

Session 7: Human Dimensions

Session Moderator: David Ranson

Location: TBC

Date/Time: Tuesday, December 13, 1:30 pm to 3:45 pm

- [Devin Holterman](#) - Managing for future change: identifying climate vulnerability, resilience and management options in parks with a marine component.
- [Jordan Dye](#) - We Don't Talk About Finance: The Overlooked Tool in Protected Areas Sustainability.
- [Rod Davis](#) - BC Elders Council for Parks Dialogues on Protected Areas and Climate Change – What We Heard and Mapping a Path Forward
- [Farhad Moghimefar & Hannah Dudney](#) - Pro-environmental behaviour in The Mount Arrowsmith Biosphere Region, BC, Canada: Motivations, emotions, and ecological worldviews.
- [Dayna Weststrate](#) - How climate change and population growth will interact to shape the future of attendance at BC Parks

Devin Holterman

Yellowstone to Yukon Conservation Initiative and University of Northern British Columbia

Managing for future change: identifying climate vulnerability, resilience and management options in parks with a marine component.

Abstract:

Conservation issues have strong human dimensions, be they political, cultural, and/or economic. Yet, the conservation community has prioritized the natural sciences, often outweighing social considerations when it comes to informing conservation decision-making, policy, and practice. To address this discrepancy, a new project at the Yellowstone to Yukon Conservation Initiative, in partnership with the University of Northern British Columbia, is developing a social science research agenda to support Y2Y's mission to protect and connect the largest intact mountain landscape in the world, including some of North America's most iconic protected areas. The paper, currently under development, outlines a list of overarching research questions that, if addressed, can support more strategic, effective, and just conservation outcomes in both protected areas and across broader landscapes, including the Y2Y region. The presentation highlights the results of this agenda-setting work and will facilitate a discussion that generates interest in these research nodes, helps to identify gaps, and starts to build collaborations and partnerships for future social science research across the Y2Y region and beyond.

Contributors:

- Dr. Pamela Wright, University of Northern BC
- Dr. Aerin Jacob, Nature Conservancy of Canada

Acknowledgements: Funding was provided for this postdoctoral project by Mitacs Canada Inc. and the Yellowstone to Yukon Conservation Initiative

Jordan Dye

Canadian Parks, Protected and Conserved Areas Leadership Collective (CPPCL), Mount Royal University, Institute for Environmental Sustainability

We Don't Talk About Finance: The Overlooked Tool in Protected Areas Sustainability**Abstract:**

Over four years the Canadian Parks, Protected and Conserved Areas Leadership Collective (CPPCL) has hosted leadership development programs, webinars, and research conferences with parks and protected areas professionals. In this presentation we will bring forward the observations gained over four years surrounding the challenges and opportunities parks face when pursuing financial sustainability. Financial sustainability is a critical consideration for parks professionals; however, it is often framed as a limiting factor or the topic is avoided altogether. By applying an academic business lens we show that financial sustainability is inseparable from the larger goals of our park systems and can be reframed as an enabling factor in accomplishing broader objectives. The first part of this presentation will present a systems map breaking down the components driving financial sustainability in park systems. The system map will provide park professionals with a conceptual tool to begin working through the challenges and complexity surrounding financial sustainability. Building on the system map we will highlight four promising practices drawn from real leadership challenges facing the parks system across Canada and which could help park systems of all sizes advance their goals by pursuing financial sustainability. By examining the parks and protected areas system from a business perspective we hope to highlight the benefits of examining common problems through new lenses.

Contributors:

- Don den Hoed Carruthers, Canadian Parks, Protected and Conserved Areas Leadership Collective (CPPCL), University of British Columbia

Acknowledgements:

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Rod Davis

BC Elders Council for Parks

BC Elders Council for Parks Dialogues on Protected Areas and Climate Change - What We Heard and Mapping a Path Forward

Abstract:

Science has made it clear that to bring the planet back to a more ecologically stable condition, we must increase the proportion of our world that allows nature to function effectively and reduce negative human influences on land and water. In response the UN, Canada, the US, and beyond have pledged to protect 30% of land and water by 2030. What does that look like in BC? The BC Elders Council for Parks sponsored a series of three stakeholder dialogue sessions involving 80 experienced people bringing together current ideas on designations and design for expanding protected areas, land management systems, and outreach on natural solutions to the impacts of climate change and biodiversity loss. The sessions were held virtually via Zoom video conferencing from March to May in 2021. The dialogues explored how best to expand and manage the protected area system for ecological integrity, build public and political support necessary to make improvements needed, and facilitate appropriate access and use by indigenous peoples and the public. The results provided valuable insights on the opportunities and challenges to expanding the parks system in BC, improving protected areas management, and building public and political understanding.

Contributors:

- Rod Davis, BC Elders Council for Parks
- Colin Campbell, BC Elders Council for Parks

Farhad Moghimefar & Hannah Dudney

Vancouver Island University

Pro-environmental behaviour in The Mount Arrowsmith Biosphere Region, BC, Canada: Motivations, emotions, and ecological worldviews.-

Abstract:

The Mount Arrowsmith Biosphere Region, located on Vancouver Island in British Columbia, Canada, is an official UNESCO biosphere region. Thus, this region is faced with the task of maintaining unique social and environmental landscapes to uphold the UNESCO mandate and ensure longevity. To achieve this, practitioners and academic scholars must explore how to encourage local and visitor pro-environmental behaviours. The theory of planned behaviour (TPB) has been used as a framework to study people's intentions and actions throughout the past three decades. Extensions of this theory have been examined to improve its predictability. However, factors such as motivations, ecological worldview, and feelings (i.e., guilt and pride) have not been extensively explored within the scope of this framework. This study aims to predict people's pro-environmental behaviour in this globally recognized region by extending the TPB model using additional factors. To obtain these results, a survey was designed to measure people's motivations (self-determination theory), ecological worldview (NEP), and feelings of guilt and pride in addition to the TPB predictors (intentions, attitude, subjective norms, and perceived behavioural control). Over 200 completed questionnaires have been collected in parks within the target region. Data will be analyzed using the PLS-SEM technique, and consequent theoretical and practical contributions will be presented.

Acknowledgements:

The Mount Arrowsmith Biosphere Region is located on the unceded ancestral territories of seven First Nations from Nuu-chah-nulth and Coast Salish tribes.

[Dayna Weststrate](#)

UBC Okanagan, Department of Biology

How climate change and population growth will interact to shape the future of attendance at BC Parks

Abstract:

BC Parks is tasked with providing British Columbians with opportunities for outdoor recreation, while also protecting the natural environment. As a result of this dual mandate, park managers often find themselves on the front lines of Human-Wildlife Conflict issues. Thus, in decision-making processes, it is important for managers to know what factors underpin the volume of people that might be expected to attend on any given day. Our goal was to understand how current and projected environmental conditions, as well as population growth, interact to shape park attendance. We found strong relationships between attendance and weather, but these relationships differed between parks. That is, as temperatures increased, some parks received more visitors, whereas others received fewer. With these findings, we generated projections of how BC

Park attendance might be expected to change over the coming century. Climate change in BC is projected to cause hotter summers, earlier springs, and later autumns. Over this same time span, the population is expected to grow substantially. Consequently, many parks should anticipate a rise in visitors during the extended warm season. This information will provide BC Parks with key information required for proactive conservation and management planning in the face of human-induced climate change.

Contributors:

- Michael Noonan, University of British Columbia Okanagan
- Kirk Safford, BC Parks

Acknowledgements:

This work was carried out on the UBC Okanagan campus, which is situated on the traditional, ancestral and unceded territory of the Syilx Okanagan Nation and their peoples, who have used this site for millennia to pass on in their culture, history, and traditions from one generation to the next. The work was supported by a living labs grant to Michael Noonan. We would also like to thank the staff at parks across the province who helped in compiling the park attendance data.