

The Raincoast Sustainability Podcast

Spring 2020 Extended Grad Project

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Topic of Investigation

This grad project is going to be a podcast series tentatively titled: *The Sustainable Raincoast Podcast*. Episodes in the podcast series will cover a range of sustainability and proconservation projects, initiatives, and institutions that occur locally in British Columbia.

Resources

Online resources will include the Capilano University Library database, ScienceDirect, PsychINFO, JSTOR, and the Salish Sea Marine Survival Project. Interviewees will be subject specialists tracked down through past colleagues, past teachers, and through the authors of peer reviewed journals, and through local projects listed in the Salish Sea Marine Survival project.

Methodology

Qualitative research

Quantitative research practises are the principle means of conducting the research and presentation of this podcast project. Unstructured and semi-structured interviews will make up the narrative approach of each episode within this podcast. These interviews will be conducted by myself and may include over the phone interviews, in person interviews, and possible written interactions.

Quantitative research

Diving into previously conducted studies and data resources such as survey's, case studies, research studies, and peer reviewed journals. I do not anticipate incorporating a large part of personally researched and designed quantitative as this project means to be more qualitatively designed. Quantitative research then will constitute the literature review portion of the episodes within this podcast.

Software

This podcast will be made by Audacity and distributed with Anchor (<https://anchor.fm/>).

Proposed Learning Outcomes

1. I will demonstrate the ability to apply basic research methods in psychology, including research design, data analysis, and interpretation.
2. I will be able to identify environmental problems, evaluate problem-solving strategies, and develop science-based solutions.
3. will demonstrate the ability to evaluate, integrate, and apply appropriate information from various sources to create cohesive, persuasive arguments, and to propose design concepts.

Annotated Bibliography

Sustainable Raincoast Podcast will cover a wide range of topics pertaining to sustainability. Interviews in this project will probably lead to further investigation and research into citations so this annotated bibliography is a sample of the types of research that will be conducted. This project is meant to be an encompassing view of proconservation practises and behaviours that are in the province of British Columbia. Hence the nature of this project needs to be open ended and flexible. The episodes will each contain a literary review that defines the topic, such citations to be included are as follows.

for topic on: **Ecological Preservation, Eco – Restoration and Rewilding**

Conger, T., & Chang, S. E. (2019). Developing indicators to identify coastal green infrastructure potential: The case of the Salish Sea region. *Ocean and Coastal Management*, 175, 53–69. <https://doi-org.ezproxy.capilanou.ca/10.1016/j.ocecoaman.2019.03.011>

This article is a key link between restoration of salmon populations in the Salish Sea and possible solutions for climate change. It is an investigation on the benefits of Coastal Green Infrastructure (CGI) development in the Salish Sea in opposition to hard structure that are detrimental to coastal ecosystems such as seawalls and dikes. Themes of this article are climate change, sea level rise adaptation, coastal protection, and environmental, social and economic implications. Strengths of this article include an indicator-based methodology and in-depth literary review with concrete examples. CGI vulnerability and protection role analysis identified British Columbian communities with the highest coastal protection potential. Weakness of this article were that some of the examples had a lack of CGI terminology however, it probably due to the recent nature of the topic and the processes described concluded the CGI practices indeed protect coasts. Overall it found that seagrasses and kelp

forests aid in flood protection yet in the past 50 years 50% loss of essential coastal habitat. This is particularly illustrated in fig. 3 *Distribution of CGI coastal protection benefits in the Salish Sea*.

Price, M. H. H., English, K. K., Rosenberger, A. G., MacDuffee, M., & Reynolds, J. D. (2017). Canada's wild salmon policy: an assessment of conservation progress in British Columbia. *Canadian Journal of Fisheries and Aquatic Sciences*, (10), 1507. <https://doi-org.ezproxy.capilanou.ca/10.1139/cjfas-2017-0127>

This article looks critically at Canada's 2005 policy for the conservation and management of wild salmon and its effectiveness over the past decade or so. It is an investigation of Canada's commitments to monitor salmon conservation and whether this policy improved the biological status of salmon and salmon habitat or not. Ultimately it found that despite Canada's current efforts we are failing. Spawning is at an all time low and there are incompetency's in determining biological status. Conclusion: successful implementation of the Wild Salmon Policy needs to occur. Methods in this paper examined 5 species of salmon in stream specific spawning that were considered good representations. One short fall is that this study was focused in northern and central British Columbia as data for the south coast was not publicly available. Another is that accuracy of the database system is questioned and hence one of the articles recommendations for further research enhancement.

Salish Sea Marine Survival Project. (2019). Retrieved from <https://marinesurvivalproject.com/the-project/>.

This is a comprehensive international study of the physical, chemical, and biological factors impacting salmon survival, in order to improve collective understanding of salmon in saltwater; facilitating better management and larger returns. They have a well-developed site that had an abundance of resources. These resources include research plans, findings to date, Hypotheses, meeting summaries, summaries of findings, technical reports, and affiliated publications.

Straight of Georgia Data Center. (2019). Retrieved from <http://sogdatacentre.ca/>.

This is an integrated data collection of ecosystem information for Georgia straight. Its contributors are the Pacific Salmon Foundation (PSF), the institute for the Oceans and Fisheries, and UBC. It has an outstanding catalogue of local data that includes but is not limited to human impacts, citizen science, photograph and video resources, data summaries, and first nations. The collaboration of shared resources and different researchers on this site will allow for an interdisciplinary approach.

Talloni-Álvarez, N. E., Sumaila, U. R., Le Billon, P., & Cheung, W. W. L. (2019). Climate change impact on Canada's Pacific marine ecosystem: The current state of knowledge. *Marine Policy, 104*, 163–176. <https://doi-org.ezproxy.capilanou.ca/10.1016/j.marpol.2019.02.035>

This article is a literature review that aims to update reviews of current and predicted impacts of climate change to the west coast of Canada. They identify socio-economic risks to fisheries, communities, and economy as well as eco-risks to marine species. I like this article because it breaks down topics and research questions and identifies the number of searches. It then presents this in a summary table with risk assessments and impact on species. This visual makes it very clear to see the distribution of research through synthesizing overall BC fisheries resources and their response to climate change. This article will be very useful in my own research as I can use it as a guide to find other scholarly articles.

Whitney, C. K., & Ban, N. C. (2019). Barriers and opportunities for social-ecological adaptation to climate change in coastal British Columbia. *Ocean and Coastal Management, 179*. <https://doi-org.ezproxy.capilanou.ca/10.1016/j.ocecoaman.2019.05.010>

This article is another enforcer of proactive conservation aiding both ecological and human communities to adapt to changing environments. Highlights of this article are that climate change adaptation is not currently incorporated into policy and management; hence collaboration is required for effective adaptation. Joint socio-ecological actions would mean larger protection areas, connectivity between these areas, and a decrease in non climate stressors such as pollution, extraction, and development.

Sources for topic on: Sustainable Land Use

McAllister Opinion Research. (2019, January 22). Sustainable Land Use. Real Estate Foundation of BC (REFBC). Retrieved from <https://www.refbc.com/news/opinion-poll-bc-views-land-use-sustainability-and-rural-planning>.

This recent opinion research poll was surveyed by McAlister Public Opinion Research in January 2019 and its data is a cross-sectional replication of British Columbia's population. Its topic of questioning was "Public Opinion Highlights on Land Use, Sustainability, and Rural Planning in British Columbia". Some of their main findings were: (1) British Columbians value nature and the environment, (2) BC residents see sustainability as central to their economic future, (3) First Nations are important partners in land use planning. An example of data within this document: 65% of participants agree that sustainable land use matters "a lot", when defined as "taking care of and using the land in a way that does not harm the ability of the next generation of people living in your

community to meet their needs.” This document will be useful in providing qualitative data in my episode on land use.

Sources for topic on: Media and Wildlife conservation

Skibins, J. C., & Sharp, R. L. (2019). Binge watching bears: efficacy of real vs. virtual flagship exposure. *Journal of Ecotourism*, 18(2), 152–164. <https://doi-org.ezproxy.capilanou.ca/10.1080/14724049.2018.1553977>

Binge watching bears: efficacy of real vs. virtual flagship exposure by Skibins and Sharp is a recent conservation psychology study that asks if “viewing wild charismatic megafauna in remote environments (either onsite or online) may be a sufficient driver to demonstrate the need for sustainable park management” (Skibins & Sharp, 2019, p. 161). Flagship species are used to strengthen conservation issues by linking a likable animal to the issue. It was found in a previous study that this creates an emotional connection promoting “pro-conservation behaviour” (Skibins & Sharp, 2019, p. 161). Brown bears in Katmai National Park and Preserve are a famous flagship species in Alaska and they were used in this study. This study found that social media has aided in the global effectiveness of flagship response to the brown bear through direct exposure of webcams. This article has two main hypotheses; one tested if webcams were able to elicit a desired response and the other was if webcam responses were the same as in-person responses. A quantitative survey based on an extensive literature review was done with previously evaluated scales. The same survey was used for onsite and online participants. There were 235 onsite participants surveyed with a 94% response rate. Online had 5628 participants and a response rate was not generated because of the open nature. Reviewing the data there were 16 onsite and 1229 online participants that were removed for various reasons that all appeared viable. The research methods, data collection, and analysis of this study is very thorough and promising.

Conclusion

These sources articles are just the beginning part of my research but show an example of the types of sources and information that I want to include within this podcast. Each episode topic will have a

literature review and then related interviews on the specific topics. These above topics are not a list for fully compiled topics. I am leaving a loose range of topics that is allowing for and depending on the availability and success of attaining interviewees across topics. See methodology for further insights on obtaining resources.