Coastal Collaboration: Exploring Emerging Frameworks to Equitably Tackle Marine Debris on the BC Coast

by

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to Equitably Tackle Marine Debris on the BC Coast

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Abstract:

Anthropogenic marine debris is plaguing the British Columbia (BC) Coast and it will take a collaborative approach to equitably tackle this issue. Outdated top-down conservation efforts do not historically provide equitable solutions to communities that are most impacted by environmental issues. A community-based lens can better reflect the disproportionate socioeconomic, cultural, and environmental burdens of marine debris. My research examines the BC Government's *Clean Coast, Clean Waters* initiative and the *Coastal Marine Strategy* as case studies to represent current and future State funding streams that support marine protection and Indigenous-led conservation. My qualitative methodology is based on participant observation, literature review, and interviews with important actors from the Province and the Kitasoo/Xai'xais First Nation. The declared Indigenous-led Marine Protected Area of Gitdisdzu Lukyeks/Kitasu Bay provides an example of asserting inherent stewardship rights in accordance with Kitasoo/Xai'xais Indigenous laws and protocols. My research questions the impacts of marine debris on biodiversity and food security, and how State policy can better support Indigenous stewardship priorities beyond recognition and remediation efforts. Co-design and co-governance strategies for Marine Protected Areas may be an indication of a shifting tide of intergovernmental relations in Canada. But only time will tell if this pivot in policy creation can provide the long-term mechanisms to equitably address the issue of marine debris on the BC Coast.

Introduction:

"Coastal Collaboration" is a qualitative research paper that addresses the growing issue of marine debris plaguing the British Columbia (BC) Coast from an anthropological perspective. Outdated colonial top-down conservation management efforts do not inspire equitable solutions for those who are most impacted by this problem (Ban et al 2020; Bennett et al 2023; West et al 2006; Youdelis et al 2021). A community-based approach to power and decision-making can better mitigate the disproportionate socioeconomic, cultural, and environmental impacts of marine debris, and can guide place-based solutions (Ban et al 2020; Bennett et al 2023; Vince & Stoett 2018). The aim of this project is to synthesize collaborative marine debris remediation efforts in the BC context and further our understanding of their intersections with Marine Protected Areas. I also highlight Indigenous-led conservation strategies and State Government's reconciliation and biodiversity targets as vital components of this movement, which are transforming the norms and opening new possibilities for an equitable future.

To better understand the issue of anthropogenic marine debris – alternatively ocean plastics – on the BC Coast, I have drawn on various sources to unpack the material data of *what* this debris is, *where* it is washing ashore, *why* it is important to remove it, and *who* is responsible for doing so. To reveal the scale of this problem I will begin with a review of the BC Ministry of Environment and Climate Change Strategy's report titled, "What We Heard on Marine Debris in BC" (Malcolmson 2020), which resulted in the *Clean Coast, Clean Waters* marine debris removal initiative (Government of BC 2021). Using the data collected from this Government initiative, I will present a quantified baseline of the material retrieved from the shoreline to outline the severity of the problem of marine debris and ocean plastics pollution on the BC Coast. Identifying the

material problem is just the beginning. I will elaborate a case study by investigating the intersections of pollution remediation and prevention targets through the BC Government's *Coastal Marine Strategy,* and the Indigenous-led Marine Protected Area of Gitdisdzu Lugyeks/Kitasu Bay, declared by Kitasoo/Xai'xais Hereditary Chiefs (Government of BC 2022; Kitasoo/Xai'xais First Nation 2022).

My case study is elaborated through an interview with the Kitasoo/Xai'xais Stewardship Director, Doug Neasloss, and observations about their Nation's involvement with marine debris removal during the *Clean Coast, Clean Waters (CCCW)* initiative in 2020 and 2021. The case study highlights the recently declared Indigenous-led Marine Protected Area of Gitdisdzu Lukyeks/Kitasu Bay, which has been a central figure to assert and recognize the rights, jurisdiction, and authority of stewardship and conservation priorities in Kitasoo/Xai'xais Traditional Territory (Kitasoo/Xai'xais First Nation 2022). The influx of Provincial funding with the CCCW has facilitated the removal of marine debris in this region. In conjunction with this initiative the Province is working on joint decision-making processes surrounding current conservation efforts, which is driven by their reconciliation mandates. These examples address the urgent need to protect the marine environment and the importance of collaboration to do so. My study provides an opportunity to better understand the intersections of human societies and the environment, particularly with marine pollution, conservation, and colonization in BC.

The inequities around marine pollution are visible both in the distribution of debris and remediation efforts in the areas of greatest cultural and environmental impact. The coastal communities of BC, whose livelihoods depend directly on a healthy environment, have the most to lose if the region is not protected from harmful ocean pollutants and other threats such as overfishing and climate change (Human Rights Watch 2020). As my key anthropological lens is

focused on environmental issues, I critique the power dynamics of environmental policy and address the social equity issues with marine plastics and ocean pollution. I compare past environmental protection strategies with current and proposed remediation and prevention initatves that aim towards a more equitable and decolonial approach to marine conservation (BC Clean Coast 2021; Bennett et al 2023; Liboiron 2021).

I argue that Indigenous Protected and Conserved Areas (IPCAs) – and therefore Indigenous-led conservation – can better deploy the Indigenous knowledge systems in a holistic context for marine conservation, or what Gregory Cajete calls "the 'original instructions' for how to care for and relate to the land" (Cajete 2018:15). These "instructions" have been utilized to steward the coastal region of what is now known as "British Columbia" for millennia (Government of Canada 2018; Smith-Martin 2023). IPCAs can also represent the Traditional Ecological Knowledge (TEK) and practices that have been systematically marginalized and historically excluded from the colonial conservation discourse (Nelson & Shilling 2018; Vandenberg & Ota 2023; West et al 2006; Youdelis et al 2021).

Traditional Ecological Knowledge (TEK) includes the traditional laws, protocols, customs, and values that uphold the ecological and cultural principles that ensure the environment is sustainably stewarded (Nelson & Shilling 2018). These ethics of land-care practice can also be referred to as an "ethical-economic model" (Nelson & Shilling 2018:140). Traditional Knowledge has been passed down from generation to generation through oral stories and represents a sustainable management system that has proven over millennia that Indigenous Peoples can adapt to a changing climate (Nelson & Shilling 2018:141).

Historically, and in many cases still currently, State Governments in Canada have not recognized TEK as a metric for monitoring conservation (Ban et al 2019; Youdelis et al 2021).

The exclusion of Indigenous voices in decision-making in BC and Canada was the standard approach to policy making. As Paige West notes, "scientists who do not see the value of local knowledge are much more likely to suggest conservation policies that are not socially equitable" (West 2005:305). In addition to a more equitable approach to conservation, IPCAs can also help State Governments reach targets set out under Ministerial environmental and reconciliation mandates, as well as reach international biodiversity goals. Ultimately, this builds better relationships with the environment and Indigenous Peoples in Canada (Government of Canada 2018, 2022; United Nations 2022).

Coastal communities in BC are facing unique priorities for pollution prevention and marine protection, based on capacity, funding, and geographic location. Some are prioritizing the plights of derelict vessels and oil spills, or "ghost gear" (abandoned fishing nets and rope), while others are tackling the issue of beach-cast debris, such as plastics and Styrofoam, that is breaking down and harming nearshore ecosystems that support food security and coastal livelihoods (Heiltsuk First Nation n.d.; Kitasoo/Xai'xais First Nation 2022; Malahat First Nation 2022; Tla-o-qui-aht First Nation 2021). I have selected to focus primarily on beach-cast debris to highlight my case study and will discuss its specific impacts in Kitasoo/Xai'xais Territory (located on the Central Coast of BC), and the remediation, prevention, and protection measures currently underway. The research objective of this paper is to gauge the equitability aspects of current and future marine protection strategies, to support just and inclusive Indigenous-led conservation priorities. I argue that the equitable approach to marine debris remediation is through a collaborative process which can call attention to the local impacts and encourage place-based solutions. In this way, a decolonial lens can address the shifting nature of conservation and ocean governance in British Columbia.

Background: What is Marine Debris?

To begin, I would like to differentiate the study region of the Central Coast of British Columbia as "rural" versus "urban," and highlight that the large-scale *Clean Coast, Clean Waters (CCCW)* initiative, that I will discuss in detail below, goes beyond an urban beach clean-up. I have selected the term "rural" over "remote" out of theoretical considerations, reflecting the hierarchical connotation of "remote" – remote to whom? (Ardener 2012). Rural areas of the Central Coast of British Columbia have been continuously occupied for over 14,000 years (McLaren et al 2018). Therefore, referring to these regions as remote, as in remote from modern urban colonial centers, fails to acknowledge the continuous occupation of Indigenous Peoples in what is now known as British Columbia.

"Anthropogenic marine debris," can be classified as human-caused marine litter, beach-cast debris, ocean plastics, derelict vessels, or transoceanic traveling trash (Boltvinik & Viñas 2018). Countless studies have determined the extent of the issue of plastics entering the marine environment. It is estimated that more than 10-million metric tons of marine debris enters the ocean every year, and in some regions threatens to outweigh biomass (IUCN 2021; Vince & Stoett 2018). Powerful industrial groups, such as the Container Corporation of America, have shaped the dominant discourse defining the plastics crisis as an individualized consumer problem, deflecting attention away from the responsibilities of plastics producers and manufacturers (Lau & Cheng 2022; Liboiron in Young 2022: 38:20). Meanwhile, these groups are some of the biggest contributors to the structural inequities of plastic pollution and waste burdens (Liboiron 2021).

Typically, the debris retrieved from clean-ups in more populous urban regions tend to be land-based materials and single-use plastics such as coffee cups or food wrappers that are either the result of local litter or have been carried by weather from another land locale (personal

communication, Lohbrunner 2023). City clean-ups also generally fall under municipal jurisdiction and are often run by volunteer organizations such as Surfrider Foundation (Surfrider Foundation n.d.). In contrast, the treacherous terrain, and rugged shorelines of the outer coast of BC is prone to extreme weather, is difficult to get to for those who don't live there, and is far from most urban areas where these initiatives are mobilized. The Central and North Coast region of BC discussed throughout this paper is accessible by boat or float plane only. The industrial-scale *CCCW* initiative that I was involved in on the Central Coast was conducted over several sequential weeks in 2020 and 2021 and required barges and helicopters to retrieve the debris (Markel 2020). The materials removed from the outer shores have typically drifted across the Pacific Ocean from international origin sites and are sometimes the result of shipwrecks, lost shipping containers, tsunamis, or industrial activity, particularly commercial fishing, aquaculture, and nearshore infrastructure (Clarke et al 2018; Markel 2020; See Appendices).

To find equitable solutions to tackling the issue of beach-cast debris in BC, it is important to understand how the accumulation of marine debris is affecting the cultural practices and livelihoods of rural coastal communities. One of the main threats of marine debris includes the breakdown of toxic ocean plastics to smaller particles known as microplastics (smaller than 5 mm) or nanoplastics (smaller than 2 mm) (Aswani 2021; Clark 2018; Gall & Thompson 2015; Geyer 2017; Malcolmson 2020; Markel 2020). These particles can then be consumed by fish and other marine species and bioaccumulate when they enter the food chain, thus negatively impacting human health in communities who depend on seafood as a primary part of their diet (Farrell & Nelson 2013; Gall & Thompson 2015). Larger items (macroplastics), such as nets and rope, can entangle marine mammals, disrupt fishing practices, and harm biodiversity (Bennett et al 2023).

In Kitasoo/Xai'xais Territory located on the Central Coast of BC, we can see each of these processes unfold. Marine debris is washing ashore in sensitive ecological and cultural sites, harming marine life, and threatening integral food systems (personal communication, Neasloss 2023). Doug Neasloss, Kitasoo/Xai'xais Stewardship Director notes, "the debris is a major issue, and I don't think it's going away any time soon" (personal communication, Neasloss 2023). Ocean plastics are exposed to the open elements of salt water and sun, which cause them to break down and fragment when washing ashore (Liboiron in Young 2022: 18:20). These small plastic particles are then flushed back to sea to be ingested by fish or other wildlife or remain onshore to be consumed by birds or other terrestrial creatures that play integral roles in the ecosystem (Gall & Thompson 2015; Markel 2020). Ghost gear, such as fishing nets and rope, are entangling migrating humpback whales in the region and creating hazards for local fishermen (personal communication, Neasloss 2023).

Methodology

To better understand the issues of marine debris through an anthropological lens, I began by questioning who is impacted the most, and what place-based solutions can provide the most equitable solutions. I asked how the accumulation of marine debris affects the cultural practices and livelihoods of coastal communities in BC, particularly in Kitasoo/Xai'xais Territory. I also questioned how State policy can equitably represent Indigenous priorities around the issues of marine debris and protection.

My methodology is primarily qualitative with some mixed methods of quantitative debris data and rooted in a constructivist paradigm (Campbell & Lassiter 2015). Approaching this project through the concept of emergent design allowed my research to change and develop based

on an inductive approach through the conversations and priorities of my participants (Campbell & Lassiter 2015). The strengths of emergent design-based research, includes flexibility in the methodology, which is more collaborative with my participants, and invites an emic perspective to allow their voices and priorities to guide the research and allow it to evolve and shift. My research methodologies include qualitative semi-structured interviews, literature review, and quantitative analysis of the debris data mentioned above and presented in the appendices. I also attended the Fifth International Marine Protected Areas Congress (IMPAC5) in February 2023 to conduct participant observation, with the intent on seeing how the different elements of this issue were playing out in the field of experts.

Through this process, I selected three case studies to better understand this issue. The first case study is the *Clean Coast, Clean Water*s initiative which I have outlined in the introduction of this paper, funded by the BC Ministry of Environment and Climate Change Strategy to remove debris from the marine and nearshore environments. The second case study I focus on is the *Coastal Marine Strategy* proposed by the BC Ministry of Water, Land, and Resource Stewardship, which is positioned to take over the responsibility of marine pollution from the Ministry of Environment (personal communication, Lohbrunner 2023).

The third case study looks at the Indigenous-led Marine Protected Area of Gitdisdzu Lugyeks/Kitasu Bay, recently declared by Kitasoo/Xai'Xais Hereditary Chiefs (Kitasoo/Xai'xais First Nation 2022). These case studies provide examples of funding initiatives for debris removal and represent areas that are most impacted and in urgent need of protection. Each case study helps to create a baseline for the severity of the problem and determine place-based solutions. I reviewed government reports, environmental policies, and Provincial Ministerial mandates, and correlated

this data with literature reviews to better understand policies surrounding jurisdiction and authority for monitoring, remediation, and prevention in this region.

I conducted interviews with key actors from the Province and Kitasoo/Xai'xais First Nation. I met with Doug Neasloss, Stewardship Director for Kitasoo/Xai'xais Stewardship Authority, to understand the Kitasoo/Xai'xais community concerns, as well as the declared Indigenous-led Marine Protected Area of Gitdisdzu Lugyeks/Kitasu Bay. Doug is an expert on his community's stewardship priorities and was instrumental in the *Clean Coast, Clean Waters* initiative in 2020 and 2021. My involvement in this initiative also connected me with Doug through a tourism capacity, before and during this initiative.

I also interviewed Julie Gardener and Gwen Lohbrunner at the Ministry of Environment and Climate Change Strategy. They were both involved in the early stages of the "What We Heard on Marine Debris" report (Malcolmson 2020), and instrumental in the implementation and administration of the *Clean Coast, Clean Waters* initiative fund. In addition, I interviewed Charles Short, Executive Director for the Ministry of Water, Land, and Resource Stewardship. Charles leads the Coastal Policy and Planning Division within the Ministry, which is handling the proposed *Coastal Marine Strategy* and associated intentions paper. Within this paper there are proposed targets to address marine debris and pollution on the BC Coast (Government of BC 2022a). These interviews produced qualitative data to help determine community concerns and future priorities regarding the issue of marine debris.

I also conducted research through participant observation at the Fifth International Marine Protected Areas Congress (IMPAC 5) in Vancouver from February 3-9, 2023. By attending talks, discussions, media announcements, and side events I was able to both build upon past and new

relationships, as well as glean information on the topics of marine debris and Marine Protected Areas to better understand the actors involved and where they may intersect.

Analytical Approach

To analyze the qualitative data, I transcribed my fieldnotes and interviews and developed a thematic framework with colour schemes and coding. These themes were a mix of issues I had compiled and framed throughout my research, as well as others that occurred organically in the process. The common themes throughout included collaboration, authority, stewardship, reconciliation, remediation, prevention, and protection. In addition to analyzing the interviews, I reviewed policies and literature for a comparative analysis to better understand how the qualitative and quantitative data complement, conflict, or overlap. The policies and legal frameworks I reviewed include the Great Bear Rainforest Agreement (Colgrove 2019; Curran 2017; Government of BC 2016), which has provided new co-governance conservation frameworks in BC, inclusive of funding to support the Coastal First Nations Guardian Watchmen program (Government of BC 2016; Curran 2017). I also reviewed State Government reports from the *Clean Coast, Clean Waters* initiative (Markel 2020) and "What We Heard on Marine Debris" (Malcolmson 2020), as well as the Indigenous-led Marine Protected Area Declaration and Management Plan of the Gitdisdzu Lugyeks/Kitasu Bay (Kitasoo/Xai'xais First Nation 2022).

Creating a Baseline: *Clean Coast, Clean Waters*

In 2020 a global pandemic put a complete stop to many industries around the world. On the BC Coast, the marine tourism sector was one of the industries forced to "shutter their doors," or in this case, remain dockside because of COVID-19. Federal and Provincial Government

discussions centered around ways to "Build Back Better" and create a "Stronger BC," to quell the spiking unemployment rates and significant economic downturn (personal communication, Lohbrunner 2023; Government of BC 2021). As tourism operators addressed this challenge of putting their crew and vessels back to work, the Province of BC had contemporaneous conversations around the issue of marine debris.

Prior to the emergence of the COVID-19 pandemic, the BC Ministry of Environment and Climate Change Strategy instilled the former Parliamentary Secretary, Sheila Malcolmson, with the task of understanding the local impacts of the systemic global problem of ocean plastics. In the spring and summer of 2019, her team met with coastal communities, First Nations, industry, and non-governmental organizations to better understand the severity of the problem on the BC Coast (personal communication, Gardner 2023). At the end of this consultative process, Malcolmson published a report titled "What We Heard on Marine Debris in BC" (Malcolmson 2020). Common themes that were acknowledged included the lack of regulatory authority, funding, infrastructure, and workforce capacity to effectively tackle the problem of marine debris (Malcolmson 2020). What followed this report was an action plan for marine debris removal, and what would become the *Clean Coast, Clean Waters (CCCW)* initiative (BC Clean Coast 2021; Government of BC 2021).

The report was published in February of 2020, just weeks before the global pandemic hit the shores of BC. This led to conversations amongst tourism company owners to determine how they could put their crew back to work and help the environment at the same time (Markel 2020). I was employed in this sector for an outfit that worked collaboratively with Coastal First Nations in their territories on the Central and North Coast. We would travel by boat through the traditional territories of the Wuikinuxv, Nuxalk, Heiltsuk, Kitasoo/Xai'xais, and Gitga'at Nations. Long-

standing working relationships between Nations and tourism operators had been formed over decades, alongside protocol agreements set in place for operating in these territories. The coastal communities and tourism operators had first-hand knowledge of the beach-cast debris accumulating on the shores and exposed outer islands of the area now known as the Great Bear Rainforest (Curran 2017; Government of BC 2016). Tourism operators worked closely with the Nations' Leadership, and with their support, a marine debris removal proposal was developed and presented to the BC Government in hopes to fund an ambitious initiative to clean the shorelines of the Great Bear Rainforest (Markel 2020; personal communication, Neasloss 2023).

This proposal was approved and $3.5 million was funded to support this initial undertaking (Government of BC 2021). Over 100 marine tourism crew and five Coastal First Nations went to work to tackle this large-scale beach-cast debris removal initiative (Government of BC 2021; Markel 2020). Some of this remediation work was conducted in Kitasoo/Xai'xais Territory, where the accumulation of debris and its burdens have been heavily impacting this area for decades due to exposure to the open Pacific and ocean currents (Markel 2020; personal communication, Neasloss 2023). COVID-19 protocols were still enforced at the time, so unlike a normal tourism season, entry was not permitted into these communities. As a result, members of the Nations worked in areas close to their respective communities and other culturally sensitive sites, while the tourism crew scoured the outer coast and islands with their ship-based operation; Collaboratively working together, but apart (Markel 2020). "It was a win-win-win for everyone. It was a win for the environment, a win for tourism companies, and a win for our community" (personal communication, Neasloss 2023).

Although a variety of predominantly volunteer-based groups have been cleaning beach-cast debris from the shorelines of BC for decades, prior to this initiative, a formal calculation of

the problem did not previously exist to this scale, nor was there funding to support it (personal communication, Gardner 2023). Therefore, this initiative created a baseline on the severity of marine debris on the BC Coast (see Appendices). The *Clean Coast, Clean Waters* initiative was officially legislated for the following years in 2021 and 2022 and administered by the Ministry of Environment to continue this work.

I was able to speak with Gwen Lohbrunner, Director of the Clean Community section with the Environmental Standards Branch, Environmental Protection Division, with the Ministry of Environment and Climate Change Strategy. Gwen has been involved in the administration of this funding initiative since its inception. Nearly $25 million in total funding was opened to other organizations for shoreline and derelict vessel removal projects, with the requirement that coastal Indigenous Nations must be directly involved and would also economically and environmentally benefit from this fund (BC Clean Coast 2021, personal communication, Lohbrunner 2023). “That’s really the goal. To find ways to be very inclusive of support across communities of the coast, particularly for Indigenous communities” (personal communication, Lohbrunner 2023). In this way, the Province was addressing not only their environmental targets but also working towards their reconciliation mandates (Government of BC 2022b,c). “Reconciliation is at the front and center of that [fund]” (personal communication, Lohbrunner 2023).

Collectively, the *Clean Coast, Clean Waters* initiative removed over 1,700 tons, or 1.7 million kilograms of marine debris and derelict vessels from the marine and nearshore environments between 2020 and 2022 (see appendix A). Although the “origin story” of the debris itself wasn’t easy to determine, it was certain that the beach-cast debris was not originating from the communities facing the burden. In some regions derelict vessels calculated the most weight, given the heavy materials of wood and metal. Some of these vessels may have originated from the

coastal communities as a result of winter storms or running aground, with the retrieval efforts historically facilitated by the Abandoned Boats Program under Federal jurisdiction (Tla-o-qui-aht First Nation 2021; Transport Canada n.d.). Meanwhile, beach-cast debris, predominantly made up of ocean plastics, are drifting in from other areas of the Pacific, with the assistance of ocean currents, tides, and high-energy storms (Clark et al 2018; Egger et al 2020; Markel 2020).

The debris retrieved from the shorelines was then categorized to create a baseline of what kind of debris was washing ashore in these rural areas (see Appendix B). The majority of the hard plastic fishing floats ("dragger balls") and plastic bottles had Asian characters marked on them, determining of-foreign-origin from across the Pacific. Whereas many commercial prawn and crab trap tags were stamped with United States licensing agencies, such as the Washington State Department of Fish and Wildlife (WDFW), along with the name of the vessel and licensing year (see Appendix C). Hundreds of these tags were collected, with stamps from Washington, Oregon, and California ranging from 2007 to 2020, many of which were connected to hundreds of meters of rope creating entanglement hazards for marine mammals such as whales, and other sea life. These markings represent an origin story that carries debris from the Alaska Current that runs north along the west coast of the United States, and the Kuroshio Current that flows west across the North Pacific (Egger et al 2020; Markel 2020:15). This origin story highlights the global systemic issue of marine debris. For the scope of this research, I focus on local impacts and remediation efforts, with suggestions to connect the 2022 United Nations Sustainability Development Goals (SDGs) and biodiversity targets for future prevention and policy surrounding marine debris on the BC Coast (United Nations 2022).

Discussion:

Legal Frameworks and Indigenous Worldviews

Many Indigenous worldviews are based on relationality, respect, reciprocity, and responsibility (Ban et al 2019; Brown & Brown 2009; Kitasoo/Xai'xais First Nation 2022). Val Napoleon differentiates that Indigenous legal *systems* are "embedded in social, political, economic, and spiritual institutions," whereas colonial legal *orders* are based on rights and ownership and are separate from social and political establishments (Napoleon 2007:2). Napoleon addresses the problematic need to "request" State Governments to recognize Indigenous Peoples' responsibility to protect their territory. "Many Indigenous Peoples have come to associate 'law' with power, punishment, hierarchy, and bureaucracy" (Napoleon 2007:1).

As Indigenous visions towards the sacredness of water do not always translate to colonial legal orders, viewing marine conservation through an Indigenous lens of responsibility and relationality can encourage more equitable outcomes with intergovernmental relations (Craft 2019). "Western mechanisms can fall short of the legal relationships that currently exist between Indigenous Peoples and water" (Craft 2019:103). Recognizing the dichotomy of these paradigms can help unpack the legal complexities when co-designing and "braiding legal orders" into marine protection policy in overlapping jurisdictions (Borrows et al 2019).

Canada has a legacy of colonial conservation policy (Moola & Roth 2018). As State Governments navigate contemporary conservation solutions and propose new mechanisms for protection, it is understandable why some Indigenous Nations may have felt apprehension for this conventional approach. The Federal Parks in Canada were established in the name of "conservation," to protect large swaths of "pristine wilderness" regions (Little Light n.d.).

However, these colonially defined boundaries were predicated on the erasure and dispossession of Indigenous Peoples from their traditional territories (Little Light n.d; Moola & Roth 2018:200; Youdelis et al 2021). One of the original examples of this in Canada occurred with the flagship formation of Banff National Park in 1885 (Binnema & Neimi 2006; Clapperton 2013). This process incorporated the criminalization of livelihood and subsistence activities such as hunting, foraging, or fishing (Binnema & Neimi 2006; Stevens 1997; West et al 2006). Not only were Indigenous Peoples displaced and criminalized in these newly cordoned off regions, but they were also excluded from the decision-making process entirely, and Treaty Rights were ignored (West et al 2006, Freedman 2002). Youdelis and colleagues critique the colonial-capitalist conservation paradigm and suggest Indigenous Protected Conservation Areas (IPCAs) are a just and equitable conservation alternative (Government of Canada 2018; Youdelis et al 2021).

Although Indigenous and State Government interactions surrounding conservation were historically inequitable, the baseline of intergovernmental relations has shifted. The one-size-fits-all approach of consultation or co-management is no longer accepted for equitable intergovernmental relations with Indigenous Nations (Fiet; Natcher; Spak 2005; Kitasoo/Xai'xais First Nations 2022). Contemporary conservation strategies aim to recognize and respect Indigenous priorities of stewardship and environmental protection. Co-designing State policy with Indigenous Peoples presents a collaborative approach that is inclusive of relationship building and respect, key principles of IPCAs (Ban et al 2020; Government of Canada 2018; Tran et al 2020). Sitting at the same table making decisions together, can create equitable and collaborative conservation strategies, as opposed to the problematic process of consultation or blanketed policy enforcement (Bennett 2018; Bennett et al 2023; Natcher 2005).

Since the antiquated State processes of conservation and environmental protection with the establishment of Parks, national and international Human Rights policies have come into effect to support the Rights of Indigenous Peoples. These Rights are legally protected under Section 35 of the *Canadian Constitution Act (1982),* and the *United Nations Declaration for the Rights of Indigenous Peoples (UNDRIP)* (Asch 1984; United Nations 2007). Section 35 recognizes and affirms Aboriginal Rights in Canada, although the legalese in the *Canadian Constitution Act* remains vague and often left open to interpretation and to be contested in case law (Indigenous Foundations n.d.; Lothamer 2021). UNDRIP article 26 states: "Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired" (United Nations 2007). Specifically:

> 2. Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.
>
> 3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned. (United Nations 2007)

With the assistance of UNDRIP becoming adopted in BC (2019) and Canada (2021), there is a shift occurring that some are calling an "Indigenous Resurgence" as a last call to save the Earth from irreversible human-caused destruction (Youdelis et al 2021:13,23). Although UNDRIP is more descriptive than Section 35, without a legally binding Act, this also creates gaps in

interpretation to require case law to set a precedent. British Columbia is the first in Canada to follow this adoption with the Declaration of Rights of Indigenous Peoples Act (DRIPA), but time will tell how this stands up in colonial courts (Government of BC 2019).

Conservation groups and State Governments are beginning to recognize the value that Indigenous knowledge systems had for the environment pre-contact and continue to have today. Federal and Provincial Governments in Canada are recognizing this call-out and making promises to both fund Indigenous-led conservation initiatives and work collaboratively with Indigenous Nations at the same decision-making table (Government of BC 2022a,b,c). Aiming for marine protection targets through collaborative conservation strategies, represents State Governments are following through on reconciliation mandates by rebuilding equitable relationships.

Canada has adopted the strategy of establishing Indigenous Protected and Conserved Areas (IPCAs) with the Pathway to Canada Target 1 Process, under Canada's 2020 Biodiversity Goals and Targets (Government of Canada 2018,2022a; Moola & Roth 2018; United Nations 2022). Protecting Indigenous territories, not only has environmental and sociopolitical benefits, but recent studies show it is also beneficial for human health (Aquino 2023; Prist et al 2013). "Conserving lands and waters in partnership with Indigenous Peoples is the best way to protect biodiversity…that is consistent with our domestic and international obligations to respect and uphold the Rights of Indigenous Peoples" (Moola & Roth 2018:201).

The "Anthropocene" and Plastics

The mechanisms that contribute to marine debris and ocean pollution are steeped in colonialism and capitalistic paradigms (Aswani 2018; Liboiron 2021). Colonization has interfered with traditional environmental stewardship practices in Canada (and around the world), which has

presented many challenges for Indigenous Peoples to monitor and manage their traditional territories under historically hegemonic colonial regimes (Jago 2020; Liboiron 2021; Little Light n.d.; West et al 2006; Wolf 1982). Capitalism and industrialization have introduced more anthropogenic pollutants in the marine ecosystem than ever before, adding to the environmental destruction in the so-called "Anthropocene" (Clarke et al 2018; Hetherington 2018; Magnan et al 2021; Todd 2015).

Our present geological era is classified by human-caused environmental degradation from capitalism, mass industrialization, and globalization (Aswani 2018; Crutzen 2002; Hetherington 2018; Mathews 2020). Globally, the effects are causing large-scale deforestation, mass extinction, pollution, and anthropogenic climate change, to name a few of the most devastating factors (Magnan et al 2021; Kohn 2022). The naming scheme of the "Anthropocene," is derived from the Greek root of "anthropos" meaning human, and "cene," to refer to the current era (Hetherington 2018:3). Although humans are the "dominant drivers of geological change," many scholars are addressing the problematic nature of placing humans, and predominantly Eurocentric actors at the center of the discourse (Haraway 2015; Hetherington 2018; Todd 2015: 311-12).

Human connection to the non-human and other-than-human environment is foundational within many Indigenous epistemologies (Escobar 2018; Nelson & Shilling 2018; West 2005). As opposed to the Western dichotomy of "nature" *and* "culture," each are not divided, but rather congruent with one another (West et al 2006). As Zoe Todd elucidates, this "universalizing species paradigm" assumes the universal "we" applies with the name "Anthropocene," and that humans, and arguably Western, needs are of utmost importance (Todd 2015:311). However, the impacts of the so-called Anthropocene are highly disproportionate. This "anthropos" perspective, "further unsettles the relationship between nature and culture, humans and non-humans," contributing to

the dichotomy of humans "in" the environment, as opposed to humans "of" or "with" the environment (Hetherington 2018:3; West 2005).

Anticolonial marine scientist Max Liboiron calls out the many inequities within the realms of Western Science, the dominant toolkit for colonial conservation (Liboiron 2021). Inequitable problems with environmental pollution include areas of waste disposal (Nunn 2018), the disproportionate location of landfills (Matuzzo 2010), and who the onus of responsibility falls on to clean it up (Liboiron 2021). Recycling programs, although ethically good for consumers to participate in, do not solve the problem of plastic pollution (Liboiron in Young 2022: 38:30). Liboiron uses the analogy of plastics (plural as there is no singular "plastic" polymer) being an overflowing faucet: "Do you get the mop, or do you turn off the tap?" (Liboiron in Young, 2022: 39:20). This parallel reflects the plastic pollution issue as an industrial problem, not a human behavioural problem.

Liboiron encourages researchers and policy makers to address their positionality to dismantle the universalizing expression of "us" and "we" and get comfortable with the notion of decolonizing conservation for more equitable and just environmental solutions (Liboiron 2021; Youdelis 2021). Nathan Bennett and colleagues broadly define environmental justice as "the distribution of environmental benefits and burdens, and the fair treatment of meaningful involvement of all people in environmental decision-making and legal frameworks" (Bennett et al 2023:1). Therefore, to create equitable solutions to the issue of marine debris, those who are impacted the most must be part of the decision-making process for remediation and prevention planning.

Findings:

Marine Protected Areas and Biodiversity Goals

In accordance with the United Nations Sustainable Development and Biodiversity Goals (2022), and under the frameworks of the United Nations' "Ocean Decade," Canada has committed to protect thirty percent of the country's important land and water ecosystems by 2030 (Government of Canada 2022a; Ocean Decade 2021; United Nations 2022). Alongside this priority, new Marine Protected Area (MPA) networks are merging along the BC Coast, to complement the Marine Plan Partnership that has been ongoing for nearly twenty years (Marine Plan Partnership n.d.; Smith-Martin 2023). As part of the promise of "30 by 30," Canadian Prime Minister, Justin Trudeau announced the commitment to invest eight-hundred-million dollars into Indigenous-led conservation projects (Government of Canada 2022b; Zimonjic 2022). Christine Smith-Martin, CEO of the Coastal First Nations Great Bear Initiative states, "MPAs are an essential first step toward healing these ecosystems – they provide nurseries, safe havens and seed populations that strengthen fish stocks and enrich marine life in surrounding waters" (Smith-Martin 2023: para 5).

Although still in its infancy, a collaborative Provincial environmental protection strategy is unfolding on the BC Coast. The *Coastal Marine Strategy* aims to protect biodiversity and remediate the problem of marine pollution, effectively improving the health of the ocean and those who depend on it (Government of BC 2022a). In 2022, a mandate letter was handed down by the incumbent Honourable Nathan Cullen, Minister of Water, Land, and Resource Stewardship (Government of BC 2022b). Mandate letters are essentially an abbreviated set of instructions for the Provincial Ministries to create strategies to carry out a set of State Government goals. In this

letter, Cullen mandated funding for coastal clean-ups and to "continue to transform the management and stewardship of our waters, lands, and resources, together with First Nations" (Government of BC 2022b:3).

The Coastal Policy and Planning Division led by Executive Director Charles Short, then set to create a strategy to follow this mandate by proposing the *Coastal Marine Strategy,* inclusive of six outcomes and thirty policy intentions (Government of BC 2022a:2). This new strategy would essentially connect a network of pre-existing and new Marine Protected Areas (MPAs) for the entire coastal region of the province, each with varying levels of classification and protection. In addition, new targets were set to address the issue of ocean pollution and marine debris. Under Target A: "A Healthy and Productive Coast," a policy intention was created (A-3) to "prevent and clean up marine pollution" (Government of BC 2022a:15). In each of the proposed intentions, a narrative of collaboration is central. Collaboration between local, provincial, federal, and First Nation Governments, who share stewardship responsibilities in overlapping coastal jurisdictions, as well as partnerships with non-governmental organizations and industry counterparts to achieve these targets (Government of BC 2022a:10).

This environmental policy is profoundly different than former Provincial processes because it is slated to be co-developed with First Nation Governments. "It feels like things are changing. I think we still have a lot of work to do with this new 'reconciliation era,' but we're moving in the right direction" (personal communication, Neasloss 2023). The Province of BC laid out the intentions of this policy and opened it up for co-design with coastal Indigenous Nations, as opposed to writing the policy first and seeking feedback without engaging First Nations in the production process. As Charles explains, "we kind of flipped that process around. This way it's more informed by the Rights and Title holders across the province" (personal communication,

Short 2023). Through the co-production process, the themes of coastal protection, marine debris, and restoration emerged as key priorities to address (personal communication, Short 2023).

In another conversation with Doug Neasloss, he addressed the urgent need for marine debris removal from Kitasoo/Xai'xais Territory and prioritizing remediation at sensitive sites is a central facet to new internal or external marine protection policies. As the Ministry of Environment and Climate Change Strategy had already administered the *Clean Coast, Clean Waters* initiative, intragovernmental conversations revolved around amalgamating this initiative in the *Coastal Marine Strategy (CMS)*. The original funding from the pandemic economic recovery stimulus and coastal clean-up fund was set to expire. Therefore, the *CMS* intentions paper aims to provide long-term funding and support for a more sustainable, holistic, and cyclical approach to marine pollution remediation and prevention (Government of BC 2022a:2). Conversations around end-of-life are also key factors when determining what to do with the debris after it is removed from the shoreline (personal communication, Short 2023).

Although the *Coastal Marine Strategy* is a newly appointed policy at the intentions stage, these conversations involving Marine Protected Areas between First Nations, Provincial, and Federal Governments have been ongoing for almost twenty years (personal communication, Neasloss 2023). Today well-intentioned officials work to implement these processes in accordance with Section 35 and UNDRIP by involving First Nations in the development stage, co-designing with dozens of different Nations is a long and complex process. After collaboratively writing the first stages of the *CMS* "it didn't read well initially, because you have all of these different voices" (personal communication, Short 2023). Essentially, it turned into too many cooks in the kitchen with different voices that didn't connect or flow in a cohesive way. This is a new policy process and although First Nations are involved in the development phase, Charles informed me that the

Nations were clear to communicate that it remains a Provincial policy. “Can we honestly say it's been co-developed by all Coastal First Nations? No, because not all Coastal First Nations did that” (personal communication, Short 2023). Although initially envisioned as a cohesive unit of collaboration between the Provincial Government and all Nations with connections the coast, the reality is much more complex.

A collaborative conservation approach wasn’t always the standard in Canada, but some believe the tides are changing on what equitable collaboration can look like (personal communications, Neasloss, 2023; Short 2023). Throughout the new mechanisms of marine management and ocean governance, inclusive of intentions papers and associated action plans, the root of new Provincial policies aim to center community-based priorities (Ban et al 2020; Tran et al 2021; Government of BC 2022a,b,c; Mulrennen et al 2012). This includes adopting UNDRIP as mentioned above, particularly Section 6 and 7 that enable shared decision-making authority, which aims to advance the recognition of self-determination and Indigenous laws, as well as prioritizing a “sustainable, clean, secure and fair economy” (Government of BC 2022c:2,3). Through these mechanisms of collaborative conservation strategies and Ministerial mandates, the BC Government is determined to build a clean economy and combat climate change, while creating good relationships and equitable employment opportunities (Government of BC 2022c:2).

Although “co-management” and “co-governance” have been part of the earlier State conservation discourse, the co-design aspect of marine policy was never part of the equation ten or more years ago (personal communication, Short 2023). The co-design of policy is new in the marine realm of BC. “We’re still figuring out how to incorporate it all. We’re learning as we go together” (personal communication, Short 2023). As the intentions paper states, “Indigenous ethics will provide a foundation for what we do” (Government of BC 2022a:2). Unlike former State

policies around protection, such as the formation of Federal Parks or National Marine Conservation Areas (NMCAs), Indigenous voices are at the forefront and at the decision-making table. Charles informed me that through the writing project, trust was built up and this new approach could bring these voices together in a more cohesive way (personal communications, Short 2023). Although the production processes are changing, it takes a lot more time as relationship-building naturally does.

Declaration of Gitdisdzu Lugyeks/KitasuBay

For some Nations, although relationality is recognized as a core principle, the proposed timeline for implementation of Provincial protection is too long. The Kitasoo/Xai'xais are not waiting for this process and the Hereditary Chiefs have declared an area known as Gitdisdzu Lugyeks/Kitasu Bay as an Indigenous-led Marine Protected Area, in advance of the Provincial procedural timeline, and in accordance with their traditional laws, customs, protocols, and values (Kitasoo/Xai'xais First Nation 2022). "Kitasu Bay is probably the most sensitive area in all of our territory and that's why we've decided to declare it as a protected area, because it needs protection right now" (personal communication, Neasloss 2023). Through this Declaration, the Kitasoo/Xai'xais First Nation is asserting their right to steward, monitor, and protect their territory from harmful ocean pollutants, such as marine debris, as is their legal right in accordance with both colonial law and Indigenous law (Lothamer 2021; Kitasoo/Xai'xais 2022). "We seek no permission. We can no longer wait until other governments act to preserve and protect this special place that is integral to Kitasoo/Xai'xais" (Kitasoo/Xai'xais First Nation 2022:3). As the Kitasoo/Xai'xais Hereditary Chiefs state: "We invite Canada and British Columbia to work with

us in achieving our collective objectives and targets for land and marine protection and conservation" (Kitasoo/Xai'xais First Nation 2022:3).

Gitdisdzu Lugyeks/Kitasu Bay is of significant cultural and ecological importance to the Kitasoo/Xai'Xais People and is commonly referred to as the "breadbasket" based on the abundance and diversity of the food harvested here (Kitasoo/Xai'xais First Nation 2020;2022). It is described as a very delicate ecosystem and a particularly important site for the annual Pacific herring spawn that typically occurs in March. "It is probably the most important area for food for the community" (personal communication, Neasloss 2023). Pacific herring are a biocultural keystone species for the Kitasoo/Xai'xais, and the Spawn on Kelp (SOK) herring roe harvest is integral to their food sovereignty (Kitasoo/Xai'xais First Nation 2020;2022). The Kitasoo/Xai'xais stories, laws, and practices represent their intergenerational understanding that herring abundance drives biodiversity of other species in the ecosystem (Kitasoo/Xai'xais First Nation 2020:11).

Kitasoo/Xai'xais People inherently understand the "interconnectedness" of this system, or what they call "Sagayt k'üülm goot" (Kitasoo/Xai'xais First Nation 2022:2). "When the herring comes in, it brings in everything. It brings in rockfish, it brings in halibut, it brings in seals, sea lions, whales, bears, wolves, and surf scoters" (personal communication, Neasloss 2023). When marine debris enters this sensitive area, the impacts can be detrimental for herring and other species of the region and those who depend on it for food security (Aswani 2021; Clark 2018; Gall & Thompson 2015; Geyer 2017).

The Kitasoo/Xai'xais Hereditary Chiefs argue, to effectively steward a place, there must be an intimate knowledge of the environment, one that Kitasoo/Xai'xais People have had in this region since time immemorial (Kitasoo/Xai'xais First Nation 2022). As environmental experts in their territory, the Kitasoo/Xai'xais have intergenerational knowledge that has been passed down

through oral stories for millennia, which informs how to sustainably manage their resources (Kitasoo/Xai'xais First Nation 2022). Declaring community protection over Gitdisdzu Lugyeks/Kitasu Bay, is declaring food sovereignty, self-determination, and self-governance in their territory, which is endorsed as a human right under the United Nations Declaration of Indigenous Peoples (United Nations 2007;2021; Tran et al 2020).

With this Declaration, the Kitasoo/Xai'xais are implementing their legal principles that are foundational to their intergenerational legal systems of stewardship. The principles of these legal systems are rooted in *loomsk* (Respect), *Sagayt k'üülm goot* (Interconnectedness), *Sityaaw* (Reciprocity), and *Gugwilx'ya'ansk* (Intergenerational Knowledge) (Kitasoo/Xai'xais 2022:2). The Kitasoo/Xai'xais Nation is also working collaboratively with fifteen neighbouring First Nations to combine a network of Marine Protected Areas. Smith-Martin states, "in leading this work, we are using our Indigenous Rights and Title to strengthen the long-term security and prosperity of our coast, on behalf of everyone who calls this place home" (Smith-Martin 2023: para 13). The Coastal First Nations have endorsed an Action Plan to connect the Great Bear Sea Marine Protected Area Network, also referred to as the Northern Shelf Bioregion, covering approximately one-third of the BC Coast (Coastal First Nations 2023). Smith-Martin adds, "whether Indigenous or non-Indigenous, if you live here, you share that same sense of pride and deep connection" (Smith-Martin 2023: para 1).

The modern-day exercise of this jurisdiction depends on monitoring, enforcement, and funding, exercised on behalf of Indigenous Peoples' governments. The Kitasoo/Xai'xais are members of the Coastal First Nations and the associated Coastal Guardian Watchmen program, which trains stewards to monitor their respective territories, safeguard habitat, and respond to environmental threats (Coastal First Nations n.d.). The *CCCW* initiative provided additional

funding to the Coastal Guardian Watchmen program through the Coastal First Nations Great Bear Initiative (Government of BC 2022d). As Minna Epps of the International Union for Conservation of Nature (IUCN) outlines, "there needs to be a financial contribution. Not only do you have to have legal institutions to do so, but it needs to be financed" (Epps in Garg 2022: 23:40). The Coastal Guardian Watchmen Program provides an avenue for ongoing remediation and monitoring and contributes a key piece of funding for the Kitasoo/Xai'xais and Coastal First Nations to address their respective stewardship priorities. "As part of the Declaration [of Gitdisdzu Lugyeks] the Hereditary Chiefs have given the authority to the Watchmen Program to enforce the Kitasu Bay Management Plan" (personal communication, Neasloss 2023).

The legal frameworks that arose as a result of the Great Bear Rainforest Agreement (GBRA), paved a way for interjurisdictional conservation cooperation and long-term Indigenous-led conservation funding (Curran 2017; Government of BC 2016; Tran et al 2020). The unique circumstances of the area, highlight new funding and stewardship authorities that are now established outside the old *Indian Act* structure and within this new GBRA framework. After the Great Bear Rainforest Agreement was ratified in 2016, $2.5 million in funding went to First Nations strategic planning and marine stewardship (Government of BC 2016). This funding was set to be distributed over three years, with a new influx of $8.9 million distributed in 2023 as part of a capacity-building framework to continue supporting Guardians in this role (Government of BC 2023). Grand Chief Stewart Phillip commends the BC Government for this funding and notes that "the climate emergency and biodiversity crisis are the most pressing issues of our time, and we look forward to First Nations exercising self-determination in designing Guardian programs to best respond, and to manage their territories to flourish as they have since time immemorial" (Government of BC 2023).

Conclusion

Removal and remediation initiatives are important pieces to tackling the issue of marine debris on the BC Coast, however, without "turning off the tap" this debris is going to continue to wash ashore year-after-year (Liboiron in Young 2022: 39:00). Community-led monitoring and clean-up initiatives can play a crucial role in removing marine debris in rural areas and can provide place-based solutions. Indigenous Protected and Conserved Areas can provide the frameworks to equitably approach the respective community's priorities and provide funding for monitoring and training programs. In this way, long-term funding mechanisms can build capacity and help to create a conservation economy that isn't dependent on "development," such as industrial infrastructure (Epps in Garg 2022; Government of BC 2023; Youdelis et al 2021). However, it takes a very special circumstance, like the Great Bear Rainforest Agreement, to implement it. This can provide both goal posts, but also challenges to scale this down for the future implementation of a community-level conservation economy without development.

The majority of marine debris washing ashore on the BC Coast is related to the commercial fishing industry, therefore, regulation of lost or abandoned "ghost gear" is needed, which falls under Federal jurisdiction. State Governments can provide funding for remediation initiatives, but it is through international collaboration, policy, and regulation that long-term prevention strategies can tend to the issue of future debris washing ashore in these regions. Beyond prevention, protected areas can provide frameworks and funding to ensure local monitoring and remediation can continue. When referring to the Great Bear Sea Marine Protected Area Network, Christine Smith-Martin states: "This groundbreaking conservation initiative was never just about preserving isolated wilderness areas, absent of people, but about revitalizing the whole ecosystem – which

includes our communities that have co-existed here with other species for thousands of years" (Smith-Martin 2023: para 7).

Minna Epps from the IUCN adds an important call to action to remind us that "we need to rethink how we do conservation" (Epps in Garg 2022: 11:00). Through adoptions of new international, federal, and provincial frameworks, and co-design approaches to marine policy, many feel that the approach to conservation is changing in BC to be ethically founded on relationships and reciprocity. The shift of recognizing and affirming Aboriginal Rights in Canada that came with Section 35, needs to go beyond the colonial legal order of denial and a duty to consult. As Smith-Martin adds, "collaboration between First Nations and State Governments is a 'made-on-the-coast' plan (Smith-Martin 2023: para 5). The next important step is to also recognize and affirm Indigenous law and welcome Indigenous legal systems to be "braided" alongside State legal processes (Borrows et al 2019; Lothamer 2021).

The case studies presented in this paper represent Canada and BC's willingness to work towards reconciliation with Indigenous Peoples, and meet international biodiversity targets (Ban et al, 2019; Government of Canada 2022; United Nations 2022). "This is reconciliation in action, and because everyone benefits, we believe this model of Indigenous-led conservation will continue to be an inspiration for the world" (Smith-Martin 2023: para 13). Although reconciliation mandates are becoming incorporated into State Government conservation strategies, time will tell what those mechanisms look like when ratifying environmental policies beyond the intentions phase. Doug Neasloss notes that "we need to focus more and more on how important relationships are. I think there needs to be this understanding. I think the whole name 'reconciliation' means to make friends again, you know, to make it right" (personal communication, Neasloss 2023). I emphasize

relationships as a fundamental element of this new direction, something each of my participants highlighted throughout our conversations as the pivotal piece moving forward.

I will conclude that although this research focuses on the benefits of Indigenous-led marine conservation strategies, it also reflects the shift from conflicting power dynamics over marine jurisdictions, and the movement for reconciliation from State Governments to work collaboratively to tackle the issue of marine debris on the BC Coast. I use Arthur Manuel's words as an example of moving forward together: "our goal is not simply to replace Settler Resource Inc. with Indigenous Resource Inc. Instead, we are interested in building true Indigenous economies that begin and end with our unique relationship to the land" (Manuel, 2015: 11). I believe this mirrors the Kitasoo/Xai'xais perspective on stewardship responsibilities in their territory as they take back their authority to steward their traditional territory with their own legal frameworks for the betterment of future generations (Ban et al 2018; Kitasoo/Xai'xais First Nation 2022). "We like to think that the work we're doing is for everyone. It's going to be for commercial fishermen, recreational fishermen, First Nations food fishermen, and for conservation" (personal communication, Neasloss 2023).

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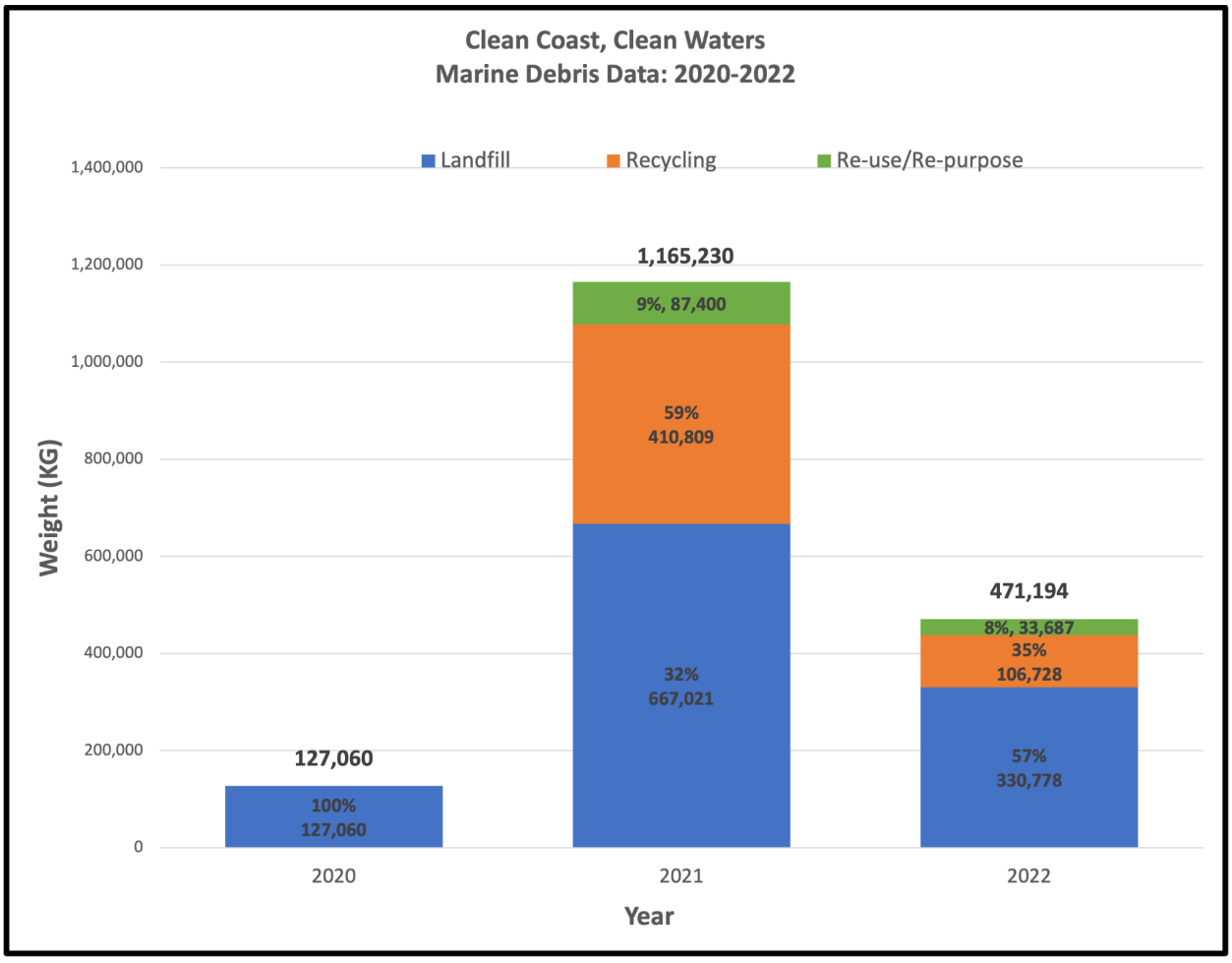
Appendices:

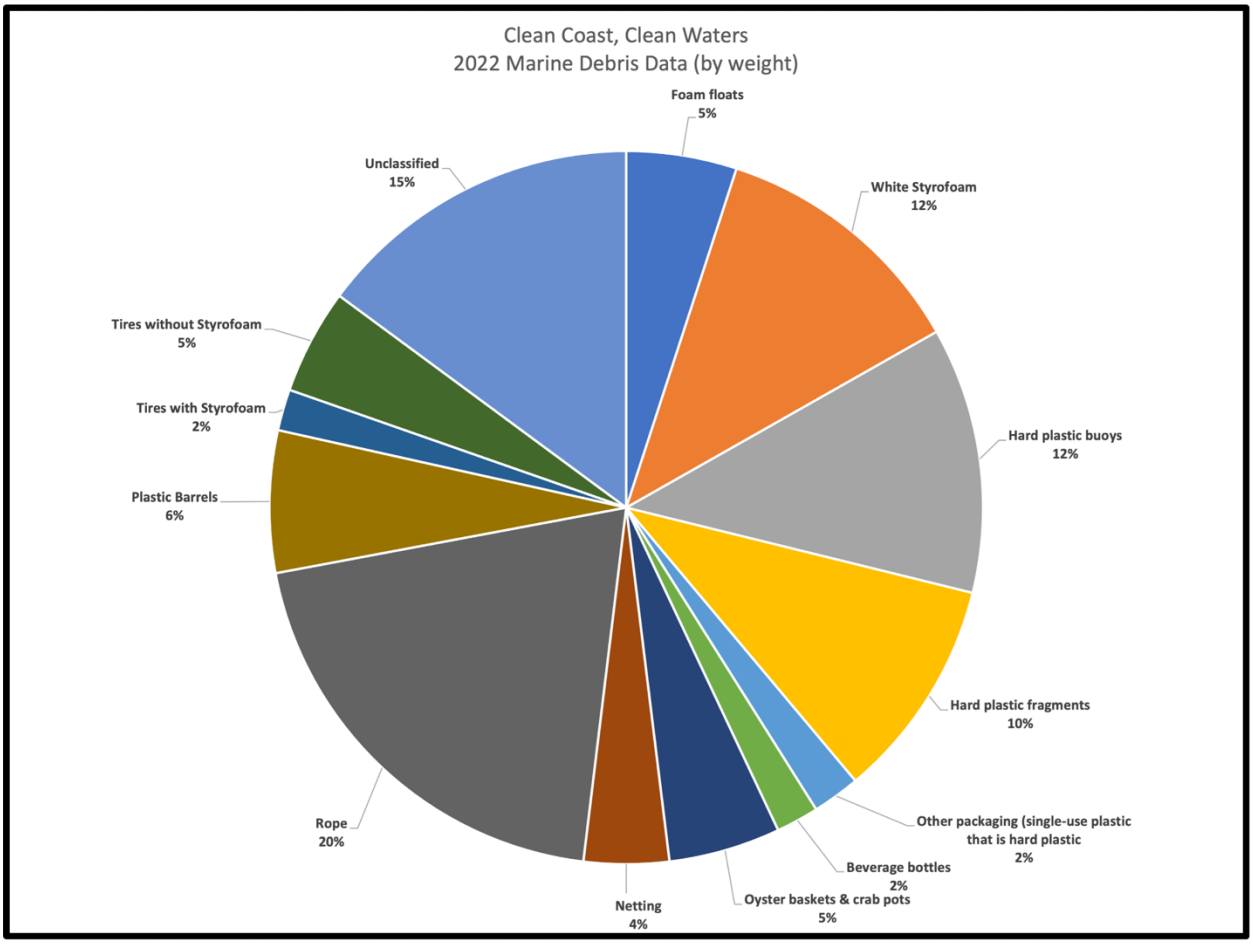
Appendix A)

Marine Debris Data: 2020-2022, inclusive of derelict vessel weight, which contributed to a greater landfill contribution.
Source: BC Ministry of Environment and Climate Change Strategy, 2023 (Chart created by Oriana Smy)



Appendix B)

Marine Debris Categorical Breakdown (2022)
Source: BC Ministry of Environment and Climate Change Strategy, 2023 (Chart created by Oriana Smy)



Appendix C)

Images: US Prawn and crab trap tags
Source: Oriana Smy, 2021