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Expertise:

#ethnobotany
#ethnoecology
#edible wild plants
#Indigenous Peoples
#environment

» **Trudeau project:** Making a Place for Indigenous Environmental Knowledge and Environmental Values in Land Use Planning and Decision-making

Project objectives: To use the methods of ethnobotany (the study of the relationships between humans and plants) and ethnoecology (the study of the relationships between humans and their environment) to see how the knowledge and values of First Nations can be applied to policy development, planning, and decision-making in the context of the legal and governance structures associated with the land rights and titles of Indigenous Peoples in British Columbia and elsewhere.

Introduction and Project Outline

The fields of ethnobotany (the study of human-plant relationships) and ethnoecology (the study of humans' relationships with their local environments) focus on environmental knowledge systems. They include not only practical factual knowledge (e.g., what plants can be used for food, where they are found and how they are prepared), but also people's attitudes, worldviews and values as they pertain to plants and environments, as well as ways of communicating and transmitting this knowledge. My research in these areas, mostly with First Nations in British Columbia, has spanned over four decades, and has been undertaken in close collaboration with Indigenous botanical and cultural experts as well as with linguists, archaeologists and other academic colleagues.

My proposed project under a Trudeau Fellowship is to coordinate and participate in a progressive and focused discussion amongst multiple informed groups on the roles of ethnobotany and ethnoecology in policy, planning and decision-making in the legal and governance arenas around Indigenous Peoples' land rights and title. I would like to plan and facilitate a 2-3 day symposium for interested Indigenous leaders and knowledge holders, legal scholars, ethnobotanists and ethnoecologists, and students, and to make the results of these deliberations widely available to different audiences, including policy-makers and decision-makers, and the general public.

This proposed project is timely. In June 2014, a unanimous (8-0) landmark decision came from the Supreme Court of Canada confirming Aboriginal title of the Tsilhqot'in First Nation to over 1,700 square kilometres of their traditional territory (Tsilhqot'in Nation v. British Columbia 2014 SCC 44). The Tsilhqot'in Nation is "one of hundreds of indigenous groups in B.C. with unresolved land claims" (p. 5). The traditional territories of most First Nations of the province remain in dispute, for now under the control of the Crown or in private hands. Decisions on the use of, and developments on, these lands and associated waters have routinely been undertaken with minimal consultation with the Indigenous peoples whose ancestors have, in many cases, occupied and used their territories and resources for centuries, even millennia. Consultation, when it has occurred, has usually been focused on economic or resource development, with negotiations, when they are undertaken, centering around removing obstacles and financial compensation. Yet, as the pressure for natural resource development steadily increases, First Nations are reluctant to trade their ongoing and future access to lands and resources for money until the questions surrounding their unceded

territories are fully and finally negotiated. Due to the economic interests of national and international partners, these questions are ever more political, and how they are ultimately handled will reflect on our national identity.

The Supreme Court decision changed the “playing field” in its consideration of how evidence of long-term occupancy beyond the existence and dating of archaeological sites could be understood, what constitutes an Indigenous people’s traditional territory and how it can be defined and determined. Not only did the Chief Justice confirm the BC Court of Appeal decision of 2012 (2012 BCCA 285, [2012] 33 B.C.L.R. (5th) 260), based on an earlier decision (2007 BCSC 1700, [2008] 1 C.N.L.R. 112), but they confirmed the Tsilhqot’in’s Aboriginal title over a much broader area of their traditional territory than the previous findings had determined. Grand Chief Stewart Phillip, president of the Union of B.C. Indian Chiefs, observed regarding the decision, “This without question will establish a solid platform for genuine reconciliation to take place in British Columbia.”

In its decision, Canada’s Supreme Court agreed that the Tsilhqot’in can claim land title even if they physically occupy some areas of their territory only some of the time. The Court suggested three criteria to determine land titles: Occupation; Continuity of habitation on the land; and Exclusivity in area. Ethnobotanical and ethnoecological research can help to inform all of these. Although plants and plant use were mentioned only in passing in this Supreme Court decision, the Court upheld, and strengthened, the earlier 2007 and 2012 decisions that were based on considerable evidence of use and occupancy of the Tsilhqot’in of their territory regarding plants, including incorporating a body of plant-based linguistic, ethnographic, ecological, historical, and archaeological knowledge. The potential for applying ethnobotanical and ethnoecological evidence in land claims and disputes over resource development and use rights extends to helping to define people’s traditional territories, providing evidence of continuity in occupation, and determining an important element in past, present and future health, well-being and cultural identity of Indigenous communities.

As an ethnobotanist and ethnoecologist who testified in the original case, I was impressed by the recent Supreme Court’s decision, and see it as reflecting a new paradigm in recognition of Indigenous land rights and title. It followed from another recent Tsilhqot’in land use decision by a Review Panel and the federal Ministry of the Environment (October 2013), rejecting a proposal from Taseko Mines Ltd. to develop New Prosperity Mine in a key area of Tsilhqot’in territory, a case in which I also provided testimony.

My legal colleagues also recognized the shift reflected in these decisions and the significance of ethnobotanical and ethnoecological evidence in the deliberations. My participation, and feedback from colleagues, raises the question about how ethnobotanical and ethnoecological research might be further used to resolve such difficult legal questions.

Ethnobotany and Ethnoecology applied to Land Use Decisions

The succession of legal decisions since the 1970s on Aboriginal rights and title deserves a great deal of attention by scholars and practitioners, with careful consideration of the perspectives of Indigenous law specialists, leaders, academics and traditional knowledge holders. The proposed symposium, to discuss the new directions for land and resource planning and decision-making in British Columbia and beyond, would be hosted at the University of Victoria. We would examine the trends and potential for recognizing land-use and occupancy as more than provision of economic opportunities, but rather as reflections of people’s traditional ecological knowledge, and their fundamental and longstanding connections to homelands. Over the first year as a Trudeau fellow, I will work to plan and organize this symposium, in consultation with potential participants: Indigenous leaders and knowledge holders, legal experts, including a number of Trudeau scholars, and land use experts from other countries with similar questions regarding Indigenous peoples and colonial history (e.g., New Zealand and Australia, United States, Sweden).

Some of the specific topics to be discussed are: What are the implications for existing provincial legislation such as the Heritage Conservation Act, and the Forest Act, as well as mining and environmental legislation, and for existing federal legislation such as the Fisheries Act? What are the inferences for existing Treaties, such as the Douglas Treaties of Vancouver Island, and the ongoing BC Treaty Commission negotiation process? How will these decisions change the role of Indigenous peoples as users and managers of their traditional territories? Why is the burden of proof of long-

term use and occupancy only on First Nations? Are not other Canadians obliged to understand this complex history of occupation, resource management systems and cultural landscapes? And finally, how can ethnobotany and ethnoecology play an effective role in supporting these new directions?

How these questions are addressed has far-reaching implications for many areas of concern to Canadian society, including: environmental and social justice; treaty negotiations; health and well-being of Indigenous Peoples and of Canadians generally; biocultural diversity and sustainability; and the recognition of Cultural Ecosystem Services, as defined in the UNEP Millennium Ecosystem Assessment. The questions are fundamental to all of the Trudeau Foundation themes. The entire issue of land-based rights and cultural rights of Indigenous Peoples in Canada is embedded within the theme of Human Rights and Dignity, directly relating to social justice, and respect for people's spiritual traditions, health and well-being, food security and food sovereignty. Responsible Citizenship, the second theme, is likewise directly applicable. Those wishing to exclude Indigenous Peoples from their territories for the purposes of economic gain are challenged to consult meaningfully and openly with the original owners of these lands and resources. The theme also pertains to the responsibilities assumed by Indigenous Peoples to uphold in their cultural traditions and "...to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources" (as per Article 25 of the United Nations Declaration on the Rights of Indigenous Peoples). This United Nations Declaration, to which Canada is signatory, places this topic directly within the Canada in the World theme. It focuses on many of the same social justice issues that surround the topic of this proposal. The People and their Natural Environment theme is, similarly, all-encompassing for this proposal, since the fields of ethnobotany and ethnoecology are central to people's relationships to their environments, as are Aboriginal land rights and title.

I anticipate that the symposium would bring together some of the key Trudeau Foundation's community mentors, fellows and scholars with knowledge and interests in these questions [Note that the names of proposed participants in the original proposal have been removed for confidentiality reasons in this online version.] Ensuring the participation of graduate students in these areas would also be given priority, particularly one of my doctoral students, whose proposed research is well aligned with this proposal and who will be able to assist me with the planning, development and application of this research and workshop. University of Victoria students will be invited to submit and present papers or posters on this topic for one session.

Current Research

My ongoing research within the fields of ethnobotany and ethnoecology is closely aligned with the topic of this proposal, namely, documenting the critical importance of plants and habitats to Indigenous Peoples of Canada, as reflected in the food systems, material culture, healthcare and medicinal practices, ceremonies and rituals, and language and classification systems, and how people applied different means, both ecological and social, to sustain and enhance the resources within their territories. Currently, my research is supported through a five-year research grant from the Quadra Island-based Tula Foundation – Hakai Institute (co-directors Dr. Eric Peterson and Christina Munck) (2011-2016) and, recently, from the Social Sciences and Humanities Research Council of Canada (officially to 2010-2014). Increasingly, I have become interested in the policy and decision-making aspects of Indigenous knowledge systems and how these can be recognized and incorporated more broadly into mainstream Canadian society to enhance social-ecological well-being in Canada. This work was initiated with my participation as ethnobotanist on the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound (1993-95), in which Traditional Ecological Knowledge systems and Intellectual Property Rights of Indigenous Peoples played a major role, and decisions were made within a collaborative setting with both Indigenous leaders and experts and Academic scientists. My work is inclusive and interdisciplinary, with many Indigenous collaborators as well as partnerships with anthropologists, archaeologists, historians, linguists, conservation biologists and legal and policy experts. I have worked closely with colleagues in biodiversity conservation, heritage conservation, cultural ecosystem services and social-ecological resilience, both nationally and internationally. Much of my research is reflected in the topics covered in my recent two-volume book, *Ancient Pathways, Ancestral Knowledge...* (McGill-Queens University Press, 2014).

One of my current projects is in partnership with the Heiltsuk First Nation, and colleagues in the Hakai Institute from both UVic and SFU, focusing on the Central Coast of British Columbia: “Changing Landscapes: Ethnoecological insights into change, resilience & continuity on the BC Coast.” This research integrates diverse evidence for long-term occupancy on the north coast of Hunter Island, and examines the complex web of relationships among people, plants, animals and ecosystems along the central coast, extending back over the past several thousand years and projecting into the future. This research serves as a case example of the past, present and future importance of plants and habitats for Indigenous Peoples, and of the interrelationships and processes that people developed to enable continued use of lands, waters and resources in culturally relevant and sustainable ways throughout the entire region. The underlying hypothesis of the research is that many of the current ecosystems of the study area – from clam gardens, to riverine salmon harvesting areas, to estuarine root gardens, to crabapple groves (and later, fruit orchards), to berry patches and stands of culturally modified cedars – have historically anthropogenic origins or influences, reflecting integrated management practices that may well date back over millennia. In particular we examine how various human resource management and production systems (for food, clothing, shelter and transport) fit together into a cohesive whole – ultimately supporting large numbers of very creative and active people along the central coast for countless generations.

I am just completing [as of spring 2015] a SSHRC-funded project, Bringing the Food Back Home: Applications of archaeological and contemporary food production technologies for the renewal of Indigenous Food Systems in Western Canada (with Dr. Nancy Mackin). Through this collaborative work with First Nations knowledge holders and communities, we have sought to gain better insight into plants important in Indigenous Peoples’ diets and cultures, including the knowledge of the harvesting, processing and habitat management of these food plants, and how they relate to people’s health and food security, past, present and future. To date, this project has supported new research in British Columbia and the Northwest Territories on estuarine root gardens, seaweed, inner bark of trees, berry patches, crabapple orchards, camas beds and other managed food-production habitats and has resulted in many publications.

Another, ongoing project, with historical linguist Dr. Cecil Brown, is a comparative study of plant names in the 50-plus Indigenous languages and major dialects of northwestern North America, from central Alaska to the Columbia River, and east to the Rocky Mountains. Such linguistic evidence was a major part of my book *Ancient Pathways, Ancestral Knowledge*, and was also part of the evidence presented in the original Tsilhqot’in court case. Plant names and their relationships, coupled with distributions and other information on plant use, can yield significant information on people’s history of occupancy and relationships across geographic and cultural space.

I am also completing several writing and publication projects which include researching and writing expert witness reports for BC First Nations regarding Aboriginal rights and title cases, some for specific sites, and others broader in scope. I have always endeavored to apply my research in the public, policy and legal areas, as well as academia and First Nations communities. As these new research areas are opening up, I want to ensure that ethnobotanical and ethnoecological knowledge, research data and perspectives on Indigenous human-plant interrelationships have the greatest possibility of enriching the legal and policy development to come during the next decade.

Many of the people I envision as participating in the proposed symposium on the role of ethnobotany and ethnoecology in Indigenous Peoples’ land rights and title in the legal arena are already colleagues, with whom I have worked and collaborated over the years. In some cases, I have participated together with them in workshops, and in others, I have served together on graduate student committees. I have coauthored papers with many of these people, and reviewed and/or partnered in their research. I have worked with many lawyers in preparing reports and affidavits relating to Indigenous land claims, as well as on reports for review panels in the case of resource development proposals on Indigenous peoples’ territories.

My research legacy has been to weave together ethnographic descriptions of human – plant relationships within a broader framework of Indigenous cultural landscapes and resource management systems that reflect the deep and enduring relationships between First Nations and their territories. Most of my work has been in British Columbia, in

collaboration with Indigenous botanical and cultural experts as well as with linguists and other academic colleagues but this work has also taken me into the national and international realms. Throughout my career I have endeavored to make my research responsive and useful to society and to the First Nations communities with whom I have been engaged. To this end, I have presented my findings through a wide variety of media, to First Nations and other communities around British Columbia and, over the past two decades, to researchers and communities throughout the world. (I have given lectures and participated in conferences and workshops across Canada, and in the United States, Chile, Mexico, Japan, Thailand, New Zealand, Australia, Italy, Turkey, Sweden, United Kingdom, and France.) My greatest pleasure has been when I have been told by the members of the Indigenous communities with whom I have worked that my research has had a positive impact on the retention and perpetuation of traditional ecological knowledge amongst their peoples. I believe that there is now a tremendous opportunity for research in the areas of ethnobotany and ethnoecology to have even greater impact in the political, social and legal context of Aboriginal title, rights and resource development in our province and other parts of Canada.

Impact of Project

Proposed Symposium Structure and Outcomes

A schematic overview of the Project Structure is provided with this nomination. It focuses on the proposed symposium, its format, the topics to be covered, audiences, outputs, and benefits.

I hope that the symposium at the University of Victoria, over a two-three day period, will provide a range of opportunities to share research and ideas for effectively including ethnobotanical and ethnoecological knowledge in the legal, policy, and decision-making arenas around Indigenous peoples' land use rights. The symposium would be held towards the end of April, in 2016, a time of spring flowering of camas and other culturally important plants, and usually with mild, pleasant weather.

The more detailed framework for the symposium would be developed collaboratively with colleagues in the initial phase of the three-year Trudeau program, but in principle it will offer a varied exchange. Along with a welcoming session, there would be some keynote presentations, papers presented in coordinated sessions, round-table discussions, and presentations of new methods and technology for examining historical, archaeological, ethnographic and ethnobotanical evidence. Key topics to be presented and discussed in the symposium would include: history and philosophy of Indigenous land rights and title in Canada and internationally; history of treaty negotiations and relevant legal decisions on Indigenous land use in British Columbia and Canada, including an overview of the recent Tsilhqot'in Supreme Court decision; overview of ethnobotany and ethnoecology as disciplines, the methods they employ and how they can be applied in questions of land and resource use; Traditional Land and Resource Management approaches, both ecologically and socially based; relevant technologies in these fields to apply in land use research including dating methods, new archaeological techniques, culturally modified tree dating and analysis; use of maps (historical, vegetation, place name, and Lidar) in land use and occupancy research; relevant conceptual tools (e.g. cultural keystone species, cultural keystone places, cultural ecosystem services); and new models for Indigenous governance of lands and resources (e.g. tribal parks, conservancies).

Instructors from Environmental Studies, Law, Political Science and other related disciplines will be informed well in advance about the symposium, so that they might be able to structure courses and projects in concert with this event, and be able to incorporate some of the topics to be covered, creating networks of interest across the campus. I aim to establish an interdisciplinary working group (including Indigenous, legal, government and industry professionals) to identify research gaps to be discussed and examined at the symposium. My hope is that this will identify where new research questions need to be posed, and support the direction of research in this area for the next several years.

Engaging with youth on this complex and important subject is another priority of my proposed project. The issues surrounding Aboriginal title and resource development are complex and require a large intellectual investment over time to learn. While the symposium of experts will serve as an outstanding opportunity to network, share ideas and propose solutions, I also want to expand this networking experience to Indigenous and other Canadian middle and high

school students in a project-based learning opportunity. Through including a poster session, classes from the Vancouver Island region will be invited to conduct a project-based learning unit on this topic with the unit's final product (a poster, interpretive display, multi-media display, etc.) being shared by class representatives in an open presentation area of the symposium. Here, students will be able to interact with each other and to learn from and engage with the expert symposium participants at the end of the day. This would also give an opportunity for the elders and experts to observe the work of the students the first day of the symposium, and then, on day two, they would have an opportunity to talk to them about their work, give them praise, and feedback.

The Legacy of the Project

This project would have significant impact in the legal arena, and, I anticipate, will help to strengthen and clarify the role of ethnobotany and ethnoecology in documenting and supporting Indigenous people's rights to meaningful participation in land and resource use decisions and in recognizing their distinctive values and worldviews deeply embedded in their relationships with their homelands and with other lifeforms.

Hopefully, working together, we can develop new ways of recognizing and acknowledging First Nations' perspectives and values, and identify how these can be better served by our laws and decision-making processes, in keeping with the spirit of the recent Supreme Court Decision. Learning about approaches taken in other places, both nationally and internationally, and sharing successes, as well as failures, will also be an anticipated outcome of this work.

The legacy products of this symposium and associated activities will be:

1. A plain language and engaging publication outlining the nature of how research in ethnobotany and ethnoecology can be used to support legal claims of Aboriginal rights and title, and how it can help perpetuate ongoing relationships with the land. The target audience for this publication will be professionals from industry and government, as well as possibly students and the general public. This publication would be produced in print and online.
2. A multi-chaptered, peer-reviewed publication (perhaps a special issue of BC Studies or American Anthropologist) developed by the participants that integrates perspectives and case examples in light of the Supreme Court Tsilhqot'in decision and other land rights and title cases, as well as of the decisions of review panels related to resource development in British Columbia and beyond.
3. A white paper discussing the policy recommendations of the symposium. The symposium provides a rare and ideal opportunity to bring together a multi-disciplinary group of experts to weigh in on new directions and policy recommendations on this issue. Provincial, federal and international policy makers can benefit from this paper. Also, by identifying new directions needed for research and applications of ethnobotanical and ethnoecological research, this paper will be useful to educational institutions and funding agencies.

In short, the project will offer a suite of benefits to different sectors of society, including participants in the symposium and those accessing the resulting publications. For Indigenous peoples and communities it will provide a venue for sharing their perspectives and knowledge around land and resource relationships in a respectful and supportive environment, as well as providing a roadmap for using ethnobotanical and ethnoecological research to support land occupancy and rights to within their homelands.

For decision-makers and lawmakers in provincial and federal governments it will provide case examples and new dimensions for consideration in policy formulation and enactment. For legal practitioners, it will suggest lines of evidence relating to botanical and ecological knowledge, as well as methods to obtain and present the evidence effectively in hearings and in court. For those in commerce and industry it will help to clarify Indigenous people's interests, beyond economic interests, in their own lands and resources. For legal professionals it will provide additional case studies and tools for evaluating and representing Indigenous entitlement. For students and youth, both Aboriginal and non-Aboriginal, it will provide information and learning opportunities that could be transformative in their futures and the choices which they, in turn, make in their personal lives and for their communities. For international lawmakers and decision-makers, it will provide a chance to share successes and perspectives in their own efforts to accommodate Indigenous peoples' rights and perspectives in governance, resource development and land use.

A significant issue in this area is how information and research is shared between First Nations, governments and outside interests. In large part, First Nations' traditional land and resource use information is only shared through the mediator of the Courts. This project focuses on the nature of the information being shared and how this influences a wide array of public policy that in turn is essential to the dignity and well-being of British Columbia and Canada's First Nations. I hope that this symposium will help establish a network of First Nations experts, academics, lawyers, students, industry and government representatives to continue sharing information about these important topics. Further, I see the documents arising from this project (each targeted at different but equally significant audience) as helping to bring the community outside of the legal system to a better awareness about these issues that ultimately affect all of us in British Columbia, Canada and beyond. Mostly, I believe that the symposium, its published outcomes and the relationships it will foster will help to ensure that this body of ethnobotanical and ethnoecological knowledge and wisdom of Indigenous cultural specialists, which has been such a major focus of my research and that of my graduate students over the past 40 years, will continue to be recognized and applied in culturally appropriate ways, for the benefit of Indigenous knowledge holders and their communities – and of all Canadians – long into the future.