



University  
of Victoria

Graduate Studies

Notice of the Final Oral Examination  
for the Degree of Master of Science

of

**BRYANT DeROY**

BSc (University of British Columbia, 2013)

**“Biocultural approaches to environmental management and  
monitoring: theory and practice from the cultural rainforests of  
Kitasoo/Xai’xais Territory”**

Department of Geography

Tuesday, September 10, 2019

10:00 A.M.

Clearihue Building

Room B019

Supervisory Committee:

Dr. Christopher Darimont, Department of Geography, University of Victoria (Supervisor)

Dr. Christopher Bone, Department of Geography, UVic (Member)

Dr. Iain McKechnie, Department of Anthropology, UVic (Outside Member)

External Examiner:

Dr. Ken Lertzman, School of Resource and Environmental Management, Simon Fraser University

Chair of Oral Examination:

Dr. Maia Hoeberechts, Department of Computer Science, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies

## **Abstract**

Biocultural approaches to Environmental Management (EM) and monitoring are an emerging strategy in sustainability planning. Unlike functional ecological approaches to EM, which exclude humans from ecological systems, biocultural EM approaches incorporate humans and their values as part of ecological systems, and are grounded in collaborative processes that develop locally relevant management objectives and monitoring practices. Biocultural indicators are a key aspect of biocultural EM, providing links between worldviews, knowledge systems, agencies and institutions at various scales to guide and streamline implementation of management objectives. Although many Indigenous Peoples have been continually practicing biocultural approaches to EM for thousands of years, challenges exist in contemporary EM scenarios where multiple worldviews, political boundaries and knowledge systems collide. Some of the challenges or gaps in contemporary biocultural approaches are based in theory, and others are in practice. In Chapter One I highlight one of these gaps—the lack of guiding criteria to develop biocultural indicators in contemporary biocultural EM and monitoring. To address this gap, I propose a novel suite of six criteria (culturally salient, supportive of place-based relationships, inclusive, sensitive to impacts, perceptible, linked to human well-being) drawn from a case study in Kitasoo/Xai'xais Territory in the area now referred to as the North and Central Coast of British Columbia, Canada. In Chapter Two, I highlight a challenge in practice—the development of spatial modeling resources that incorporate a community-led approach. I show how a community-engaged approach to suitability modeling informed—and greatly benefitted—the development and application of a landscape scale suitability model for culturally modified trees, a priority biocultural indicator.