

Background: According to the World Health Organization (2011), approximately 15% of the world's population lives with a disability. Being the world's largest minority group, this demographic will continue to grow with an aging population. Despite this evidence, people with disabilities (PwDs) are often missing in planning and policy making generally, and in conversations around tourism experiences specifically (Burnett & Bender Baker, 2001; Chikuta et al., 2019; Darcy et al., 2020; Nyanjom et al., 2018). The Long Beach Unit (LBU) in Pacific Rim National Park Reserve (PRNPR) stretches along the West Coast of Vancouver Island, BC, near the popular tourist towns of Tofino and Ucluelet (Parks Canada, 2010). The LBU contains just over 5% of PRNPR land and yet receives the majority of 750,000 annual visitors to PRNPR (Parks Canada, 2010). LBU is the most accessible unit in PRNPR, and the intensifying visitation to this small portion of land is an issue that the LBU will continue to confront. Park management must analyze LBU's tourism carrying capacity to decide when and how to limit visitation to avoid crowding and over-visitation (Dodds & Butler, 2019). Social carrying capacity (SCC) is the number of tourists an area can support before it begins to impact the visitor experience (Coccosis & Mexa, 2017; Manning et al., 2017; Manning & Anderson, 2012). Currently, no research attempts to measure the SCC of park spaces for PwDs or, for the purposes of this research, people with physical disabilities (PwPDs). Analyzing the perspectives of people who are non-disabled *and* people who are mobility restricted is vital for parks to achieve equity, diversity, and inclusion goals and public satisfaction, as per Parks Canada's long-standing mandate (Parks Canada, 2002).

Objectives: This study aims to: 1) measure the social carrying capacity of the LBU in PRNPR for PwPDs to compare perceptions of park capacity between people with and without physical disabilities and 2) enhance existing accessibility audits to improve the visitor experience for PwPDs. This study will encourage future research that analyses not just an individual's ability to access national park spaces, but the full breadth of factors that affect visitor experience for PwPDs. I hypothesize that perceptions of crowding and visitor experience will be significantly different for individuals with physical disabilities.

Theoretical approach: My study will follow a management-by-objectives framework, specifically the Visitor Use Management Framework (VUMF) (Interagency Visitor Use Management Council, 2016). This will ensure my study follows four significant steps: understand why the project is needed, describe what visitor conditions will be monitored, identify methods to maintain the ideal conditions, and finally, adjust these methods when necessary. Additionally, normative theory will guide this study since it assumes that carrying capacity measurements are primarily psychological, social, and variable (Manning, 1999, 2013) rather than unchanging and unaffected by socio-demographic variables.

Methods and procedures: To determine carrying capacity's relation to physical disability, I will survey the visitor population at the LBU in the summer months of peak visitation (Parks Canada, 2010). The self-reported survey will collect quantitative data in three parts: 1) demographic information, 2) disability screening questionnaire (Statistics Canada, 2014), and 3) visual simulation questionnaires to measure normative indicators of quality and SCC (Manning 1999, 2011; Xiao et al., 2019). Participants with self-reported physical disabilities will complete all three parts, and non-disabled individuals will complete parts one and three. Participants from each group will complete additional open-ended questions to address qualitative features of visitor experiences related to crowding. Various statistical analyses will take place to compare results between the two groups.

Significance: By evaluating SCC in combination with demographic variables, this study can propose revisions that allow park management to improve the visitor experience for PwPDs. Additionally, including qualitative accounts of visitor experiences will ensure that the needs of PwPDs are the focus of my results. Finally, this study will address a gap in research regarding individuals with physical disabilities in park spaces. Results will be presented to Parks Canada management in the form of an academic report to improve the visitor experience of underrepresented groups.

References

- Chikuta, O., Du Plessis, E., & Saayman, M. (2019). Accessibility expectations of tourists with disabilities in national parks. *Tourism Planning & Development*, 16(1), 75-92. <https://doi-org.ezproxy.viu.ca/10.1080/21568316.2018.1447509>
- Burnett, J. J., & Bender Baker, H. (2001). Assessing the travel-related behaviors of the mobility-disabled consumer. *Journal of Travel Research*, 40(1), 4-11. <https://doi.org/10.1177/004728750104000102>
- Darcy, S., McKercher, B., & Schweinsberg, S. (2020). From tourism and disability to accessible tourism: A perspective article. *Tourism Review*, 75(1), 140-144. <https://doi.org/10.1108/TR-07-2019-0323>
- Dodds, R., & Butler, R. (Eds.). (2019). *Overtourism: Issues, realities and solutions*. Walter de Gruyter GmbH.
- Coccosis, H., & Mexa, A. (2017). *The challenge of tourism carrying capacity assessment: Theory and practice*. Routledge.
- Manning, R. E. (1999). *Studies in outdoor recreation: Search and research for satisfaction*. Oregon State University Press.
- Manning, R. E. (2013). *Parks and carrying capacity: Commons without tragedy*. Island Press.
- Manning, R., & Anderson, L. E. (2012). *Managing outdoor recreation: Case studies in the national parks*. CABI.
- Manning, R. E., Anderson, L. E., & Pettengill, P. (2017). *Managing outdoor recreation: Case studies in the national parks*. CABI.
- Nyanjom, J., Boxall, K., & Slaven, J. (2018). Towards inclusive tourism? Stakeholder collaboration in the development of accessible tourism. *Tourism Geographies*, 20(4), 675-697. <https://doi.org/10.1080/14616688.2018.1477828>
- Parks Canada. (2002). *The Parks Canada mandate and charter*. <https://www.pc.gc.ca/en/agence-agency/mandat-mandate>
- Parks Canada. (2010). *Pacific Rim National Park Reserve of Canada: Management plan*. https://publications.gc.ca/collections/collection_2010/pc/R61-27-2010-eng.pdf
- Statistics Canada. (2014). *Canadian survey on disability, 2012. A new survey measure of disability: The disability screening questions (DSQ)*. <https://www150.statcan.gc.ca/n1/pub/89-654-x/89-654-x2016003-eng.htm>
- World Health Organization (WHO). (2011). *World report on disability*. https://www.who.int/disabilities/world_report/2011/report.pdf
- Interagency Visitor Use Management Council (IVUMC). (2016). *Visitor use management framework. A guide to providing sustainable outdoor recreation*. <https://ijw.org/visitor-use-management-framework/>
- Xiao, X., Lu, J., Manning, R., & Reigner, N. (2019). Defining and monitoring the quality of shared-use transportation facilities in parks and recreation areas. *International Journal of Sustainable Transportation*, 13(9), 692-702. <https://doi.org/10.1080/15568318.2018.1506954>