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Human Responses to Wildlife: Stakeholder Acceptance Capacity and Human Learning

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Introduction

Interactions with wildlife in parks and protected areas often elicit conflicting human responses, e.g. visitors and indigenous residents may disagree about population levels of species such as elephants, lions, brown bears, or wolves. Both visitors and indigenous residents sometimes benefit from interaction with wildlife, but the benefits are not without costs, such as direct attacks; disease transmission; and consumption or damage to crops, timber, and fish. Because benefits and costs of human-wildlife interaction fall disproportionately on different people, stakeholders often disagree about managing wildlife. Thus, human responses to wildlife are often as important as biological carrying capacity in determining and attaining optimum wildlife population levels in parks and protected areas.

Methods

Our goal in this paper is to outline current knowledge about human responses to wildlife and the learning processes influencing those responses. Our method is to review and synthesize existing research about stakeholder acceptance capacity (SAC) for wildlife and human learning.

SAC for wildlife varies among those with different stakes in wildlife. In Norway, for example, farmers and tourists hold different stakes in wolf management and prefer different population levels (Kaltenborn and Bjerke 2002). SAC determinants include: (a) internal, psychological variables, such as wildlife value orientations, attitudes and beliefs; (b) experiential variables, such as occupation and past experience with wildlife; and (c) situational specifics, such as wildlife species and encounter type or frequency (Zinn et al. 2000).

Results

Colorado studies provide examples of each determinant. First, individuals with utilitarian wildlife value orientations were nearly three times more likely than those with protectionist wildlife value orientations to accept controlling the mountain lion population with increased hunting. Second, individuals whose had lived near colonies of black-tailed prairie dogs five years or longer were nearly twice as likely as those who had lived near colonies less than five years to accept destroying all prairie dogs in the area. Third, responses to beavers and coyotes found in residential areas illustrate the importance of situational specifics. Destroying a beaver or coyote was widely opposed unless it carried a disease harmful to humans. In that situation, destroying the animal was widely accepted.

Wildlife value orientations, attitudes, beliefs, and perceptions are not learned reflexively. They depend on pre-existing knowledge, skills, values and beliefs; the social context in which the stimulus is received; and emotional ties activated by the stimulus (Bandura 1986). There-

fore, individuals respond differently to the same stimulus. Four aspects of human learning—enactive learning, behavior modeling, expectancy, and tutelage—can help park and protected area managers anticipate, understand, and respond to visitors' and indigenous residents' acceptance capacity for wildlife (Zinn et al. 2006).

Enactive learning occurs during direct interaction with the environment and depends on the specifics of the interaction (Bandura 1986). For example, a small mammal might flee from one person but bite another, causing the two individuals to learn different lessons about the species. Behavior modeling occurs when one person models or imitates another's behavior (Bandura 1986). This can be seen in parks and protected areas when a tour group member models the behavior of his or her guide. What the behavior modeler learns about wildlife depends in part on the behavior he or she imitates. What one learns in a given situation also is influenced by expectancy, or expectations (Kowalski & Westen 2005). Often an individual with realistic expectations about wildlife will behave more appropriately and have a more successful experience than someone with unrealistic expectations. Finally, much human learning occurs through tutelage or instruction (Kowalski & Westen 2005). In tutelage, learning is influenced by the knowledge, skills, and motivation of both instructor and learner.

Conclusion

In conclusion, humans' responses to wildlife are influenced by wildlife value orientations, attitudes, beliefs, and perceptions learned through complex cognitive and social processes. What we learn about wildlife depends largely on what we already know, what we expect, and who we are with. Unsurprisingly, some humans perceive a particular species primarily as a material resource, others perceive the same species primarily as a competitor or threat, and still others perceive it primarily as a fellow-creature. Understanding how these contrasting perceptions originate can help park and protected area managers respond appropriately to them.

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