

“Borders don’t protect areas, people do”: insights from the development of an Indigenous Protected and Conserved Area in Kitasoo/Xai’xais Nation Territory

Tanya C. Tran^{a*}, Douglas Neasloss^b, Kitasoo/Xai’xais Stewardship Authority^b, Jonaki Bhattacharyya^a, and Natalie C. Ban^a

^aSchool of Environmental Studies, University of Victoria, P.O. Box 1700 STN CSC, Victoria, BC V8W 3R4, Canada; ^bKitasoo/Xai’xais Stewardship Authority, Kitasoo/Xai’xais Nation, P.O. Box 87, Klemtu, BC V0T 1L0, Canada

*tanyatran@uvic.ca

Abstract

Indigenous Protected and Conserved Areas (IPCAs) have gained global attention because of renewed interest in protecting biodiversity during a time of Indigenous resurgence. However, few examples in academic literature illustrate Indigenous Peoples’ rationale and processes for developing IPCAs. This paper fills that gap, describing a participatory action research collaboration with the Kitasoo/Xai’xais Nation. We used document analysis, interviews, and community engagement to summarize the Nation’s perspectives while assisting Kitasoo/Xai’xais efforts to develop a land-and-sea IPCA. IPCAs are a tool for the Nation to address ongoing limitations of state protected area governance and management, to better reflect the Nation’s Indigenous rights and responsibilities, and to preserve cultural heritage and biological diversity while fostering sustainable economic opportunities. The Kitasoo/Xai’xais process benefits from research on other IPCAs, includes intergenerational community engagement, and is rooted in long-term territory planning and stewardship capacity building. The Kitasoo/Xai’xais IPCA faces challenges similar to other protected areas but is influenced by ongoing impacts of settler-colonialism. The Kitasoo/Xai’xais Nation applies Indigenous and western approaches along with responsibility-based partnerships to address many anticipated challenges. Our case study demonstrates that more efforts are needed by state and other actors to reduce burdening Indigenous Nations’ protected area governance and management and to create meaningful external support for Indigenous-led conservation.

Key words: motivation, planning, Indigenous and community conserved areas, Great Bear Rainforest, Canada, protected area

Introduction

Increasingly, conservation actors are interested in the use of Indigenous Protected and Conserved Areas (IPCAs) to contribute to biodiversity conservation while supporting the rights and roles of Indigenous Peoples. For example, signatories to the international Convention on Biological Diversity (CBD) 2020 Aichi Targets have committed to increase protected area coverage (Target 11; CBD 2010) while also recognizing, respecting, and engaging “effective participation” of Indigenous Peoples in conservation and restoration activities (Target 14 and 18; CBD 2010). These targets are

OPEN ACCESS

Citation: Tran TC, Neasloss D, Stewardship Authority KX, Bhattacharyya J, and Ban NC. 2020. “Borders don’t protect areas, people do”: insights from the development of an Indigenous Protected and Conserved Area in Kitasoo/Xai’xais Nation Territory. FACETS 5: 922–941. doi:[10.1139/facets-2020-0041](https://doi.org/10.1139/facets-2020-0041)

Handling Editor: Andrea Olive

Received: June 2, 2020

Accepted: August 31, 2020

Published: November 26, 2020

Note: This paper is part of a collection titled “Conservation in Canada: identifying and overcoming barriers”.

Copyright: © 2020 Tran et al. This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.

Published by: Canadian Science Publishing

partly motivated by the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP; CBD 2010). Indeed, the success of biodiversity conservation relies on upholding social justice and Indigenous rights (Stevens 2010, 2013, 2014; Artelle et al. 2019; Zurba et al. 2019; Tran et al. 2020). We use the term IPCA to refer to a suite of Indigenous-driven initiatives to protect, conserve, or steward areas where Indigenous Peoples exercise agency in governance and (or) management in ways that promote environmental protection and conservation (ICE 2018; Zurba et al. 2019; Tran et al. 2020).

Though there is growing support for the benefits of IPCAs, a recent global review of IPCAs found that few peer-reviewed academic case studies explicitly center the perspectives of Indigenous Peoples working on IPCA development (Tran et al. 2020). Such case studies can highlight how states and organizations can improve their mechanisms for IPCA support where it is sought by Indigenous Peoples (e.g., partnerships, legislations) and demonstrate on-the-ground approaches that Indigenous governments can adapt (Tran et al. 2020). Through our collaborative case study, we seek to partially address this gap.

Here we present the views of the Kitasoo/Xai'xais Nation (hereafter the Nation) on the rationale and process of developing an IPCA in Kitasoo/Xai'xais Territory. Our objectives were to: highlight the rationale (e.g., gaps, motivations, drivers) behind the Nation's IPCA development, describe the Nation's on-the-ground process to plan and implement an IPCA, and articulate key challenges facing the Nation's IPCA plus solutions to address them.

Case study description

National context

Currently there are no Canada-wide legislations or policies explicitly recognizing IPCAs as a separate protected area designation. However, individual IPCAs have been established, creating precedents for the state to engage with Indigenous authority in protected areas (Murray and King 2012). Some Indigenous Peoples have pursued opportunities to develop co-management agreements (e.g., Gwaii Haanas National Park Reserve, National Marine Conservation Area Reserve, and Haida Heritage Site), while others have asserted IPCA governance and management outside of provincial and federal frameworks (e.g., Tla-o-qui-aht Tribal Parks; Zurba et al. 2019). In 2016, the federal government established the Indigenous Circle of Experts (a working group of Indigenous conservation leaders and government officials) in the "spirit of reconciliation" with Indigenous Peoples (ICE 2018, p. 11) to investigate the potential use and support of IPCAs in meeting CBD protected area targets. These efforts demonstrate federal response to Indigenous interests in IPCAs for conservation benefits and upholding Indigenous resurgence (Zurba et al. 2019). These initiatives are a key pathway for Canada to meet the needs to advance biodiversity conservation while supporting Indigenous rights and responsibilities (e.g., Artelle et al. 2019; Moola and Roth 2019; Zurba et al. 2019).

Kitasoo/Xai'xais Nation Territory

Within British Columbia (BC), many Indigenous Nations—including the Kitasoo/Xai'xais Nation—have not signed treaties; therefore, their territories remain unceded and potentially subject to Aboriginal title (Tsilhqot'in Nation v. British Columbia 2014). Kitasoo/Xai'xais Territory spans approximately 13 000 km² of land and sea in a region known as the Great Bear Rainforest (GBR; Fig. 1). Currently based in Klemtu (Fig. 1), the Nation arose from two distinct tribal groups that came together in the mid-1800s: the Kitasoo and the Xai'xais whose linguistic heritage is Sgüüxs (Southern Tsimshian) and (North Wakashan), respectively. In spite of intergenerational traumas caused by colonial practices and policies (TRC 2015), Kitasoo/Xai'xais culture, governance, and relationship to territory remain resilient (Ban et al. 2019, 2020). Because of Kitasoo/Xai'xais stewardship, much of the territory remains minimally impacted from increasing development pressures. The Nation's livelihood remains closely linked to their territory in part through economic ties to the ecotourism,

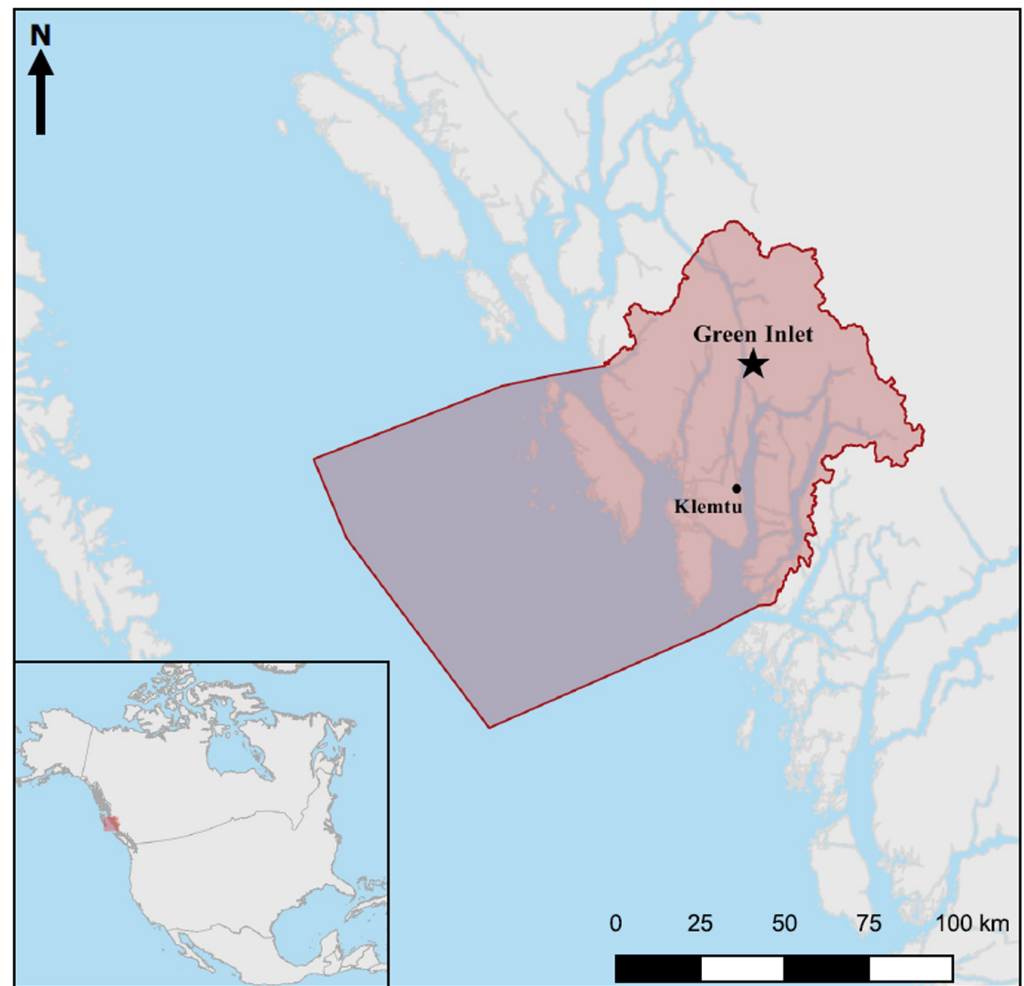


Fig. 1. Overview of Kitasoo/Xai'xais Nation Territory (red shaded area). The star indicates the location of the proposed land-and-sea Green Inlet Indigenous Protected and Conserved Area (IPCA). The boundaries of the Green Inlet IPCA at the time of publication has yet to be finalized and therefore not available. The Kitasoo/Xai'xais Nation is currently based in Klemtu. Map was produced by TC Tran using QGIS software (<https://qgis.osgeo.org>; [QGIS Development Team 2020](https://qgis.org/en/about/qgis-development-team)) with data from British Columbia Data Catalogue (<https://catalogue.data.gov.bc.ca>) and Kitasoo/Xai'xais Stewardship Authority (<https://klemtu.com/stewardship/>).

fisheries, and forestry sectors. The Kitasoo/Xai'xais Stewardship Authority (KXSA) is responsible for territory planning and management while upholding Kitasoo/Xai'xais values, including in protected areas. KXSA supports Nation decision-making while advocating for Kitasoo/Xai'xais title, rights, and law.

During the late 1990s, conflict over GBR land use arose due to substantial increases in industrial logging. Led by Indigenous Nations within the GBR, over two decades of negotiations among Indigenous and Canadian governments and international environmental nonprofits, the forestry industry generated several agreements in 2006 and 2009 (e.g., the Coast Land Use Decision, for additional examples see [Government of British Columbia 2020](#)). These GBR agreements, which included the creation of Conservancies as a new protected area designation under BC's *Park Act*, also led to the establishment of the provincial *Great Bear Rainforest (Forest Management) Act* and *Great Bear Rainforest (Land*

Use) Order in 2016 ([Government of British Columbia 2020](#)). Academics have touted these outcomes as important advancements for environmental management in the region: they established funding for First Nation monitoring and planning work in their territories, are centered around ecosystem-based management, and have led to the formalization of numerous protected areas across the GBR ([Turner and Bitonti 2011](#); [Curran 2017](#)). However, many gaps remain in the implementation of the GBR agreements, as discussed below, leading to interest in IPCA development.

Methods

We used multiple approaches to represent Indigenous and local voices and knowledge in the IPCA development process. Our participatory action research included co-generation of our research questions, data collection methods, and analysis ([Chilisa 2012](#)). The Nation has been engaging in long-term initiatives to steward the territory. The Nation is using IPCAs as one route to achieve its aspirations. As such, we designed our collaboration to assist in these efforts. We focused on a proposed IPCA for an area currently known as Green Inlet ([Fig. 1](#)). Although Conservancies were a ground-breaking development in 2006, the designation does not meet the Nation's socio-cultural and ecological goals for Green Inlet. As such, the Nation is building on Conservancies to seek alternative protected area models. The BC government is interested in identifying designations and management options with the Nation for parts of Green Inlet under its jurisdiction. We aimed at furthering the Nation's IPCA process while sharing its experiences in a way that can benefit other Indigenous governments and interested IPCA supporters. Specifically, we treated our collaboration as an emergent process that influenced our methods ([Chilisa 2012](#)). Consequently, we directly contributed to the IPCA planning process by informing and receiving feedback from Nation members, which in turn influenced community deliverables (e.g., management planning documents). Figure S1 in provides an illustration of our research process.

We used document analysis, semi-structured interviews (see [Supplementary Material 1](#) for interview questions), community engagement efforts, and informal discussions among KXSA staff to collect data for our collaboration. We reviewed documents related to broader territory management, governance, and Kitasoo/Xai'xais law; previous work by the Nation around IPCA models; references to Green Inlet in various media, such as interviews, maps, historical documents; and scientific research. We also reviewed public documents (e.g., government reports) that relate to Green Inlet, such as species reports and protected area policies. We conducted 19 semi-structured interviews with 21 people between June 2018 and August 2019. Interview participants held key, sometimes multiple, roles with the Nation including hereditary chiefs, high-ranking ladies, elders, knowledge holders, Kitasoo/Xai'xais leaders, and KXSA staff. As of January 2020, KXSA led three separate community engagement events to share knowledge about the area and to discuss the desire for an IPCA. The first event, in collaboration with the local high school, brought youth, KXSA staff, and elders to Green Inlet. The second event was an intergenerational Green Inlet trip open to all Nation members. The final event was part of KXSA's annual presentation to Nation members in Klemtu.

We used three analytical methods: coding interviews and documents, active participation in the development of Green Inlet IPCA planning documents, and author reflection throughout the process. Using NVivo software ([Bazeley and Jackson 2007](#)), we coded information from interviews and documents. We used deductive coding to summarize information for each of our research objectives. Using emergent coding, we generated themes within the objectives. Nation members had two ways to engage in this analysis. First, as we conducted analysis in tandem with data collection, Nation members could reflect on our coding as themes arose in our interviews, discussions, and community engagement events. Second, we used the collaborative drafting of project deliverables, detailed below, as additional analysis verification.

Results

To describe the Nation's rationale behind IPCA development, we grouped results into three main themes: (1) building upon ongoing processes, (2) limitations of current protected areas designations and opportunities to address these with an IPCA, and (3) the specific socio-cultural and ecological values in Green Inlet. We then outlined the Nation's key stages in the IPCA planning process, followed by the Nation's vision for IPCA implementation. We highlight the main challenges facing the Nation to achieve its goals and the Nation's approaches to address these issues. We use the past tense to report results from interviews or documents and the present tense when describing processes that are ongoing. Unless otherwise noted, the information below comes from interviews and documents reviewed.

Rationale for developing an IPCA

Building upon ongoing processes

Several important historical and ongoing processes influence the development of the Green Inlet IPCA. We group them into three main categories: foundational values of territory stewardship-changing political climates and moving forward from the GBR agreements, and growth and recognition of the Nation's contemporary stewardship capacity. In 2018, KXSA advisor Evan Loveless summarized:

Our IPCA planning is an iteration of how we've been moving along with protected area management and engagement with governments ... The original Conservancy designation was at a certain time and we've been working on those plans and processes, and trying to push the boundaries ... We're just at another state now, partly because of our capacity ... the frameworks that we have to build upon ... the political climate, UNDRIP, the economy. There's lots of reasons why we can have this discussion.

Foundational values of territory stewardship

Kitasoo/Xai'xais are interested in developing IPCAs because stewardship and conservation are foundational values within the Kitasoo/Xai'xais worldview. Stewardship is tied to Kitasoo/Xai'xais traditional forms of governance (e.g., hereditary chief system), wherein individuals are responsible for conserving specific areas to support human and nonhuman populations for multiple generations. KXSA follows guidance from contemporary and traditional institutions to conduct projects, including protected areas, while upholding values of stewardship, conservation, and sustainability.

There is a crucial link between cultural and ecological conservation, especially for future Kitasoo/Xai'xais generations (Kitasoo/Xai'xais Nation 2000, 2011; Kitasoo/Xai'xais Nation and University of Victoria 2018). Since colonization, generations of Kitasoo/Xai'xais have expressed concern around growing pressures on the Nation's relationship to the territory. As stated by elected and soon-to-be hereditary chief *Git'kon* Roxanne Robinson: "When we're trying to protect the land and ocean, it is for the future generation ... to experience the way we've lived for thousands of years."

Favourable political climates and moving forward from GBR agreements

The GBR agreements are a critical step towards having First Nation decision-making supported by other governments, industries, and organizations with vested interests in the region. They offer flexible policies and legislations for diverse First Nations to apply their specific aspirations to influence land-use, including by creating Conservancies. KXSA chose Green Inlet in which to establish a protected area on advice from its stewardship board and elders during these negotiations. Green Inlet, along with 7 additional areas in other First Nation territories, were placed under a Special Forest Management Area (SFMA) designation within provincial law under the *Great Bear Rainforest (Forest Management) Act* (Government of British Columbia 2016). This designation prevents forestry

development until First Nations and BC decide how conservation will manifest. Since the GBR agreements, the discourse around Indigenous resurgence and state–Indigenous reconciliation, including interest in IPCAs, has continued to grow. Most recently, BC was the first Canadian province to adopt legislation to recognize UNDRIP ([Government of British Columbia 2019](#)). This momentum has accelerated the Nation’s efforts to formalize IPCA planning efforts while seeking active engagement of provincial and federal governments in the process.

Growth and recognition of stewardship capacity

Since the GBR agreements, the Nation has significantly increased its capacity to monitor, manage, and collaborate in protected area management, garnering respect from other agencies. For example, because of limited scientific monitoring by provincial and federal governments within the GBR, KXSA has invested extensively in research programs through partnerships with various organizations, including academic institutions. Research guided by KXSA centers Indigenous and local ecological knowledge while drawing from complementary western scientific approaches. For example, science coordinator Christina Service described KXSA’s approach to monitor grizzly bear movement:

Our bear inventory methods include standard scientific approaches, but also observational data from local Kitasoo/Xai’xais people. Initially, it was challenging for the provincial government to accept and incorporate our interdisciplinary approach into policy. However, I believe this is changing, in part because we could transparently show how our natural and social science methods are designed to get credible information.

The Nation has been able to advance territory stewardship by taking leadership within the territory, which in time the province has moved to support. For example, the KXSA developed the Kitasoo/Xai’xais Guardian Watchmen Program, part of the Coastal Guardian Watchmen Network, to act on the Nation’s responsibilities and rights to enforce Kitasoo/Xai’xais regulations. The Guardians monitor compliance with the Nation’s protocol agreements with commercial operators and are the Nation’s “eyes and ears” throughout the territory. For years, the program also assumed some responsibility to monitor compliance with provincial protected area regulations and permits in Kitasoo/Xai’xais Territory, partly in response to limited presence of provincial compliance and enforcement officers. The Guardian Watchmen did so without formal recognition from the province as a compliance and enforcement agency. As of this writing, the Guardian Watchmen are officially becoming recognized by BC Parks under the *Park Act*.

The Nation’s capacity is also increasingly engaged at regional decision-making tables. KXSA Indigenous Law Coordinator Sam Harrison describes the Nation as “having a high per capita ability to conduct stewardship work.” As a result, the Nation is capitalizing on its stewardship capacity and visibility to seek an IPCA. The Kitasoo/Xai’xais alongside other Coastal First Nations are leading the development of IPCAs including encouraging adapted or new provincial legislation. This was done previously with Conservancies, then recently with the Coastal Guardian Watchmen Network, with benefits to Indigenous Nations, British Columbians, and biodiversity conservation. As the stewardship director and former elected chief Douglas Neasloss stated:

We’ve experienced a strong resurgence of stewardship over the last number of years, so now we are working with the government to put forward a new model for protected areas. We have the capacity and people to get out there and monitor and manage our territory.

Limitations of conventional protected area models and opportunities to address them through an IPCA

The Nation is motivated to develop an IPCA because of three key limitations in existing designations as summarized in [Table 1](#). These challenges limit the effective management of protected areas in turn

Table 1. Perceptions of limitations of current protected area frameworks offered by the provincial (British Columbia) and federal (Canada) government and potential opportunities to address them through the pursuit of an Indigenous Protected and Conserved Area (IPCA).

Key limitations	Opportunities
Governance	
<ul style="list-style-type: none">- History of exclusionary state protected area practices- Lack of recognized Indigenous decision-making authority- Lack of implementation of shared governance and management agreements- Lack of meaningful recognition of Indigenous rights and responsibilities	<ul style="list-style-type: none">- Mechanism for external acknowledgement of Indigenous governance in protected areas- Mechanism to move forward with future protected area negotiation- Meaningful steps towards reconciliation and respect of Indigenous rights and responsibilities in protected areas- IPCA model in which other Indigenous Nations can adapt
Management	
<ul style="list-style-type: none">- Limited state capacity to develop timely management plans- Continued protected area use without management plans- Burdensome multi-jurisdictional and siloed state approaches to area and resource management- Inadequate permitting process- No state mechanisms to apply or recognize Indigenous law, rules, regulations, or programs- Limited scientific and local knowledge held in state departments	<ul style="list-style-type: none">- Streamlined management and operations into a single regional agency- Streamlined permitting process that reduce resource use and uncertainty- Management at a more appropriate ecological scale- Management that centers Indigenous worldviews and law
Regulation and enforcement	
<ul style="list-style-type: none">- Lack of state enforcement of protected area regulations and permits	<ul style="list-style-type: none">- Opportunity to demonstrate or seek recognition for Indigenous management and operations- Opportunity to apply and enforce Indigenous law and regulations

impacting economies, cultural connections, and biodiversity conservation. The Nation sees a pathway to address these challenges through an IPCA (Table 1).

Governance

Current protected area governance frameworks do not meet the Nation’s expectations of meaningful joint decision-making. Along with the GBR agreements, which promised greater collaboration with First Nations for land-use planning and management, the KITASOO/XAI’XAIS and the province also signed several agreements to establish co-management frameworks (e.g., Collaborative Management Agreement, Reconciliation Protocol Agreement), which were a step towards shared decision-making. Yet, the Nation can only provide recommendations in current co-management bodies and engagement process, whereas the provincial ministers can make final decisions at their discretion. The Nation is using IPCAs to assert a protected area governance framework that respects the Nation’s inherent rights to decision-making and self-determination.

Without a mechanism that meaningfully engages Indigenous Nations in decision-making, existing provincial and federal protected area designations do not effectively consider Indigenous rights nor responsibility on territory. The establishment of the Green Inlet IPCA is a critical next step towards reconciling differences between KITASOO/XAI’XAIS and Canadian governments on the Nation’s territory. Though the Nation is designing Green Inlet IPCA for the Nation’s needs, it can also be a model for IPCAs that other Indigenous groups can adapt to benefit their own stewardship goals. As such, the Nation is advocating that provincial/federal IPCA support and recognition can help all parties work together on promises for improved relationships and reconciliation. As stated by the late elder, former elected chief, and hereditary chief *Gusx Percy Starr*, “that’s why we use the word reconciliation, [so we] can find a way to work together.”

Management

Another major issue identified by the Nation, and particularly with Conservancies, has been the timely development of protected management plans. Since the GBR agreements established new Conservancies, only 2 of 12 Conservancies in Kitasoo/Xai'xais Territory have formal management plans in place. Continued use of Conservancies without a management plan is a major concern for the Nation, as expressed by Doug Neasloss, "Borders don't protect areas, people do. Creating management plans provides important structure and gives people the tools to effectively manage these places." Furthermore, multi-jurisdictional, and siloed approaches impede efficient ecosystem-based management (e.g., see [Carlson 2018](#); [Nowlan and Hewson 2019](#) for detailed explanation of multi-jurisdictional complexities in the BC). Additionally, it is costly for the provincial and federal governments to conduct environmental monitoring in the GBR because of its remoteness, limiting these agencies' abilities to make effective management decisions. As Outdoor Coordinator for KXSA and soon-to-be hereditary chief *Dzagmsagisk* Vernon Brown stated, "I've never seen the BC Fish & Wildlife branch conduct assessments in our territory, and the federal government has cut funding for salmon monitoring. This makes me question their ability to make management decisions." By exercising decision-making and management authorities within an IPCA, the Nation aims to reduce demand on resources and capacity overall for all involved compared to existing protected areas, through articulated localized governance and management that is at an ecological-scale that makes sense to the Nation's Indigenous worldview of connecting land and sea.

Regulation and enforcement

Provincial regulation and enforcement for commercial tourism in Conservancies can lead to harmful impacts. BC Parks' commercial tourism request for proposals process allows for open bidding ([BC Parks 2015](#)). Additionally, under the provincial permit applications process, BC Parks can approve companies for 10-year tourism permits ([BC Parks 2015](#)) without specifying vessel(s) within the permit, which impacts compliance and enforcement. Though it would be difficult, with these two processes it is feasible that operators who do not have an existing relationship with the Nation can then receive permits. This is a great concern especially in areas without management plans, as there is also no regulation on the number of visitors in these Conservancies. Furthermore, because BC Parks has limited monitoring capacity, they are largely unable to evaluate adherence to permit regulations.

In response, KXSA developed its own permitting system—protocol agreements—with commercial operators. The Nation uses these agreements to govern the relationship of the parties as it pertains to operators' activities in the territory and provide consent for the proposed activity. Protocol agreements fees fund the Kitasoo/Xai'xais Guardian Watchmen Program (more information on the Coastal Guardian Watchmen Network can be found at: <https://coastalfirstnations.ca/our-environment/programs/coastal-guardian-watchmen-support/>). Though local operators support having protocol agreements, provincial and federal governments do not require compliance. The Nation's efforts to create a harmonized process that combines BC permits and Kitasoo/Xai'xais protocol agreements have not been successful. By establishing an IPCA, the Nation seeks to have clear articulation of the Nation's role within protected area management. This includes highlighting the roles of the Nation's Guardian Watchmen program and protocol agreements as an integral part of the process.

Socio-cultural and ecological values in Green Inlet

The Nation chose Green Inlet as a site for an IPCA because of its socio-cultural and ecological values, as well as cultural importance. In fact, local and regional land and marine use plans previously identified parts of Green Inlet for formal protection ([Kitasoo/Xai'xais Nation 2000, 2011](#); [MaPP 2015](#)). Stories and songs about the area demonstrate a long history of extensive use by the Kitasoo/Xai'xais; the area's isolated geography offered shelter for settlement and use. Today, the area remains abundant in cultural and ecological resources. Within Green Inlet, traditional community harvesting continues

for medicines, building materials, and food. Protecting Green Inlet also creates opportunities for intergenerational cultural and knowledge revitalization (e.g., through cultural education programs). Protecting the area is important for connectivity of protected areas because of its location between existing Conservancies (K'ootze/Khutze Conservancy to the north, Fiordland Conservancy to the east, and Carter Bay Conservancy to the south). The floodplain of Green River and several smaller creeks within the area contain swamp and marsh wetlands, which are classified as a habitat of concern by the province ([Wetland Stewardship Partnership 2010](#)). Estuaries, such as Green Lagoon ([MaPP 2015](#)), are considered some of the most productive systems on earth, comprise only 2.3% of the BC coastline, and are at high risk for negative impacts throughout other parts of the province ([Ministry of Environment 2006](#)). All these habitats are essential for culturally, ecologically, and economically important species. These include spirit bears, salmon, and provincially and federally listed endangered species such as the marbled murrelet ([GeoBC 2011](#); [FLNRORD 2018](#)).

Because of its rich cultural history and biodiversity, creating an IPCA at Green Inlet will support sustainable tourism opportunities for the Nation. Tourism has developed in tandem with protected areas throughout the region. As explained by Douglas Neasloss:

With over half of our territory in protected areas, we needed to diversify our economic development. We have a lot to offer and lots of people wanting to visit, so ecotourism was a perfect fit.

In 2001 the Nation began the Spirit Bear Lodge, a Klemtu-based tourism company that specializes in bear viewing and cultural tours. This operation plays a critical role in Kitasoo/Xai'xais economic development. Since the establishment of the GBR, there has been an exponential rise of other tourism-based operators in the region. Although these other operations sometimes employ Nation members, the increased activity has fueled concerns about tourism pressures on existing protected areas. Therefore, the Nation is advocating for priority tourism access in the proposed IPCA. However, the Nation must consider the potential impact of tourism access to Green Inlet (see challenges section).

Key stages in the IPCA development process

In this section we share the key stages in the development of the Green Inlet IPCA management planning framework, as summarised in [Table 2](#).

Territory planning and creation of contemporary governance institutions

The Nation has always stewarded its territory and continues to do so through KXSA. Through its programs, KXSA has advanced the revitalization of the Nation's governance, laws, and knowledge. In turn, KXSA has interwoven these efforts to develop Green Inlet IPCA. The Nation's land and marine use plans, alongside various committees (e.g., Stewardship Board, Food Fish Committee), provide guidance for this IPCA planning process. Additionally, KXSA is documenting Kitasoo/Xai'xais and western knowledge using various sources to develop the Nation's Cultural Heritage Database. This database houses historical and contemporary media (e.g., maps, audio recordings, technical reports) that have been a key resource for information about Green Inlet.

Stewardship capacity building

The Nation has invested substantial resources to build contemporary stewardship institutions that bridge Indigenous and western knowledge systems. For example, KXSA runs extensive socio-cultural and ecological research programs across the territory that include Indigenous and western approaches. These research programs have elevated external understanding of Indigenous and local ecological knowledge while building extensive scientific knowledge about the territory that informs IPCA planning and implementation. Notably, the Nation has effectively used partnerships to grow its capacity by exclusively conducting work with and for the Nation, including training to transfer

Table 2. A summary of key stages undertaken by the Kitasoo/Xai'xais Nation to plan and develop the Green Inlet Indigenous Protected and Conserved Area (IPCA), with examples and outcomes/benefits.

Stage	Examples	Outcomes/benefits
Territory planning and creation of contemporary governance institutions	<ul style="list-style-type: none"> - Land and marine use documents - Steering and management committees - Stewardship department 	<ul style="list-style-type: none"> - Resources to provide background knowledge and reasoning - Resources for guidance and direction in planning and development - Connects initiative to past and ongoing territory-wide processes
Stewardship capacity building	<ul style="list-style-type: none"> - Kitasoo/Xai'xais Guardian Watchmen program - Inventory and monitoring programs - Education, training, and mentorship programs - Cultural revitalization programs (e.g., culture camps) 	<ul style="list-style-type: none"> - Cultivate capacity to advance towards desired territory aspirations - Cultivated in-community leadership and management capacity - Reduce dependence on external expertise
Research on other IPCA-like models	<ul style="list-style-type: none"> - Contracted researchers to investigate other IPCAs 	<ul style="list-style-type: none"> - Learn and build upon existing IPCA approaches through their successes and challenges - Take aspects of other models that, if appropriate, can be adapted to local context, and learn where new pathways are needed - Leverage research and work on other IPCAs to gain political capital
Community engagement	<ul style="list-style-type: none"> - Interviews - Land-based workshops - Community, committee, and council presentations and meetings 	<ul style="list-style-type: none"> - Incorporation of direction and leadership by Nation members - Incorporation of community feedback into planning process that spans generations - Community education and awareness - Experience and education for future leaders of the community in territory governance and management - Intergenerational knowledge transfer opportunities

diverse skillsets to Nation members. Non-Indigenous people working for the Nation understand that they have a role to build capacity within Nation members to reduce dependence on outside expertise. Nation representatives with cross-cultural capacities are critical to advocate for the Nation's interest at various discussion tables. Simultaneously, though challenges exist (see challenges section), BC Parks has been supportive of the Nation's various efforts in the Central Coast region. Particularly, partnerships with BC Parks and Forest, Lands, and Natural Resource Operations and Rural Development staff have facilitated opportunities for initiating IPCA negotiations.

Research on other IPCA models

Given the diversity of existing IPCA models, and the need to cultivate local knowledge about these models, the Nation engaged in research on how other IPCAs are established and managed. Before our collaboration began, KXSA had already spent several years investigating IPCA-like models around the world. This included engaging experts in Australia's Indigenous Protected Areas (IPA) program and exploring existing models used in Canada such as Tribal Parks. In 2018, University of Victoria partners complemented this work by reviewing IPCA initiatives documented in the academic literature to summarize successes, challenges, and lessons learned (i.e., [Tran et al. 2020](#)). From this, KXSA could design approaches to appropriately achieve the Nation's IPCA goals. Finally, by strategically engaging in scientific collaboration, KXSA leveraged capacity to support the Nation's efforts (e.g., funding access, assistance in drafting policy briefs).

Community engagement

As part of the IPCA planning process, Kitasoo/Xai'xais members' engagement explored and documented local desires for a new protected area designation and management outcomes for

Green Inlet. KXSA developed the community engagement to be intergenerational while including opportunities to visit Green Inlet.

Implementation approach

In 2019, the Nation and its partners began drafting documents to support the development and management of Green Inlet IPCA (e.g., policy briefs, summaries). Informed by the processes described above, the Nation can use these documents to articulate the desired management goals for Green Inlet, help guide management actions, enable in-house communication for Nation members, and guide future collaborations as needed.

The Nation's vision for Green Inlet is a protected area where the Kitasoo/Xai'xais lead governance and management. The Nation will manage Green Inlet holistically, integrating responsibilities across the land, sea, and airspace. The Nation will engage in strategic collaboration with other organizations that also share responsibilities within the area because of the current social, ecological, and political contexts surrounding this IPCA. (e.g., federal and provincial governments, other First Nations with overlapping territory claims). The Nation will govern Green Inlet in consistent with Kitasoo/Xai'xais laws and principles, including through an intergenerational process. KXSA will connect the management of Green Inlet IPCA into its programs such as the Guardian Watchmen, scientific research, and culture revitalization programs. Furthermore, the Nation will focus on socio-cultural and ecological responsibilities, prioritizing conservation of ecological and cultural relationships. Other uses will be contingent on meeting these responsibilities. Consequently, the Nation prioritizes its members' access and (re)connection to the area. Ongoing site-based community engagement will promote (re)connection and cultural revitalization, in turn informing the area's management.

Challenges and potential solutions

Below, we highlight key challenges the Nation has identified to achieving its vision for Green Inlet and its approaches to addressing those challenges ([Table 3](#)).

Challenges

One of the greatest challenges facing implementation is working with the BC and federal government to create functional formal support for IPCAs. Currently without it, the Nation expends resources to engage with various (sometimes conflicting) provincial and federal policies and laws to achieve its goals. Seeking political recognition of IPCAs requires long-term engagement with Canadian governments, making progress vulnerable to changing political agendas of those governments. Effective recognition by Canadian governments is further complicated by the overlapping or contested jurisdictions between First Nations that are caused by colonial legacies and governance systems.

The Nation's management of Green Inlet IPCA is further impacted by cumulative impacts of socio-cultural and ecological change since colonization. Nation members noted that their relationships with Green Inlet, particularly cultural knowledge and practices, have been affected by colonial marginalization. Related to colonial influences, the Nation members also have growing concerns about rapid ecological change throughout the territory (e.g., climate change, wildfires, droughts). The Nation will have to work to mitigate cumulative concerns within the protected area for both conservation and safety. As a result, KXSA will need focus efforts to revitalize Kitasoo/Xai'xais relationships to the area to build socio-cultural and ecological resilience. For example, members have expressed a desire for more extensive work to document the ecological and cultural relationships within Green Inlet before regular tourism use.

Another challenge is the community concerns around the specific activities and amount of access to Green Inlet, especially as community interests and needs change over time. For example, though

Table 3. A summary of key challenges facing the Kitasoo/Xai'xais Nation in the effective implementation of the Green Inlet Indigenous Protected and Conserved Area (IPCA), the impacts, and the key Kitasoo/Xai'xais approaches to address them.

Challenge	Impact	Potential solutions
Impacts of colonial displacement and marginalization on area knowledge and relationships	<ul style="list-style-type: none"> - Need to revitalize and maintain area knowledge and relationships - Ecological and cultural damage due to use before more surveys are done 	<ul style="list-style-type: none"> - Prioritize, above all, ecological and cultural conservation - Prioritize area and resource monitoring and surveys - Prioritize goals for community uses and benefits - Link management to existing cultural revitalization and stewardship capacity building programs
No current mechanisms for meaningful (e.g., legislative, long-term) IPCA support or recognition	<ul style="list-style-type: none"> - Requiring engagement of multi-jurisdictional state policies or laws - External support or engagement change with political climates 	<ul style="list-style-type: none"> - Advocating for widespread state policy and legislated changes - Working with other Indigenous Nations to push for legal IPCA recognition and support - Fostering partnerships to focusing on shared responsibilities - Using multi-sector partnerships to create pathways for desired support and goals
Decisions around allowable activities and access over time	<ul style="list-style-type: none"> - Potential ecological and cultural impacts - Managing responsibilities to current and future potential values and uses 	<ul style="list-style-type: none"> - Prioritize, above all, ecological and cultural conservation - Regular updates and adaptations to management plan - Ongoing engagement with key Kitasoo/Xai'xais governance/management institutions (e.g., Nation members, territory and Nation documents) - Zoning, seasonal regulations
Cultivating effective cross-cultural partnerships and relationships	<ul style="list-style-type: none"> - Demands additional resources to create or maintain - Indigenous worldviews and law are sometimes difficult to articulate and work alongside/within state colonial-based tools - Loss in investment in ineffective partnerships - Conceding to piecemeal approaches 	<ul style="list-style-type: none"> - Advocate for widespread state policy and legislated changes - Improve engagement mechanisms for external partnerships and noncommunity employees - Continue work on codifying Indigenous law - Prioritize community capacity development - Foster partnerships around shared responsibilities - Improve existing stewardship programs
Adequate funding	<ul style="list-style-type: none"> - Limited capacity to implement effective management strategies - Insecurity in ability to implement programming 	<ul style="list-style-type: none"> - Seek strategic funding partnerships - Advocating for wide-spread state policy and legislated changes
Increasing developmental pressures	<ul style="list-style-type: none"> - Increase risk of environmental disasters (e.g., oil spills) - Anticipating future pressures resulting from increased traffic and use by the general public - Potential negative impacts on biodiversity and cultural resources 	<ul style="list-style-type: none"> - Advocating for wide-spread state policy and legislated changes - Investment in crisis response training - Improving existing stewardship programs - Establish ecological and cultural inventory and compliance monitoring schedules - Create visitor education opportunities (e.g., signage) - Establish zoning, seasonal regulations
Ecological change and uncertainty	<ul style="list-style-type: none"> - Planning and preparedness for drastic and (or) abrupt and drastic ecological changes (e.g., wildfire, climate change, landslides impacting fish streams) 	<ul style="list-style-type: none"> - Investment in crisis response training - Establish ecological and cultural inventory and monitoring schedules - Establish zoning and seasonal regulations

tourism is an important economic driver for the Nation, increasing tourism access to some areas is a concern, as summarized by *Inmansaxxokskw* Krista Duncan: "There's interest in using Green Inlet as a tourism spot to view wildlife and to bring a cultural aspect into it as well. Part of me wants to go forward but there's another part of me that doesn't support it." Another challenge is anticipating

negative impacts of activities (e.g., drone use) while cultivating beneficial economic and cultural opportunities for the Nation.

Funding is a critical issue for resource management by KXSA, especially with the added responsibilities for Green Inlet IPCA. For example, a significant source of stable funding for stewardship activities is through the Coast Opportunities Fund, which was established under the Great Bear Rainforest agreements to offset immediate economic losses for First Nations due to restriction in forestry development and promoting sustainable economic development/conservation activities that meet conservation priorities for the region (www.coastfunds.ca). This has been essential to develop contemporary stewardship through KXSA. However, available funding has remained fixed annually despite the Nation requiring increasing financial resources for its expanding programs.

Potential solutions

The Nation's key strategy to address many of these challenges is through seeking provincial and federal legislative change to support IPCAs. With functional legal recognition, the Nation could garner greater financial and logistical support. This would reduce the burden of navigating multiple, sometimes conflicting, policies or legislations around resource management. Additionally, the Nation could more easily implement management strategies grounded in its expertise on the area. The Nation is working to have its Guardian Watchmen recognized as authorities that can enforce both Canadian and Kitasoo/Xai'xais laws throughout the territory.

As the Nation's territory is undergoing unprecedented change, the Nation will use adaptive management. By creating a living management plan, the Nation aims to address many of the challenges that relate to planning for uncertainty. The Nation aims to update the plan every 5 years, to reflect changing environmental conditions (e.g., wildfires, species decline, climate change), area knowledge, Nation planning documents, and ongoing community input. These updates will honour evolving Nation perspectives and priorities, allowing for changes to goals, strategies (e.g., zoning), and management measures (e.g., seasonal rules).

The Nation is intentionally emphasizing ecological and cultural conservation above other uses through a combination of Indigenous and western approaches in the area's management. Despite diverse perspectives, community concerns are rooted in preserving socio-cultural and ecological values and practices. KXSA aims to expand cultural and ecological inventories to assist with management zoning, as part of its responsibilities to maintain these values and practices. Principles of Kitasoo/Xai'xais law—respect, reciprocity, and intergenerational knowledge—will guide management actions. The Nation will also utilize compatible western approaches (e.g., the precautionary principle, zoning, seasonal closures). The Nation continues to expand its capacity through research partnerships that provide critical knowledge for stewardship goals.

Bolstering existing stewardship programs will also be key to addressing many of the challenges listed above. Codifying Kitasoo/Xai'xais law and continuing to train Kitasoo/Xai'xais Guardian Watchmen in diverse skills are critical to effective management. For example, Kitasoo/Xai'xais Guardian Watchmen have received oil spill response training and are interested in building their response capacity for other environmental disturbances such as wildfire. The Nation's continued presence at decision-making tables is also important, as is building partnerships to reduce operational costs by engaging others in priority work for the Nation. The Nation aspires to strategically engage the provincial and federal government and industries on what the Nation sees as "shared responsibilities" in the territory to leverage funding, including stewardship program development.

Discussion

Though there is growing discourse on the social and ecological benefits of IPCAs, the practical process undertaken by Indigenous Peoples to develop them is less known. This collaborative case study demonstrates how such efforts can extend beyond a single area and point in time. Our research supports the Nation's efforts to establish the Green Inlet IPCA by engaging participatory action research to directly contribute to the planning process. The development of the Green Inlet IPCA manifests years of foundational work articulating and revitalizing Kitasoo/Xai'xais knowledge, rights, and responsibilities across the territory. The challenges the Nation is facing to achieve its vision is similar to other protected areas: limited resources (Balmford et al. 2003), planning for future and compounding uncertainties (Syms and Carr 2001), and balancing uses and impacts (e.g., tourism; McCool 2009). The Nation aims to manage the Green Inlet IPCA holistically, especially with intergenerational community engagement, while using Indigenous and western approaches. In particular, the Nation is a leading advocate for formal IPCA recognition through the establishment of new legislation in BC and Canada.

Our case study demonstrates that territory-wide planning and stewardship capacity building are key investments to support IPCA development and management. By investing in territory-wide planning, the Kitasoo/Xai'xais Nation is able to centre its values in the stewardship of areas and natural resources, which other research has noted as critical to achieving IPCA benefits (e.g., Preuss and Dixon 2012). Research on Australia's IPA program and Voluntary Conserved Areas in Mexico has similarly noted that broadscale territory planning can improve IPCA development and implementation by creating a mechanism to determine if or how these initiatives can advance long-term aspirations (Ibarra et al. 2011; Davies et al. 2013; Smyth 2015). Thus Indigenous governments can use territory planning to guide options for achieving their goals, which can include IPCA creation (Smyth 2015). Relatedly, Indigenous governments can utilize territory planning to guide needed capacity building. In this case, the Kitasoo/Xai'xais Nation has grown its capacity through incremental steps, guided by visions articulated in Nation documents such as the Kitasoo/Xai'xais land and marine use plans, and is capable to lead IPCA management and monitoring. Other research has also articulated that cultivation of local governance and management capacity is critical for IPCA success (e.g., Mulrennan et al. 2012; Kothari et al. 2013). Consequently, by articulating their long-term territory aspirations and the needed stewardship capacity, Indigenous governments can outline their specific IPCA implementation strategies. As demonstrated by the partnerships detailed above (e.g., with BC Parks, our collaboration), other actors can support territory stewardship by assisting Indigenous collaborators in what they highlight as priority needs (e.g., funding, training, etc.).

Our case study supports that Indigenous Nations can use IPCAs as a tool to advance biodiversity conservation and support Indigenous resurgence. Beyond protecting the values within Green Inlet, the Kitasoo/Xai'xais Nation is developing this IPCA to improve upon existing protected area systems to better reflect its Indigenous rights and responsibilities while intersecting socio-cultural and environmental conservation needs. Other IPCA research similarly support that engaging Indigenous governance through mechanisms like IPCAs has significant potential to simultaneously address issues around Indigenous rights and biodiversity conservation decline (Stevens 2010, 2014; Artelle et al. 2019; Zurba et al. 2019; Tran et al. 2020). Particularly, Indigenous Nations can use IPCAs to reclaim authority by creating space that both use and defy western conservation to advance decolonization (Carroll 2014). However, as the Kitasoo/Xai'xais Nation acknowledges IPCAs as one tool to achieve its aspirations, some Indigenous governments may not wish to pursue an IPCA. With diverse Indigenous Nations' aspirations and capacities, IPCAs are not a panacea for resolving Indigenous rights or conservation issues (Kothari and Neumann 2014; Tran et al. 2020). For example, IPCAs can be limited in scope to the areas within their boundaries and externally by how states and other actors recognize or support Indigenous title, rights, laws, and governance surrounding those areas

(Kothari et al. 2012). Those limitations also challenge the capacity of IPCAs, as much as any form of protected area, to address processes that span spatial and temporal scales. As such, while Indigenous governments consider if IPCAs can be helpful for their aspirations, external actors need to positively address where these issues intersect beyond the border of protected areas.

Our results highlight that IPCA managers can benefit from the use of hybrid approaches. By doing so, the Kitasoo/Xai'xais Nation centers its Indigenous worldviews, knowledge, and values, while applying complementary western approaches to satisfy the current geopolitical, socio-cultural, and ecological context. Other research on IPCA management has also highlighted the value of hybrid strategies. For example, Murray and King (2012) noted the Tla-o-qui-aht First Nation governs its tribal parks through customary and contemporary approaches to improve contemporary cultural fit. Verschuuren et al. (2015) emphasized the “two-way” approach in the Dhirrumu IPA (Australia) ranger program improved IPA management, particularly for engaging other actors for ranger program support. Similarly, the Kitasoo/Xai'xais Nation uses hybrid approaches to utilize western tools (e.g., zoning, adaptive management) that align with Kitasoo/Xai'xais worldviews to facilitate cross-cultural strategies to achieve its IPCA goals. However, bridging Indigenous and western approaches may not always be feasible. In particular, working at cross-cultural interfaces are known to bring immense pressure, expectation, and a need for a wide variety of skills and knowledge (Preuss and Dixon 2012). Indeed, IPCA managers and cross-cultural partners interested in hybrid approaches must be prepared for substantial investment of resources to determine appropriate pathways (Preuss and Dixon 2012; Verschuuren et al. 2015). Though understanding these challenges, the Nation continues to use hybrid approaches alongside IPCAs to highlight the socio-cultural and ecological benefits of respectfully engaging with Indigenous forms of stewardship.

Our case study also highlights that pursuing state legislative IPCA recognition is one pathway to support IPCA goals (Kothari 2008; Artelle et al. 2019; Zurba et al. 2019; Tran et al. 2020). However, legal state recognition can be perceived by some people as “colonial entanglement”, where this recognition may require sacrificing some self-determination (Dennison 2012; Carroll 2014; Zurba et al. 2019). State recognition can hinder true respect for Indigenous decision-making and continue to uphold colonial practices (Ibarra et al. 2011; Davies et al. 2013; Carroll 2014; Zurba et al. 2019). As such, certain Indigenous Nations may not want their IPCAs incorporated into state legislation. While the debates around recognition are well-established, with many Indigenous scholars rejecting the frame of state recognition (Coulthard 2014), having an IPCA recognized is the Kitasoo/Xai'xais Nation's clear goal. The Nation views this as useful because it would streamline efforts to implement timely management actions while clarifying how other actors can engage with the Nation regarding Green Inlet (e.g., potential funding, responsibilities).

The Kitasoo/Xai'xais approach illustrates that partnerships that respect Kitasoo/Xai'xais leadership and goals, despite their challenges, play an important role in IPCA development and implementation. In particular, the Nation uses partnerships, such as this collaboration, to cultivate knowledge and access funding and capacity to conduct IPCA-related work for the Nation to meet socio-cultural and ecological needs. Mulrennan et al. (2012) similarly noted how collaborative conservation research, when done respectfully and centered around tangible outcomes for Indigenous partners, can assist both social justice and environmental conservation issues. For meaningful partnerships to support IPCAs to occur, other actors must push their institutional boundaries and invest in creating cross-cultural capacity (Langton et al. 2005; Tran et al. 2020). Particularly for the Green Inlet IPCA, the Kitasoo/Xai'xais Nation continues to advocate for institutional changes within partnering organizations at discussion tables. These efforts highlight how government staff also must push against restrictive colonial frameworks, particularly siloed environmental management approaches, to create opportunities for true shared decision-making in IPCAs. For example, where

states are invested in improving IPCA recognition and support, government organizations should prepare for broad-scale legislative and policy changes, including embracing holistic approaches that better reflect Indigenous worldviews on territory stewardship (Zurba et al. 2019; Tran et al. 2020). Given that Canadian policy and legislative changes can take decades, relationships with local and regional state staff remain important to the Kitasoo/Xai'xais to advance the Nation's progressive agendas for IPCAs.

Conclusion

We used a collaborative case study to highlight the motivations and on-the-ground efforts required to develop an IPCA in Kitasoo/Xai'xais Territory. We share this case study to inform IPCA supporters on how to positively engage with such activities, while Indigenous governments can adapt the approaches highlighted to inform their IPCA processes. The Nation is using IPCAs to continue its efforts to advance Indigenous-led stewardship beyond existing protected area options to improve socio-cultural and ecological conservation. The Nation has utilized substantial investment in territory planning, stewardship capacity building, and research to develop Green Inlet IPCA. The Nation is employing cross-cultural, hybrid approaches to overcome the anticipated management challenges. Our case study shows that non-Indigenous actors wishing to support Indigenous-led conservation need to invest in supporting territory-scale stewardship activities while fostering internal structural changes to facilitate engaging meaningfully with Indigenous Nations.

Diverse approaches to IPCA development, support, and recognition are necessary (Kothari 2008; Smyth 2015; Tran et al. 2020). Further research highlighting perspectives of other Indigenous Peoples planning and implementing IPCAs can provide additional insight, for example, on how various regional actors (e.g., state, non-for-profits) can support and recognize IPCAs. More publications on primary research led by Indigenous Nations or through participatory approaches can support broad understanding of the challenges and potential solutions associated with IPCA governance and management (Mulrennan et al. 2012; Zurba et al. 2019; Tran et al. 2020).

Acknowledgements

It is through the generosity of Kitasoo/Xai'xais Nation members and staff that we can share their story; we seek to honour their investment towards a Green Inlet IPCA by including quotes from interviewees (with permission) to illustrate key findings. Thank you to all those who shared their insights with us. We are grateful for the financial support by the Natural Sciences and Engineering Research Council, the University of Victoria, Oceans Canada Partnership, and Tides Canada. Research activities were carried out with the approval of the University of Victoria Human Research Ethics Board (protocol number 17-211).

Author contributions

TCT, DN, KXSA, and NCB conceived and designed the study. TCT and KXSA performed the experiments/collected the data. TCT and KXSA analyzed and interpreted the data. TCT, KXSA, and NCB contributed resources. TCT, DN, KXSA, JB, and NCB drafted or revised the manuscript.

Competing interests

The authors have declared that no competing interests exist.

Data availability statement

All relevant data are within the paper and in the Supplementary Material.

Supplementary material

The following Supplementary Material is available with the article through the journal website at doi:[10.1139/facets-2020-0041](https://doi.org/10.1139/facets-2020-0041).

Supplementary Material 1

References

- Artelle KA, Zurba M, Bhattacharyya J, Chan DE, Brown K, Housty J, et al. 2019. Supporting resurgent Indigenous-led governance: a nascent mechanism for just and effective conservation. *Biological Conservation*, 240: 108284. DOI: [10.1016/j.biocon.2019.108284](https://doi.org/10.1016/j.biocon.2019.108284)
- Balmford A, Gaston KJ, Blyth S, James A, and Kapos V. 2003. Global variation in terrestrial conservation costs, conservation benefits, and unmet conservation needs. *Proceedings of the National Academy of Sciences of the United States of America*, 100(3): 1046–1050. PMID: [12552123](https://pubmed.ncbi.nlm.nih.gov/12552123/) DOI: [10.1073/pnas.0236945100](https://doi.org/10.1073/pnas.0236945100)
- Ban N, Wilson E, and Neasloss D. 2019. Strong historical and ongoing indigenous marine governance in the northeast Pacific Ocean: a case study of the Kitasoo/Xai'xais First Nation. *Ecology and Society*, 24(4): 10. DOI: [10.5751/ES-11091-240410](https://doi.org/10.5751/ES-11091-240410)
- Ban NC, Wilson E, and Neasloss D. 2020. Historical and contemporary indigenous marine conservation strategies in the North Pacific. *Conservation Biology*, 34(1): 5–14. PMID: [31682284](https://pubmed.ncbi.nlm.nih.gov/31682284/) DOI: [10.1111/cobi.13432](https://doi.org/10.1111/cobi.13432)
- Bazeley P, and Jackson K. 2007. *Qualitative data analysis using NVivo*. 2nd edition. Sage Publication Ltd., London, UK. 210 p.
- BC Parks. 2015. Park use operational policy: park use permits [online]: Available from env.gov.bc.ca/bcparks/permits/pdfs/permit_term_lengths.pdf?v=1580928920509.
- Carlson D. 2018. Infographic: jurisdiction in coastal BC. West Coast Environmental Law [online]: Available from wcel.org/sites/default/files/publications/2018-05-coastaljurisdiction-infographic-updated.pdf.
- Carroll C. 2014. Native enclosures: tribal national parks and the progressive politics of environmental stewardship in Indian Country. *Geoforum*, 53: 31–40. DOI: [10.1016/j.geoforum.2014.02.003](https://doi.org/10.1016/j.geoforum.2014.02.003)
- Chilisa B. 2012. *Indigenous research methodologies*. SAGE Publications, Los Angeles, California. 343 p.
- Coulthard G. 2014. *Red skin, white masks: rejecting the colonial politics of recognition*. University of Minnesota Press, Minneapolis, Minnesota.
- Curran D. 2017. “Legalizing” the Great Bear Rainforest Agreements: colonial adaptations toward reconciliation and conservation. *McGill Law Journal*, 62(3): 813–860. DOI: [10.7202/1042775ar](https://doi.org/10.7202/1042775ar)
- Davies J, Hill R, Walsh FJ, Sandford M, Smyth D, and Holmes MC. 2013. Innovation in management plans for community conserved areas: experiences from Australian Indigenous Protected Areas. *Ecology and Society*, 18(2): 17. DOI: [10.5751/ES-05404-180214](https://doi.org/10.5751/ES-05404-180214)
- Dennison J. 2012. *Colonial entanglement: constituting a twenty-first-century Osage Nation*. UNC Press Books, Chapel Hill, North Carolina. 272 p.

GeoBC. 2011. Marbled Murrelets—Coastal Resource Information Management System (CRIMS) [online]: Available from catalogue.data.gov.bc.ca/dataset/marbled-murrelets-coastal-resource-information-management-system-crimis.

Government of British Columbia. 2016. Great Bear Rainforest (Special Forest Management Area Regulation). B.C. Reg. 325/2016 [online]: Available from bclaws.ca/civix/document/id/complete/statreg/325_2016.

Government of British Columbia. 2019. Declaration of the Rights of Indigenous Peoples Act. SBC 2019 c 44 [online]: Available from bclaws.ca/civix/document/id/complete/statreg/e3tlc19044.

Government of British Columbia. 2020. Great Bear Rainforest legal directions and agreements [online]: Available from www2.gov.bc.ca/gov/content/industry/crown-land-water/land-use-planning/regions/west-coast/great-bear-rainforest/great-bear-rainforest-legal-direction-agreements.

Ibarra JT, Barreau A, Del Campo C, Camacho CI, Martin GJ, and Mccandless SR. 2011. When formal and market-based conservation mechanisms disrupt food sovereignty: impacts of community conservation and payments for environmental services on an indigenous community of Oaxaca, Mexico. *International Forestry Review*, 13(3): 318–337. DOI: [10.1505/146554811798293935](https://doi.org/10.1505/146554811798293935)

Indigenous Circle of Experts (ICE). 2018. We rise together: achieving Pathway to Canada Target 1 through the creation of Indigenous Protected and Conserved Areas in the spirit and practice of reconciliation [online]: Available from static1.squarespace.com/static/57e007452e69cf9a7af0a033/t/5ab94aca6d2a7338ecb1d05e/1522092766605/PA234-ICE_Report_2018_Mar_22_web.pdf.

Kitasoo/Xai'xais Nation. 2000. Land and resource protection and management plan. Kitasoo/Xai'xais Nation.

Kitasoo/Xai'xais Nation. 2011. Kitasoo/Xai'xais integrated marine use plan. Kitasoo/Xai'xais Nation.

Kitasoo/Xai'xais Nation and University of Victoria. 2018. Kitasoo/Xai'xais marine governance and management: a synthesis of Kitasoo/Xai'xais marine resource harvesting, territorial, & procedural protocols. Kitasoo/Xai'xais Nation.

Kothari A. 2008. Protected areas and people: the future of the past. *Parks*, 17(2): 23–34 [online]: Available from iucn.org/sites/dev/files/import/downloads/kothari_article_parks_17_2.pdf.

Kothari A, and Neumann A. 2014. ICCAs and Aichi Targets: the contribution of indigenous peoples' and local community conserved territories and areas to the Strategic Plan for Biodiversity 2011–20. ICCA Consortium, co-produced with CBD Alliance, Kalpavriksh and CENESTA and in collaboration with the IUCN Global Protected Areas Programme [online]: Available from iccaconsortium.org/wp-content/uploads/2015/07/ICCA-Aichi-Targets-2011-2020.pdf.

Kothari A, Corrigan C, Jonas H, Neumann A, and Shrumm H. 2012. Recognising and supporting territories and areas conserved by indigenous peoples and local communities: global overview and national case studies. Secretariat of the Convention on Biological Diversity, ICCA Consortium, Kalpavriksh, and Natural Justice, Montreal, Quebec [online]: Available from cbd.int/doc/publications/cbd-ts-64-en.pdf.

Kothari A, Camill P, and Brown J. 2013. Conservation as if people also mattered: policy and practice of community-based conservation. *Conservation & Society*, 11(1): 1–15. DOI: [10.4103/0972-4923.110937](https://doi.org/10.4103/0972-4923.110937)

- Langton M, Rhea ZM, and Palmer L. 2005. Community-oriented protected areas for indigenous peoples and local communities. *Journal of Political Ecology*, 12(1): 23–50. DOI: [10.2458/v12i1.21672](https://doi.org/10.2458/v12i1.21672)
- Marine Planning Partnership Initiative (MaPP). 2015. Central Coast marine plan [online]: Available from mappocean.org/wp-content/uploads/2015/08/MarinePlan_CentralCoast_10082015.pdf.
- McCool SF. 2009. Constructing partnerships for protected area tourism planning in an era of change and messiness. *Journal of Sustainable Tourism*, 17(2): 133–148. DOI: [10.1080/09669580802495733](https://doi.org/10.1080/09669580802495733)
- Ministry of Environment. 2006. Estuaries of British Columbia: ecosystems at risk in British Columbia [online]: Available from www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/species-ecosystems-at-risk/brochures/estuaries_bc.pdf.
- Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD). 2018. Implementation plan for the Marbled Murrelet (*Brachyramphus marmoratus*) in British Columbia. Government of British Columbia, Victoria, BC [online]: Available from www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/species-ecosystems-at-risk/recovery-planning/implementation_plan_for_the_recovery_of_marbled_murrelet.pdf.
- Moola F, and Roth R. 2019. Moving beyond colonial conservation models: Indigenous Protected and Conserved Areas offer hope for biodiversity and advancing reconciliation in the Canadian boreal forest. *Environmental Reviews*, 27(2): 200–201. DOI: [10.1139/er-2018-0091](https://doi.org/10.1139/er-2018-0091)
- Mulrennan ME, Mark R, and Scott CH. 2012. Revamping community-based conservation through participatory research. *The Canadian Geographer/Le Géographe canadien*, 56(2): 243–259. DOI: [10.1111/j.1541-0064.2012.00415.x](https://doi.org/10.1111/j.1541-0064.2012.00415.x)
- Murray G, and King L. 2012. First Nations values in protected area governance: Tla-o-qui-aht Tribal Parks and Pacific Rim National Park Reserve. *Human Ecology*, 40(3): 385–395. DOI: [10.1007/s10745-012-9495-2](https://doi.org/10.1007/s10745-012-9495-2)
- Nowlan L, and Hewson S 2019. FAQ: provincial jurisdiction of BC over coastal and ocean matters. West Coast Environmental Law [online]: Available from wcel.org/sites/default/files/publications/2019-10-08-faq-provincialjurisdiction-coastal-final.pdf.
- Preuss K, and Dixon M. 2012. ‘Looking after country two-ways’: insights into Indigenous community-based conservation from the Southern Tanami. *Ecological Management and Restoration*, 13(1): 2–15. DOI: [10.1111/j.1442-8903.2011.00631.x](https://doi.org/10.1111/j.1442-8903.2011.00631.x)
- QGIS Development Team. 2020. QGIS geographic information system. Open source geospatial foundation project [online]: Available from gis.osgeo.org.
- Secretariat of the Convention on Biological Diversity (CBD). 2010. Strategic plan for biodiversity 2011–2020 [online]: Available from cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf.
- Smyth D. 2015. Indigenous protected areas and ICCAs: commonalities, contrasts and confusions. *Parks*, 21(2): 73–84 [online]: Available from parksjournal.com/wp-content/uploads/2015/10/Smyth-PARKS-21.2-10.2305IUCN.CH_2014.PARKS-21-2DS.en.pdf. DOI: [10.2305/IUCN.CH.2014.PARKS-21-2DS.en](https://doi.org/10.2305/IUCN.CH.2014.PARKS-21-2DS.en)
- Stevens S. 2010. Implementing the UN Declaration on the Rights of Indigenous Peoples and international human rights law through the recognition of ICCAs. *Policy Matters*, 17: 181–194 [online]: Available from iucn.org/downloads/policy_matters_17_pg_173_204.pdf.

- Stevens S. 2013. National Parks and ICCAs in the High Himalayan Region of Nepal: challenges and opportunities. *Conservation & Society*, 11(1): 29–45. DOI: [10.4103/0972-4923.110946](https://doi.org/10.4103/0972-4923.110946)
- Stevens S. 2014. Indigenous peoples, national parks, and protected areas: a new paradigm linking conservation, culture, and rights. University of Arizona Press, Tuscon, Arizona. 365 p.
- Syms C, and Carr MH. 2001. Marine protected areas: evaluating MPA effectiveness in an uncertain world. *In* Discussion paper prepared for the Guidelines for Measuring Management Effectiveness in Marine Protected Areas Workshop, Monterey, California, 1–3 May 2001. North American Commission for Environmental Cooperation [online]: Available from ods.regsec-cticff.org/storage/upload/45d35e5b00158e59dce67e3128ae1052.pdf.
- Tran TC, Ban NC, and Bhattacharyya J. 2020. A review of successes, challenges, and lessons from Indigenous protected and conserved areas. *Biological Conservation*, 241: 108271. DOI: [10.1016/j.biocon.2019.108271](https://doi.org/10.1016/j.biocon.2019.108271)
- Truth and Reconciliation Commission of Canada (TRC). 2015. Honouring the truth, reconciling for the future: summary of the final report of the Truth and Reconciliation Commission of Canada [online]: Available from trc.ca/assets/pdf/Executive_Summary_English_Web.pdf.
- Tsilhqot'in Nation v. British Columbia. 2014. 2 SCR 257.
- Turner KL, and Bitonti CPH. 2011. Conservancies in British Columbia, Canada: bringing together protected areas and First Nations' interests. *International Indigenous Policy Journal*, 2(2): 3. DOI: [10.18584/iipj.2011.2.2.3](https://doi.org/10.18584/iipj.2011.2.2.3)
- Verschuuren B, Zylstra M, Yunupingu B, and Verschoor G. 2015. Mixing waters: a cross cultural approach to developing guidelines for fishers and boaters in the Dhimurru Indigenous Protected Area, Australia. *Parks*, 21(1): 74–88. DOI: [10.2305/IUCN.CH.2014.PARKS-21-1BV.en](https://doi.org/10.2305/IUCN.CH.2014.PARKS-21-1BV.en)
- Wetland Stewardship Partnership. 2010. Wetland Action Plan for BC [online]: Available from bcwetlandsca.files.wordpress.com/2016/11/bcwetlandactionplan_wsp_2010.pdf.
- Zurba M, Beazley K, English E, and Buchmann-Duck J. 2019. Indigenous Protected and Conserved Areas (IPCAs), Aichi Target 11 and Canada's Pathway to Target 1: focusing conservation on reconciliation. *Land*, 8(1): 10. DOI: [10.3390/land8010010](https://doi.org/10.3390/land8010010)