

## **Rethinking the Role of Indigenous Knowledge in Sustainable Mountain Development and Protected Area Management in Canada and Aotearoa/New Zealand**

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# Rethinking the Role of Indigenous Knowledge in Sustainable Mountain Development and Protected Area Management in Canada and Aotearoa/New Zealand

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*For many Indigenous communities who live in mountain regions around the globe, the histories of mountain park development have often facilitated dispossession from ancestral territories. Diverse Indigenous communities share similar experiences, where park interests have conflicted with Indigenous lands. However, colonial practices of park management are consistently being rethought. Canada and Aotearoa/New Zealand are examples where new designations of parks are now emerging to support management practices that assert Indigenous knowledge and land rights. Guided by Indigenous methodologies and supported by secondary literature, the analysis of policy documents, and community-based research with Indigenous communities in Canada and Aotearoa/New Zealand, this article highlights*

*grassroots Indigenous-led park management practices that move beyond colonial frameworks. This research indicates the potential of protected areas to strengthen the livelihoods of Indigenous Peoples and mountain ecosystems by demonstrating how colonial histories can be reconciled and conservation policies integrated to support the sustainable development of mountain regions.*

**Keywords:** Indigenous-led conservation; Indigenous Protected and Conserved Areas; mountain parks and protected areas; legal personality.

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## Introduction

Indigenous communities in rural and mountain regions around the globe have encountered an incredible amount of disruption over the last few decades. Natural resource development, climate change, and rural depopulation are affecting many communities. For Indigenous communities who live in mountainous and often remote locations, some of these issues are intensified, leading to difficult decisions about the sustainability of their ways of life (Robidoux and Mason 2017). Food insecurity, poor access to health care, educational challenges, and economic hardships are often prevalent in isolated rural areas (Morrison 2011). Globally, Indigenous elders, leaders, and community members are trying to create sustainable solutions to these problems (Carr 2017). Community members are deeply concerned about the environmental impacts of resource-based economies, including threats to regional food security (Wesche et al 2016). As an alternative to natural resource development, some communities have pursued industries that involve fewer environmental risks.

Greater involvement in the planning processes of protected areas and increased investment in tourism infrastructure related to parks are strategies that Indigenous communities in Canada and Aotearoa/New Zealand (NZ) are

increasingly adopting to initiate sustainable economic development (Carr 2017; Mason 2020). In comparison with other landscapes, sensitive mountain ecosystems are disproportionately represented as the focus of protected area development in both Canada and Aotearoa/NZ. Protected areas in mountain regions are often the settings for tourism and recreation businesses that can provide environmentally and culturally sensitive socioeconomic development for the Indigenous communities who live there. However, these initiatives are certainly no panacea for Indigenous communities; such developments come with numerous constraints. The histories of Indigenous experiences in Canadian parks have been fraught with exploitation, displacement, and cultural loss (Cruikshank 2005; Sandlos 2007). The global experiences of Indigenous Peoples around the formation of parks are equally problematic (Rangarajan 1996; Neumann 1998; Keller and Turek 1999; Ruru 2012; Jacoby 2014).

Despite these troubled histories and contemporary barriers, current alternative and co-management (Indigenous communities and various levels of governments) practices in protected areas have proven to be beneficial alternatives for numerous Indigenous communities in Canada and Aotearoa/NZ (Ruru 2012; Thomlinson and Crouch 2012; Sandlos 2014; Zurba et al 2019). This area of

research requires the attention of a diversity of scholars, community leaders, and policy makers to understand how these histories influence the contemporary lives of rural Indigenous Peoples and decision-making processes at both governmental and community levels. However, more research is especially needed to understand how the creation of parks and protected areas have impacted Indigenous communities in mountain regions of Canada and Aotearoa/NZ. It is also imperative to examine Indigenous experiences in parks and protected areas on a global scale to understand the historical and contemporary impacts of the creation of parks on Indigenous communities internationally. The colonial legacy of Canada's Indigenous communities is echoed by and sympathetic to Māori experiences in Aotearoa/NZ, and these similarities make for relevant policy comparisons. Through this research, we examine the following key questions: How have colonial governments impacted Indigenous communities through the development of protected areas in mountain regions of Canada and Aotearoa/NZ? What is the future for Indigenous conservation models supported by new park designations and legal rights? Why are new Indigenous-led park management frameworks that support the cultures and livelihoods of local peoples and mountain ecosystems important?

## Methodological approach and methods

"Indigenous" is a term widely accepted in reference to Indigenous Peoples. Throughout this article we have chosen the term "Indigenous" to describe general Canadian, Aotearoa/NZ, and international contexts. However, it is important to invoke an individual nation's own self-appellation whenever possible, and we do this throughout, for example by referring to Nakoda or Tūhoe Peoples. Attention to such terminological specificity prevents a homogenization of distinct cultures and recognizes the heterogeneity and diversity of Indigenous languages and cultural groups (Alfred 2005).

To foster a research process that is collaborative in orientation and that holds Indigenous perspectives at its core throughout the entirety of the research project, Indigenous methodologies (IMs) guided our collaborative community-based research. IMs focus on Indigenous research paradigm ideas of trust, respect, reciprocity, and inclusion (Kovach 2010). IMs also highlight inequitable power relationships (Tuhivai Smith 2012) and help to ensure that communities' interests are recognized and that access to sensitive material is appropriately guarded. Indigenous scholars from Canada and Aotearoa/NZ are leaders in IM-driven research (Battiste and Henderson 2000; Bishop 2005).

This article is based on a secondary review of literature, analysis of government policy and legal documents, and the collective research experience of the coauthors, who have worked for decades at the grassroots community level of tourism development and protected area creation in both Canada and Aotearoa/NZ. All components of the article are informed by firsthand knowledge in these communities. Scholarly secondary literature was reviewed, focusing on the displacement or dispossession of Indigenous Peoples through the formation of protected areas in both Canada and Aotearoa/NZ. Our policy analysis centered on key park

and conservation policies in both countries. For example, the examination of national park and conservation acts was imperative to understand contemporary legal frameworks that impact significant land use management decisions.

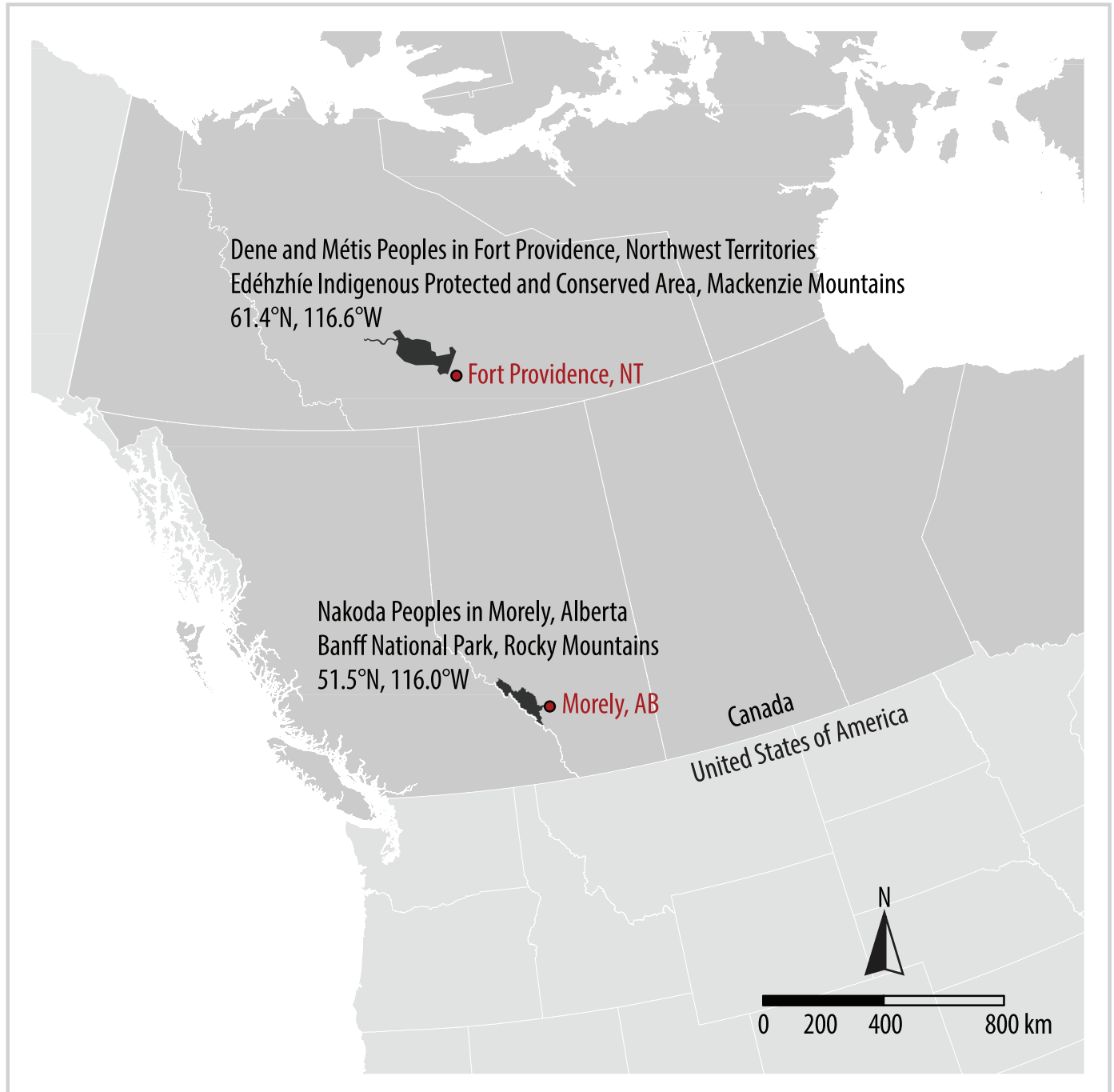
It is important to recognize that understandings of what constitutes "mountains" are cultural. In Māori society, *iwi* (tribes) and *hapu* (subtribes) are strongly united to their cultural landscapes through the values of *whakapapa* or ancestral connections to landscapes, including mountains. Such mountains are often not alpine in nature but are geological features located in tribal areas that can embrace an array of coastal or subalpine settings. As Matunga observed: "When formally introducing themselves Māori people will often link their whakapapa to their geographic place of origin, by identifying their maunga (tribal mountain) ..." (1995: 12). Our research applies and embraces these types of Indigenous interpretations of mountains.

The authors have built strong researcher–community relationships by spending extended time in communities, listening, and learning firsthand about local perspectives over several years. Our participatory approach integrates communities as partners in research design, data collection, and dissemination processes. Two of our coinvestigators and coauthors are from 2 of our collaborating communities—L.P. is Dene and B.S. is Nakoda—and are working in their own community and cultural contexts. While IMs provide productive guidelines, approaches always need to be adapted to local protocol, including elders' expectations of reciprocity (Kovach 2009). This is particularly the case with this research, as it engaged with diverse Indigenous communities in mountain regions: Nakoda Peoples in Morley, Alberta, Canada (Banff National Park, Canadian Rocky Mountains, 51.5°N 116.0°W); Dene and Métis Peoples in Fort Providence, Northwest Territories, Canada (Edézhíe, a new Indigenous Protected and Conserved Area [IPCA], Mackenzie Mountains, 61.4°N 116.6°W); Ngāti Hikairo, Whakapapa, Aotearoa/NZ (Tongariro National Park, 36.5°S 174.4°E); and Tūhoe Peoples in Ruatahuna, Aotearoa/NZ (Te Urewera Park, Huiarau Mountains, 38.5°S 177.9°E) (see Figures 1, 2).

## The formation of Canada's park system and the displacement of Indigenous Peoples

The formation of Canada's first national park had significant consequences for local Indigenous communities. They were displaced from their lands through the 1885 creation of Banff National Park (formerly Rocky Mountains National Park). Indigenous Peoples were continually denied access to the region because their subsistence practices (hunting, fishing, gathering) conflicted with both late 19th-century perspectives of conservation and the objectives of an emerging tourism industry (Snow 2005; Mason 2015). As the park redefined ancestral lands as protected spaces, new regulations specifically targeted Indigenous subsistence practices because of the perceived threat to local wildlife of their hunting. Competing ideas of conservation and "wilderness" informed further government policies designed to assimilate the cultures of Indigenous Peoples (Boulé et al 2021). Even though Indigenous Peoples encountered serious constraints to their subsistence practices during this period, prior to the National Parks Act (1930) (History of Parks

**FIGURE 1** Locations of the park case study sites in western Canada. (Map by Olea Vandermale)

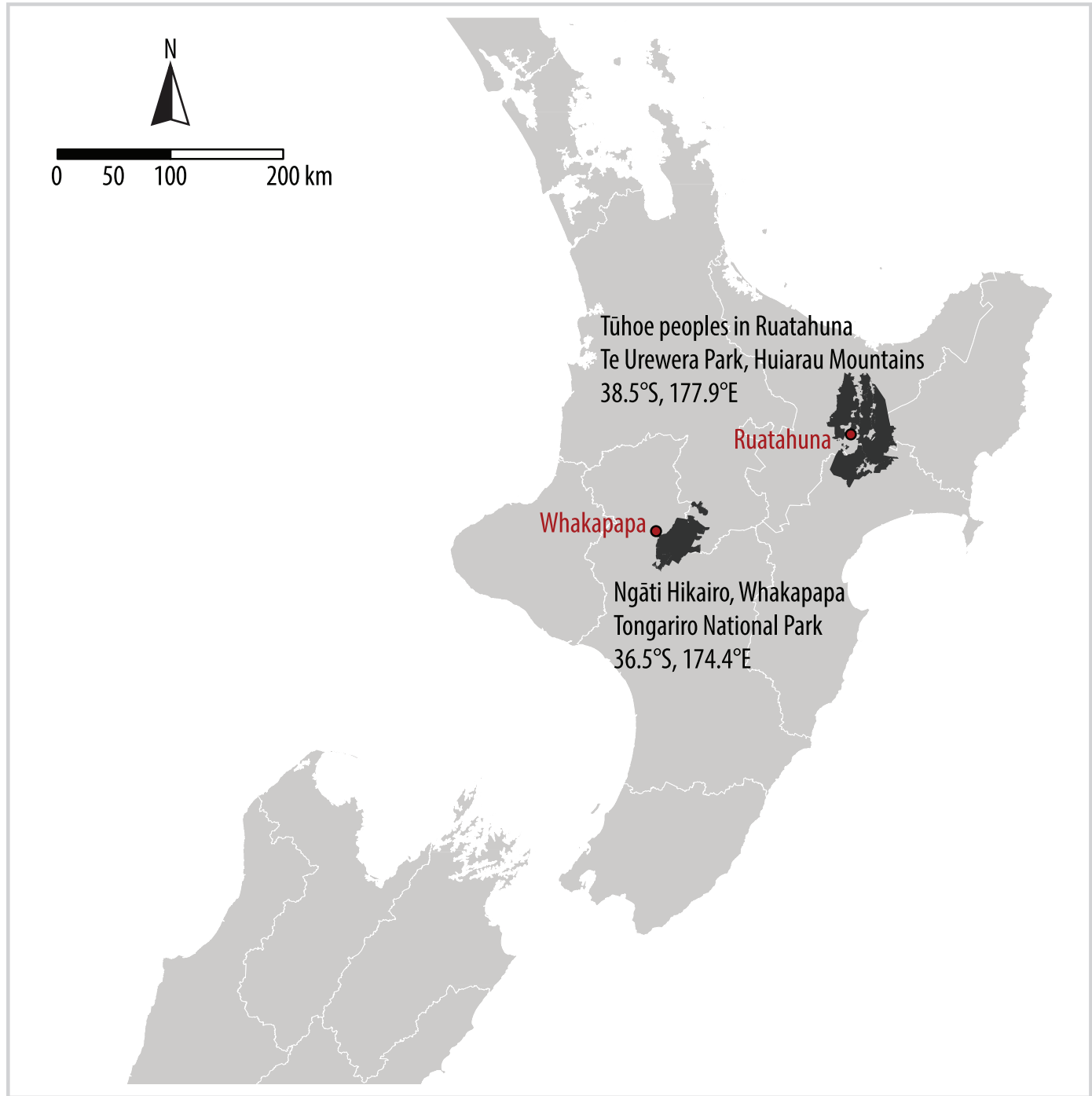


Canada Electronic Library and Archive 2014), sport hunting by Euro-Canadians and tourists alike was actively encouraged inside park boundaries because of the popularity of these recreational activities and their importance to burgeoning tourism industries (Binnema and Niemi 2006).

For Nakoda Peoples, whose ancestral territories include the foothills and mountain regions of the Banff Bow Valley, the struggles of displacement from, and then later being denied access to, the newly formed park were instrumental in numerous forms of cultural loss. Park management facilitated these processes with the support of a variety of actors, including police, missionaries, government officials,

and tourism entrepreneurs (Snow 2005). They were motivated by 2 objectives: to ensure that Nakoda subsistence practices did not interfere with growing tourism economies, and to confine Nakoda community members to reserves where they were exposed to assimilatory institutions, such as the church and residential schools (Mason 2020). This displacement had considerable impacts on Nakoda communities, such as consequences for Nakoda-centered approaches to education, health, and cultural continuities, and also regional food security. Like many Indigenous communities across the nation, Nakoda Peoples are still healing from the separation from their sacred territories and the cultural repression they endured (Mason 2014). As

**FIGURE 2** Locations of the park case study sites on the North Island of Aotearoa/New Zealand. (Map by Olea Vandermale)



Canada's first protected area, Banff National Park was used as a model in the development of the country's extensive park system, which primarily emerged throughout the 20th century (McNamee 1993). The histories of displacement, exclusion, and cultural repression that Banff and other parks have facilitated in Indigenous communities were unfortunately replicated in many locations throughout the country (Cruikshank 2005; Sandlos 2014; Johnston and Mason 2020).

Throughout the 20th century, Nakoda Peoples refused to accept some colonial policies and continued to access the park for cultural or spiritual purposes, as well as to hunt,

fish, and gather. Even in Canada's oldest protected area, the resilience of Nakoda Peoples has demonstrated that change is possible. In the 21st century, the Nakoda have slowly, but insistently, been increasing their presence in the park. They began by returning to sacred locations (2001), gained plant and medicinal harvesting rights (2004), and became involved with elk culls (2007) and the cultural monitoring of grizzly bears (2012). The Buffalo Treaty (2015), which enabled new conservation partnerships between Nakoda and Parks Canada around the reintroduction of plains bison to the park (2017), necessitated new practical and spiritual leadership roles for Nakoda in the management of these



resources. Two coauthors (B.S. and C.W.M.) have been extensively involved with these initiatives. Connecting these problematic histories to the contemporary challenges that communities are managing as they assert their cultural and legal rights in established protected areas is paramount. Colonial frameworks are consistently being rethought by park managers throughout Canada. In direct response to these colonial histories, new designations of protected areas have begun to emerge, defined by practices of inclusion, co-management, and Indigenous-led decision-making processes.

## The significance of co-management and IPCAs in Canada

Indigenous involvement and leadership in protected area management varies in structure and context across Canada. As part of the shift in protected area establishment and management, a range of joint decision-making processes have been employed under the broad term of “co-management” (Berkes et al 1991; Clark and Joe-Strack 2017). Since the 1980s, Indigenous Peoples have been more involved with co-management agreements, ranging from advisory roles to shared governance and consensus-based decision-making (Hawkes 1996; Artelle et al 2019). These initiatives have been important avenues for Indigenous communities to assert their rights and communicate their knowledge (Armitage et al 2011). However, not all co-management arrangements share nation-to-nation relationships, and colonial governments involved in these agreements are criticized for not supporting Indigenous-led decision-making processes (Finegan 2018).

Other forms of Indigenous protected area leadership are those that exist independently of state governance structures. One example in Canada is tribal parks, which are assertions of Indigenous sovereignty over a defined area. However, this designation is not currently recognized by provincial or federal governments (Murray and King 2012). This diversity of protected area designation with Indigenous leadership has set the scene for the creation of a broad classification of park designation referred to as IPCAs.

The term “IPCA” emerged from the Indigenous Circle of Experts’ (ICE’s) report, *We Rise Together* (ICE 2018), which was developed in response to Canada’s commitment to international biodiversity protection targets. Canada, like other nations across the globe, has experienced biodiversity declines, ineffective protected area conservation, and environmental degradation from resource-extractive industries. Concurrently, Indigenous Peoples continue to assert their rights and responsibilities to their ancestral territories through a variety of means, both within and outside of state-recognized structures (Zurba et al 2019). In response to these ongoing biodiversity challenges, the International Union on the Conservation of Nature (IUCN) and the Convention on Biological Diversity (CBD) have called for urgent changes in conservation practices (IUCN 2003) and a heightened need to protect biodiversity across the planet (CBD 2010). Both international agencies explicitly state the need to include Indigenous communities in conservation and biodiversity protection for effective and meaningful change. The 2007 United Nations Declaration on the Rights of Indigenous Peoples further emphasizes the

need for nation-states to respect and support Indigenous Peoples’ self-determination (United Nations General Assembly 2007). In 2021, the Government of Canada passed the United Nations Declaration on the Rights of Indigenous Peoples Act (Government of Canada 2021), which provides a framework for reconciliation in Canada. Under this act, the federal government is required to create an action plan that addresses discrimination against Indigenous Peoples, promotes understanding through human rights education, and formalizes accountability and monitoring processes (Government of Canada 2022).

Although late to respond, in 2016, the Government of Canada adopted the 2020 Biodiversity Goals and Targets for Canada, which address international calls to work with Indigenous Peoples. Canada’s first target reflects Aichi Target 11, to protect 17% of terrestrial areas and inland water and 10% of coastal and marine areas by 2020 (Environment and Climate Change Canada 2016). This area-based target was met by Indigenous communities already involved in stewarding their traditional territories, and through partnering with ICE, a framework of IPCAs was developed as a way of supporting Indigenous-led conservation and reconciliation through conservation (2018). In this study, we utilize Parks Canada’s definition of reconciliation, which has 3 key components: (1) strengthening Indigenous connections with traditionally used lands and waters, (2) expanding and ensuring presentation and commemoration of Indigenous histories and cultures, and (3) increasing economic opportunities related to Indigenous tourism (Johnston and Mason 2020).

In Canada, IPCAs represent a variety of land protection initiatives, ranging in names, governance structures, and management systems. This group of designations was proposed as a mechanism to formally recognize existing Indigenous management areas and guide the creation of new protected areas. At their core, IPCAs are Indigenous led, represent a long-term commitment to conservation, and support Indigenous rights and responsibilities. Specifically, in Canada, they are opportunities for reconciliation and restoring nation-to-nation relationships and an acknowledgment of Indigenous rights and title (ICE 2018). The 2018 federal budget included a CAD 1 billion nature fund (US\$ 800,000,000) to resource the creation of new IPCAs.

On October 11, 2018, the Dehcho First Nations Assembly designated Edézhíe (*eh-day-shae*) the nation’s first IPCA in their traditional lands of the southwestern part of the Northwest Territories. At 14,218 km<sup>2</sup>, it is over twice the size of Banff National Park. Edézhíe is ecologically important to the Dehcho Dene culture, language, and way of life. By forming Edézhíe as an IPCA, the management board will make its decisions by consensus while encouraging an Indigenous presence on the land. Elders have often referred to the significance of the area as a critical food-harvesting location that has sustained communities for many generations. As local communities encounter even more barriers to food security, such as climate change and mounting food production and shipping costs, it is essential to protect these lands from further development by establishing an IPCA (Mason 2018). Three of the authors of this article (L.P., E.V., and C.W.M.) have contributed to the regional body of research on conservation, food security, and environmental change.

There have been numerous IPCA announcements since 2018. Many of the newly established IPCAs are in Canada's north, where vast, unfragmented forest and tundra; land claim agreements; and prevailing Indigenous land use planning have provided favorable circumstances (Coristine et al 2018). In addition to the rural north, the interior of the province of British Columbia is also being targeted for IPCA development because of the amount of unceded Indigenous territory that exists outside of numbered treaty agreements. Despite increased resource allocation for IPCAs and new biodiversity targets, Canada failed to protect 17% of lands and inland waters and 10% of marine and coastal areas by 2020. In response, the federal government recommitted to these goals and proposed protecting 30% of Canada's lands and waters by 2030. This means that if biodiversity is the focus, it is crucial to preserve ecosystem services that target biodiversity hotspots (Mitchell et al 2021). IPCAs are a key strategy to accomplish this, and they will play a critical role if Canada is to reach these targets because Indigenous-managed lands overlap significantly with regions of high biodiversity and carbon sequestration potential (Schuster et al 2019). Outside of the biodiversity goals, the importance of IPCAs for the sustainability of Indigenous communities cannot be overlooked and must be supported alongside conservation objectives (Tran et al 2020). Tight timelines to secure area-based targets through IPCA creation could reify colonial processes if they lack the consultation required to build strong relationships that enhance conservation while also meeting biodiversity and Indigenous self-governance objectives (Zurba et al 2019).

### **Māori experiences of park management and legal personality status in Aotearoa/NZ**

It is also crucial to examine Indigenous experiences in protected areas on a global scale to assess the historical and contemporary impacts of the creation of parks on Indigenous communities' lands internationally. Learning from Indigenous Peoples' experiences in Commonwealth countries (Canada and Aotearoa/NZ) is valuable, as much of the policy derived in settler-colonial nations around each state's relationships with Indigenous Peoples stems from shared British colonial influences. Numerous other scholars in parks, conservation, and ecology research have found fruitful comparisons between the 2 countries. Indigenous Peoples from both countries share similar experiences of displacement and cultural loss resulting from the formation of national parks and the implementation of colonial conservation practices. In addition, in Canada and Aotearoa/NZ, legal decisions have increasingly favored Indigenous rights, which has recently produced more opportunities for cooperative protected area management (Ruru 2012; Turner et al 2013; Artelle et al 2018). However, colonial governments have a unique historical relationship with *iwi*, which began with the 1840 signing of the Treaty of Waitangi (Te Tiriti), the founding document by which the British Crown and Māori agreed to the settlement of Aotearoa/NZ by British subjects. Under the treaty, the traditional rights of Māori were to be protected, but during the mid- to late 19th century a combination of colonization, government legislation, land wars, and land confiscations disenfranchised Māori society, with many individuals and *iwi* losing their

lands and customary rights (Ruru 2010a, 2017). The consequence was that the majority of New Zealanders of Māori ancestry live outside their traditional *rohe* (boundaries of tribal homelands), which often include national parks and protected areas (Walker 1990). Linked to global civil rights protests and the shifting dynamics of race relations, Māori cultural revival movements in the mid-1970s resulted in increased pressure on governments for recognition of Māori to exercise customary rights, including the *kaitiaki* (guardianship) of natural resources (King 2002; Carr 2007; Ruru 2021).

The Treaty of Waitangi claim settlements have been a process between government (the Crown) and Māori *iwi* who sought redress for past injustices, such as the loss of lands through Crown breaches of the treaty (1840–1992). For example, at the former Te Urewera National Park, located in the Huiarau Mountains, a rural area of eastern North Island, there have been active protests with ongoing negotiations in treaty claims and related grievances. These concern what the local peoples regarded as mismanagement and cultural incompetency by government agencies that have prevented their right to occupy ancestral lands. The striving of Tūhoe for their rightful lands has come under both supportive and critical media scrutiny because of conflicting values between Tūhoe, land managers, recreationists, and other land users/visitors. While these conflicts over land use are prevalent in national media and public discourse, they were surprisingly underresearched outside of legal frameworks until Māori scholar Jacinta Ruru's examination of national park systems (Ruru 2010b). The history of Māori involvement in the management of national parks has demonstrated that Māori were generally excluded from these processes (Ruru 2012). The legislative setting in Aotearoa/NZ perpetuated a Western environmental values system in management of national parks, reflecting their origins within North American colonial contexts (O'Regan 1990; Carr 2004; Ruru 2017).

Aotearoa/NZ has nearly a third of the land base under some form of government-managed protected area status, despite the cultural significance of these places to local *iwi*. Māori communities and *iwi* leaders have permitted continuing public access to areas frequented by recreationists and encouraged tourism development. Since the 1990s, there has been an increase in the co-management and participation of *iwi* in the decision-making processes around management of lands and resources in national parks. For example, the recognition of cultural values through a variety of resource management techniques includes the designation of *Tōpuni* (or a statutory cloak of values) on significant areas to enhance the *mana* (authority or status) of *iwi*. Such recognition directly contributes to *mana* enhancement (strengthening) with positive impacts on Māori *iwi* and communities, including education, health, and wellbeing outcomes. Māori have also benefited from the ability to invest in developing tourism infrastructure and contribute as park concessionaires (Carr 2007). This has led to cultural revival and employment by providing accommodation, transportation, ecocultural tourism, and recreational guiding (Carr 2017). Māori staff numbers are increasing in the Department of Conservation, and *iwi* representatives hold appointments on conservation boards throughout the country, enabling local and ancestral knowledge to directly inform park policy and management

plan implementation (Thompson 2013). Notably, since the 1980s, several ministers of conservation have had Māori ancestry, undoubtedly contributing to the empowerment of the people through decolonization processes, enhancing political astuteness and understanding of treaty negotiations involving national parks.

There has been further progress in recognizing claims to Indigenous lands, traditional resources, and ancestral landscapes, many involving ancestral mountains, in Aotearoa/NZ through the adoption of legal personality for ecological resources. In 2014, Te Urewera National Park was disestablished after decades of treaty negotiations with the Te Urewera Act 2014 (Parliamentary Counsel Office 2021b), returning the ancestral landscape to the Tūhoe people as *kaitiaki* (guardians) represented by the Te Urewera Board. While it remains precedent that the conservation estate cannot be returned to *iwi* in treaty settlements, Te Urewera is the exception; however, it required special stand-alone legislation to remove the land from the National Parks Act 1980 (Parliamentary Counsel Office 2021a). For Tūhoe, it is very significant that their ancestral *maunga* (mountain) Maungapōhatu, within this region of mountains, forest, rivers, and lakes, is recognized as Te Urewera with its own legal entity, having “personhood” with the same rights as a human being. This legal personality status for ancestral landscapes with customary ecological resources can add layers of environmental protection, but at a fundamental level, it centers on reconnecting with an Indigenous worldview of these unique places (Ruru 2021). Importantly, legal personality also neutralizes the debate about ownership of conservation lands. These places are their own “persons”: they own themselves, with the rights, duties, and liabilities of a person (Ruru 2021).

Other examples of such redress exist. In 2017, the Whanganui River became the second natural resource in Aotearoa/NZ to attain a legal identity, with the passing of the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017 (Parliamentary Counsel Office 2022b). The Whanganui River lies within Whanganui National Park, but in traditional legends, and topographically, it connects the landscapes of Mt Taranaki (Egmont National Park) and the Central North Island volcanic mountains of Tongariro National Park. Mt Taranaki (Taranaki Maunga) is the dominant landscape feature of Te Papakura o Taranaki (Mt Egmont National Park), and, in 2017, an agreement was reached between government and the 8 *iwi* (ngā iwi o Taranaki) that it too would be granted legal personhood, known as Te Kāhui Tupu (Roy 2017). With expectations of a parliamentary bill in 2023, the Crown and the *iwi* of Taranaki are still negotiating a collective redress deed, which will determine how the management and legal entity for the mountain will proceed. Both the National Parks Act 1980 and the Conservation Act 1987 (Parliamentary Counsel Office 2021a, 2022a) are currently being reviewed to include more consideration of Māori Peoples and cultural values in this legislation.

Examining the Aotearoa/NZ context and landmark legislation can provide insights into sociocultural redress through policy and planning mechanisms within many other nations that share a similar colonial heritage of national park development that disenfranchised Indigenous populations. Two of the authors of this article (A.C. and C.W.M.) have contributed to this comparative research,

which provides examples of how the cultural values of Indigenous Peoples can be recognized through consultation, co-management, and co-governance of parks with and for Indigenous Peoples.

## Recommendations for governments, policymakers, and park managers

The political and legal experiences of Māori in reclaiming their ancestral lands can inform the future direction of how other governments can plan to meaningfully involve Indigenous Peoples in protected area management. Starting points could be incorporating cultural values into the interpretation at national parks to enable further collaboration with Indigenous Peoples in policy and planning development. However, this needs to facilitate further Indigenous-led management and genuine empowerment in relation to protected areas and associated ecological and customary resources in mountain regions. Park managers should consider the practices and policies currently being enacted through Indigenous-led park management frameworks in new protected area designations, such as IPCAs. It is also pertinent to be aware of international case studies of Indigenous-led conservation processes, such as the legal personality status for mountains and rivers in national parks in Aotearoa/NZ, to understand policy and planning advances from other settler-colonial nations (Langton et al 2014; Ruru 2014, 2021; Parliamentary Counsel Office 2021b [ie Te Urewera Act 2014]).

The following is a summary of recommendations:

- Understand how colonial histories have impacted land use management decisions, displaced Indigenous communities, and constrained conservation policy initiatives in the formation of mountain parks.
- Meaningfully consult and include Indigenous people in all decision-making structures and processes in protected area creation, management, and implementation.
- Revise protected area legislation to deeply consider and privilege Indigenous perspectives and cultural values through interpretation programs and signage in all protected areas.
- Support Indigenous-led conservation through guardianship and other stewardship programs that enable Indigenous Peoples in mountain regions to be a strong voice for effective conservation practices.
- Enhance sustainable and low-impact Indigenous tourism opportunities (where appropriate) within mountain parks or protected areas.
- Consider the practices and policies currently being enacted through Indigenous-led park management frameworks in new protected area designations and be aware of international case studies of Indigenous-led conservation processes.
- Invest in long-term Indigenous and non-Indigenous alliances to navigate political corridors and improve mountain ecosystems and the livelihoods of local peoples.

## Conclusion

It is important to learn from both diverse Indigenous approaches to conservation and the repressive policies that



have shaped current relations between levels of colonial governments and Indigenous communities. Histories of displacement in parks are directly linked to the pressing issues and lived realities of many Indigenous communities who live in mountain regions; these include health and socioeconomic inequalities and high levels of food insecurity. There is a need to acknowledge how these colonial histories have impacted land use management decisions and have constrained conservation policy initiatives.

Resurgent Indigenous governance models can enable the rapid increase in conservation areas that countries like Canada are aggressively pursuing to address biodiversity loss (Artelle et al 2019). Indigenous Peoples in mountain regions can also be a strong voice for effective conservation, as they have unique relationships with ancestral lands, waters, and species. Indigenous perceptions of guardianship and conservation in a park context differ significantly from Western notions of protection. For Indigenous Peoples, the relationships between people and the environments they live within and contribute to are fundamentally about the integration of traditional knowledge and sustainable use. New park designations in mountain regions, especially ones that emphasize consultation and the diverse practices of land use management, can help Indigenous and non-Indigenous communities form alliances and navigate political corridors together to improve both mountain ecosystems and the livelihood of local peoples (Mason 2018). Moving beyond colonial frameworks and park management strategies is a step in the right direction precisely because more holistic Indigenous wildlife management and conservation practices are inclusive of humans and their knowledge systems. Indigenous communities globally have millennia of experience with sustainable land use. In this capacity, new protected areas can be a foundational aspect to reconcile colonial histories and support conservation in the sustainable development of mountain regions.

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## OPEN PEER REVIEW

This article was reviewed by Kyle Artelle and Jacinta Ruru. The peer review process for all MountainAgenda articles is open. In shaping target knowledge, values are explicitly at stake. The open review process offers authors and reviewers the opportunity to engage in a discussion about these values.

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