

SEA CHANGE



Charting
a Sustainable Future
for Oceans in Canada

Edited by Ussif Rashid Sumaila, Derek Armitage,
Megan Bailey, and William W.L. Cheung



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Contents

<i>List of Tables and Figures</i>	ix
<i>Preface</i>	xi
<i>Acknowledgments</i>	xii
<i>List of Abbreviations</i>	xiii
PART 1: SETTING THE STAGE	
1 A Partnership Approach to the Study of Canada’s Oceans and Coasts	3
U. Rashid Sumaila, Derek Armitage, Megan Bailey, and William W.L. Cheung	
2 Status of Reconciliation and Indigenous Ocean Management in Canada	14
Russ Jones, Nancy Doubleday, Megan Bailey, Ken Paul, Fraser Taylor, and Peter Pulsifer	
PART 2: CHANGING OCEANS	
3 Rapid Changes across Canada’s Oceans and Their Impacts on Coastal Communities	45
Travis C. Tai and Juliano Palacios-Abrantes, with Juan Jose Alava Saltos, Natalie C. Ban, Andrea Bryndum-Buchholz, William W.L. Cheung, Simon Courtenay, Sarah Harper, Carie Hoover, Heike K. Lotze, Nadja S. Steiner, U. Rashid Sumaila, Nicolás Talloni-Álvarez, Charlotte K. Whitney, and Kristen Wilson	
4 Large Changes in Canada’s Oceans and Their Impact on Ecosystems and Fisheries	61
Nadja S. Steiner, Andrea Bryndum-Buchholz, William W.L. Cheung, Amber M. Holdsworth, Heike K. Lotze, Nidhi Nagabhatla, Sarah L. Newell, Thomas A. Okey, Juliano Palacios-Abrantes, U. Rashid Sumaila, Travis C. Tai, Kristen L. Wilson, and the Community of Chesterfield Inlet	
5 Using Multiscale Scenarios to Investigate the Outlook for Marine Ecosystems and Coastal Communities	78
Louise Teh and William W.L. Cheung, with Natalie Ban, Russ Jones, Lydia Ross, Nadja S. Steiner, and U. Rashid Sumaila	
PART 3: ACCESS TO OCEAN RESOURCES	
6 Lobsters and Livelihoods: Indigenous Rights and Fishery Access	105
Megan Bailey and Anthony Charles	
7 The Impact of Quotas on Canada’s Fisheries and the Response of Fish Harvesters	114
Evelyn Pinkerton, Marc Allain, Danielle Edwards, Phillip Saunders, and Charlotte Whitney	
8 The Role of Fisheries Co-Management in Addressing Access and Allocation Inequities in Eastern Inuit Nunangat	125
Carie Hoover, Jason Akearok, Tommy Palliser, Amber Giles, Mark Basterfield, Aaron Dale, Melina Kourantidou, Ashlee Cunsolo, Megan Bailey, and Jamie Snook	

PART 4: OCEAN GOVERNANCE

- 9** Transforming the Governance of Canada's Oceans and Coasts from the Bottom Up 143
Derek Armitage, Nathan J. Bennett, Rachelle Beveridge, Anthony Charles, Nancy Doubleday, Inka Milewski, Sarah Newell, Lydia Ross, Ruth E. Smith, and the Community of Chesterfield Inlet
- 10** Knowledge Co-Production and Enhanced Governance Fit in Rebuilding Canada's Coastal Fisheries 160
Evan J. Andrews, Graham Epstein, Jennifer L. Silver, Ella-Kari Muhl, and Derek Armitage
- 11** Bright Spots in Integrated Management of Canada's Oceans and Coasts 174
Sondra Eger, Natalie C. Ban, Chelsea Boaler, Irene Brueckner-Irwin, Simon Courtenay, Graham Epstein, Carie Hoover, Jim McIsaac, and Robert L. Stephenson

PART 5: INTO THE FUTURE

- 12** Progress and Challenges in Making Canada's Ocean Laws and Policies Climate-Ready 191
Cecilia Engler, Phillip Saunders, and David L. VanderZwaag
- 13** Coastlines, Communities, and Cameras: How Participatory Video Can Enhance Ocean Research 208
Vincent L'Hérault, Natalie Baird, Hillary Beattie, Ian Mauro, and Eric Solomon
- 14** Policy Direction for Reconciliation and Indigenous Ocean Management in Canada 222
Russ Jones, Nancy Doubleday, Megan Bailey, Ken Paul, Fraser Taylor, and Peter Pulsifer
- 15** Toward a Healthy Future for Canada's Oceans and Coasts 236
U. Rashid Sumaila and the OCP Team
- Index* 246

PART 1



Setting the Stage



A Partnership Approach to the Study of Canada's Oceans and Coasts

U. Rashid Sumaila, Derek Armitage, Megan Bailey, and William W.L. Cheung

Canada is a maritime nation, bordered by the Arctic, Atlantic, and Pacific Oceans. With the world's longest coastline, the surface area of Canada's exclusive economic zones covers approximately 5.75 million km². Canada's oceans and the marine living resources within them are inextricably linked to the socio-cultural and economic well-being of Canadians across the country. Oceans help to regulate the climate, support diverse cultural practices and recreational activities, and are a source of food and nutritional security for tens of millions of people worldwide, including millions of Canadians (Srinivasan et al. 2010; Teh and Sumaila 2013; Hicks et al. 2019).

The Canadian economy remains closely tied to our oceans and coasts: industries working in, on, and around the oceans directly employ about 315,000 Canadians and contribute over \$26 billion a year to the nation's wealth (DFO 2009). Specifically, gross revenues from Canadian ocean fisheries are estimated at about US\$3.7 billion in 2018 (DFO 2018), generating economic and household income impacts throughout the Canadian economy of about US\$9.1 billion and US\$2.9 billion per year, respectively (Dyck and Sumaila 2010). Many coastal communities, and especially Indigenous communities, rely heavily on fish for food and employment as well as cultural and ceremonial uses (Berkes et al. 2005; Turner and Berkes 2006; Ommer 2007; Cisneros-Montemayor et al. 2016; Gibson and Sumaila 2017). Canada, therefore, has a huge responsibility to manage its oceans and coasts

sustainably for the benefit of all generations of Canadians (DFO 2009; Sumaila 2021).

Despite the diverse and significant benefits that the ocean brings, humans continue subjecting the ocean and the life it holds to multiple threats, including from over-fishing (Pauly et al. 2002), pollution such as greenhouse gas (GHG) emissions (Sumaila and Tai 2020), oil spills, ocean plastic, and coastal development (Tilman et al. 1994; AMAP 2002; Halpern et al. 2008; IPBES 2019; Bindoff et al. 2019; Sumaila et al. 2012; Lau et al. 2020). Specifically, climate-induced stressors, such as ocean warming, ocean acidification, hypoxia, and sea-level rise, are impacting Canada's marine life and its ocean-coastal social-ecological systems (SESSs) (Parry et al. 2007; Cheung et al. 2010; Denman et al. 2011; Bryndum-Buchholz et al. 2020). For example, ocean temperatures have been increasing in the last four decades and are expected to continue rising in the coming decades. In the Arctic Ocean, summer sea ice has declined to the lowest level on record. Mean sea levels along Canadian coasts are projected to rise by as much as 0.59, 0.75, and 0.96 m relative to 2010 in some parts of Pacific, Arctic, and Atlantic Canada, respectively, by the end of the 21st century under the "no mitigation" scenario (Han, Ma, and Slangen 2020).

In addition, concerns about the ecological and socio-economic consequences of ocean acidification through fisheries are growing rapidly (Denman et al. 2011; Steiner et al. 2018). These changes will exacerbate many current

climate risks and present new risks and opportunities for fisheries (Lam et al. 2020; IPCC 2019; Sumaila et al. 2011), along with additional coastal erosion and retreat (Forbes et al. 2004), resulting in significant implications for communities, infrastructure, and ecosystems. Together, these threats and stressors compromise the health of ocean ecosystems, leading to economic and social impacts, including the loss of jobs, cultural and social identity, and economic benefits (Sumaila et al. 2011, 2019; Doney et al. 2012). Indeed, the Royal Society of Canada concluded that the nation has made little substantive progress in fulfilling national and international commitments to sustain marine biodiversity, such as the Aichi Biodiversity Target (Hutchings et al. 2012, 2020; Cisneros-Montemayor et al. 2018). There are also gaps in ocean governance and access to ocean resources, particularly for coastal and Indigenous communities (Bennett et al. 2018). Canada needs to do more.

Improving existing ocean management and governance, and integrating climate change into existing planning processes, using risk management, adaptive management, and novel governance strategies (Armitage et al. 2009), are necessary to secure the many benefits that our oceans are providing to Canadian economies, societies, and cultures. Existing inadequacy and inequity in ocean governance have meant that Canada's oceans may not be delivering on their potential to deliver food, health, environmental, and economic outcomes to Canadians. In some cases, mismanagement (Bavington 2010) or sustained inadequate management (Hutchings et al. 2020), in other cases inequitable management (Kourantidou et al. 2021) and misaligned policies (Kourantidou, Hoagland, and Bailey 2021), mean Canada should, and can, do better in helping to realize the potential of its ocean endowment (Sumaila 2021).

The OceanCanada Partnership (OCP) was established in 2014 and has been dedicated to building resilient and sustainable oceans on all three Canadian coasts, and supporting coastal communities as they respond to rapid and uncertain environmental and social changes. The OCP is a seven-year Social Sciences and Humanities Research Council of Canada (SSHRC) Partnership Grant-funded project composed of 22 formal research partners, including universities from coast to coast, community organizations, and Fisheries and Oceans Canada. The central

goal of the OCP has been to understand and address threats facing Canada's Arctic, Atlantic, and Pacific Oceans and coastal regions and seek opportunities to develop a shared vision for the future of Canada's oceans – one that promotes the health and well-being of people living on coasts as well as the marine environment. Our highly interdisciplinary research consortium has brought together a wide range of expertise from many fields of study, including economics, law, geography, ethics, fisheries science, and oceanography, with the aim of integrating insights from across these broad fields with local and Indigenous knowledge, in order to help inform policies at the regional and national levels that are responsive to community needs. Our research synthesizes social, cultural, economic, and environmental knowledge about oceans and coasts nationally. Over the life of the project and beyond, we are taking stock of what we know about Canada's three oceans, building scenarios for the possible futures that await our ocean-coastal regions, and creating a national dialogue and shared vision for Canada's oceans. We are ultimately concerned with the health and well-being of communities that rely on the Pacific, Atlantic, and Arctic Oceans, and the livelihoods of those who gain sustenance from them, in both economic and cultural realms. Three major cross-cutting themes related to fisheries and oceans have emerged from our collective research: Changing Oceans, Access to Ocean Resources, and Ocean Governance.

This book is one key product of the OceanCanada Partnership that provides a “capstone” synthesis of diverse research by the OCP that addresses the current issues and challenges related to the future of Canada's oceans and coastal communities. Overall, the partnership has been amazingly productive, leading a top US scholar to state that our “list of outputs is dizzying, to say the least!” Outputs from the OCP include more than 440 publications, including a Special Feature of *Ecology and Society* titled “Canada and Transboundary Fisheries Management in Changing Oceans”; more than 540 presentations, meetings, and workshops; more than 50 films, documentaries, and videos; and at least 63 graduate students and postdoctoral fellows trained.

OceanCanada and this book build on the long history of ocean-related research in Canada, including a

number of earlier high-profile projects such as Coasts Under Stress (see Ommer 2007), as well as the Community Conservation Research Network (CCRN, www.communityconservation.net), the Canadian Fisheries Research Network (Thompson et al. 2019), and the global initiative Too Big To Ignore (TBTI, www.toobigtoignore.net). These projects, and many other ocean-related initiatives in Canada, achieved significant progress on issues related to social-ecological health and governance of Canada's oceans and coasts. However, there were no research initiatives seeking to synthesize knowledge about Canada's three oceans, enabling us to consider the options for policy, planning, and management that could operate nationally and also capture significant regional differences. OceanCanada has sought to fill this gap by developing an enhanced understanding of the forthcoming uncertain changes occurring in Canada's coastal and ocean systems; establishing a methodological framework and foundation for future research that supports the development of policies and regulations that can help Canada improve its overall performance in ocean management and sustainability; and integrating interdisciplinary research and approaches cohesively to produce results that can inform policy. Specific research questions guiding the OCP and the chapters in this volume include: (1) How do changing oceans affect access to resources and governance? (2) How do social, economic, and governance responses to changing oceans impact ocean sustainability and coastal well-being? In responding to these questions, this book will be useful to scholars and policy-makers, as well as students of ocean science, fisheries, economics, and management.

A SOCIAL-ECOLOGICAL FRAMEWORK TO UNDERSTAND AND GOVERN CANADA'S OCEANS AND COASTS

An integrated perspective on our oceans and coasts is necessary to develop policy that will reflect a shared understanding of emerging threats, challenges, and opportunities among researchers, industry, Indigenous Peoples, and the Canadian public. Canada must identify future impacts, such as those related to climate change, on Canada's living marine resources and the resulting effects on livelihoods, communities, and economic sectors that depend on them. As reflected above, Canada's oceans and coasts are complex social-ecological systems that pose

major research, management, and policy challenges. An SES view emphasizes the unpredictable, dynamic, and evolving nature of interdependent social and ecological systems (Berkes et al. 2003). In SESs, conservation actions are immediately embedded in a complex web of social and ecological processes and interactions. Ostrom (2009) developed the first global SES framework to understand the processes that lead to changes in the stocks of renewable natural resources, and this perspective is relevant for how we understand Canada's oceans and coasts as well.

The breadth of our analysis requires a robust framework that will enable us to integrate linkages between socio-economic, cultural well-being, and biological conditions and governance characteristics, as well as examine drivers and responses to changes in the ocean and coastal environment. Such a framework needs to be comprehensive and broad to accommodate the research objectives and perspectives of the partnership. Our approach here adapts the bicoastal Coasts Under Stress SES framework (Ommer 2007) to meet OceanCanada's tricoastal conceptual framework (Figure 1.1a), using integrated social-ecological values to examine the management of ocean resources in the face of change and uncertainty (Berkes et al. 2003; Ostrom 2009).

As reflected in Figure 1.1a, Canada's ocean-coastal SESs are arranged geographically within the national system, which is thus composed of the three oceans and coasts (Arctic, Atlantic, and Pacific) as subsystems. Each regional SES reflects its own cultural, historical, social, economic, institutional, and biophysical characteristics; these interact through national-level policies, regional implementation, and inter-transfer of knowledge. The dynamics of the SESs are determined by the social, economic, and biophysical drivers at global, national, and regional scales, historical pathways of changes, and the current status of the SESs. Main direct and indirect drivers include climate change, access to the oceans and their resources, and changes in governance from local and national to international levels. Simultaneously, the dynamics of SESs also affect some of these drivers. Thus, our framework includes three cross-cutting themes – Changing Oceans, Access to Ocean Resources, and Ocean Governance – to address the interconnections between these direct and indirect drivers and Canada's SESs (Figure 1.1b).

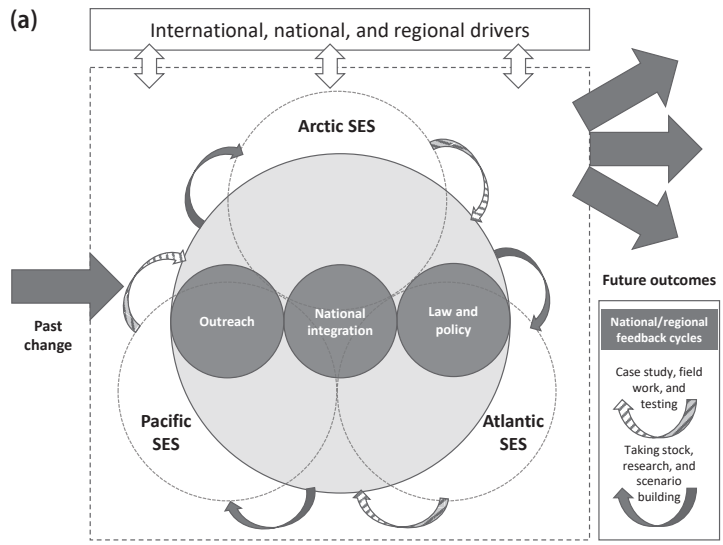
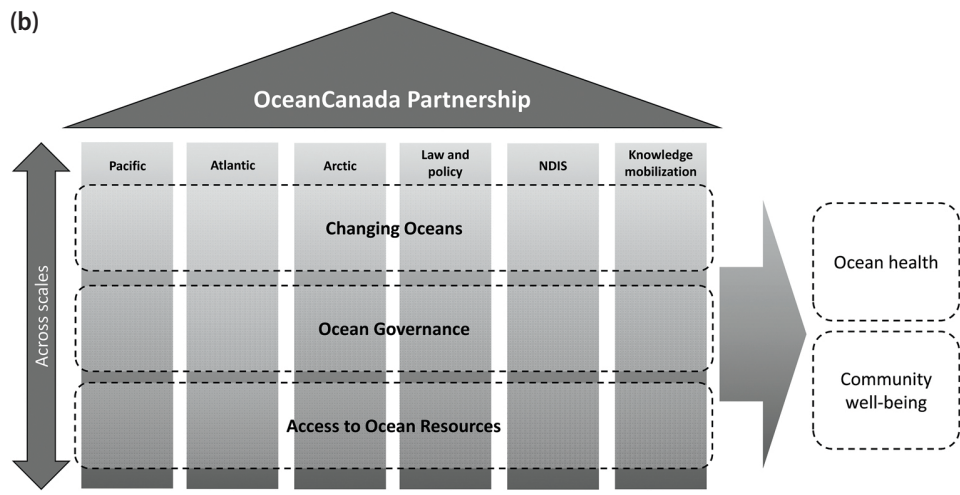


Figure 1.1
 (a) Conceptual framework of OceanCanada, representing the ocean-coastal social-ecological system of Canada. (b) The OceanCanada Partnership Roof depicting cross-cutting themes of the partnership and how they relate to the OCP Working Groups. NDIS = National data and integrated scenarios.



The future of Canada’s SESs is determined by the different responses of SES components to these drivers, moderated by related policies at the national and regional levels, and the inter-transfer of knowledge between the national and regional SESs. Building on our framework, each chapter reflects established methods in the social and natural sciences, including economics, community consultation and engagement, ecosystem and climate modelling, field-based interviews, and ocean governance

in order to understand the past, present, and potential future of Canada’s ocean-coastal SESs.

Accordingly, this book highlights the risks to Canadian society and marine ecosystems resulting from diverse drivers of change and the potential of different policies to reduce such risks. Ultimately, we hope to contribute to a shared vision among Canadians of different possible future states of human-coastal-ocean interactions. This is being accomplished by communicating

our best understanding of the current and potential future states of Canada's oceans, and doing so with attention to and consideration of the complex socio-economic, political, institutional, and cultural experiences that have shaped and continue to shape our uses of the oceans and coasts.

RESEARCH PATHWAYS AND POLICY PERSPECTIVES

Many aspects of this book make it unique: its inclusion of all three of Canada's coasts; its interdisciplinary nature (natural as well as social sciences and law); its clear focus on both the well-being of people and the health of the oceans; its central theme of changing oceans and how this change affects access to ocean resources by different coastal communities; and how changing oceans affect how Canada's oceans are governed. Furthermore, while other books take a regional approach, an important feature of this book is that it is national in scope and celebrates the similarities and differences in Canada's relationship with the ocean from coast to coast to coast. Finally, since its inception, OceanCanada has prioritized partnerships and encouraged diverse voices and contributions not only from academics but also from Indigenous and non-Indigenous communities, managers, and practitioners; consequently, this book draws on their expertise throughout. All these make this book a truly unique contribution to the study of changing oceans and their diverse impacts.

As climate change, resource overexploitation, and pollution continue to have immense effects on our oceans and coasts, an informed and engaged citizenry is becoming more aware of and concerned about the health of our planet in general. In terms of ocean change and citizen empowerment, our hope is that a volume of this nature will help broaden the discussion of the importance of our oceans, as well as contribute to dialogue around measures to be taken to ensure the sustainability of oceans and coastal communities.

In considering possible futures and pathways for Canada's oceans and coasts, four crucial insights have emerged and are reflected in this book.

First, the future of Canada's oceans and coasts is directly linked to our shared pathway toward reconciliation of Indigenous ocean issues, particularly in relation to climate change, governance, and economic access, which

requires cross-scale consideration of the lasting effects of colonization on Indigenous Peoples. These effects include dispossession from land, ocean spaces, and marine resources, and continuing social, cultural, and economic impacts associated with a loss of access. Challenges to reconciliation include the mix of federal, provincial, and territorial jurisdictions, diversity of Indigenous populations, and political and structural resistance to power sharing. As reflected at various points in chapters in this volume, some positive examples of co-governance have emerged, with some limited progress to address the dispossession of Indigenous communities from fisheries and marine mammals. The field of reconciliation is rapidly changing, and [Chapters 2 and 14](#) do not include developments beyond summer 2022, such as the Roman Catholic Church's repudiation of the fifteenth-century doctrine of discovery in April 2023. Commitments to recognize Indigenous law and governance are far from complete, however, and achieving ecologically sustainable and socially just coastal and ocean outcomes in Canada will necessitate equitable engagement of Indigenous communities in visioning and planning of ocean spaces. This may include, for example, better incorporation of and respect for Indigenous knowledge and world views, establishment of equitable and just co-management or co-governance arrangements that integrate knowledge systems and share power and responsibility, and transformation of relationships to support Indigenous self-determination.

The second important theme is the centrality of opportunities for new scholars and youth more generally. OceanCanada offered new opportunities for senior and junior scholars, students, and nonacademic members to undertake original, problem-driven, interdisciplinary research at multiple spatial scales using closely linked theoretical and methodological approaches. We have trained at least 63 students and postdoctoral fellows, at all times being mindful of preparing them with the knowledge, skills, collaborations, and partnerships they need to carry this research forward within Canada and beyond after the program ends. This volume reflects numerous contributions and a leadership role for a wide range of new and emerging scholars who are the next generation of Canada's science and policy community (see, for example, [Chapters 3, 10, and 11](#)).

A third crucial insight is the importance of balancing project execution as proposed and a respect for emergent properties. Funding for long-term science partnerships such as OceanCanada requires that objectives, deliverables, and hypotheses are clearly articulated upfront, with potential and likely sources of integration identified. It must be realized that these formulations will be based on the knowledge at the time of proposal writing, and thus, when the research is being conducted under a systems lens and across spatial and governance scales, should almost always change as a result of execution of the proposed research agenda. At the onset of OceanCanada, a regional compartmentalization made sense, with working groups delineated by Pacific, Arctic, and Atlantic geographies (Figure 1.1a). However, the reader will notice that the book is in fact not delineated as such, and that, rather, three cross-cutting themes emerged about halfway through the program (Figure 1.1b). These themes have become integration points across disciplines and geographies, and between academics and practitioners.

STRUCTURE OF THIS BOOK

The three major cross-cutting themes related to oceans and coasts that emerged from our collective research



Figure 1.2 Changing oceans and subsequent effects on access to ocean resources and ocean governance.

– Changing Oceans, Access to Ocean Resources, and Ocean Governance – provide organizational structure for this book (Figure 1.2). Drawing on these three themes, the book is organized into five parts: (1) Setting the Stage; (2) Changing Oceans; (3) Access to Ocean Resources; (4) Ocean Governance and (5) Into the Future. The starting point and central theme for the book is changing oceans, in both biophysical and social terms, which forms the basis for the parts on access and governance (Figure 1.2).

The central issues of each chapter and the connections between them highlight the book’s integration, making it broader than the sum of its parts. Each section touches on all three coasts in order to provide a national scope.

In Part 1, “Setting the Stage,” we draw attention to a central insight: that the future of Canada’s oceans and coasts are tied to reconciliation and a new nation-to-nation perspective on their management and governance. In Chapter 2, Russ Jones and colleagues discuss how to achieve reconciliation between Indigenous Peoples and Canada, which is obviously crucial and central to Canada’s ability to successfully manage and govern its ocean resource in an inclusive and equitable manner (Bennett et al. 2019). The authors identify reconciliation criteria based on the 2007 *United Nations Declaration on the Rights of Indigenous Peoples*. They also study how much progress has been made with regard to the well-being, economic conditions, and self-determination of Indigenous Peoples across Canada, and their results suggest that progress has varied widely.

In Part 2, “Changing Oceans,” we present results, mainly but not exclusively, from the work of OceanCanada on our understanding of past and current changes taking place in the Arctic, Atlantic, and Pacific Oceans and how they are impacting Canada’s ocean ecosystems, economies, and peoples. These topics are organized into three important themes describing different dimensions of Canada’s changing oceans: rapid changes (Chapter 3), large changes (Chapter 4), and scenarios of changes (Chapter 5).

A characteristic of the changing oceans that challenges Canada’s ocean-dependent marine life and human communities is the rapid rate of change. Chapter 3, by Travis Tai and colleagues, explores how the fast pace of environmental changes in Canada’s three oceans

impact and elevate risks on coastal communities from scientific, cultural, and societal perspectives. The chapter particularly highlights many hazards in relation to rapid and episodic changes such as marine heat waves (Cheung et al. 2022) that have fisheries repercussions, through harmful algal bloom events affecting biodiversity, to extreme storms threatening coastal structures, and also points to the hazards to these social-ecological systems posed by nonclimatic events such as oil spills and sediment runoffs. The chapter concludes that preparation for occurrences of these events, supported by improved knowledge generation, integration, and communication across the scientific, cultural, Indigenous, local, and societal perspectives, is needed to develop effective adaptations that will enable social-ecological systems to avoid the worst damage from these rapid changes.

In addition to the rapid pace of ocean changes that is challenging Canada's ocean-related SESs, the large magnitude of such changes is also important to consider. [Chapter 4](#), by Nadja Steiner and colleagues, draws from existing knowledge (including Indigenous and local knowledge) on some of the observed and emerging large environmental changes in Canada's oceans and their impacts on dependent human communities. They highlight that Canada is experiencing dramatic changes in ocean conditions, from ocean warming and acidification to loss of sea ice. These are affecting marine life in the Pacific, Arctic, and Atlantic coasts of Canada differently, resulting in serious and diverse impacts on fisheries, cultures, and ecosystem services that are important to many coastal communities. Thus, changing oceans are impacting the ability of Canada to achieve sustainable development. The chapter explains the need for concerted effort in climate mitigation as well as adaptation by local communities, government institutions, law, and policies in order to jointly enable Canada to achieve a "healthy oceans, healthy people" vision.

Building on the earlier chapters, [Chapter 5](#), by Louise Teh and colleagues, presents more comprehensive scenarios and projections of potential outlooks for Canadian oceans and coastal communities. In particular, the chapter uses scenarios and projections, available for different spatial and organization scales, that are generated from different perspectives (scientific, Indigenous, local, and societal) to articulate alternative visions about the

future. Such multiscale scenario syntheses highlight specific local-scale challenges that coastal communities are facing under changing ocean conditions, as well as the potential match and mismatches with national-scale narratives and outlooks. This chapter provides several important new insights to help inform the development of sustainable pathways for Canada's coastal communities, including the potential synergies and trade-offs between local and national scales of development, and the need to reconcile competing goals of ocean resource management and adaptation to the changing oceans. Some of these insights pose specific governance challenges that are examined in subsequent chapters.

In [Part 3](#), "Access to Ocean Resources," we discuss the implications of changing oceans for access to ocean resources, and the challenges and opportunities that such changes may bring to rights holders and stakeholders, both within coastal communities and throughout the country as a whole. In [Chapter 6](#), Megan Bailey and Anthony Charles use an access lens to analyze ongoing conflict in the harvesting of American lobster. Under the Peace and Friendship Treaties signed by Britain with different Indigenous Peoples in the 1700s, codified in Section 35 of the Constitution,¹ and reaffirmed by the Supreme Court of Canada in the *Marshall* decision of 1999,² Mi'kmaq have a right to earn a moderate livelihood from fishing. Despite this, in the fall of 2020, conflict erupted over who has a right to fish, where, and when, capturing the attention of the media and the public across Canada and even internationally. The authors draw on an OCP access framework (see Bennett et al. 2018) to explain how and why benefiting from coastal fisheries remains a challenge for Mi'kmaq.

In [Chapter 7](#), Evelyn Pinkerton and colleagues focus on a specific type of access program – quotas – popular in some of Canada's fisheries. The authors summarize the history of quota implementation across Canada, and highlight the impact that quotas have had on fisheries and fishers. As a novel contribution, a set of scenarios are developed for transitioning away from quota fisheries, with the authors leaning on the most recent *Fisheries Act* amendments as precedent setting in their support for owner-operator fisheries, which, unlike our history with quotas, have more effectively kept the benefits of the fisheries in coastal communities.

In [Chapter 8](#), Carie Hoover and colleagues focus on access in the Arctic, where climate change, commercial fisheries, reconciliation, and allocative policies all come to a head. They focus on co-management, the mandated management framework for commercial fisheries across Inuit Nunangat (Inuit homelands) based on various land claims agreements. Co-management boards, some of whose members are co-authors of this chapter, make recommendations to the fisheries minister, including for access and allocation, with economic and social implications for land claims beneficiaries. The history of inequitable access is reviewed in this chapter, and options for a more equitable future, one that involves greater recognition of the role co-management boards play in governing resources for the benefit of Inuit, are discussed.

In [Part 4](#), “Ocean Governance,” we present our results on how changing oceans affect and challenge ocean governance, policies, and laws in Canada. In [Chapter 9](#), Derek Armitage and colleagues identify some of the ingredients needed for coastal communities to transform how they interact with and govern their ocean resources and coasts in the context of change, and in ways that sustain social and ecological systems. Insights from this chapter point to the processes, relationships, and capacities required to support governance transformation from the ground up, as well as the interjurisdictional engagement, leadership, and knowledge (including notably Indigenous leadership) needed to move through phases of transformative change.

In [Chapter 10](#), Evan Andrews and colleagues examine the links among coastal fisheries’ rebuilding, knowledge, and “governance fit.” Specifically, they consider how diverse knowledge and knowledge co-production processes can catalyze governance arrangements that better “fit” the challenges of fisheries rebuilding. Insights from this chapter connect across multiple chapters with an important message: efforts to rebuild fisheries and coastal communities, and to recover the abundance of marine life, require diverse knowledge to better fit governance to contexts of rapid change and uncertainty. Finally, in [Chapter 11](#), Sondra Eger and colleagues outline some crucial opportunities and challenges associated with integrated management of Canada’s oceans and coasts. Notably, however, they draw attention to “bright spots,”

or initiatives that have led to, or are anticipated to lead to, positive ecological, social, economic, and governance outcomes important for social and ecological coastal sustainability. In doing so, the chapter helps us to understand the conditions in which integrated ocean and coastal management might emerge and persist.

In [Part 5](#), we synthesize the main points of the book, look forward, and conclude with policy implications of the work of the OceanCanada Partnership. In [Chapter 12](#), Cecilia Engler and colleagues assess the capacity that legal and policy frameworks in selected ocean sectors in Canada have to integrate climate change considerations and respond to changing systems. They draw lessons from ocean-based renewable energies as a potential contributor to mitigation efforts, the protection of aquatic species at risk, and resource-oriented activities sustaining Canadian livelihoods: fisheries and marine aquaculture. They conclude with a clear message: Canada has made progress but it is time to pick up the pace and to ensure that our legal and policy frameworks are ready for the implications of a changing climate.

In [Chapter 13](#), Vincent L’Hérault and colleagues draw attention to the importance of methodology. They outline the OCP approach and document some of the creative ways in which communities are engaged in ocean and coastal research (e.g., participatory video projects). As they show, participatory methods are more inclusive and able to bridge knowledge and epistemological gaps between local communities and research, and have demonstrated their ability to contribute to meaningful, trust-based relationships that lead to genuine collaboration. These methodologies are crucial to navigating a path forward that connects research with those most affected by ocean change, access, and governance challenges.

In [Chapter 14](#), Russ Jones and colleagues conclude with a core message: reconciliation and Indigenous ocean management is the path forward in Canada. Specifically, they discuss the necessary changes underway in governance, resource access, and protecting culture and values that are having mixed success at transforming relationships. Policy recommendations that emerge in this chapter focus on changes needed to establish a just and equitable reconciliation framework and the measures to advance shared management, planning, and governance

of ocean spaces. Reconciliation in Canada remains an unfinished business. Much more effort is needed to confront and address injustices from colonization, including political domination, loss of territory, and cultural imposition.

In the final chapter, [Chapter 15](#), our aim is to synthesize insights and recommendations in ways that resonate with all Canadians concerned about the long-term sustainability of our oceans and coasts and the social, cultural, and economic activities that depend on them. Specifically, we ask how we can and should navigate pathways forward to foster viable and desirable ocean and coastal futures. In response, we summarize the main findings reported in each of the preceding chapters and draw attention to some of the core themes that have emerged from the collective efforts of the OceanCanada Partnership: reconciliation, changing oceans, changing access, changing governance, and the relationship among law, policy, and knowledge mobilization. As well, we provide practical pathways and recommendations to achieve a healthy ocean while supporting thriving coastal communities in Canada.

Finally, it is worth mentioning a few developments, both national and international, that took place since the submission of our manuscript to UBC Press that can have important implications for the sustainable management of Arctic, Atlantic, and Pacific social-ecological systems off the coasts of Canada. Nationally, Canada's National Climate Adaptation Strategy and Action Plan was published in November 2022. If this is implemented, it would help the country shake off its image as a country that is lagging in incorporating climate change consideration in fisheries management (e.g., Boyce et al. 2021; Pepin et al. 2022). Internationally, the COP27 agreement on climate change; the *World Trade Organization Fisheries Subsidies Agreement*; the *United Nations High Seas Treaty*; and the *Kunming-Montreal Global Biodiversity Framework* were all approved by the nations of the world. All governments in Canada, businesses, NGOs, civil society more generally, and scientists all should contribute to the effective implementation of these agreements and plans to help ensure that we achieve Infinity Fish, i.e., the notion that, if managed wisely, fish can continue to nourish humans forever, thereby generating infinity benefits (Sumaila 2021).

NOTES

- 1 *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (UK), 1982, c 11.
- 2 *R v Marshall*, [1999] 3 SCR 456.

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2

Status of Reconciliation and Indigenous Ocean Management in Canada

Russ Jones, Nancy Doubleday, Megan Bailey, Ken Paul, Fraser Taylor, and Peter Pulsifer

Reconciliation of Indigenous ocean issues, particularly in relation to climate change, governance, and economic access (in essence the three themes of the OceanCanada Partnership) requires cross-scale consideration of the lasting effects of colonization on Indigenous Peoples, including dispossession from land, ocean spaces, and marine resources, and continuing social, cultural, and economic impacts (Royal Commission on Aboriginal Peoples 1996; Truth and Reconciliation Commission of Canada 2015). In this chapter, we develop a framework for reconciliation and assess progress on ocean issues by analyzing the extent to which the injustices of colonization have been, or are being, overcome. Current relationships are guided by a mix of historical and modern treaties and are being redefined through new processes and agreements, as well as court decisions, court challenges, negotiations, and political actions. We propose reconciliation criteria based on the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP) (2007) and examine best practices, including progress in well-being, economic conditions, and self-determination of Indigenous Peoples across Canadian coastlines, which has varied widely.

Indigenous Peoples make up 4.9% of Canada's population, with many living in 683 communities, some of which are located along Canada's three coasts (Figure 2.1).¹ They are a fast-growing young population compared with Canada as a whole, and form a higher proportion of the population in remote areas such as the Arctic (67%) and north coastal British Columbia (45%).²

Reconciliation has become a major driver of changes in ocean management, including governance arrangements and marine resource access, and is beginning to ameliorate impacts of colonization on Indigenous relationships to ocean spaces and resources. The vignette by the lead author in the text box "Herring and protected area management in Gwaii Haanas" illustrates some longstanding issues with management and resource use in Haida Gwaii ("Islands of the People") and provides an example of steps toward redress.

This vignette illustrates the struggle to achieve reconciliation in one small part of Canada's coastline. Drivers for policy change are complex and have included political changes, Haida direct action, legal challenges, and negotiation. Conflicts have led to negotiated agreements and management plans that resulted in structural changes to management (i.e., creation of a consensus-based management board). Core issues remain to be resolved, such as the Haida jurisdiction and role in fisheries management, and just and fair Haida access to fisheries. Progress has been gradual, sometimes requiring years of progressive litigation, or to negotiate agreements or develop plans, with the result that after 30 years of working together in Gwaii Haanas, the Haida and Canada are still on their journey toward reconciliation.

The lack of agreement on the meaning of "reconciliation" has been identified as a problem for researchers (Rouhana 2011, 292). Rouhana (2011) defined it as follows: "a process that seeks a genuine, just, and enduring end to the conflict between the parties and transformation

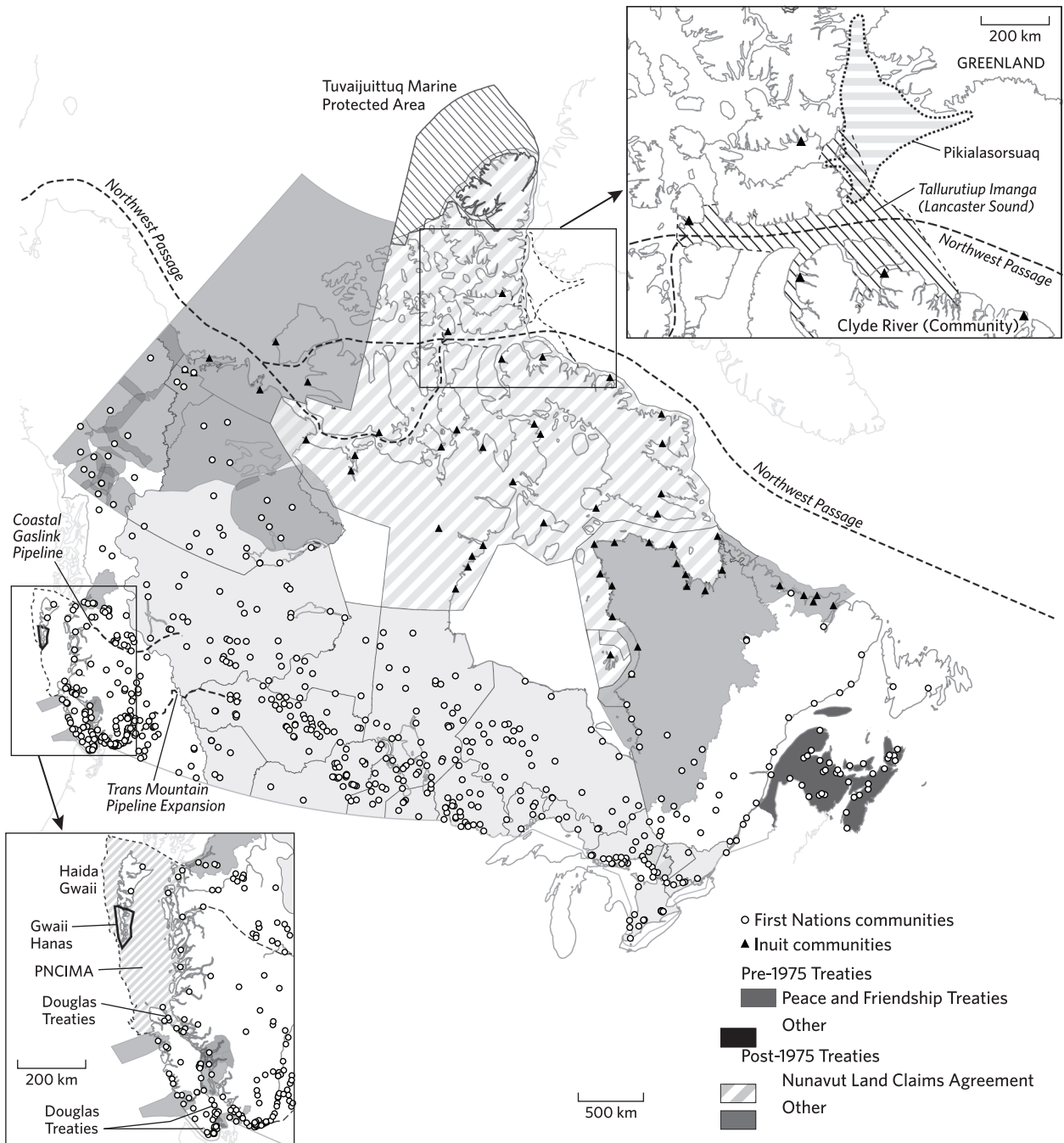


Figure 2.1 Indigenous communities and historical and modern-day treaties in Canada.

HERRING AND PROTECTED AREA MANAGEMENT IN GWAII HAANAS

Despite never signing a treaty, the Haida Nation and Canada are making progress toward co-governance of marine areas in advance of treaties.

In 1985, conflicts over clearcut logging led to a standoff between the Haida and loggers at Athlii Gwaay (Lyll Island) that resulted in protection and joint management of the Gwaii Haanas (“Islands of Beauty”) area (Figure 2.1). Negotiations led to agreements and establishment of a consensus-based Archipelago Management Board (AMB) in 1993, whose mandate was expanded to include some aspects of fisheries in 2009.

Herring stocks in Gwaii Haanas have been depressed for close to two decades and have been closed to commercial fisheries since 2004. A disagreement over opening the commercial herring

fishery in 2015 led to the Haida obtaining an injunction that stopped a commercial fishery opening by Fisheries and Oceans Canada (DFO). In granting the injunction, the judge placed weight on the long-term co-management relationship between Canada and the Haida Nation in Gwaii Haanas, concluding that “there is a heightened duty for DFO and the Minister to accommodate the Haida Nation in negotiating and determining the roe herring fishery in Haida Gwaii, given the existing Gwaii Haanas Agreement, the unique Haida Gwaii marine conservation area, the ecological concerns, and the duty to foster reconciliation with and protection of the constitutional rights of the Haida Nation,” thereby recognizing the Gwaii Haanas agreements as interim steps toward reconciliation. In an earlier forestry case,

the courts determined that the Haida had a strong prima facie case for Aboriginal title.

In 2018, a comprehensive Gwaii Haanas Gina ‘Waadluxan KilGuhlGa Land-Sea-People Management Plan was completed that protects 40% of the Gwaii Haanas marine area from extraction but allows Haida traditional fisheries. Efforts to resolve fisheries conflicts are ongoing and include developing a joint herring rebuilding plan within an ecosystem-based management framework (expected for the 2024 fishing season), reconciliation negotiations to address issues such as the AMB’s role in fisheries management, and a Haida title case that includes the marine area that began in 2002 and, despite delays, is nearing trial.³

of the nature of the relationship between the societies through a course of action involving intertwined political and social changes and which addresses both politically tangible issues such as distribution of power and historical responsibility.” Reconciliation in Canada has been advanced by negotiation of modern treaties and land claims agreements. Court decisions and evolving Aboriginal law have been drivers for reconciliation. Negotiations have, however, largely occurred within symmetrical frameworks that disadvantage Indigenous parties who may have less power or capacity and may fail to transform relationships.⁴ Lack of parity between negotiation tables means that incentives and tools available in one negotiation are often not available in others, and learning is not transferred among jurisdictions.

This review of reconciliation of ocean issues on Canada’s Atlantic, Pacific, and Arctic coasts examines the extent to which the injustices of political domination, loss of

territory, and cultural imposition arising from colonialism (Moore 2016) have been, or are being, overcome. We do this by drawing on the relevant articles from the *United Nations Declaration on the Rights of Indigenous Peoples* to develop criteria against which to discuss the ongoing process of reconciliation across Canada’s three coasts.

This chapter describes the current status of reconciliation across Canada, including a scan of seven ocean issues and five case studies, and proposes criteria for assessing reconciliation. Chapter 14 describes how reconciliation can address the core impacts of colonization and presents policy recommendations for how a lasting reconciliation can be realized.

HISTORY OF RELATIONSHIP

Canada’s dispossession of Indigenous Peoples has generally followed four stages – (1) separate worlds; (2) contact and cooperation; (3) displacement and assimilation; and

(4) negotiation and renewal – but vary regionally and temporally along Atlantic, Pacific, and Arctic shorelines (Royal Commission on Aboriginal Peoples 1996, 1: 40–44; Havemann 1999).

Indigenous Peoples on the Atlantic, Pacific, and Arctic coasts have distinct cultures, languages, and practices that are tied intimately to the land and resources. They had traditional territories based on occupancy and use, and boundaries were demarcated. These separate worlds changed after contact with European explorers and traders and led to cooperation as well as conflict. Indigenous groups played a key role in determining Canada's boundaries through alliances with the British in the Atlantic region that prevented incursions by the United States. Likewise, on the Pacific coast, British colonies sought peace with Indigenous groups during the period when borders were being defined with the United States. Some alliances were cemented through historical treaties (Figure 2.1). As well, the presence of Inuit helped to advance Canada's claims to Arctic sovereignty, waters, and resources. The policy of treaty making continued in inland portions of Canada until 1923, but was not followed in coastal areas of British Columbia or the Arctic from Confederation until the mid-1970s.⁵

Indigenous communities were contained through the establishment of Indian reserves in Atlantic and Pacific regions. A period of assimilation followed under the *Indian Act* of 1876, which treated Indians as wards of the state subject to paternalistic policies that included separating children from their families and sending them to live in residential schools (see, e.g., Pyne and Taylor 2019; GCRC 2020). This resulted in the disruption of families, loss of language, and intergenerational trauma (Truth and Reconciliation Commission of Canada 2015).

A major shift in policy and relationships with Indigenous Peoples took place with the passage of Canada's *Constitution Act, 1982*, which recognized and affirmed the existing rights of Canada's Aboriginal peoples, supported by many successful court challenges. The recent stage of negotiation and renewal (identified by Royal Commission on Aboriginal Peoples 1996) has been called an era of confrontation or pluralism.⁶ But a parallel approach to treaties aimed at recognition of rights, including negotiation of reconciliation agreements for key issues, is currently in play.⁷ There has been a recent sea change

in political and societal attitudes toward Indigenous issues, and this provides a promising context for significant progress.

Significant milestones marking the four stages in the relationship for each coast are summarized below. A brief timeline of recent legal, policy, and political changes related to ocean reconciliation is shown in Figure 2.1 and further described in Table 2.1.

Atlantic Timeline

Separate Worlds

Pre-contact Indigenous Nations in the Atlantic region (not including Labrador) included Mi'kmaq, Maliseet,⁸ Innu (also known as Montagnais-Naskapi), Dorset, and Beothuk. Mi'kmaq and Maliseet were fishing and hunting societies. Beothuk and Innu were largely cariboo-hunting cultures.

Contact/Cooperation

Norse settlement about 1000 AD in the Eastern Arctic and northern Atlantic was unsuccessful and was followed by European commercial fisheries and settlement in the 14th and 15th centuries. Mi'kmaq participated in wars and made alliances with the French and English from 1613 to 1761. This led to a series of Peace and Friendship Treaties between Mi'kmaq, Maliseet, and the British Crown from 1725 to 1794. Innu were active partners in the fur trade.

Displacement/Assimilation

Beothuk were purged from Newfoundland, which was declared a colony in 1824, with the last known woman dying in 1829. Immigration and settlement increased following the American Revolution, leading to displacement of Mi'kmaq and Maliseet from their land and resource base. At this time, they also suffered population decline due to disease. The colonies of Nova Scotia, New Brunswick, and Lower and Upper Canada (which divided into the provinces of Ontario and Quebec) joined Confederation in 1867. Prince Edward Island joined in 1873. A period of treaty denial followed with the *Indian Act* of 1876 and the *British North America Act* of 1867 (Knockwood 2003, 48). Reserves in New Brunswick, Nova Scotia, and Prince Edward Island were established

Table 2.1

Timeline of selected policies and court decisions related to ocean reconciliation

Date	Policies and court decisions
1725–94	Peace and Friendship Treaties in Atlantic (Figure 2.1)
1969–2011	Most Northern/Arctic land claims agreements (Figure 2.1)
1976–98	<i>Calder v British Columbia (AG)</i> decision (1973) leads to Nisga'a Final Agreement negotiations (Figure 2.1)
1984–93	Federal Conservative government (Brian Mulroney, Kim Campbell)
1990	<i>R v Sparrow</i> decision – Indigenous priority to fish for food, social, and ceremonial purposes
1990–present	Federal Aboriginal Fisheries Strategy – framework for implementing fishing rights
1992–present	BC Treaty Process established with goal of negotiating treaties within 10 years
1993–2006	Federal Liberal government (Jean Chrétien, Paul Martin)
1996	<ul style="list-style-type: none"> • <i>R v Gladstone</i> decision – recognition of Indigenous commercial fishing rights • <i>Oceans Act</i> commits to integrated ocean management (IOM) and development of a national network of Marine Protected Areas • Royal Commission on Aboriginal Peoples Report (>400 recommendations)
1999	<i>R v Marshall</i> decision – treaty commercial fishing rights
2001	Marshall Response Initiative
2002	<i>Species at Risk Act</i> requires consideration of Indigenous traditional knowledge
2004–present	Federal Aboriginal Aquatic Resource and Oceans Management Program
2006–15	Federal Conservative government (Stephen Harper)
2007	Pacific Integrated Commercial Fisheries Initiative; Atlantic Integrated Commercial Fisheries Initiative
2010	As signatory to <i>Convention on Biological Diversity</i> , Canada commits to Aichi target of protecting 10% of coastal and marine areas by 2020
2015–present	Federal Liberal government (Justin Trudeau) with platform to advance Indigenous reconciliation
2016	<ul style="list-style-type: none"> • Report of Canada's Truth and Reconciliation Commission (94 calls to action) • Canada becomes a party to <i>United Nations Declaration on the Rights of Indigenous Peoples</i> (UNDRIP)
2016–present	Oceans Protection Plan announced and implemented; renewed in 2022
2018	Canada adopts 10 principles for reconciliation (Department of Justice Canada 2018)
2019	<i>BC Declaration on the Rights of Indigenous People Act</i> for implementation of UNDRIP
2020	With 21 other countries, Canada commits to protecting 25% of coastal and marine areas by 2025 and 30% by 2030
2021	Federal <i>UNDRIP Act</i> for implementation of UNDRIP
2022	Kunming-Montreal Global Biodiversity Framework commits to protecting 30% of coastal and marine areas by 2030 (UNEP 2022)

by colonial authorities rather than according to treaties as in other parts of the country. Newfoundland did not become part of Canada until 1949.

Negotiation/Renewal

A series of hunting and fishing rights cases led to the Supreme Court of Canada's *Marshall* decision in 1999,

which recognized the Mi'kmaq and Maliseet treaty right to fish.⁹ Mi'kmaq and Maliseet are negotiating implementation of Peace and Friendship Treaties.¹⁰ Innu in Quebec have been engaged in negotiation of a treaty for over 20 years. The Crown has failed to recognize the rights of Mi'kmaq who occupied Newfoundland concurrently with Beothuk.

Pacific Timeline

Separate Worlds

The Pacific coast is home to numerous Indigenous Nations with distinct cultures speaking a variety of languages¹¹ who controlled territories and access to marine and terrestrial resources.

Contact/Cooperation

First contact with the Spanish in 1774 was followed by further Spanish and British exploration. Both a land-based and maritime fur trade occurred, the latter from about 1790 to 1820. The US border was established at the 49th parallel by the *Oregon Treaty* in 1846, after which the Hudson's Bay Company relocated from the Columbia River to Victoria. From 1849 to 1856, the British Crown established colonies¹² that were combined in 1856 before joining the Dominion of Canada in 1871. A handful of Douglas Treaties were signed on Vancouver Island from 1850 to 1854 (Harris 2008, 21–23). The northern boundary and the Alaska panhandle dispute were not resolved until 1903.

Displacement/Assimilation

Indigenous populations were drastically reduced by epidemics, and reached a low point about 1929.¹³ Canada imposed Indian reserves from about 1850 to the 1930s as a means of reducing conflict between settlers and Indigenous Nations over land and fisheries (Harris 2008, 92–105, 164–86). Reserves on the coast were generally smaller due to coastal Indigenous Peoples' reliance on fisheries (Harris 2008, 6). Imposed regulations gradually dispossessed Indigenous People from their fishing places and fisheries (Pearse 1982, 176–81; Newell 1993; Harris 2001, 196–208).

Negotiation/Renewal

This stage was gradual, beginning with court decisions such as the Supreme Court's 1973 *Calder* decision, which recognized the existence of Aboriginal title prior to colonization but split on whether it had been extinguished.¹⁴ Efforts followed to negotiate a treaty with the Nisga'a, under the policy of negotiating one BC treaty at a time. A series of court decisions recognizing Aboriginal fishing and hunting rights, supported by the *Constitution Act*,

1982, helped to change the dynamics (Table 2.1). In the 1997 *Delgamuukw* case, the Supreme Court of Canada held that Indigenous title had not been extinguished in British Columbia.¹⁵ Subsequent cases found that Indigenous laws pre-existed and survived the assertion of Crown sovereignty.¹⁶ The *Nisga'a Treaty* (also known as the *Nisga'a Final Agreement*) was signed in 1998 after 30 years of negotiation. A BC Treaty Process that began in 1991 with the goal of completing treaties throughout the province within 10 years has proven difficult. As of 2022, there were 7 groups in British Columbia implementing a treaty (Figure 2.1) and 31 in various stages of negotiation. About 44% of the *Indian Act* bands in the British Columbia are not currently involved in negotiations. Legal decisions continue to be important, such as the recognition of Tsilhqot'in title to lands in central British Columbia.¹⁷

Arctic Timeline

Separate Worlds

Inuit are a transnational people who occupy the circum-polar region and reside in homelands in what is now Canada, Greenland, the United States, and the Russian Federation.¹⁸ Inuit traditionally rely primarily on seal, whale, walrus, fish, and caribou, and displaced earlier Dorset and Thule peoples.

Contact/Cooperation

First contact with Europeans in search of the Northwest Passage began with Martin Frobisher in 1576. The Hudson's Bay Company, established in 1670, opened trade with Indians of the western forests, which led to penetration of the Arctic and contact with the Inuit. Mapping of the Mackenzie Delta began in 1826. The Royal Proclamation of 1763 recognized Indigenous Peoples but also created commercial domain and governance. Traders and missionaries began arriving in the Arctic thereafter, and Inuit were encouraged to trap furs. Near the end of this stage, the Hudson's Bay Company opened 15 new trading posts from 1921 to 1931.

Displacement/Assimilation

From 1934 to 1959, a number of families were transferred from Cape Dorset, Pond Inlet, and Northern Quebec to

Devon, Ellesmere, and Cornwallis Islands in the High Arctic, as well as within Labrador, in part to advance Canada's Arctic claims and in part as a response to food scarcity. Initially, Arctic governance was modelled on the colonial practice of the British Empire, with territorial councils appointed by the federal government and reporting to the Minister of Indian Affairs and Northern Development (or equivalent, depending on the time period) in the Yukon and Northwest Territories.

Negotiation/Renewal

Negotiations of land claims agreements across the Canadian Arctic occurred over several decades beginning in 1969.¹⁹ Inuvialuit negotiations were triggered by Justice Thomas Berger's inquiry into the Mackenzie Valley pipeline and launched by a petition presented in the House of Commons by Mary Carpenter, a young Inuvialuit woman.²⁰ The *Inuvialuit Final Agreement* was completed and ratified in 1984, and became law in Canada in 1985, with constitutional protection. It was followed by division of the Northwest Territories, the settlement of the Tungavik Federation of Nunavut land claim, and the creation of Nunavut. These agreements were negotiated pursuant to the federal Comprehensive Land Claims Policy of 1974. Negotiation of both agreements considered interest in offshore issues, but the federal position was that seabed resources belonged to the federal government.²¹ The Quebec Inuit land claim, the *James Bay and Northern Quebec Agreement*, was settled in 1975 under a different legal regime. The Labrador Inuit (Nunatsiavut region) and Nunavik Inuit (Northern Quebec) completed land claims agreements in 2005 and 2006, respectively. In the southeastern part of Hudson Bay lies the area covered by the *Eeyou Marine Region Land Claims Agreement*, signed in 2010. The Innu of Labrador signed a treaty in 2011.²² Southern Labrador Inuit are currently negotiating a land claim that would be separate from that of Nunatsiavut region (Bell 2020).

RECONCILIATION

Reconciliation and Canadian Policy

Colonization and the creation of what is now Canada has had multiple and intergenerational effects on Indigenous Peoples, creating a ripple effect in statistics on Indigenous

health and human well-being, including life expectancy, unemployment, high school graduation, incarceration in prisons, and suicide rates (Royal Commission on Aboriginal Peoples 1996; Truth and Reconciliation Commission of Canada 2015; Cooke et al. 2007). The history of colonization and its effects are detailed by both the Royal Commission on Aboriginal Peoples (RCAP) and the Truth and Reconciliation Commission of Canada (TRC), including recommended steps toward reconciliation, such as self-government and apology.²³ Measures of Indigenous well-being have improved in recent years but continue to be significantly lower than those of the general population and subject to wide regional disparities (Cooke et al. 2007).

Canada recently made a political commitment to "a renewed nation-to-nation relationship with Indigenous Peoples based on recognition of rights, respect, cooperation and partnership"²⁴ (Prime Minister of Canada 2016a, 2018), a commitment that was included in Mandate Letters to Ministers, including the December 2019 letter to the Minister of Fisheries, Oceans and the Canadian Coast Guard (Prime Minister of Canada 2019). As well, Canada recently adopted 10 principles for achieving reconciliation by renewing Indigenous-Crown relationships (Department of Justice Canada 2018). Canada became a signatory to UNDRIP in 2016 and incorporated it into Canadian legislation.²⁴ Although the direction is positive, the effects of these new policies of recognition of rights and the adoption of UNDRIP on federal, provincial, and territorial law and policy in Canada remain to be seen (see, e.g., Assembly of First Nations 2018).

Indigenous Peoples across Canada have diverse perspectives on reconciliation. By negotiating with groups of Indigenous Peoples, the Canadian approach allows for recognition and accommodation of these differences. There is no one Indigenous world view or value system, but there are commonalities, including the understanding of the place of humans in the natural world, and cultural and spiritual relationships to territories and living things. Indigenous history and teachings are passed on from their ancestors and importance is placed on future generations (e.g., Sterritt 2016; Kinnear 2007). For example, the Haida Nation identified six Haida ethics and values that define the Haida world view and guide marine planning, including respect, responsibility, interconnectedness, balance,

seeking wise counsel, and reciprocity, that were considered the foundation of the Haida Gwaii Marine Plan (MPPI 2015). *Yahguudang* (respect) is defined as follows: “Respect for each other and all living things is rooted in our culture. We take only what we need, we give thanks, and we acknowledge those who behave accordingly” (MPPI 2015, 11). Similarly, the Mi’kmaq world view of *Netukulimk* sees the world as a connected web, and recognizes that humans do not have dominion over nature but are just a part of it (Prosper et al. 2011). When understood properly, *Netukulimk* recognizes that nature can provide for the well-being of both the individual and the community as a whole.

Canada’s response to Indigenous demands for power and resource sharing, including economic access and compensation, varies, depending on the existence of prior treaties or land claims agreements, and on the situation itself. Gaps in the existing treaties and land claims agreements concerning ocean management make reconciliation in the context of oceans and marine issues complicated.

As a result, Canadian courts are called upon to help interpret historical and modern treaties. Canadian courts have identified reconciliation as an objective of negotiations between the Crown and Indigenous groups, as a test for infringement of Aboriginal rights, and as a standard to hold governments to account for wrongdoing. However, the courts’ interpretation of reconciliation may differ from political or social interpretation (Walters 2008).

Framework for Assessing Reconciliation Progress in Ocean Management

Canada’s relationship with Indigenous Peoples along the country’s three coasts is at differing stages of recovery from colonization. Indigenous rights are influencing several processes, including ocean management and planning, establishment of Marine Protected Areas (with increasing calls for Indigenous protected areas), development of integrated ocean management plans, recovery plans for species at risk, and environmental and socio-economic assessments of projects such as pipelines and ports. Fundamental to reconciliation of ocean issues is finding measures to overcome three key injustices associated with colonialism in the history of fisheries and ocean

management in Canada: political domination, loss of territory, and cultural imposition (Moore 2016). Political domination and denial of self-determination are central to colonialism injustice (452), but taking of Indigenous land or territory may be just as great a wrong of settler colonization (455).

To achieve its goals, a reconciliation process must address four key issues: justice, truth, responsibility, and restructuring of the social and political relationship between the parties (Rouhana 2011). Justice is the frame of reference or guiding principle for each step in reconciliation. Progress in reconciliation is reviewed in this chapter and further analyzed relative to the four issues in [Chapter 14](#), where we propose a pathway toward a just and equitable reconciliation. Canada’s approach to reconciliation has been informed by its Ten Principles (Department of Justice Canada 2018), but more specific guidance is provided in UNDRIP. In this chapter, we identify criteria that should be evident on the path to reconciliation, as informed by best practices described later in this chapter and by drawing on the relevant UNDRIP articles ([Table 2.2](#)). We use these criteria to assess current progress and identify future options for successful reconciliation by means of an overview of seven ocean issues and five case studies from Canada’s three coasts. The ocean issues represent common sources of conflict or tension between Indigenous Peoples and states. Note that [Table 2.2](#) shows the relevant UNDRIP articles by article number only. For example, self-determination as well as land, territories, and resources are all fundamental rights captured in UNDRIP, and thus criteria for reconciliation could include things like compensation for loss, and processes for securing consent.²⁵

For each coast, [Table 2.3](#) highlights key historical, political, and legal elements in relation to reconciliation of seven issues that capture common sources of conflict over ocean activities: fisheries and marine mammals, integrated ocean management, Marine Protected Areas, species at risk, shipping, oil and gas, and aquaculture. The current status of each issue is presented from historical, legal, policy, and political perspectives, followed by a brief summary of reconciliation actions by region that mostly align with the above criteria. We then use case studies from across the three coasts to highlight the presence and absence of specific reconciliation criteria. In this way, a

Table 2.2

Proposed criteria for reconciliation based on UNDRIP

<i>Type of injustice and reconciliation criteria</i>	<i>UNDRIP articles</i>
Political domination	
Effective Indigenous organizations in place at appropriate scales	18
Self-government or management agreements in place	4
Mechanisms and resources to implement agreements and treaties	29, 37, 39
Development of joint policies and plans	5, 29
Processes and practices in place to secure Indigenous consent	10, 19, 28, 32
Meaningful engagement in development of relevant legislation, regulations, and/or designations/listings	19, 38
Incorporation of Indigenous laws into decision making	27
Incorporation of Indigenous priorities and strategies into decision making	32
Resorting to courts to resolve disputes	32, 37, 40
Indigenous capacity to govern or manage, including financial autonomy	39
Loss of territory (and benefits thereof)	
Consent for allocations, licences, tenures, or plans in a territory related to an activity	19
Agreements on share or proportion of a resource or activity; or jointly approved plans in place	17, 19
Allocation policies or plans or targets account for Indigenous title and rights to specific territories	19, 26
Compensation for loss	10, 20, 28, 32
Revenue sharing or management funding for new or existing activities or uses	26, 32
Joint assessments of activities to account for environmental, social, cultural, and economic impacts	23, 32
Sustainable use and/or species recovery over the long term as determined through assessments	25, 29, 32
Cultural imposition	
Ability to practise rights and culture	8, 15
Incorporation of traditional knowledge into policies and plans	31
Uses Indigenous language in negotiation and decision making	13
Contributes to an equal standard of living, e.g., income, benefits, traditional food	21, 24
Activity occurs consistent with community values	23, 25
Policies and plans incorporate Indigenous world view	25

narrative examination and application of the framework developed based on UNDRIP can be developed and used to explain the varying degrees of reconciliation in ocean governance evident within Canada.

Case 1 – Integrated Marine Planning on Canada’s North Pacific Coast

Collaborative marine planning work in northern British Columbia has been driven by commitments on the government side to integrated management in Canada’s *Oceans Act* of 1996,²⁶ the need to reconcile Aboriginal rights where no treaties exist, and the skillful

self-organization of many Indigenous groups on scales conducive to planning (Jones, Rigg, and Lee 2010).²⁷ This case study illustrates many of the reconciliation criteria during the planning phase.

In 2005, Canada announced the Pacific North Coast Integrated Management Area (PNCIMA) on the northern British Columbia coast as one of five pilot areas for integrated marine use planning. Over three years, Canada, British Columbia, and 17 First Nations negotiated a collaborative letter of intent that established principles and a governance framework for planning.²⁸ Enabling conditions addressed during the pre-planning phase were:

Table 2.3

Reconciliation of ocean issues in Canada

Issue	Current status				Reconciliation action by region and measure
	Historical	Legal	Policy	Political	
FISHERIES AND MARINE MAMMALS	<p>Fisheries and marine mammals integral to Indigenous societies for food and trade; settlers introduce new markets and fisheries, e.g., Atlantic cod, Pacific salmon, etc.; discriminatory regulations imposed, e.g., <i>Fisheries Act</i> (Harris 2008; Pearce 1982).</p>	<p>Indigenous rights and priority over other fishing largely defined through court decisions, e.g., food, social, and ceremonial fisheries, <i>R v Sparrow</i> (1990); commercial fishing rights, <i>R v Gladstone</i> (1996), <i>R v Marshall</i> (1999), <i>Ahousht Indian Band and Nation v R</i> (2013).</p>	<p>Most Atlantic and Pacific fisheries managed by limited entry licences and/or quota shares by the 1990s; several active federal programs enabling negotiation of fisheries agreements and transfer of access.¹</p> <p>Since 2018 reconciliation agreements based on recognition of rights being explored as a way to accelerate transfer of benefits and progress toward treaties.²</p>	<p>Comprehensive land claims agreements (LCA) in Arctic in 1990s; BC Treaty Process starts in 1990 but held up in part by lack of progress on fisheries; policies support court-determined priorities subject to limits (Case 2); co-management agreements vary by region; Aboriginal commercial catch shares imposed by Canada in asymmetric power relationship (limited negotiation).</p>	<p>Atlantic</p> <p><i>Access</i> – Right to fish formerly recognized in treaties but ignored in practice; catch shares transferred through Marshall Response Initiative (Case 2).³</p> <p><i>Management</i> – Limited Indigenous management control except some traditional fisheries such as eel.</p> <p>Pacific</p> <p><i>Access</i> – About 13% of all BC licences and quotas transferred through treaty or initiatives (amount not negotiated).⁴ A few treaties have been reached but some Indigenous groups have gone to court to further define the nature of their fishing rights.⁵</p> <p><i>Management</i> – Some inland and a few coastal fisheries managed separately from commercial fisheries through negotiated agreements under federal Aboriginal Fisheries Strategy (see, e.g., Jones 2006).</p> <p>Arctic</p> <p><i>Access</i> – Priority of Inuit hunting rights recognized at early stage; access to marine mammals codified through LCAs; new commercial fishing licences issued to Inuit organizations and non-Indigenous corporations but Inuit are seeking a more equitable share (see, e.g., Chapter 10).⁶</p> <p><i>Management</i> – Wildlife co-management boards established through LCAs; variable participation by Inuit organizations in marine and environmental policy issues, negotiations, national and international affairs, legal reviews, hearings, and studies. For example, the Inuit Circumpolar Council is a permanent participant in the Arctic Council (1996), and current initiatives like the Pikialasorsuaq Commission (Case 3) are an important factor in recognition of Inuit agency in marine affairs domestically and internationally (Pikialasorsuaq Commission 2017).</p>
	<p>Arctic whaling banned commercially in 1964, preventing harvest of large whales by Inuit. Small coastal species still taken for food by Inuit.</p>	<p>Regulated through food, social, and ceremonial licences and communal commercial licences (unique to First Nations) issued by Fisheries and Oceans Canada (DFO).</p>	<p>Inuvialuit regain recognition of right to hunt bowhead whales in 1984 <i>Inuvialuit Final Agreement</i>.</p>		



◀ Table 2.3

Issue	Current status				Reconciliation action by region and measure
	Historical	Legal	Policy	Political	
SHIPPING	Coastal Indigenous groups make extensive use of marine resources and waterways, e.g., intertribal trade; waterway use increases for trade and development, e.g., Grand Banks and Atlantic cod fishery; maritime fur trade in Pacific; search for Northwest Passage opens Arctic (Figure 2.1); rail, road, and container traffic fuel port development.	Canada expands exclusive economic zone (EEZ) to 200 nautical miles, 1982; right to innocent passage in the EEZ in accordance with Law of the Sea; port-state control maintains international and domestic standards; conventions under International Maritime Organization, e.g., ballast water, sulfur dioxide (SO ₂) emissions, places of refuge.	State has more control over territorial sea (to 12 nautical miles); shipping not typically addressed in LCAs or treaties; voluntary Tanker Exclusion Zone keeps tankers en route from Valdez, Alaska, to Washington away from BC coast (1985); lack of comprehensive oil spill response plans; concern for oil spills in Arctic; Liberal government establishes \$1.5 billion Oceans Protection Plan to improve marine safety (2016; see also n52 at chapter end).	Port developments on west coast; loss of sea ice opening shipping traffic in Northwest Passage; concerns about environmental impacts; Indigenous groups block projects due to lack of environmental assessments for shipping, e.g., Northern Gateway (2017), Trans Mountain Pipeline (2019); challenges to Canadian sovereignty in Arctic; Canada files claim with United Nations to extend Arctic jurisdiction relating to resources, management, and transportation (George 2019).	<p>Atlantic</p> <p>The Crown has been slow to recognize Indigenous rights and interests in shipping, and there are currently no agreements with Atlantic Indigenous groups. However, in July 2019, Transport Canada (2019a) announced funding and capacity for Indigenous organizations in Nova Scotia (2), Newfoundland (1), and Quebec (5), for engagement.</p> <p>Pacific</p> <p>Indigenous groups have delayed or stopped several major projects through court processes (Case 4). A <i>Reconciliation Framework Agreement for Northern Shelf Bioregion</i> (2018) supporting cooperative planning of shipping and marine response by Indigenous partners and Canada is in the implementation stage (Case 5); Pacific Places of Refuge Contingency Plan updated by Haida Nation and Transport Canada (2018); moratorium on oil tankers in northern British Columbia (2009) in response in part to Indigenous concerns.</p> <p>Arctic</p> <p>Shipping not explicitly addressed in LCAs; other forms of engagement at different scales, e.g., review of the <i>Canada Shipping Act</i> Regulations (multiple years), review of the 1986 Nanassivik Mine shipping accident affecting Inuit hunters, Northwest Passage shipping season and ship regulations, offshore oil and gas, and provision of mining services. Inuit in Nunavut receiving funding to develop capacity and participate in activities under Oceans Protection Plan (OPP) (Transport Canada 2019a). Limited capacity or control of shipping through Northwest Passage or resources for response to Arctic oil spills.</p>

Indigenous Peoples maintain connections to ocean spaces (cultural, spiritual, social, economic); graduated assertion of Crown authority through legislation and policy; relevant to international migratory fish and mammal species that have always been essential to cultural identity, e.g., bowhead whales, protection of coastal habitat.

Fisheries Act (1880s) regulates fisheries; habitat protection measures since 1970s; Canada's *Oceans Act* of 1996 commits to integrated planning and decision making together with "affected aboriginal organizations."

Oceans Strategy and Oceans Action Plan outline collaborative planning approach; mixed progress on five pilot areas that DFO identifies for integrated planning in 2003, e.g., northern British Columbia case study (Case 1); Canada is supporting international conventions through Marine Spatial Planning approach that has been initiated at a regional level (UNESCO 2021).

Integrated ocean management plans completed for four ocean pilots identified by DFO in 2003. Indigenous participation varied by ocean area. Canada's assertion of sovereignty over Arctic waters was a key factor in negotiation of LCAs.

Atlantic

Planning – Indigenous participation in two Atlantic IOM pilots (ESSIMP and PBIMP)⁷ have been minimal and dominated by stakeholders. DFO has identified three Large Ocean Management Areas in the Atlantic Region as candidates for Marine Spatial Planning – Gulf of St. Lawrence, Scotian Shelf/Bay of Fundy, East Coast of Newfoundland – and has started to engage Indigenous groups and support technical capacity.

Decision making – Aboriginal parties not included in ESSIMP and PBIMP governance structures. Unequal Indigenous participation in planning tables. Limited funding for Indigenous capacity.

Pacific

Planning – Pacific North Coast Integrated Management Area (PNCIMA) Plan, IOM pilot for northern British Columbia, completed in 2017 (Case 1). Endorsed by DFO, Province of British Columbia, and a group of Indigenous organizations. First Nations and the province have approved and are implementing subregional marine plans (Haida Gwaii/North Coast/Central Coast/North Vancouver Island) that identify Marine Protected Area (MPA) network candidates. Although not an IOM pilot, Canada, British Columbia, and Nuuchahnulth Nation partner in Aquatic Management Board on West Coast of Vancouver Island.⁸

Decision making – PNCIMA Letter of Intent (2008) outlines collaborative governance structure (Canada/BC/First Nations) based on consensus.

Arctic

Planning – Pilot for Integrated Ocean Management Plan for the Beaufort Sea (IOMPBS) worked within framework of existing LCAs in Arctic; governance approach adapted for integrated planning.

Decision making – IOMPBS uses processes established through LCA with oil and gas sector involved in steering committee.



◀ Table 2.3

Issue	Current status				Reconciliation action by region and measure
	Historical	Legal	Policy	Political	
AQUACULTURE	<p>Indigenous cultivation of some species, e.g., Pacific “clam gardens,” Mi’kmaq and Maliseet (Wolastoqey) “oyster gardens”;⁹ salmon hatcheries since 1900s; Atlantic salmon farms on Atlantic and Pacific coasts since 1912; Pacific oysters since 1970s; rapid growth of mussel farming in Atlantic since 1980s; freshwater Arctic char mainly raised in southern aquaculture facilities; world capture fisheries reached peak in 1990s, with aquaculture representing about 50% of world production by 2016 (FAO 2018).</p>	<p>Regulatory regimes vary by province; DFO has lead role with regard to management practices; BC Supreme Court defined federal responsibility for aquaculture management in 2009.</p> <p>DFO manages aquaculture in British Columbia and Prince Edward Island. All other provinces have delegated jurisdiction for aquaculture monitoring and regulations.</p>	<p>Federal policies support research; included as economic development in some modern treaties.</p> <p>Cohen Inquiry (2012) looks at impact of salmon aquaculture as a vector for transfer of sea lice and disease affecting BC wild salmon; ocean acidification due to climate change poses a risk to shellfish survival and growth.</p>	<p>Some agreements with Indigenous groups in British Columbia, e.g., Kitasoo, Ahousaht; opposition to salmon farms in Broughton Archipelago.</p> <p>Most Atlantic First Nations either participate or are seeking funding to participate in the economic benefits of aquaculture. Only one finfish operation in Nova Scotia, and one kelp operation. The rest of the Atlantic First Nations operations are in mussels, oysters, and scallops.</p> <p>No large-scale closed containment operations as yet.¹⁰ Farming of Arctic char in southern aquaculture facilities represents loss of Arctic genetic resources and local economic opportunities.</p>	<p>Atlantic</p> <p><i>Access</i> – Rapid expansion of salmon and shellfish farming since 1980s; only a few operations occur with Indigenous consent. A few Indigenous-owned operations. Licensing regimes controlled by federal and provincial regulators. Nova Scotia and New Brunswick manage leases and do not consult or give preferred access to First Nations. Most First Nations seek access to diversify economic benefits. Atlantic Integrated Commercial Fisheries Initiative (AICFI) encourages Indigenous participation in Atlantic aquaculture. No remediation for biodiversity loss due to invasive species such as tunicates (sea squirts).</p> <p><i>Decision making</i> – Federal and provincial governments do not consult when approving leases for non-Indigenous and foreign lease requests. First Nation operators are charged annual licence fees.</p> <p>Pacific</p> <p>Rapid expansion of salmon and shellfish farming since 1980s followed by consolidation; only a few facilities operate with Indigenous consent; only a few partnerships. New BC salmon aquaculture policy requires consent by First Nations for new and existing salmon farms (BC Ministry of Agriculture 2019).</p> <p>Arctic</p> <p>Limited potential for marine aquaculture due to ice cover and slow growth. No Indigenous involvement in freshwater Arctic char produced in Yukon or southern Canada, including export of eyed eggs (Ethier 2014). Marine mammal harvesting and live capture and aquaria display of marine mammals have stirred controversy and faced bans in various circumstances.</p>

Inuit reliance on marine mammals; Atlantic and Pacific Indigenous reliance on fish; offshore O&G exploration; known reserves (West Coast, Arctic); East Coast development (Hibernia); revenue-sharing agreements with Newfoundland and Labrador for Hibernia drilling in 1980s.

EEZ expands to 200 nautical miles in 1976; provincial jurisdiction over seabed limited (within the jaws of the land); wrangles over federal and provincial jurisdiction, e.g., court rules for British Columbia in Strait of Georgia; conflict in Hecate Strait unresolved.

Canada has not recognized Indigenous rights to seabed resources; some offshore O&G wells (Atlantic) and known reserves (Pacific, Arctic); pipelines; federal-provincial agreements for development, e.g., Hibernia.

Canada's territorial claims to Arctic subject to challenges; offshore O&G not explicitly addressed in modern LCAs or treaties; influenced by Indigenous and environmental concerns; United States has O&G wells in Beaufort Sea and recently stopped approving new drilling leases in the Arctic National Wildlife Refuge (June 2021) (Gibbens 2021).

Atlantic

Conflicts and inquiries – “Old Harry” in the Gulf of St. Lawrence approved by Natural Resources Canada in 2010 without consultation with First Nations (Séguin 2010).

Decisions/status – No Indigenous members on Canada-Newfoundland/Labrador Offshore Petroleum Board although a few are on fisheries working group. No Indigenous resource revenue-sharing agreements or policies exist in the Atlantic.

Pacific

Conflicts and inquiries – Indigenous and environmental groups opposing offshore O&G development and pipelines (Case 4); independent Federal-Provincial Environmental Review Panel recommends O&G exploration subject to 92 recommendations (1984–86); BC Offshore Oil and Gas Task Force concludes science and technology adequate for offshore O&G extraction.

Decisions/status – 1972 federal policy decision not to explore for offshore oil on West Coast due to environmental and Indigenous concerns; *Oil Tanker Moratorium Act* (2019) bans tankers at northern BC ports.¹¹

Arctic

Conflicts and inquiries – Mackenzie Valley Pipeline Inquiry results in decision not to build; Integrated Ocean Management Plan for the Beaufort Sea developed with O&G as a partner on steering committee.

Decisions/status – Exploration, development, and production of O&G resources subject to LCAs; discussions regarding offshore O&G exploration involved federal government, Northwest Territories, and Inuvialuit (Canadian Press 2018).



◀ Table 2.3

Issue	Current status				Reconciliation action by region and measure
	Historical	Legal	Policy	Political	
MARINE PROTECTED AREAS (MPAs)	<p>Indigenous reliance on marine places for spiritual, cultural, socio-economic purposes; lack of trust as terrestrial parks excluded Indigenous uses in the past; trend toward joint management of protected areas and Indigenous involvement in planning and management, e.g., UNDRIP Articles 27 and 29.</p>	<p>Consultation required on potential infringements of Aboriginal rights, e.g., right to fish, right to hunt; <i>Oceans Act</i> of 1996 and <i>Canada National Marine Conservation Areas</i> (NMCA) Act of 2002 may require engagement and require agreements with Indigenous organizations prior to MPA designation; can designate NMCA “reserves” subject to settlement of land claims or treaty negotiations.</p>	<p>Canada commits under <i>Convention on Biological Diversity</i> (CBD) to protect 10% of coastal and marine areas by 2020 and was advocating for 30% protection (DFO 2020); federal government achieves 13.8% protection by 2019, not including regional initiatives in progress;¹² CBD sets global target to protect 30% by 2030 (UNEP 2022). MPAs currently led by federal or provincial agencies based on reconciliation with Indigenous Peoples, including use of traditional knowledge (TK) (DFO 2023b); political commitments such as regional Marine Spatial Planning (MSP) expected to inform future MPA establishment.</p>	<p>Co-governance of MPAs largely ad hoc without defining policy; commitment to collaborative planning with Indigenous groups identified in Ministerial Mandate Letters (2016); linkages to development (e.g., Arctic O&G) and regional MSP; governance regimes for MSP and IPCAs will require agreements between Indigenous groups and federal authorities.</p>	<p>Atlantic</p> <p><i>Status</i> – Limited engagement and no co-governance agreements to date. Atlantic First Nations were not consulted at the onset of the 2017 Atlantic MPA program. Intervention by the Nova Scotia Mi’kmaq in 2017 forced DFO to consult on MPAs and planning (Withers 2018). Indigenous involvement in MPA establishment presently at the consultation stage. DFO proposing to include MPAs as part of MSP and seems open to some type of co-management arrangement.</p> <p><i>Collaborative initiatives</i> – None.</p>
			<p>Policies for Indigenous Protected and Conserved Areas (IPCAs) in the marine environment under discussion but may require new legislation to meet expectations for Indigenous leadership.¹³</p>		<p>Pacific</p> <p><i>Status</i> – Several Indigenous partnership agreements and collaborative management plans in place. Indigenous groups were engaged in but not signatories to Canada–British Columbia MPA Network Strategy (2014); collaborative MPA network planning underway for Northern Shelf Bioregion (Case 1; identified as priority in collaborative Pacific North Coast Integrated Management Area [PNCIMA] plan [2017]); designation of Tang.gwan – ḥačx^wiqaq – Tsigis Marine Protected Area in progress (could contribute 2.43% to national MPA conservation target), and is subject to a co-management agreement with affected Indigenous groups (DFO 2023a).</p> <p><i>Collaborative initiatives</i> – 2 MPAs (out of 5 established in British Columbia¹⁴) involve joint management plans, i.e., Gwaii Haanas (2019), SḠaan Kinghlas–Bowie Seamount (2019); agreements and collaborative management plans developed in partnership with Indigenous groups, e.g., Haida: Gwaii Haanas (1999) and SḠaan Kinghlas–Bowie Seamount (2006).</p>
					<p>Arctic</p> <p><i>Status</i> – Only two Arctic MPAs by 2017 in Beaufort Sea. Significant steps toward protection of two large MPAs in Nunavut since: Tallurutiup Imanga (Lancaster Sound) contributes 1.9% and Tuvaijuittuq contributes 5.55% toward NMCA targets. Inuit interest in additional protections such as Pikialasorsuaq (Case 3).</p>

Historical reliance on fish and marine mammals; international focus on species loss leads to international CBD.

Arm's-length assessments by Committee on Status of Endangered Wildlife in Canada (COSEWIC); listings under *Species at Risk Act* (SARA) of 2002; requirement to consult Indigenous organizations and use ATK or IQ¹⁷ in development of management plans and recovery strategies.

CBD Goal A: by 2020, Canada to plan and manage using an ecosystem approach; resistance to listing commercial species, e.g., BC salmon, BC rockfish; Indigenous involvement in recovery plans low despite legal requirements (Hill et al. 2019).

Comparatively little use of TK or IQ in development of recovery plans.

Extirpated species and habitat rebuilding will require recognition of First Nations title and require federal and provincial governments to justify infringements that have led to the disappearance of species due to habitat destruction.

Collaborative initiatives –Tarium Niryutait MPA in Beaufort Sea protects beluga whales; Anguniaqvia niqiqyuam MPA protects ecological values and has conservation objective based on Indigenous traditional and local knowledge; NMCA boundary for Tallurutiup Imanga (Lancaster Sound) established in 2017 with completion of an *Inuit Impact and Benefit Agreement*.¹⁵ Tuvaijuittuq in the High Arctic, partially within the Nunavut Settlement Region, was designated for interim protection in 2019, while the Qikiqtani Inuit Association, the Government of Nunavut, and the Government of Canada work with Inuit and northern partners to explore the feasibility of longer-term protection. In February 2022, the governments of Canada and Nunatsiavut committed to assessing the feasibility of establishing an Indigenous Protected Area along the northern Labrador coast under the *Canada NMCA Act* (Parks Canada 2022a).¹⁶

Atlantic

Collaborative initiatives – Atlantic salmon is endangered and has been extirpated in many areas. First Nations have worked on recovery plans and hatcheries with provinces, Parks Canada, and DFO with limited success. American eel has been listed as a species of concern and there are currently only food, social, ceremonial fisheries in some areas. First Nations in New Brunswick are proposing elver ranching (raising of small eels).

Pacific

Collaborative initiatives – Indigenous groups contributing to northern abalone recovery plans, e.g., Abalone Recovery Implementation Group, Haida Gwaii Community Action Plan (DFO 2007); COSEWIC assessment of Okanagan chinook.¹⁸

Arctic

Collaborative initiatives – Use of IQ in COSEWIC polar bear assessment (COSEWIC 2018) results in continued special concern status.¹⁹



◀ Table 2.3

Notes:

- 1 Federal programs related to Indigenous fisheries include: Aboriginal Fisheries Strategy (1990); Allocation Transfer Program (1994); Marshall Response Initiative (2001); Aboriginal Aquatic Resource and Ocean Management Program (2004); Atlantic Integrated Commercial Fisheries Initiative (2007); Pacific Integrated Commercial Fisheries Initiative (2007).
- 2 More than 80 negotiating tables have been created since 2015, including some for Pacific fisheries and Atlantic fisheries (CIRNA 2020).
- 3 In 2016, Atlantic First Nations accounted for \$122 million in commercial landings in Eastern Canada (6% of total landings), including \$50 million from lobster (4% of all lobster) and \$48 million from snow crab (15% of all snow crab) (Coates 2019, 20). However, a framework for a moderate livelihood as determined by *R v Marshall* (1999) has not yet been determined. See, e.g., note 38 at chapter end.
- 4 The Pacific Integrated Commercial Fisheries Initiative (PICFI) was established in 2005 following two policy reviews of Pacific fisheries (McRae and Pearse 2004; First Nation Panel on Fisheries 2004). Allocation Transfer Program (ATP) and PICFI licence and quota purchases totalled \$154 million from 2008 to 2016 and increased commercial fishing access controlled by First Nations from 3% to 13% (DFO 2016). Total BC licence value as of 2017 was \$2.3 billion (DFO 2022a).
- 5 The Nisga'a, Tsawwassen, and Maa-nulth First Nations *Final Agreements* define specific Indigenous roles in fisheries management, along with defined shares of commercial fisheries by species (Figure 2.1). In 2009, several Nuu-chah-nulth Nations established a right to fish multiple species for the purpose of sale in a defined territory that extended nine miles from shore that applied to all species except geoduck clam (*Ahousaht Indian Band and Nation v Canada*, 2018 BCSC 633). The right to fish was interpreted to consist of a small-boat fishery with wide community participation, but was the subject of an appeal about the lack of progress in negotiations about harvest shares and fishing regimes that largely upheld the decision (*Ahousaht Indian Band and Nation v Canada (Attorney General)*, 2021 BCCA 155).
- 6 Arctic fishery allocations to Inuit vary by species and region, with less access for Inuit in the more southerly fishing areas as a result of late entry of Canadian Inuit into commercial marine fishing, incomplete resolution of fisheries issues in LCAs, and unilateral federal decisions.
- 7 The Eastern Scotian Shelf Integrated Management Plan (ESSIMP) was completed through DFO-led collaborative process in 2006 with the Province of Nova Scotia. It focuses on an offshore area that has numerous fisheries and fisheries management plans. However, ESSIMP was not approved or implemented by DFO. The Placentia Bay Integrated Management Plan (PBIMP) was completed by DFO and the Province of Newfoundland and Labrador in 2011. Planning area includes coastal waters of Newfoundland and the Grand Banks.
- 8 As described by Pinkerton (2007), the Aquatic Management Board led dialogue on local fisheries and marine issues through a multi-stakeholder process in the 1990s. This resulted in some data gathering and assessment but no joint plans.
- 9 Clam gardens are human-induced mud flats or terraces created by building a stone wall in the intertidal zone (e.g., Thomson 2015). "Traditional" aquaculture methods on oysters, mussels, and clams keep stocks abundant and purify waters (e.g., Denny et al. 2016).
- 10 A steelhead farm in Powell River, BC, was converted to a floating closed containment in 2019 (DFO 2019b).
- 11 Transport Canada 2019b. The tanker ban was supported by almost all coastal Indigenous groups.
- 12 Includes 14 MPAs under the *Oceans Act*, three National Marine Conservation Areas, one marine National Wildlife Area, and 59 marine refuges (DFO 2019a).
- 13 An Indigenous Circle of Elders identifies three defining elements for IPCAs in Canada: "they are Indigenous-led, they represent a long-term commitment to conservation; and they elevate Indigenous rights and responsibilities." See ICE 2018, 5; Zurba et al. 2019.
- 14 Others include Hecate Strait and Queen Charlotte Sound Glass Sponge Reefs MPA, Endeavour Hydrothermal Vents MPA, and Scott Islands Marine National Wildlife Area.
- 15 Inuit in Nunavut had lobbied for protection since the National Energy Board hearings in 1974; the *Inuit Impact and Benefit Agreement* established a consensus-based joint Inuit–Government of Canada cooperative management board and supports an Inuit Stewardship program. See Parks Canada 2022b, 2022c.
- 16 In the Beaufort Sea, Inuvialuit participated in hunts by commercial whalers in a symbiotic form of whaling: Inuvialuit got access to ships and gear, whalers benefited from the Inuit hunting and sewing skills, and both shared in the kills. This symbiosis ended in 1934, when the last whale boat left (Raddi and Weeks 1985). In the Pacific, Nuu-chah-nulth on the West Coast of Vancouver Island were active whalers until the late 1920s, when whales began to be commercially depleted (Coté 2010).
- 17 ATK = Aboriginal Traditional Knowledge; IQ = Inuit Qaujijamatuqangit (Inuit traditional knowledge).
- 18 The COSEWIC assessment was supported by an ATK report (personal communication by Gloria Goulet, co-chair, COSEWIC ATK Subcommittee, December 30, 2019).
- 19 ATK and IQ have been critical for assessing population trends.

(1) development of Indigenous partnerships and governance structures; (2) completion of Indigenous marine traditional knowledge studies; and (3) independent funding of Indigenous capacity for marine planning.

Progress slowed in 2011 when the federal government withdrew from its initial commitments to develop detailed coastal plans in the first phase of PNCIMA planning. However, a Marine Plan Partnership (MaPP), made up of the Province of British Columbia and the initial 17 First Nations partners in PNCIMA, developed marine spatial plans for four subregions without federal involvement. These were endorsed in 2015 and candidate sites for Marine Protected Areas (MPAs) were identified; they are being implemented through modified regional and sub-regional governance structures that do not include the federal government.²⁹ In 2017, the governance partners, including most of the original First Nations, endorsed a high-level PNCIMA plan that outlines an ecosystem-based management framework, goals, objectives, and five planning priorities, including MPA network planning.³⁰ This did not address fishing, shipping, and oil and gas development issues. A similar governance structure is now being applied to shipping, including Canada's new Oceans Protection Plan, and is expected to be used for both MPA network planning and PNCIMA implementation (Case 5).³¹ A tripartite MPA network planning process is underway, and the federal, provincial, and First Nations partners completed a network action plan in February 2023 that sets targets for establishment by 2025 and 2030.³²

Elements of reconciliation in the PNCIMA and MaPP processes include governance structures and jointly agreed plans to address political domination and, to a lesser degree, cultural imposition. Structures for planning and implementation are based on consensus decision making.³³ The PNCIMA plan and MaPP plans are jointly endorsed by Canada and/or the Province of British Columbia and participating First Nations organizations, consistent with the principle of Indigenous consent. MaPP plans are being implemented and some progress has been made on MPA network planning, which is one of the PNCIMA priorities. Contentious issues such as fisheries and marine shipping have been set aside but continue to be part of a political and Aboriginal rights-based dialogue (see Table 2.3 and Case 5).

Case 2 – Reconciliation of Fishing Rights in Atlantic Canada

Indigenous rights in fisheries have led to numerous legal and policy conflicts across Canada relating to management and access (Table 2.3). Colonial policies are only gradually changing as a result of court decisions and reconciliation processes such as negotiation of treaties or land claims agreements. Loss of fisheries access has affected cultural well-being, particularly when rights are infringed over more than one generation.

A series of Peace and Friendship Treaties in the Atlantic from 1752 to 1794 recognized the importance of fisheries to Mi'kmaq and Maliseet Nations (Knockwood 2003), but despite the treaties, colonial systems dispossessed these nations from their territories and restricted their access to fisheries resources. In the 1980s, courts affirmed that the treaties had not extinguished Aboriginal rights to food, social, and ceremonial fisheries, and in 1999 the Supreme Court of Canada affirmed their treaty right to fish for commercial purposes to achieve a moderate livelihood.³⁴ A period of uncertainty and conflict followed, requiring clarification by the court that the fishery was subject to federal regulation. A federal program (the Marshall Response Initiative) was created to transfer commercial licences and commercial fishing quota to Indigenous groups through agreements (Table 2.3, footnote 3). While a variety of federal programs seek to negotiate fisheries agreements,³⁵ results vary across Nations and regions and generally fall short of reconciliation criteria related to resource access and governance identified in Table 2.2.³⁶ In fact, 2 out of 34 eligible Mi'kmaq and Maliseet Nations did not participate in the Atlantic Integrated Commercial Fisheries Initiative (AICFI), which delivered the program. However, the fisheries agreements generated significant benefits, including own-source revenue that supports community benefits and rebuilding (Coates 2019). Federal programs such as the 2004 DFO Aboriginal Aquatic Resource and Oceans Management Program supported development of technical and scientific capacity but fell short of a substantive approach to Indigenous fisheries management, with the result that First Nations still have limited capacity to manage natural resources within their traditional lands and waters.

Mi'kmaq identify *Netukulimk* (“take only what you need”) as a guiding concept for stewardship of resources

that encompasses principles of respect, reverence, responsibility, and reciprocity (Prosper et al. 2011; McMillan and Prosper 2016, 641). Atlantic salmon are classified as a species at risk, and agreements such as those under the federal Aboriginal Fisheries Strategy restrict how Atlantic salmon can be fished, how many can be taken, and how they can be removed (Shelley, Denny, and Fanning 2016). In 1993, the Listuguj community, now under the authority of Listuguj Mi'gmaq Government (LMG), abandoned the federal approach, and exercised their jurisdiction over Atlantic salmon, passing their own law governing salmon fishing for both food and sale on the Restigouche River, which is situated in both New Brunswick and Quebec, in order to better respect their traditional values and harvesting practices (Centre for First Nations Governance 2011). The law, consistent with *Netukulimk*, addresses conservation and management of fisheries, and has since been recognized as a model for co-management. In 2019, the LMG launched its own community-based treaty fishery, with its own lobster law and lobster management plan.³⁷ The fishery focused on food distribution, with some of the catch sold to offset the costs of fishing. In 2020, due to lack of progress in negotiations to implement the *Marshall* decision, including developing a framework for a moderate livelihood fishery, several other Mi'kmaq communities in Nova Scotia took the approach of developing and implementing their own management plans for the lobster fishery as a means of exercising their fishing rights.³⁸ The initial federal response was to avoid confrontation, but some non-Indigenous fishers cut traps or took Mi'kmaq fishing gear in attempts to intimidate Mi'kmaq fishers, emboldened by the lack of a clear federal statement (Maher 2020). During the 2021 fishing season, DFO reinitiated a policy to negotiate rights-based fisheries through agreements, and attempted to limit the fishery to the existing commercial fishing season, which has been met with resistance by First Nations.³⁹

Case 3 – Wildlife Management and Indigenous Protected Areas in Nunavut

Although it has been 24 years since the formation of Nunavut, and more than 30 years since the signing of the 1992 *Nunavut Land Claims Agreement*, the process of reconciliation in the region continues, particularly with respect to fisheries, wildlife and ocean management, oil

and gas development, and the establishment of protected areas.⁴⁰ A system for co-management that ensures active participation of Inuit in all decisions related to wildlife in Nunavut was established, but new issues continue to arise.⁴¹

In 2016, community members of Clyde River, Nunavut (Figure 2.1) brought a case to the Supreme Court of Canada contesting the decision of the National Energy Board (NEB) to allow seismic testing for offshore oil and gas exploration in Baffin Bay and Davis Strait. Evidence indicates that seismic blasting can harm marine life, affecting many areas of Inuit rights, including Inuit rights to harvest marine species.⁴² The Supreme Court's decision quashed the exploration licence on grounds of inadequate consultation and failure on the part of the NEB to fulfill the Crown's duty to consult Inuit.

Inuit are leading Arctic efforts to secure alternatives using broad-scale models for marine management in the region, such as an international initiative that was the focus of an Inuit Circumpolar Council workshop in Nuuk, Greenland, in 2003. Pikialasorsuaq, or North Water Polynya, a region between the east coast of Baffin Island, Nunavut, and Greenland (Figure 2.1) has been a critical area of shared resources for millennia, and was a primary target for European and American whalers and sealers. Pikialasorsuaq is the largest Arctic polynya – an area of open water surrounded by sea ice – and the most biologically productive region north of the Arctic Circle.⁴³ The initiative resulted in formation of the Pikialasorsuaq Commission, an Inuit-led body formed to conduct consultations in Nunavut and Greenlandic communities closest to Pikialasorsuaq, to continue multilingual dialogue (Inuktitut, Kalaallisut, and English), and to evaluate strategies for managing and safeguarding the region.

Recognizing that Pikialasorsuaq is “seriously threatened by rapid change in the region including climatic and environmental change, increased shipping activities, tourism, oil and gas exploration and development” (Pikialasorsuaq Commission 2017, ii), a foundational priority of the commission is to mitigate threats to the ecosystem using the best available knowledge and management practices.⁴⁴

This consensus-based process under Inuit leadership brings together all key actors,⁴⁵ and places Inuit knowledge, perspectives, language, culture, and established

land (including sea ice and ocean) use at the forefront of the dialogue. To this end, the commission currently makes three key recommendations for the establishment of: (1) an Inuit Management Authority; (2) a protected area managed by Inuit to support the Inuit vision of a working seascape, comprising the polynya itself and a larger management zone; and (3) a free travel zone for Inuit across the Pikialasorsuaq region (Pikialasorsuaq Commission 2017, xii).⁴⁶

Inuit protection and management of Pikialasorsuaq may be seen as a process of reconciliation that enhances Inuit self-determination, through exercise of Inuit rights over Inuit territory, while recognizing Inuit priorities, languages, and traditional and contemporary practices.

Case 4 – Conflicts over Pipelines and Offshore Oil and Gas Development

Since the 1970s, several major oil and gas development projects in Canada have been cancelled or delayed as a result of disagreements with Indigenous Peoples. While decisions have been political, the issues have primarily related to Aboriginal rights and justice and requirements for reconciliation.

The Mackenzie Valley Pipeline Inquiry of 1974–77 highlighted the impacts of development on the sensitive Arctic environment as well as Indigenous culture and way of life (Berger 1977, xi–xix), and recommended that any pipeline construction be postponed until Native claims were settled. The pipeline, which would have stimulated oil and gas exploration in the Beaufort Sea, was largely opposed by northern Indigenous groups and did not proceed. Development issues resurfaced with completion of land claims agreements in the late 1980s and 1990s. In a 2016 policy decision, the United States and Canada acknowledged the vulnerability of Arctic ecosystems and designated large portions of Arctic waters off limits to future licensing.⁴⁷ Strategic environmental assessments of oil and gas development in the Arctic began in Labrador in 2008⁴⁸ and other areas in 2016–17 (CIRNA 2021). The latter assessments are supporting negotiations associated with land claims agreements that will contribute to a Canadian review of Arctic development in 2021.

On the Pacific coast, Indigenous groups supported a federal moratorium on offshore oil and gas drilling in 1972. The Province of British Columbia tried unsuccess-

fully to revive discussions following a 2002 review.⁴⁹ In the mid-2000s, the focus shifted to pipelines from the Alberta oil sands and northwestern BC gas fields for export of crude oil and gas from BC ports. Indigenous groups played a prominent role in hearings to review marine impacts of the Enbridge Northern Gateway Pipelines and Trans Mountain Pipeline projects through processes established by the National Energy Board. The 2016 federal approval of the Enbridge Northern Gateway pipeline from Alberta to Kitimat was overturned by the courts due to inadequate consultation about Aboriginal rights with two of the coastal First Nations appellants. The Liberal government elected in 2015 subsequently rejected the project and placed a moratorium on oil tanker traffic to northern BC ports.⁵⁰ Expansion of the Trans Mountain oil pipeline from Edmonton to Vancouver was approved by the Liberal government in 2017. The Province of British Columbia and several First Nations challenged the decision, and the court initially overturned the approval due to lack of consultation. The federal government purchased the pipeline in 2018, claiming the project was in the national interest, and construction is proceeding after having weathered several court challenges.⁵¹

Pipelines and oil and gas development have been controversial and little progress has been made towards reconciliation of Indigenous title and rights where projects have proceeded. New environmental assessment legislation was approved in 2019 that outlines requirements for early engagement with Indigenous Peoples on major projects and supports agreements or partnerships that could avoid future court challenges in this industry (Government of Canada 2019; McCarthy Tétrault 2018, 2019).

Case 5 – Shipping, the Reconciliation Framework Agreement for the Northern Shelf Bioregion, and Benefit Agreements

Ports and shipping on Canada's Pacific coast have been expanding since the mid-2000s, although several controversial development projects have been cancelled or delayed due to impacts on Aboriginal rights (Case 4). In 2017, the federal government announced a major new national Oceans Protection Plan (OPP) that would invest in improved infrastructure and cooperative planning,

including with Indigenous groups.⁵² This was followed in 2018 by a Reconciliation Framework Agreement (RFA) to advance collaborative governance and management on ocean topics, including shipping, negotiated between 14 First Nations in northern British Columbia and five federal agencies (including Transport Canada). The RFA builds on Canada's Ten Principles (Department of Justice Canada 2018), and offers an alternative approach to reconciliation of shipping issues through direct negotiation and enhanced consultation. However, engagement has been slow, with uncertainty about Indigenous roles in national issues, and few reconciliation criteria or results have been met or achieved as yet.

The RFA creates a new governance structure for engagement on shipping that addresses waterway management, marine response, and environmental issues. It builds on a multi-level consensus-based governance structure developed for marine planning by Indigenous Nations in Northern British Columbia (Case 1).

RFA initiatives include development of collaborative regional and local oil spill response plans and pilots for enhanced maritime awareness systems in Indigenous communities and vessel management. As well, two ocean rescue tugs were deployed on Canada's West Coast in 2018 on a three-year contract to address gaps in marine safety. The RFA facilitates dialogue and supports local Indigenous capacity.

The RFA has been implemented for several years now and the reconciliation process continues to be refined. The RFA approach provides a potential model for collaboration with Indigenous Nations (rather than litigation) that is applicable to other regions, including the Arctic and Atlantic.

Separately from the RFA, one liquefied natural gas project has navigated many of the hurdles for approval of both a pipeline and shipping terminal in northern British Columbia. Over the past decade, up to 16 projects have been proposed for the area, with many being cancelled due to market conditions (Northwest Institute 2019). The LNG Canada project for a pipeline from northeastern British Columbia to Kitimat received federal and provincial approval in 2015. The company negotiated approximately 25 benefit agreements with individual First Nations for the pipeline, and announced its investment decision in September 2018 (Government of British

Columbia n.d.b). One of the benefit agreements with coastal nations related to the port facilities and the marine passageway.⁵³ Examples of partnership agreements include a towing contract with the Haisla and equity agreements with various nations.⁵⁴ Another agreement between the Province of British Columbia and some of the nations along the tanker route provides annual fees to the nations, including base fees and additional fees based on investment decisions and LNG production (Government of British Columbia n.d.a). Pipeline construction began in 2018 and is due to be completed in the mid-2020s. Wet'suwet'en hereditary chiefs continue to oppose the construction and marine traffic, and their blockade of the Coastal GasLink Pipeline led to an agreement with Canada and the province in 2021 that it was hoped would provide a process for resolving future disputes, but in early 2022, despite equity-sharing agreements with some First Nations, Wet'suwet'en hereditary chiefs continued to oppose the project.⁵⁵ The agreement with Canada and the province included political recognition of the Wet'suwet'en hereditary governance system that was the basis for the *Delgamuukw* decision on Indigenous title in 1997.⁵⁶

SUMMARY

Reconciliation in Canada is an ongoing process to confront and address injustices from colonization, including political domination, loss of territory, and cultural imposition. We have provided a brief history of reconciliation in Canada and examined reconciliation of ocean issues based on 23 criteria for reconciliation in ocean management identified from UNDRIP. Progress was assessed based on a scan for the presence of these criteria across seven ocean issues and five case studies. Based on our scan, we note that Canada has made mixed progress toward reconciliation of ocean issues. The case studies highlight best practices in reconciliation as well as some of the challenges from addressing reconciliation in a symmetrical framework. With the exception of fisheries in the Atlantic and Pacific, and marine mammals and marine conservation strategies in the Arctic, treaties and land claims settlements have focused on land and terrestrial resources rather than ocean spaces and marine resources, although this recently shows signs of changing. The situation is complicated by the mix of federal, provincial, and territorial jurisdictions, diversity of Indigenous

populations, and political and structural resistance to power sharing. In [Chapter 14](#), we analyze how reconciliation can address the core impacts of colonization and present policy recommendations for how a lasting reconciliation can be realized.

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NOTES

- 1 Made up of 630 First Nation and 53 Inuit communities. As Métis do not have reserve lands, their communities are not clearly defined (CIRNA 2022).
- 2 According to the 2016 Census, “Arctic” includes Nunavut (30,550 identify as Aboriginal out of 35,580 reporting), Northwest Territories (20,860 out of 41,135 reporting), and Skeena Queen Charlotte Regional District (8,035 out of 17,895 reporting) (Statistics Canada 2019).
- 3 Haida herring use and marine use in Gwaii Haanas are further described in a Haida Marine Traditional Knowledge Study (Winbourne et al. 2011). Gwaii Haanas was designated by the Haida as a Haida Heritage Site (1985) and by Canada as a National Park Reserve (1988) and National Marine Conservation Area Reserve (2013). Agreements include the *Gwaii Haanas Agreement* (1993) and *Gwaii Haanas Marine Agreement* (2009). Joint management plans include a terrestrial plan (2003), an interim marine plan (2010), and a Gwaii Haanas Land-Sea-People plan (Government of Canada 2021). Jones, Rigg, and Pinkerton (2017) describe the herring conflict and dispute resolution processes. See *Council of the Haida Nation and Others v DFO*, Federal Court, March 5, 2015, Docket T-73-15, 2015, para 10 for details about the injunction. More recently, Haida Gwaii herring was listed as a stock requiring a rebuilding plan under revisions to the *Fisheries Act* in 2019 that came into force in April 2022.
- 4 Rouhana (2011) differentiates between reconciliation and conflict settlement, which does not typically seek deeper transformation of relations between societies, and conflict resolution, which seeks coexistence and cooperation but avoids the core issues due to negotiation in a symmetrical framework (see [Chapter 14](#), n. 3).
- 5 Quebec and the Atlantic provinces of New Brunswick and Nova Scotia were part of the original Confederation of Canada in 1867. The colony of British Columbia joined in 1871. The colony of Prince Edward Island became part of Canada in 1873. Rupert’s Land and the North-West Territories (now comprising most of the Northwest Territories and Nunavut) were sold to Canada by the Hudson’s Bay Company in 1870. The Arctic Islands were transferred from Britain to Canada in 1880. And Newfoundland and Labrador finally joined Canada in 1949.
- 6 Havemann (1999, 22–23) refers to classifications by J.R. Miller (1990) and Andrew Armitage (1995), respectively.
- 7 See CIRNA 2020.
- 8 “Maliseet” had been a common term to name the nation and will be used in this chapter. However, recent cultural and political leaders are reverting back to “Wolastoqey Nation,” which is the traditional name of the nation and is translated as “the beautiful river.”
- 9 *R v Marshall*, [1999] 3 SCR 456.
- 10 See CIRNA 2015.
- 11 The Pacific Northwest Coast (from the Gulf of Alaska to Oregon) is the second most diverse linguistic area of Indigenous North America after California (Thompson and Kincade 1990). Coastal languages or linguistic families include Haida, Tsimshian, Heiltsuk, Kwakwaka’wakw, Nuu-chah-nulth, and Salish.
- 12 Crown Colony of Vancouver Island, British Columbia, Queen Charlotte Islands, and Stikine.
- 13 According to Duff (1964, 39), the population fell from about 70,000 in 1835 to a low point of about 22,600 in 1929.
- 14 *Calder v British Columbia (AG)*, [1973] SCR 313, [1973] 4 WWR 1.
- 15 *Delgamuukw v British Columbia*, 1997 SCC 3.
- 16 According to Louise Mandell (2018, 58), “the court [has] held that Indigenous laws and rights to land are inherent collective rights that pre-existed and survived the assertion of Crown sovereignty, that have never been extinguished and that find expression today in the Constitution.”
- 17 *Tsilhqot’in Nation v British Columbia*, 2014 SCC 44.
- 18 The “Arctic Timeline” section is drawn in part from Neatby 1984.
- 19 It is important to note that while Northern Quebec and Labrador appear as “Sub-Arctic” under administrative boundaries and geophysical regions, the Inuit of Northern Quebec and Labrador are polar maritime peoples, and connect with Inuit across the Arctic Region, sharing genealogy, culture, and political aspirations for self-determination.

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