

Wild Wolves? Understanding human-wolf interactions in the Broken Group Islands of  
Pacific Rim National Park Reserve

Presented at the Parks and Protected Areas Forum of Manitoba

September 30<sup>th</sup>, 2005

By:

Jen Smith

School of Outdoor Recreation, Parks and Tourism

Master of Environmental Studies in Nature-Based Tourism

Supervised by Dr. Connie Russell (Faculty of Education)

Lakehead University

Thunder Bay, Ontario

September 23, 2005

Human-wildlife conflicts have become an internationally recognized concern for management agencies and stakeholders of multi-use wilderness areas (Madden, 2004). In 2004, the International Union for the Conservation of Nature (IUCN) World Parks Congress reported that viable wildlife habitat areas are becoming “islands” surrounded by a sea of development and cultivation, which leads to humans and wildlife occupying much of the same areas (Madden, 2004). Human-wildlife conflicts have intensified in areas around the world where human sprawl has destroyed wildlife habitat and exacerbated the rapid decline in species diversity and ecological integrity (Sanderson, Jaiteh, Levy, Redford, Wannebo, & Woolmer, 2002).

Academic interest in the human dimensions of wildlife management has grown in the past decade along with the knowledge that “protecting wildlife may conflict with expanding recreational disturbance in shrinking wildlands, so the need for understanding and managing recreational impacts on wildlife will continue” (Knight & Gutzwiller, 1995, p. XV). Humans are capable of modifying ecosystems on local to global scales (Alessa, Bennett, & Kliskey, 2003; Sanderson, et al., 2002). These environmental modifications have led natural resource and tourism researchers as well as managers of parks and protected areas to advocate that reducing human-wildlife conflicts involves managing people and understanding our surrounding environments (Alessa et al., 2003; Anderies, Janssen, and Ostrom, 2004; Bath & Enck, 2003; Burns & Howard, 2003; Decker, Brown & Siemer, 2001; Forbes, 2004; Madden, 2004; Noble, 2004; Orams, 2002; Roggenbuck, 1992; Slocombe, 2004).

Studying the human dimensions of wildlife management can yield insights into the issues of managing people versus trying to control wildlife that are oblivious to the

boundaries we create in an attempt to keep them safe. The first step, therefore, is to gain a better understanding of the dynamic relationship that we have with our environment and the intricate connections that occur between diverse ecological systems.

Complementary to, and indeed part of, the human dimensions of wildlife management is the growing interest in social ecological systems, an emerging field of study within academia and wildlife management. Anderies, et. al (2004) and Sparkes (2005) are currently using social ecological systems (SES) to describe the ways in which “people are viewed as one of many biological units that influence other units, and are influenced by those other units” (Sparkes, 2005, p.1). Understanding the dynamics of how our social systems (human society) interact with each other and with the diverse array of ecological systems that surround us is a key component when using a social ecological systems approach (Sparkes, 2005).

In Pacific Rim National Park Reserve, for example, there are increasing accounts of wolf-human interactions (Sparkes, 2005) due to the recent establishment of wolves (*Canis lupus*) onto the Broken Group Islands (the only large carnivore present on these islands). These wolves were not re-established onto the islands as a result park led re-introductions, but as a result of pursuing the large populations of black-tailed deer that are present on the islands. Wolves have been inconsistently present throughout the Broken Group Islands since the 1980's. It was not until 2002 that the wolves in this area became permanent residents. In 2003, Parks officials reported the presence of the first litter of pups on Gibraltar Island, which they consequently closed to campers with the intention of reducing human-wolf interactions.

The establishment of this wolf population coupled with the high rates of visitation to the park has created a situation where the potential for negative interactions between wolves and people significantly increases. According to the BGI park warden, the wolves that inhabit the islands have begun exhibiting less wariness of humans and are learning to forage for food in areas that are highly frequented by people (Dan Vedova, personal communication, October 26, 2004). These actions not only create a safety hazard to visitors, but also to the wolves themselves. For example, if a wolf were to exhibit aggression toward a human, in response to being hand-fed, the situation would most likely result in the destruction of the wolf without any legal consequences, such as fines or charges, to the human. Since the establishment of wolves onto the islands, one case of human-caused wolf mortality has occurred in the BGI, where a food-conditioned wolf was destroyed after being hand fed by people.

This situation has prompted management actions to reduce risks to both people and wolves (Dan Vedova, personal communication, October 26, 2004). It is important for the park's ecological integrity that the natural dynamics of predators and prey develop without human hindrance (Bath & Enck, 2003). Therefore, park managers, field staff and stakeholders feel the need to ensure that visitors do not interfere with the life processes of the wolves, while visitors' exposure to risk as a result of the wolves' presence is minimized (Dan Vedova, personal communication, October 26, 2004).

In the BGI, it remains unclear if habituation and food-conditioning are solely the result of human influences. It is possible that wolves, being social creatures, are coming into contact with people as a result of their inherent curiosity, exposing them to a higher degree of risk (Bob Hansen, personal communication, October 22, 2004). Nevertheless,

given the possibility that wolf habituation and food-conditioning could be caused by people, it is important to explore the human dimensions of this situation. Pacific Rim National Park Reserve is implementing a social ecological approach to better understand the dynamics at play between wolves and people within the park boundaries and in the adjacent areas including (but not limited to) Clayoquot, Tofino and Ucluelet. Appendix A illustrates the management framework for the SES research process that Pacific Rim National Park Reserve has implemented to “help identify any major shifts” in the areas of study and to highlight the importance of ongoing monitoring (Sparkes, 2005, p. 3).

As part of a broader initiative to explore both the human dimensions of human-wildlife interactions and the biology of cougar, bear and wolf populations and behaviours in and around Pacific Rim National Park Reserve, my research uses social science to explore kayakers’ attitudes toward wolves and what wolves mean to them while visiting the BGI. According to Kellert (1980), “attitudes are broadly integrated feelings, beliefs and values...” (p. 31), while meanings are expressive, intangible and symbolic; differing from attitudes because they “cannot be tied to measurable (tangible) environmental features” (Williams & Patterson, 1999, p. 152). Once established, these attitudes and meanings will conceivably provide more insight into the complex dynamics at play in wolf-human interactions within the BGI unit of Pacific Rim National Park Reserve. The results from this research will act as baseline data upon which Parks Canada can build in order to produce more effective visitor education programs and possible behaviour modification strategies.

Pursued within a qualitative methodological paradigm, this study uses a mixed methods approach for data collection. The qualitative paradigm is congruent with my

interest in a constrained constructivist understanding of human/wolf relations. Both the qualitative paradigm and constrained constructivism recognize that reality is composed of multiple truths and that individuals develop subjective meanings about objects or experiences (Demeritt, 2002; Eden, 2001; Gerber, 1997; Proctor, 1998; Russell, 2001).

My research consists of four phases; the first two phases have been carried out and the last two will be completed by April 2006. Phase I included an extensive literature review on topics such as: human dimensions of wildlife; attitudes toward wolves and other carnivores; constrained constructivism and the co-construction of nature; wild carnivore conservation; and carnivore habituation and food conditioning. During phase II, 395 questionnaires were collected and 13 interviews were conducted with kayakers in the Broken Group Islands throughout July and August, 2005. In Phase III, data will be analysed using descriptive, multivariate statistics and thematic coding, as appropriate. The writing of a preliminary report will also be included in Phase III. The last phase will involve a public defence of the research findings and a final thesis submitted to Lakehead University and Parks Canada. All participants and stakeholders who have requested a summary of the report will be sent a synopsis of the findings.

## References

- Alessa, L., Bennett, S. M., & Kliskey, A. D. (2003). Effects of knowledge, personal attribution and perception of ecosystem health on depreciative behaviors in the intertidal zone of Pacific Rim National Park Reserve. *Journal of Environmental Management*, 68, 207-218.
- Anderies, J. M., Janssen, M. A. & Ostrom, E. (2004). A framework to analyze the robustness of social-ecological systems from an institutional perspective. *Ecology and Society* 9(1). Retrieved November 18, 2004 from <http://www.ecologyandsociety.org/vol9/iss1/art18/main.html>.
- Bath, J. B. & Enck, J.W. (2003). Wildlife-human interactions in National Parks in Canada and the USA. *Social Science Research Review* 4(1), p. 1-32.
- Burns, G. L., & Howard, P. (2003). When wildlife tourism goes wrong: A case study of stakeholder and management issues regarding dingoes on Fraser Island, Australia. *Tourism Management*, 24, 699-712.
- Decker, D. J., Brown, T. L. & Siemer, W. F. (2001). *Human dimensions of wildlife management in North America*. Bethesda, Maryland: The Wildlife Society.
- Demeritt, D. (2002). What is the 'social construction of nature'? A typology and sympathetic critique. *Progress in Human Geography*, 26(6), 767-790.
- Eden, S. (2001). Environmental issues: Nature versus the environment? *Progress in Human Geography* 25(1), 79-85.
- Forbes, G. (2004). Managing for wildlife in Canada. In B. Mitchell (Ed.), *Resources and environmental management in Canada: Addressing conflict and uncertainty* (3rd ed.) (pp. 287-313). Don Mills, Ontario: Oxford University Press.

- Gerber, J. (1997). Beyond dualism: The social construction of nature and the natural and social construction of human beings. *Progress in Human Geography*, 21(1), 1-17.
- Kellert, S. R. (1980). American's attitudes and knowledge of animals. *Transactions of North American Wildlife and Natural Resources Conference*, 45, 111-124.
- Knight, R. L. & Gutzwiller, K. J. (Eds.). (1995). *Wildlife and recreationists: Coexistence through management and research*. Washington, DC: Island Press.
- Madden, F. (2004). Creating co-existence between humans and wildlife: Global perspectives on local efforts to address human and wildlife conflict. *Human Dimensions of Wildlife*, 9(4), 247-257.
- Noble, B. F. (2004). Applying adaptive environmental management. In B. Mitchell (Ed.), *Resource and environmental management in Canada: Addressing conflict and uncertainty* (3rd ed.) (pp. 442-466). Don Mills, Ontario: Oxford University Press.
- Orams, M. B. (2002). Feeding wildlife as a tourism attraction: A review of issues and impacts. *Tourism Management*, 23, 281-293.
- Proctor, J. D. (1998). The social construction of nature: Relativist accusations, pragmatist and critical realist responses. *Annals of the Association of American Geographers*, 88(3), 352-376.
- Roggenbuck, J. W. (1992). Use of persuasion to reduce resource impacts and visitor conflicts. In M. J. Manfredo (Ed.), *Influencing human behavior* (pp. 149-208). U.S.A.: Sagamore Publishing Co.; Inc.
- Russell, C. L. (2001). Why study whalewatching? Environmental education, nature experience, and the social construction of nature. In D. Hodson (Ed.), *OISE papers in Science-Technology-Society-Environment (STSE) Education*, (pp. 49-74).

Toronto: University of Toronto Press with the Imperial Oil Centre for Studies in Science, Mathematics, and Technology Education.

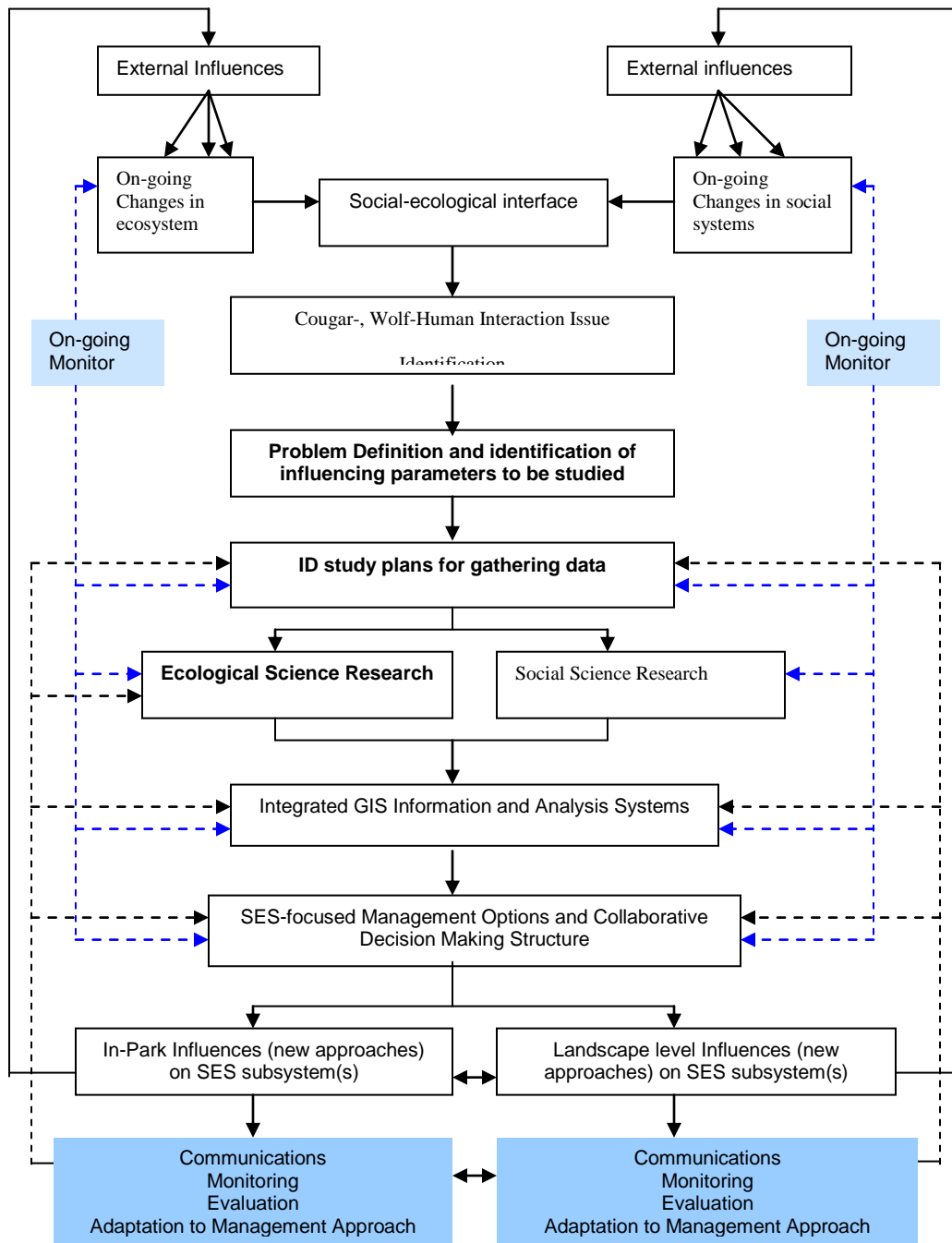
Sanderson, E. W., Jaiteh, M., Levy, M. A., Redford, K. H., Wannebo, A. V. & Woolmer, G. (2002). The human footprint and the last of the wild. *American Institute of Biological Sciences*, 52(10), 891-904.

Slocombe, S. D. (2004). Applying an ecosystems approach. In B. Mitchell (Ed.), *Resource and environmental management in Canada: Addressing conflict and uncertainty* (3rd ed.) (pp. 420-441). Don Mills, Ontario: Oxford University Press.

Sparkes, J. (2005). *Social-ecological systems*. Western Canada Service Centre, Sidney, BC.

Williams, D. R. & Patterson, M. E. (1999). Environmental psychology: Mapping landscape meanings for ecosystem management. In H. K. Cordell & J. C. Bergstrom (Eds.), *Integrating social sciences and ecosystem management: Human dimensions in assessment, policy and management* (pp. 141-160). Champaign, IL: Sagamore Press.

Appendix A



Project Process for Researching and Influencing the SES Dynamics of Pacific Rim National Park Reserve's Carnivore-Human Interactions (Sparkes, 2005).