What Three Social Science Theories Applied to Human-Animal Relations Reveal About Gray Wolf (*Canis lupus*) Conservation

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Abstract

Wildlife management falls into the rapidly advancing field of human-animal relations. Three constructs in the social sciences have recently been applied to this arena, making them relevant to consider in wildlife management practices. Research on animal language, cognition and abilities has facilitated applications of these theories or constructs. The first from Anthropology explains the reciprocality in human-animal relationships, the second from Philosophy and Economics recommends understanding wellbeing as the ability to express one's capacities (both for humans and non-human animals, such as wolves), and the third from Psychology speaks to the injuries that result from violence or from witnessing injury or death. We will examine a particular case study of wolf conservation in Yellowstone National Park region and draw both critique and strategies from these theories.

Introduction

•Wolves in Yellowstone National Park declined from 2007 when 174 were estimated to 2012 with 83. In Lamar Valley wolves declined from 100 to 18, fewer than 25 in entire northern range (USFWS 2013)

•Hunting is greatest threat to population size and survivorship

•Wolf welfare compromised by human activities and development e.g., fragmented habitats and roads (Paquet & Darimont 2010)

Literature

•Mallone e, J. S. and P Joslin. 2004. Traumatic Stress Disorder Observed in Adult Wild Captive Wolf. Journal of Applied Animal Welfare Science 7, pp. 107-126.

•Nadasdy, P. 2007. The gift of the animal: the ontology of hunting and human-animal sociality. American Ethnologist 34: pp 25-43

•Nussbaum, M.C. 2004. Beyond compassion and humanity: justice for non-human animals. In Nussbaum MC and Sunstein CR, editors. Animal Rights: Current Debates and New Directions. Oxford, UK: Oxford University Press.

•Paquet, P. C. and C.P. Darimont. 2010. Wildlife conservation and animal welfare: two sides of the same coin. Animal Welfare 19: 177-190.

•http://www.fws.gov. June 15, 2013.

Exchange Theory and Wolves

•Models of human/wolf co-existence include perceptions of reciprocal relationship

•Indigenous practices frequently honor the reciprocal balance

•Wolves benefit ecosystems, prevent disease and aid in structuring and supporting riparian areas

•Education is needed to build a respect of wolves as persons and relational model of management

•How do humans benefit wolves? An area for exploration

Wellbeing as Ability to Express Capacities

•Wolves need to express species-specific capacities, such as emotional bonds with family, traveling distances, communication among pack and interactions with other species, eg., ravens-this can serve as standard of wellbeing

•Concept developed by economist Amartya Sen and philosopher Martha Nussbaum (2004)

•Revolutionized how United Nations assesses human development

•Capacities approach includes inner experience (subjectivity), in contrast to mechanistic models in animal welfare

•Within this high standard of wellbeing, wolves can be assessed for their ability to express species-specific behaviors

Welfare of Individuals: Post-Traumatic Stress Disorder

•Caused by exposure to chronic, acute or unpredictable stressors that are beyond one's control

•Wolves exposed to capture with darting from helicopter displayed PTSD symptoms (Mallonee & Joslin 2004)

•Symptoms include hyper-vigilance and exaggerated startles

•Avoidance of high stress capture techniques would be beneficial to individuals and populations

Suggested Research:

Evaluate:

•Wolf packs in various habitats to determine impacts of habitat size and human activities on behaviors of individuals and pack dynamics

•Individuals' physical and psychological condition after capture by darting from helicopter and after capture by other methods

•Human perceptions of wolves after exposure to educational curricula that explain wolf life cycles, capacities, and ecological interdependence