Human-Wildlife Conflict in Pacific Rim National Park Reserve: Wolves, Shorebirds, People, Dogs, Beaches and Leashes

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Overview

• Introduction
• Problem
• Purpose
• Importance
• Questions
• Location
• Theory
• Methodology
• Methods
• Some preliminary results
Introduction

• Long Beach Unit

• Popular National Park destination

• High Park Visitation

• Wildlife corridors and wildlife foraging habitat

• Migratory Shorebirds

• Home to large carnivores

• History of human - wildlife conflict
  • Wolves
  • Shorebirds

• Key issue - off leash dogs
Problem

- Off leash dogs
  - Habituate wolves to pets as easy prey
  - Negative impact on sensitive shorebird habitat

- Extensive efforts to reduce the percentage of off leash dogs have had little impact
Management of human–wildlife conflict is the management of human behaviour.

- The greatest success in influencing park visitors’ actions comes from understanding what they think about a given behaviour (Brown, Ham & Hughes, 2010)

Beliefs
Wildlife Value Orientations
Motivations
Barriers
Importance

• interpretation, education and outreach

• viable habitat for shorebirds

• free of human-carnivore conflict,

• Contribute to a growing body of research that employs theory based approaches to inform communication/education/interpretation in Parks and Protected Areas
WildCoast Project Overview

increase understanding of wildlife-human conflict
reduce wildlife-human conflict

Multi-disciplinary Approach

Human Dimensions

Ecological Dimensions

2004

Attitudes, Values, Knowledge, Awareness, Behaviours
Nuu-chah-nulth First Nations TEK
Carnivore-Human Interactions Analysis
Deer Habitat Availability
Wolf & Cougar Ecology Research
Engage Communities LEK & Predator-Prey Surveys

2010

Address Gaps

Knowledge Mobilization

Synopsis

Carnivore-Human Conflict Management Strategies
Science - TEK - LEK - based
communications / education / operations / visitor experience

Implementation / Monitoring

- Inform Land Use Planning
- Positive Change - Human Behaviour / Visitor Experience
- Adaptive Management Informed by Project Results
- Reduced Carnivore-Human Conflict

Project Outcomes
Questions

1. What are:
   a) The beliefs salient in the population that guide people’s decisions and actions?
   b) The strongest beliefs in the population that guide people’s decisions and actions?

2. What is the role of the personal norm in compliance/non-compliance behaviour?

3. How do background factors of wildlife value orientations and motivations:
   a) Influence a particular behaviour in a given population?
   b) Provide insight into the origins of beliefs that serve as a cognitive foundation of the behaviour?

4. What are some of the barriers to non compliance behaviour?
Theory of Planned Behaviour

Theory of Planned Behaviour (Fishbein & Ajzen, 2010).
Personal Norm

• “To do the right thing”

Adapted from Fishbein & Ajzen (2010).
Cognitive Hierarchy Model & Wildlife Value Orientations

Adapted from Fishbein & Ajzen (2010).

Cognitive Hierarchy Model (Fulton et al., 1996; Vaske & Donnelly, 1999).
Motivations

Adapted from Fishbein & Ajzen (2010).
Psychological Barriers

Adapted from Fishbein & Ajzen (2010).
Welcome to THE LONG BEACH UNIT OF PACIFIC RIM NATIONAL PARK RESERVE OF CANADA

Pacific Rim National Park Reserve is part of Canada's system of national parks, historic sites and marine conservation areas. Parks Canada established Pacific Rim to represent, protect, and present the coastal plains portion of the Pacific Coast Mountains and the nearshore waters of the west coast of Vancouver Island.

In January 2000, UNESCO designated Clayoquot Sound as a World Biosphere Reserve. Pacific Rim is a core protected area of the biosphere reserve. The entire park is within the traditional territory of the Nuu-chah-nulth-ait who have lived on this coast for countless generations. The Nuu-chah-nulth bands are comprised of many individual nations.

Parks Canada and the Nuu-chah-nulth-aht cooperate in the protection, preservation and presentation of these lands. The Long Beach Unit lies within the traditional territory of the Ucluelet and Tla-o-qui-aht First Nations. Many places on this map have Nuu-chah-nulth names.

<table>
<thead>
<tr>
<th>First Nation Word</th>
<th>Meaning</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuu-chah-nulth</td>
<td>people along the mountains</td>
<td>The Nuu-chah-nulth people</td>
</tr>
<tr>
<td>Hahului</td>
<td>A Chief's traditional territory</td>
<td>the land, the ocean for the people and everyone living and non-living within</td>
</tr>
<tr>
<td>K’un (k’uu)</td>
<td>Other side of the beach</td>
<td>Quinlin RI 9</td>
</tr>
<tr>
<td>Ka’naw (k’aw)</td>
<td>Place for getting fish</td>
<td>Ka’awenw RI 4</td>
</tr>
<tr>
<td>Hu’u (hu’u)</td>
<td>Protected area</td>
<td>Uuwe RI 8</td>
</tr>
<tr>
<td>Wa’u (wu)</td>
<td>Safe since</td>
<td>Wu Point / Wu RI 7</td>
</tr>
<tr>
<td>Mw’u (m’uw)</td>
<td>Land marks lined up</td>
<td>Wickaninnish Beach</td>
</tr>
<tr>
<td>Skw’u (skw)</td>
<td>A place for fishing</td>
<td>Wickaninnish Beach</td>
</tr>
<tr>
<td>X’wun (x’wun)</td>
<td>Anchorage</td>
<td>Sooke Harbour</td>
</tr>
<tr>
<td>Sda (sda)</td>
<td>Passage through / camping</td>
<td>On Indian Island RV 30</td>
</tr>
<tr>
<td>Sna (sna)</td>
<td>Waves / tide on shore</td>
<td>Wickaninnish Beach</td>
</tr>
<tr>
<td>X’wun (x’wun)</td>
<td>Creek flows there</td>
<td>Long Point and Sisbillion Creek</td>
</tr>
<tr>
<td>Tl’ul’ tla (tl’ul’ tla)</td>
<td>Beach with island midway</td>
<td>Green Point area</td>
</tr>
<tr>
<td>Tl’ot (tl’ot)</td>
<td>File beach</td>
<td>Cox Point area</td>
</tr>
</tbody>
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PARK PASS:
A park pass must be displayed in your vehicle when stopped in the Long Beach Unit of the park.

Park Pass Options | Where to purchase passes
--- | ---
Daily (24 hour) | Park Pass machine* Pacific Rim Visitor Centre
Pacific Rim National Park Reserve Annual Pass | Pacific Rim Visitor Centre
Canada's National Park Annual Pass | Pacific Rim Visitor Centre
Commercial/Group | Wickaninnish Centre Pacific Rim Visitor Centre

*There are no park pass machines at Grice Bay, Willowbrae Trail or Florencio Bay. Please purchase your park pass prior to your arrival at those sites.
Methodology

- Qualitative
- Quantitative
Mixed Methods

• Phase 1 - Interviews
• Phase 2 - Surveys
Phase 1: Interviews

Semi structured
– Motivations
– Beliefs
– Personal Norms
– Wildlife Value Orientations
– Psychological Barriers

Convenience Sample

Analysis
– Transcription of interviews
– Coding
– Content Analysis
Phase 2: Surveys

- Pilot Study
- Random Samples
  - Beliefs
  - Personal Norms
  - Wildlife Value Orientations
  - Motivations
  - Psychological Barriers
## Sample Motivations

### Motivations – To the Beach

- To view scenery
- To experience tranquility.
- To get away from the usual demands of life.
- To be on your own
- To do something with your family..
- To be with friends – socialize
- Meet people
- To get exercise..
- Enjoy Wildlife
- Freedom – for the dog and owner
- Environment – open space
- Companion
- Existential – “just to be a dog”
- Responsibility
- Protection - wildlife

### Motivations – Off leash

- Behaviour
- Nobody Around
- Freedom
- Trust
- Existential
- Enjoyment – Dog/people
- Social Norm

### Motivations – On leash

- Responsibility
- Other people
- Wildlife – ie) Birds
- Age of dog – ie) puppy
- Rules
- Control
- Protection – ie) from other dogs; wildlife
- Signage
- Cultural
- Behaviour
- Protection – cars - wildlife
- Enforcement
- Environment – ie) Trails; Parking lot
Beliefs

Behavioural Belief Questions
• What do you see as the *advantages* or *good things* that could if walked your dog on a leash every day you were in the park
• What do you see as the *disadvantages* or *bad things* that could occur if you walked your dog on a leash every day you were in the park

Normative Belief Questions
• Who (individuals or groups whose opinions you consider personally influential) do you think would *support* or *approve* of you having your dog on leash every day you were in the park?
• Who (individuals or groups whose opinions you consider personally influential) do you think would *object* or *disapprove* of you walking your dog on a leash every day you were in the park?

Personal Norm Questions
• Do you feel it is the right thing to do to walk your dog on a leash every day you are in the park?

Control Belief Questions
• What factors or circumstances *enable* or make it *easy* for you to walk your dog on a leash every day in the park?
• What factors or circumstances make it *difficult* for you to walk your dog on a leash every day you are in the park?
Group and label the salient beliefs according to shared meanings

<table>
<thead>
<tr>
<th>Behavioural Beliefs - Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
</tr>
<tr>
<td>Conflict Avoidance</td>
</tr>
<tr>
<td>Control – ie) wildlife; people; families; kids</td>
</tr>
<tr>
<td>Impact on flora &amp; fauna</td>
</tr>
<tr>
<td>Stress</td>
</tr>
<tr>
<td>Cultural Sensitivity</td>
</tr>
<tr>
<td>Protection</td>
</tr>
</tbody>
</table>
Sample Wildlife Value Orientations: *Wildlife Narratives*

- **Hunting/Fishing:** I have a positive focus on wildlife as the object of hunting and/or fishing rather than of viewing or other non consumptive activities
- **Mutualism:** Wildlife are viewed as capable of relationships of trust with humans, wildlife have rights like humans, wildlife are part of an extended family
- **Caring:** Personal emotional attachment to animals, animals make humans feel better and likewise humans want to help animals and prevent them from suffering
- **Attraction /Interest:** Interest in and a desire to know more about wildlife, feeling that wildlife enhances life experiences
- **Environmentalism:** I have a general concern for protecting the environment which can extend to preserving wildlife, feeling that humans are impacting the environment in a negative way through their actions

Adapted from Fulton et al. (1996)
# Sample Psychological Barriers

<table>
<thead>
<tr>
<th><strong>Barriers</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ignorance</strong></td>
<td>do not know that a problem exists – do not know what to do once aware of the problem</td>
</tr>
<tr>
<td><strong>Social norms/Descriptive Norm</strong></td>
<td>what is everyone else doing?</td>
</tr>
<tr>
<td><strong>Discredence</strong></td>
<td>unlikely to take direction from people viewed in a negative light. - general lack of trust in the other, other alternative behaviour is inadequate, denial of the authenticity of the other’s beliefs, not following the other’s advice.</td>
</tr>
<tr>
<td><strong>Reactance</strong></td>
<td>Distrust of messages that come from scientists or government. Reaction against advice or policy that seems to threaten their freedom, lack of trust of those who give the advice or set the policy.</td>
</tr>
<tr>
<td><strong>Physical risk</strong></td>
<td>danger associated with them</td>
</tr>
</tbody>
</table>

Adapted from Gifford (2010)
Partners and Collaboration

Pacific Rim National Park Reserve

British Columbia
Fish & Wildlife
Thank You