to the development of the urban minority adolescents' experience with wildlife.

Table 4.1. Conditions, processes, outcomes, and implications of the urban minority adolescents' varied experience with wildlife.





CHAPTER 5. AN URBAN EXPERIENCE THAT FOSTERS AN APPRECIATION FOR THE VALUE OF WILDLIFE

Integration, limitations, and recommendations

The purpose of this chapter is to briefly summarize the grounded theory developed in this study, discuss the limitations of the study, and offer recommendations for research and practice.

Integration of theoretical findings

The grounded theory developed in this study offers a developmental process whereby urban adolescents learn to appreciate and value wildlife and develop a long-term interest in and engagement with wildlife management issues. The theory states: “children who have access to and spend time in natural areas while growing up; receive positive and supportive messages about wildlife from adults important in their lives; and have opportunities to participate in a variety of wildlife related activities in a supportive environment; will become adolescents who appreciate and value the multiple benefits of wildlife and develop into citizens who are likely to become engaged in wildlife management issues.”

This grounded theory is based on the conditions and processes that were revealed through the dimensional analysis conducted with 24 African American and 10 Latino high schools students in Kansas City, Kansas. Analysis of the interview data reveals that urban minority adolescents, within the same ethnic group, do not share a common set of values, attitudes, and perspectives toward wildlife. The African American

participants expressed different attitudes and perspectives toward wildlife based on the particular life experiences of each participant. This was also true of the Latino participants. Cultural group membership, at least at the process level, does not seem to confer a common set of values and attitudes with respect to wildlife.

Using dimensional analysis methodology, an explanatory matrix was developed to organize the dimensions of the analysis into the conditions, processes, and outcomes/consequences of the central perspective -- the varied urban minority adolescent experience with wildlife. Five primary dimensions of the data emerged as conditions: 1) attitudes toward wildlife, 2) demographic characteristics of the participants, 3) socialization, 4) the participants' place of residence, and 5) participant encounters with wildlife. These 5 general conditions and their associated properties form the basic framework of the grounded theory and play an important role in shaping the 5 general processes: 1) connecting with wildlife, 2) negotiating safety, 3) selective engagement with wildlife, 4) enduring wildlife, and 5) wildlife disconnect. The 5 general processes fashion the outcomes (i.e., active involvement with wildlife, cautious involvement with wildlife, selective involvement with wildlife, conflict management, no involvement with wildlife) and implications (i.e., active engagement in wildlife management, passive engagement in wildlife management, supportive of zoos and aquarium, support of animal control, disengagement in wildlife management) of the participants' experience with wildlife.

The dimensional analysis of the data indicates that urban minority adolescents may experience one of the 5 general processes with respect to wildlife. These 5 processes demonstrate the broad range of experience existing among the study

participants with respect to wildlife. Each process and associated combination of conditions and properties reflect different outcomes and implications ranging from a robust appreciation for the value of wildlife and active involvement in wildlife-related activities (i.e., connecting with wildlife process), to an intense aversion to wildlife and avoidance of any contact with wildlife (i.e., wildlife disconnect process). All of the 34 participants in this study had experiences that positioned them somewhere on the process continuum. The majority of participants can be associated most closely with the “selective engagement with wildlife” process, with approximately 15% of the participants positioned at either end of the continuum.

The 5 processes were developed from the similarities and differences in the experiences of the participants and based on a common set of conditions and associated properties. Although the participants experienced many of the same general conditions in their lives, the differing properties of the conditions and the combination of properties in the participants’ lives were instrumental in shaping the processes. Each process has a similar set of conditions and associated properties that distinguishes it from the other processes. Table 4.1 provides a summary of the combination of conditions and their properties that interact to shape the processes and ultimately the outcomes of the adolescent’s experience with wildlife.

Similarities and differences of processes. The participants that experienced the “connecting with wildlife”, “negotiating safety”, and “selective engagement with wildlife” processes received positive socialization messages (primarily from adults important in their lives), they experienced some positive encounters with wildlife, and shared positivistic attitudes. The combination of these conditions and associated

properties facilitated a moderate level of appreciation for wildlife, involvement with wildlife-related activities, and the potential for some form of behavioral engagement in wildlife management programming in the future. However, the participants experiencing the “negotiating safety” and the “selective engagement with wildlife” processes also received socialization messages about the dangers of certain wildlife species, they experienced negative encounters with wildlife as well as positive encounters, and they shared negativistic attitudes. In comparison to the participants associated with the “connecting with wildlife” process who experienced primarily positive encounters with wildlife, received mostly positive socialization messages, had frequent experiences in natural areas, and expressed primarily positivistic attitudes toward wildlife; the participants associated with the “negotiating safety” and “selective engagement with wildlife” processes tend to be less appreciative of wildlife, less involved-in wildlife related activities, and their future engagement in wildlife management programming is likely to be more conditional.

The participants associated with the “negotiating safety” and the “selective engagement with wildlife” processes can be further distinguished by their level of involvement with wildlife. The “negotiating safety” participants were more actively involved in wildlife related activities, and spent more time in natural areas than the participants associated with the “selective engagement with wildlife” process. Consequently, the participants associated with the “negotiating safety” process are more likely to continue pursuing wildlife-related activity, albeit in a cautious manner, and demonstrate a broader interest in wildlife management programming. In contrast, the participants linked to the “selective engagement with wildlife” process are less likely to

pursue wildlife-related activities in the future and will generally prefer wildlife programming focused on containment and control, such as zoos.

The participants that experienced the “enduring wildlife” and “wildlife disconnect” processes received primarily negative and threatening socialization messages, experienced generally negative encounters with wildlife, had limited involvement with wildlife-related activities, spent a limited amount of time in natural areas, and shared negativistic attitudes. The combination of these conditions and associated properties facilitated a lack of appreciation for wildlife, limited or no involvement in wildlife-related activities, and the potential for establishing disinterested behavior in wildlife management programming in the future. Three primary differences distinguish the participants in these processes: conflictual encounters, place of residence, and gender. The participants associated with the “enduring wildlife” process were confronted with what they perceived to be unavoidable conflictual encounters with certain wildlife species and the shared belief that the conflictual encounters would continue, either because of the moralistic belief that animals have the right to exist or due to an ethnically based subjugated to nature orientation. The participants associated with the process of “wildlife disconnect” were not confronted with the conflictual encounters with wildlife on a continuing basis. The participants linked to the “enduring wildlife” process experienced a higher level of human/wildlife conflicts than any of the other participants, this could be due in part to the combination of built environment and green space associated with their home and neighborhood. The increased level of conflict may also have to do with the observed phenomenon that males are more likely than females to engage the invading animal. For example, several male participants described attempting

to chase a raccoon or opossum out of the garbage, but none of the female participants described similar encounters. While both male and female participants can be linked with the “wildlife disconnect” process, only male participants are linked to the “enduring wildlife” process.

Outcome and implications. The outcomes and implications of the processes vary depending on the combination of conditions and properties that influenced the lives of the participants. Each of the 5 processes had a somewhat different set of outcomes, which suggest differing implications for the long-term management of wildlife.

Connecting with wildlife. These participants were involvement with wildlife and nature at a young age, which fostered positive feelings about wildlife and promoted further explorations and connections with wildlife. They also received instructive and supplemental guidance from adults, contributing to positive experiences that broadened their understanding and connection with wildlife. Consequently, the participants associated with the “connecting with wildlife” process will likely continue their active involvement in wildlife-related activities, which will foster their appreciation for the value of wildlife. The implication of the “connecting with wildlife” process is that participants are likely to continue their engagement in wildlife management issues.

Negotiating safety. The participants who experienced the “negotiating safety” process were generally rather cautious in their approach to wildlife. Involvement with wildlife-related activities in natural areas provided the participants with positive experiences with wildlife in a safe and supportive environment. However, the participants also received messages from family members warning of the dangers of certain wildlife species. Because of the positive experiences and feelings associated with

particular wildlife species and the heightened warning messages received from family and the media, participants experiencing the “negotiating safety” process are conflicted between the enjoyment they gain from wildlife and concern for their own safety. Consequently, they tend to pursue wildlife-related activity with a certain amount of caution, attempting to avoid situations where they feel at risk yet seeking opportunities to experience and enjoy the benefits of wildlife. These participants will likely continue to develop an appreciation for wildlife and continue their cautious involvement in wildlife-related activities. The implication of the “negotiating safety” process is that the participants will likely demonstrate passive interest in wildlife management activities.

Selective engagement with wildlife. These participants have had limited encounters with wildlife and much of their information about wildlife came from socialization processes. They have intensely negative attitudes and perceptions toward wildlife species (e.g., raccoons, snakes) that they perceive as threatening or dangerous, developed primarily from messages of warning from adults in the participants’ lives. They have positive attitudes toward those species that they perceive as non-threatening (e.g., birds). Consequently, the participants experiencing the “selective engagement with wildlife” process avoid circumstances where they may encounter wildlife that they perceive to be threatening and pursue experiences with preferred wildlife species. However, because their negative attitudes and perceptions tend to be more affectively salient, their opportunities for positive encounters with wildlife may decrease, which could erode the development of a broadened appreciation for wildlife. The implication of the “selective engagement with wildlife” process is that participants are likely to prefer

wildlife management activities that focus on containment programs, such as zoos and aquariums.

Enduring wildlife. The participants associated with the “enduring wildlife” process experienced primarily conflictual and negative encounters with wildlife. These conflictual encounters were associated with animals that invaded the participant’s personal space (e.g., such as opossums in the trash). These participants gained information about wildlife primarily through personal experience alone and received very little information from other sources (e.g., family members, school, or media). They also share a moral belief that animals have a right to exist. The participants associated with the “enduring wildlife” process are confronted by conflict from problem animals, but can find no solution to the problem and so they must just endure the conflict. Consequently, they attempt to avoid the conflictual situations where possible but when not possible they develop techniques to make the encounters less unpleasant and threatening. Due to the disempowerment and frustration resulting from the perceived lack of control associated with continued wildlife conflicts, the participants’ aversion to wildlife increases as does their avoidance behavior. The implication of the “enduring wildlife” process is that participants are likely to be disengaged in wildlife management programming, unless directed specifically at animal control efforts.

Wildlife disconnect. Participants associated with the “wildlife disconnect” process view wildlife as having little value in their lives and prefer to have no association with wildlife. Threatening experiences with wildlife at a young age accompanied by either minimal support from adults or shared messages of anxiety and fear contributed to shaping their negative perspectives toward wildlife. A lack of positive experiences with

wildlife and access to only negative messages and misinformation further promoted the feeling of separation or disconnect from wildlife. As the participants aged and continued to have negative experiences with wildlife their negative feelings about wildlife deepened. Consequently, they are generally averse to and avoid wildlife-related activities. The implication of the “wildlife disconnect” process is that participants are likely to be completely disengaged with wildlife.

Using the 5 developmental processes as a guide, I fashioned a grounded theory using “connecting with wildlife” as the process that most closely reflects the desired outcome for wildlife professionals (i.e., broad-based appreciation of wildlife values and engagement in wildlife management issues). The participants in the study who had access to and spent time in natural areas while growing up, received positive and supportive messages about wildlife from adults important in their lives, and had opportunities to participate in a variety of wildlife related activities in a supportive environment, were more appreciative of the multiple values of wildlife than those participants who had negative and threatening encounters with wildlife, did not participate regularly in wildlife-related activities under the guidance of supportive adults, and received negative or devaluing messages about wildlife from adults in their lives.

Limitations of the study

The results of this grounded dimensional analysis are limited by several factors with respect to sampling, data collection, and analysis. In grounded theory research, the conditions and contexts are specified by the investigator. While the grounded theory should apply to all minority adolescents in similar contexts and under similar conditions,

this theory may not be representative of all adolescents living in all urban areas. As I stated in the text of this document, urban communities vary dramatically from the standpoint of availability of natural area/green space to urban adolescents. Consequently, adolescents living in urban areas containing no available wildlife habitat and with limited opportunities for encounters with wildlife would likely have a much more limited experience with wildlife. Personal encounters with wildlife would be a less important factor in the analysis, which could result in a different and a more narrow range of experiences and developmental processes.

Traditional sampling in the grounded theory tradition is based on theoretical representativeness (McCarthy 1991). In this technique, the researcher's best judgment is used to ensure that the sample possesses the characteristics needed for the study. In my study, the sample was based on a particular criterion, experience with wildlife, which was determined based on initial investigation of the study area for acceptable levels of wildlife habitat and through conversations with wildlife professionals. The final choice of the sample was based on these early investigations which served as sensitizing data. Consequently, the sample was limited by this criterion as reflected in the initial data gathering process.

The personal interview was the data collection technique used for this study. To gather candid information about the research topic it is necessary to establish a certain amount of rapport and confidence with the adolescent participants. Because I am a member of a different ethnic group than the participants and from a different age subculture, I was concerned that the participants would not be completely candid with me. Although I feel very comfortable that the adolescents taking part in the study were

truthful and discussed freely their experiences, feelings, and perspectives on wildlife, I can not say definitively that all were completely honest in their stories. The validity of the emerging theory is heavily dependent on the investigators ability to confirm and/or discount conceptualizations (McCarthy 1991). Therefore, to maintain integrity of the interview process in my study, I used a semi-structured interview guide and asked several different questions to cover the content in a variety of ways and returned to answers that seemed incomplete or far fetched. I also made return visits with some adolescents to clarify issues.

Exclusive use of the interview as the source of data collection may have resulted in limitations on understanding the wildlife experiences described by the adolescents. In an interview, the researcher must rely entirely on the participant's interpretation of their experience. Additional data gained through observing the participants in situations where they actually encounter wildlife could have proved beneficial in collecting data that confirms, disconfirms, or in some way modifies the interpretation of the participant and researcher. However, because my study was based to a large extent on long-term historical processes, one-time observations may not have contributed much additional meaningful information.

Another potential limitation in using the interview technique for data collection is that certain lines of questioning may vary from interview to interview. While this apparent lack of consistency may seem problematic to some, it is an essential component of theoretical sampling in which the interviewer samples data based on the discovery process and the evolving concepts (Strauss and Corbin 1990). To address this issue, it is imperative that the theory can be traced back to the data. Consequently, I was explicit in

describing how the participant's experiences reflected the conceptual decisions I made with regards to development of the conditions, processes, and outcomes. Another technique to address this potential limitation is to discuss the raw data with other analysts to confirm that the emerging conceptualizations seem reasonable based on the data.

Recommendations

Research. Wildlife managers rely on existing information and their perceptions of how stakeholders and the general public value wildlife when making management decisions (Miller and McGee 2001). In many cases, however, the perceptions of wildlife managers may not be consistent with the value that different ethnic groups place on wildlife. To engage all citizens and ensure that their views are included in wildlife management decision making, wildlife professionals must obtain an accurate and reliable understanding of the attitudes of all segments of society (Bengston 2000, Duda and Young 1998, Kellert 1984, Shaw 1974). Considering the current lack of information on the attitudes and perceptions of minority ethnic groups toward wildlife, my research was designed to address a portion of this problem by investigating how adolescents from minority ethnic groups (i.e., African American and Latinos) living in urban communities experience wildlife. The literature reviewed in Chapter 1, suggests there may be ethnic differences in how people experience the environment in general and wildlife in particular. However, Allison (1993) cautions that variability within an ethnic group may be as large as the variability between groups and suggests that this variability may be related to age, gender, income, and education as much as it is a function of culture.

My goal in this study was not to make comparisons between ethnic groups with respect to their perceptions and attitudes toward wildlife, but to supplement our understanding of how urban minorities experience wildlife. It is clear from my findings that urban minority adolescents have varied experiences with wildlife depending on a variety of conditions (i.e., attitudes toward wildlife, demographic characteristics, place of residence, socialization, and encounters with wildlife) in their lives. These findings are consistent with others who have suggested that environmental perceptions and behaviors should not be linked to single factors but to multiple factors acting in combination (Allison 1993, 1999, Gramann and Allison 1999, Shinew 1995, Taylor 1989).

My findings suggest that if wildlife professionals hope to foster an appreciation in urban adolescents for the multiple values of wildlife and to encourage a sustained interest in wildlife management programming, several conditions should be present in a developing child's life: 1) childhood access to and immersion in natural areas, 2) supportive mentoring from adults important in a child's life, 3) positive encounters with a variety of wildlife species, and 4) involvement in a variety of wildlife-related activities in a supportive environment. Because my study focused on general processes, it did not investigate specific issues like developmental stages for wildlife programming, frequency of involvement in wildlife-related activities, or content of messages. Additional research is needed to tease out the particular conditions related to these issues.

Contact with natural places in childhood has emerged as an important influence on how people value the natural world (Chawla 1998, Palmer et al. 1999, Palmer and Suggate 1996). My findings confirm the importance of natural areas in shaping the wildlife experience for urban adolescents. However, additional research is necessary to

investigate strategies that facilitate an intimate relationship with nature and its wildlife inhabitants through immersion in natural areas. Questions to be asked might include, at what age and under what conditions should children be introduced to natural areas, under what type of mentoring, and at what degree of frequency to accomplish the desired goals?

Recent research indicates that adults important in the child's life (i.e., family members, teachers, peer group), play an influential role in shaping a child's environmental orientation (Chawla 1998, Corcoran 1999, DeRuiter and Donnelly 2002, Palmer 1993). My study indicates similar findings with respect to how urban minority adolescents value wildlife. An important question not addressed by my research study, however, relates to the specific role adult's play in shaping a child's perspective on wildlife. Does information from teachers and other professionals carry the same influence as family members and/or peers, and if not, how does frequency of message offset that factor, and how can messages from teachers and other professionals supplement positive and valuing messages about wildlife and counter negative and devaluing messages received from parents or peers?

Media plays an increasing role in children's lives as reflected by recent research (Bousé 2003, Champ 2002, DeRuiter and Donnelly 2002, Hepburn 1998, Kane et al. 2000), as well as the large number of participants in my study who mentioned watching wildlife-related programming on TV. Additional research would help flesh out the influence of the media relative to other sources of information, such as family members and teachers. For example, additional research could investigate what type of TV programming will foster a sense of comfort with and appreciation for wildlife and how

does access to wildlife on TV compare to direct involvement with wildlife through wildlife-related activities, such as fishing and bird feeding?

Practice. Wildlife management decision-making in the twentieth century was grounded in 2 precepts, sufficiency of biology and expert authority (Riley et al. 2002). This approach allowed wildlife management to make significant advancement. However, society is becoming less willing to accept some of the key premises upon which management has been based (Loker et al. 1998.). The array of stakeholders in wildlife management has diversified, with increased expectations for involvement in wildlife management decision-making. Consequently, wildlife managers are beginning to integrate biological and human dimension practices in management and the traditional reliance on biological science and expert decision-making is necessarily being replaced by multidisciplinary integration and stakeholder participation (Riley et al. 2002).

According to the U. S. Census Bureau (2000a), approximately 80% of United States residents lived in urban areas in 2000. Ethnic diversity is rapidly increasing in North America and is one of the most powerful demographic forces shaping society in the United States (Gramann and Allison 1999). Minority ethnic groups will account for one-third of the United States population by 2025 compared to one-fifth in 1980 and the large majority of that growth will occur in urban centers (Gramann et al. 1993, Parker and McDonough 1999, Simcox 1993). Urban minorities are stakeholders long ignored by the wildlife management profession and if wildlife management professionals hope to effectively engage these citizens in the wildlife management decision-making process, it will be necessary to foster in children and adolescents a robust appreciation for the multiple benefits of wildlife and a desire to be involved in wildlife-related activities. If

urban minority residents continue to be ignored by wildlife professionals, as in the case of the participants in my study, and do not develop an appreciation for wildlife or value wildlife as important in their lives, they will be less likely to support wildlife management programs, which are often supported by tax dollars. If we hope to maintain adequate wildlife management programs to protect and conserve this very valuable resource into the future, we will need support from all of our urban minority citizens.

It seems clear from the findings of my study, that wildlife professionals should become more actively involved in wildlife programming for youth and adolescents in urban communities. My findings suggest that if wildlife professionals hope to foster an appreciation in urban adolescents for the multiple values of wildlife and to encourage supportive behavior for wildlife management programming, several conditions should be present in a developing child's life: 1) childhood access to and immersion in natural areas, 2) supportive mentoring from adults important in a child's life 3) positive encounters with a variety of wildlife species, and 4) involvement in a variety of wildlife-related activities in a supportive environment. Involvement with wildlife and nature should start at a young age (pre-school) and should include parents if possible. Establishing a connection and intimacy with wildlife and nature as a child is critical in developing an appreciation for wildlife (Sobel 1996). Wildlife management agencies should become actively involved in developing programming that reaches out to the community and involves pre-school children and parents.

Wildlife-related information and experiences should also be included in elementary school curriculum at multiple grade levels. To achieve the desired outcomes, the curriculum should include non-threatening experiences with wildlife in natural

settings, as well as experiential programs that foster a connection to the world of wildlife, under the guidance of supportive adults. Hands-on encounters with wildlife may help to reduce some of the anxiety experienced by many children, especially with respect to certain wildlife species (e.g., snakes). Because urban schools are often confronted with significant resource limitations, wildlife-related governmental agencies and nonprofit organizations could provide supplement programming.

Wildlife programming should continue through middle school and high school gradually increasing the level of ecological knowledge and focus on real world problems and management issues. Students should be provided the opportunity to engage in real-world wildlife management activities. There should also be an effort made by professional wildlife organizations (e.g., The Wildlife Society, Ecological Society of America) at the national level to influence wildlife programming on television.

Obviously, these recommendations will require significant resources to implement. However, as our society becomes more urbanized and people become less engaged in natural systems, the connection to wildlife will continue to decrease. If people have limited appreciation for the multiple values of wildlife they will be less likely to develop an enduring interest in and engagement with wildlife management issues and programming.

Appendix 1. Invitation to Participate in a Research Study

My name is Stan Van Velsor and I am a doctoral student at the University of Missouri-Columbia. I am conducting research to learn more about how adolescents experience wildlife (Examples of wildlife: squirrels, raccoons, birds, snakes, deer, fish, frogs, butterflies, etc. -- **not pets like cats and dogs**).

I will conduct individual interviews. The data collected will be analyzed and the findings may be published in a report. The information that you give in the interview will remain confidential. The interview will last approximately 30 minutes and you will receive \$10.

If you are interested in participating in the study, please fill out the form below. I will review the forms and select approximately 15 students to participate.

_____ *Name*

_____ *Age*

Briefly describe a positive or negative experience you have had with wildlife (Examples of wildlife: squirrels, raccoons, birds, snakes, deer, fish, frogs, butterflies, etc. -- **not pets like cats and dogs**).

Appendix 2. Request to Wyandotte teachers for assistance in identifying student participants for the research study. The teachers were also provided with a prepared script to read to the students.

Dear Wyandotte Teacher:

My name is Stan Van Velsor and I am a doctoral student at the University of Missouri-Columbia. I am conducting research on how adolescents experience wildlife and would like to have sophomores, juniors, and seniors from Wyandotte High School as my research participants. I would appreciate your help in identifying students interested in participating in my project. Please read the brief script below to your class and make the enclosed questionnaire available to those students that express an interest in the project.

Thank you for your assistance.

Sincerely,

Stan Van Velsor

Script

Stan Van Velsor is a doctoral student at the University of Missouri-Columbia. He is conducting a research project to learn about how adolescents experience wildlife (e.g., squirrels, raccoons, birds, snakes, deer, fish, frogs, butterflies, -- **not pets like cats and dogs**).

If you decide to participate, Stan will interview you and ask several questions about your experience with wildlife. The data that he collects from you will be analyzed and the findings may be published in a report. The information that you give in the interview will remain confidential. The interview will last approximately 30 minutes and you will receive \$10.

If you are interested in participating in the study, please complete the questionnaire. Stan will review the questionnaires and select approximately 15 students to participate.

Appendix 3. Participant consent form for those students 18 years of age or older.

My name is Stan Van Velsor, I am a doctoral student at the University of Missouri-Columbia. The overall purpose of this research is to develop a better understanding of how adolescents experience wildlife. The data will be collected for analysis and may be published.

In this study, I will conduct an individual interview with you, in which I will ask several questions about your experience with wildlife. The individual interview will be audio taped. Some of the questions will be open-ended in nature, seeking a general description of an experience that you have had with wildlife. Other questions will be more specific, seeking more specific information on the particular experience you described.

Altogether, the interview will last about 30 minutes. It is possible that you might get bored or tired, but hopefully the interview topic will be of sufficient interest that you will enjoy your time with me.

The data collected from you during this study will help in developing a better understanding of how urban adolescents experience wildlife and the findings may contribute to the development of youth focused wildlife programs in the Kansas City, Kansas Public Schools. Also, you will receive \$10 for participating in the study.

If you do not wish to be in this study or you decide you do not want to continue after you have started, just tell me. The interview will be stopped and there will be no negative consequences.

All reasonable measures to protect the confidentiality of your records and identity will be taken. Your identity will not be revealed in any publication that may result from this study. The confidentiality of all study related records would be maintained in accordance with State and Federal laws. There is a possibility that your data, including identifying information, may be inspected and photocopied by officials of Federal or State government agencies and the University Human Studies Committee. If the study is sponsored, a representative of the sponsor may inspect these research records.

If you have any questions before or during the interview, I would be happy to answer them. Also, if you think of questions after the interview, you may give me a call at (417) 889-8017 so that I can try and answer any questions you have. You may also ask questions or state concerns to the MU Campus IRB, at (573) 882-9585.

You must be 18 years of age or older to consent to participate in this study without the consent of a parent or legal guardian.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a signed copy of this consent form for my records. I hereby consent to participate in the research described above.

Participant's Name

Participant's Signature

Date

Appendix 4. Parental consent form and student assent form for those students less than 18 years of age.

1. Your child is invited to participate in a research study conducted by Stan Van Velsor, a doctoral student at the University of Missouri-Columbia. The overall purpose of this research is to develop a better understanding of how adolescents experience wildlife. The data will be collected for analysis and may be published.

2. a) Your child's involvement in this study will consist of participating in an individual interview or focus group that will be audio taped. In the individual interview or focus group, I will ask your child several questions about his/her experience with wildlife. Some of the questions will be open-ended in nature, seeking a general description of an experience your child has had with wildlife. Other questions will be more specific, seeking more specific information on the particular experience your child described. b) The amount of time involved in your child's participation will be approximately 1 hour.

3. There are no risks and/or discomforts associated with this research.

4. The possible benefits to your child from this research are the knowledge that the data collected during this study are contributing to science. Also, your child will receive a \$10 gift certificate for one of the fast food restaurants near J. C. Harmon High School.

5. Your child's participation is voluntary and your child may choose not to participate in this research study or may withdraw at any time. Your child will NOT be penalized in any way should your child choose not to participate or withdraw.

6. All reasonable measures to protect the confidentiality of your child's records and identity will be taken. Your child's identity will not be revealed in any publication that may result from this study. The confidentiality of all study related records will be maintained in accordance with State and Federal laws. There is a possibility that your child's data, including identifying information, may be inspected and photocopied by officials of the Federal or State government agencies and the University Human Studies Committee. If the study is sponsored, a representative of the sponsor may inspect these research records.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Project Coordinator, Stan Van Velsor, at (417) 889-8017. You may also ask questions or state concerns to the MU Campus IRB, at (573) 882-9585.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a signed copy of this consent form for my records. I hereby consent to my child's participation in the research described above.

Participant's Name: _____

_____ Date: _____
Parent or legal guardian's signature on participants' behalf if participant is less than 18
years of age or not legally competent.

Relationship to Participant _____

Participants Signature: _____ Date: _____

Appendix 5. Interview guide.

Introductory Statements/Questions

1. Shared Understanding of Wildlife
 - a. Wildlife is defined as wild animals living in a natural or undomesticated state (e.g., birds, mammals, fish, reptiles, amphibians, mollusks, invertebrates).
1. Experience with Wildlife
 - a. Describe an experience you have had with wildlife.

Questions Designed to Clarify, Test, and Solidify

1. Encounters with Wildlife
 - a. Tell me about other experiences you have had with wildlife.
 - b. How often have you had good/bad experiences with wildlife (1, 3, 5, 10)?
 - c. Would you say most of your experiences with wildlife have been negative or positive?
 - d. Do you go places for the purpose of seeing wildlife (e.g., zoo, natural areas)?
 - e. Do other family members talk about experiences they have had with wildlife? Please explain.
 - f. When you have experiences with wildlife are you by yourself or with other family members/friends?
 - g. Do you or any of your family members feed birds or other wild animals?
 - h. Do you ever go fishing? Please describe your experience(s).
2. Physical Environment
 - a. Have you had experiences with wildlife getting into your house/trash? Please explain.
 - b. How is your trash stored?
 - c. What is your trash service like?
 - d. Are there places in or around your house where wild animals live?
3. Perceptions/Feelings Toward Wildlife
 - a. What are your feelings toward wildlife in general?
 - b. What wild animals do you like/dislike? Why?
 - c. What wildlife would you like/not like to see around your house? Why?
 - d. What do you feel like when you see a wild animal you like/dislike?
 - e. How do you feel when wildlife invades your personal space?
 - f. Do you always feel the same way about a wild animal no matter where you see it?
 - g. What wild animals are you really afraid of? Why?
 - h. What is it like for you to never see wildlife around your home or neighborhood?

- i. Would you say it is cool/uncool to like wildlife?
- j. How do your family members act around wildlife?
- 4. Behavior Associated with Wildlife/Participant Encounters
 - a. What do you do when you see an animal you like/don't like?
 - b. What do you do to increase your chances of seeing/avoiding a wild animal?
- 5. Cultural Norms/Values
 - a. What would you like to see done with a wild animal that is invading your home or personal space?
 - b. Do you feel wildlife has a right to exist or should we as humans control where they can live?
 - c. When is it ok to kill/capture a wild animal?
 - d. Do you prefer spending time in natural settings where there are lot of vegetation or do you prefer to be in a city environment?
- 6. Knowledge of Wildlife
 - a. Where did you learn about the behaviors of wild animals?
 - b. What conversations have you had with family members or friends about wildlife?
 - c. Have you learned about wild animals in school, like in class or through field trips?
- 7. Perceptions of Wildlife and Habitat Abundance
 - a. What wild animals do you see most often/least often around your house and/or neighborhood?
 - b. How often would you say you see these animals (1/day, 1/week, 1/month)?
 - c. Are there natural areas near your house and what are those areas like?
 - d. Would you like to have more/less natural area around your home/neighborhood? Why/why not?

Demographic Questions

- 1. Ethnic Group Identification
 - a. What ethnic group would you consider yourself a member of?
 - b. How many years has your family been in the United States?
- 2. Socioeconomic Status
 - a. What is the education level of your parents?
 - b. Where and how often do you travel outside the city?
- 3. Family Structure
 - a. Who are the members of your family?

Appendix 6. Initial list of coded dimensions.

Physical environment of study area
Demographic characteristics of participants
Participant's feelings/attitudes toward wildlife
Participant knowledge about wildlife
Source of participant knowledge about wildlife
Animal identification capability of participants
Participant descriptions of animal behavior
Anthropomorphic statements made by participants about wildlife
Family beliefs about animals
Conversations with friends and family about wildlife
Warnings from family members about wildlife
Direct encounters between participants and animals
Participant observations of wildlife
Physical contact with wildlife
Recreational encounters with wildlife
Supportive encounters with wildlife
Participant justification for supportive behavior toward wildlife
Threatening experiences with wildlife
Behavior of participants threatened by wildlife
Participant involvement with family and friends in wildlife-related activities
Adult advice about wildlife
Location of participant encounters with wildlife
Animal capture/killing experiences of participants
Participant behavior toward captured animals
Justification by participants for killing/capturing animals
Actions taken by the participants to protect wildlife
Participant involvement in fishing
Zoo visits by the participants
Human/wildlife conflicts
Actions taken by participants to reduce human/wildlife conflict
Behavior change resulting from encounters with wildlife
Participant concern for animal welfare
Participant perception of animal abundance
Participant perception of natural habitat abundance
Participant access to natural areas
Participant perceptions of hunting
Participant perception of natural areas
Participant perceptions of how friends view wildlife
Participant perceptions of fishing
Wildlife use of the built environment
Age dependent feelings about wildlife

Appendix 7. Dimensions, subdimensions, sub-subdimensions, and properties. The dimensionalization process facilitates the identification of the range of properties attributed to each dimension. The dimensions are in bold followed by subdimensions, sub-subdimensions, and properties.

Physical Environment

I. Urban

A. Build environment

1. Permanent structures
 - a. homes
 - b. schools
 - c. business establishments
2. Moveable objects
 - a. automobiles
 - b. recreational equipment

B. Natural habitat

1. Vacant lots
2. Wooded riparian courses
3. Backyard habitat

II. Non-urban

A. Recreational areas

1. Lakes
2. Camps

B. Rural communities

1. Farms
2. Natural areas

Demographic Characteristics of the Participants

I. Age

A. Adolescents

1. 14 through 19

II. Ethnicity

A. Ethnic groups

1. African American
2. Latino

B. Cultural values

1. Relational orientation
 - a. collectivistic
 - b. individualistic
2. Humankind-nature orientation
 - a. subjugated to nature – i.e., fatalistic view of nature
 - b. dominant over nature – i.e., utilitarian view
 - c. harmony with nature
3. Recreational preference
 - a. fishing vs. hunting/trapping
 - b. developed environment vs. natural areas

4. Activity orientation
 - a. achievement as high priority
 - b. family cohesiveness and social interaction as high priority
- III. Gender
- A. Male
 1. Treatment of animals
 - a. harassment/killing
 - b. supportive behavior
 2. Concern for animal well-being
 - a. low
 - b. high
 - B. Female
 1. Treatment of animals
 - a. harassment/killing
 - b. supportive behavior
 2. Concern for animal well-being
 - a. low
 - b. high
- IV. Socioeconomic status
- A. Resource availability (80% on free and reduced lunch)
 1. Travel outside urban environment
 - a. extensive
 - b. limited
 2. Condition/maintenance of living structures
 - a. accessibility by animals
 - b. trash container maintenance
 - B. Education
 1. Quality
 - a. resource availability
 - b. educational priorities
 2. Content
 - a. curriculum emphasis
 - 1). traditional subjects – i.e., biology
 - 2). nontraditional subjects – i.e., ecology/environment
 - b. community based educational opportunities
 - 1). nature centers
 - 2). museums
 - 3). zoos
 - C. Parent's education
 1. High school degree or less
 - a. less awareness of nature and natural systems
 - b. less educational resources available to children
 - c. less emphasis placed on education
 2. College experience
 - a. potentially greater awareness of nature and natural systems
 - b. greater emphasis placed on education

- c. educational resources available for children
- D. Family structure
 - 1. Traditional
 - 2. Non-traditional
 - a. single parent
 - b. non-parent relatives

Attitudes/Feelings Toward Wildlife

- I. Naturalistic/Ecologicistic
 - A. Enjoyment of nature and wild animals
 - 1. Emotional expressions
 - a. pleasure
 - 2. Situations involved
 - a. controlled
 - b. safe
 - B. Curiosity about wild animals
 - 1. Expressions of curiosity
 - a. active
 - b. passive
 - C. Observation and personal involvement with wildlife
 - 1. Actions taken
 - a. wildlife feeding
 - b. wildlife study – i.e., use of field guides
- II. Positivistic
 - A. Affinity for particular wildlife species
 - 1. Characteristics of particular species
 - a. appearance
 - b. behaviors
 - c. symbolical benefits – i.e., birds singing signals spring
 - B. Enjoyable activities associated with wildlife
 - 1. Recreational opportunities
 - a. fishing
 - b. camping
 - 2. Involvement with family and friends
 - a. exploring
 - b. bird feeding
 - C. Enjoyment of wild animals in controlled settings
 - 1. Zoos & wild animal pets
 - a. feelings of security
 - b. viewing exotic species
 - c. physical contact
- III. Negativistic
 - A. Fear, dislike or aversion to particular wildlife species
 - 1. Characteristics of animals
 - a. appearance
 - b. behaviors
 - c. perceived threat – i.e., poisonous, disease

- 2. Conflictual situations with wildlife
 - a. invasion of personal space
 - 1). uninitiated encounters – i.e., raccoon in trash can
 - 2). initiated encounters – i.e., attempted capture of animal
 - b. involvement in wildlife-related activities
 - 1). uninitiated encounters – i.e., camping
 - 2). initiated encounters – i.e., fishing
- B. Indifference and passive avoidance of wildlife

V. Moralistic

- A. Concern for ethical treatment of wildlife
 - 1. Emotional expressions
 - a. regret over death/injury
 - 2. Restrain from harming animals
 - a. human/wildlife conflict
 - b. oppose recreational use of wildlife
 - 4. Religious beliefs
 - a. God given rights

VI. Utilitarian

- A. Concern for the practical and material value of wildlife
 - 1. Using animals for profit
 - a. bait
 - 2. Recreational pursuit
 - a. viewed as game – i.e., fishing
 - b. viewed as non-game – i.e., bird watching

Knowledge about Wildlife

I. Type

A. Formal

- 1. Academic
 - a. traditional curriculum
- 2. Media
 - a. educationally based programming
 - 1). behavior patterns
 - 2). physical characteristics
 - b. entertainment based
 - 1). extreme behavior (snakes killing people)

B. Informal

- 1. Experiential
 - a. observation
 - b. direct encounters
- 2. Anecdotal
 - a. family/friends
 - 1). health concerns – i.e., disease
 - 2). family beliefs – i.e., kiss at robins for good luck

II. Source

A. Institutions

- 1. Schools

- a. field trips
 - b. class content
 - 2. Media outlets
 - a. educational programming – i.e., *Discovery Channel*
 - b. entertainment
 - 1). movies
 - 2). news
 - 3. Zoos/nature centers
 - a. informal visits
 - b. guided tours
- B. Family/Other adults
 - 1. Conversations
 - a. conversational
 - 1). family beliefs
 - 2). wildlife/human encounters
 - b. warnings
 - 1). dangerous animal behavior
 - 2). potential for disease
 - 3). likely habitat
 - c. formal instruction
 - 1). educational materials
 - 2. Shared experience with wildlife
 - a. Family/other adults
 - 1). backyard observations
 - 2). bird feeding
 - 3). dealing with intruders
 - 4). fishing and camping
 - 3. Role models
 - a. actions
 - 1). control/ownership of feral animals
 - 2). participation in wildlife-related activities
 - 3). bird feeding
 - b. statements
 - 1). education and awareness
 - 2). reprimands for harming wildlife
 - 3). warnings about dangers of animals
- C. Friends
 - 1. Conversations
 - a. conflictual/threatening situations
 - b. non-conflictual
 - 2. No conversations
 - 3. Shared experience
 - a. recreational
 - b. accidental encounters
 - 4. Participant's perception of friend's feelings about wildlife

- a. similar feelings
- b. less comfortable with wildlife
- D. Personal experience
 - 1. Conflictual situations
 - a. property damage
 - b. invasion of human structures
 - c. animals seeking food
 - d. incidental encounters
 - 2. Non-conflictual situations
 - a. supportive actions
 - b. recreational activities
 - c. observational

III. Level

- A. Marginal knowledge
- B. Basic concepts
 - 1. Behavior patterns of wildlife
 - 2. Physical characteristics of wildlife
- C. Extensive information
 - 1. Ecological grounding

IV. Accuracy

- A. Correct information
 - 1. Superficial knowledge
 - a. physical characteristics
 - b. behavior patterns
 - c. habitat needs
- B. Misinformation
 - 1. Family beliefs
 - a. influence of animals on humans
 - b. influence of humans on animals
 - 2. Spirituality
 - 3. Misconceptions
 - a. media
 - b. personal experiences
- C. Anthropomorphic beliefs
 - 1. Attributing emotions
 - 2. Assigning behavior

Encounters with Wildlife

I. Type

- A. Conflictual
 - 1. Threatening
 - a. invasion of human living space
 - 1). structures
 - 2). nonstructural property
 - b. accidental encounter
 - 1). shared wildlife/human habitat (yards/vacant lots)
 - 2). recreational activities

- 2. Non-threatening
 - a. invasion of human living space
 - 1). structures
 - 2). nonstructural property
- B. Non-conflictual
 - 1. Threatening
 - a. utilitarian
 - b. recreational
 - c. educational
 - 2. Non-threatening
 - a. observational
 - 1). vicinity of home
 - 2). neighborhood
 - 3). captive settings
 - b. utilitarian
 - 1). recreational
 - 2). for profit
 - c. recreational
 - 1). play
 - 2). sport
 - d. protective/supportive
 - 1). first aid
 - 2). feeding
 - 3). habitat
 - e. educational
 - 1). formal
 - 2). non-formal
- II. Location
 - A. Urban
 - 1. housing structure
 - 2. yard or driveway
 - 3. neighborhood
 - B. Non-urban
 - 1. natural areas
 - 2. lakes and parks
- III. Emotional response
 - A. Negative expressions of wildlife
 - 1. Fear, dislike, aversion
 - a. characteristics
 - b. conflicts
 - B. Positive expressions of wildlife
 - 1. Affinity for wildlife
 - a. characteristics
 - b. behaviors
- IV. Purpose
 - A. Conflictual interaction

1. Remove intruding animal
2. Self defense
- B. Non-Conflictual
 1. Educational/curiosity
 2. Recreational
 3. Supportive
 - a. provide first aid
 - b. food and shelter

Behavior in Response to Encounters with Wildlife

- I. Conflictual encounters
 - A. Active response
 1. Escape from existing threat
 - a. seek safety
 2. Defend from threat
 - a. scare animal
 - b. threaten animal
 - c. capture and kill offending animal
 3. Prevent future interactions
 - a. avoid problem situations
 - b. seek assistance from adults
 - B. Passive response
 1. Take no action
 - a. remain motionless
- II. Non-Conflictual Interactions
 - A. Active
 1. Promote future interactions
 - a. feeding
 - b. capture situations
 - c. visit locations where animals exist
 2. Avoid future interactions
 - a. avoid wildlife habitat
 - b. avoid activities involving wildlife
 - B. Passive
 1. Observe animals when present

Behavior Toward Captured Animals

- I. Type
 - A. Avoidance
 1. resist handling – i.e., removing fish from hook
 - B. Curious handling
 1. examining animals
 2. experiencing animals
 - C. Sport/Profit/Food
 1. show off to friends
 2. sell for food/bait
 3. consumption
- II. Quality

- A. Humane treatment
 - 1. Respectful care
 - 2. Respectful death
- B. Inhumane treatment
 - 1. Unnecessary suffering
 - a. inappropriate killing
 - b. questionable confinement

III. Justification

- A. Utilitarian
 - 1. Consumption
 - 2. Profit
- B. Property damage
 - 1. Invasion of structures
 - 2. Damage to yard/garden

Access to Natural Areas/Green Space

I. Urban

- A. Type
 - 1. Riparian areas
 - a. local lake
 - b. water course
 - 2. Reclaimed area
 - a. vacant lots
 - b. isolated woods
 - 3. Landscaped areas
 - a. parks
 - b. golf courses
 - c. cemeteries
- B. Accessibility
 - 1. Walking distance
 - 2. Transportation required

II. Non-urban

- A. Type
 - 1. Riparian areas
 - a. lakes
 - b. rivers
 - 2. Campgrounds
 - 3. Farms
 - a. previous home
 - b. home of relatives
- B. Accessibility
 - 1. Transportation required
- C. Frequency
 - 1. Often
 - 2. Infrequent

Perceived Abundance of Wildlife

I. High

- A. Undesirable animals
 - 1. Threatening animals – i.e., opossum, raccoons
- B. Desirable
 - 1. Non-threatening animals – i.e., birds, squirrels, rabbits

II. Low

- A. Desirable animals
 - 1. Non-threatening animals -- owl, deer, fox

Perceived Abundance of Wildlife Habitat

I. Natural habitat

- A. High
 - 1. Habitat patches
 - a. vacant lots and grass
 - b. small wooded area
 - c. trees around houses
- B. Low
 - 1. Extensive habitat patches
 - a. woodlots
 - b. undeveloped riparian areas

II. Built environment

- A. High
 - 1. Single family houses
 - 2. Multi-family houses
 - 3. Roads
- B. Low
 - 1. Private businesses

Perceptions of Fishing

I. Undesirable activity

- A. Wildlife-related
 - 1. Distasteful actions required
 - a. taking fish off hook
 - b. putting worms on hook
 - 2. Treatment of wildlife
 - a. pain and suffering
 - b. death

- B. Non-wildlife-related
 - 1. Fear associated with water
 - 2. Conflict with family member
 - 3. Boring

II. Desirable activity

- A. Wildlife-related
 - 1. Enjoy challenge of catching fish
 - 2. Fish as food source
- B. Non-wildlife-related
 - 1. Enjoy boats and being on lake
 - 2. Spending time with family/friends

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VITA

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