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# An analysis of U.S./Canadian fisheries policy in regards to Pacific salmon and the preservation of indigeneity in the Pacific Northwest

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An Analysis of U.S./Canadian Fisheries Policy in Regards to Pacific Salmon and

the

Preservation of Indigeneity in the Pacific Northwest

By: Michael Lockwood

A thesis submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY-UNIVERSITY OF MALTA

In

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Sustainable Environmental Resource Management

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## **Dedication**

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This thesis is dedicated to my family. They have been supportive of my journey throughout my enrollment in this program. I hope to one day to repay them for all the love, support, and our many international adventures.

## **Acknowledgments**

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## Abstract

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For more than 160 years, the Pacific salmon has been an important resource for the United States and Canada. However, it has been overexploited. Proper management of the species is essential not only for maintaining healthy populations but also maintaining the interests of diverse stakeholders. One set of stakeholders consists of the indigenous peoples of North America because the Pacific salmon are crucial to their food, social, and ceremonial traditions.

This thesis explores the impacts of Canadian and U.S. public policies on the cultural integrity of native peoples in the Pacific Northwest, specifically as those peoples rely on wild Pacific salmon for key cultural attributes. Indigenous peoples of the Pacific Northwest have historically depended on the salmon resource as a source of sustenance, trade, and spirituality.

A “desk study” was conducted for this thesis using literature resources. A “matched pairs case study” was utilized to compare and contrast United States and Canadian fisheries policy impacts on their respective indigenous cultures. It analyzes nine indigenous tribes throughout the region and assesses the impacts based on seven cultural traits. Each relevant cultural trait was evaluated on its current state and the degree of impact caused by policy.

The findings suggest that Canada has better accommodated the rights of its indigenous peoples because it actively incorporated these rights into federal legislation, wild salmon policies and strategies, and modern-day treaty-making. However, both Canada and the United States have unique policy issues that include how to create effective co-management schemes and equally distribute fish catch between indigenous and non-indigenous fishing interests. The hope is that policy makers will use this information to better understand the impacts of fisheries management on indigenous peoples and make policy decisions that better accommodate their needs.

## Chapter 1: Introduction

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This thesis explores the impacts of Canadian and U.S. public policies on the cultural integrity of native peoples in the Pacific Northwest, specifically as those peoples rely on wild Pacific Salmon for key cultural attributes. Indigenous peoples of the Pacific Northwest have historically depended on the salmon resource as a source of sustenance, trade, and spirituality. Jonathan M. Hanna, of the Natural Resources Law Center of the University of Colorado Law School, states that “For centuries, salmon have played a fundamental part in the cultural, social, economic, and spiritual life of Pacific Northwest tribes. Salmon play such a central role that the right to fish as they always had was at the heart of the treaties by which these tribes ceded millions of acres of tribal land to the federal government in the mid-nineteenth century.”<sup>1</sup>

However, for more than 160 years, both Canada and the U.S. have enacted a number of federal and state/provincial policies that have affected not only the abundance and availability of the Pacific Salmon (*Oncorhynchus* spp.), but the relationship of native peoples to this culturally-defining resource. These policies both threatened salmon (e.g., opening up territory to industrial development, promoting federal hydroelectric power dams) as well as tried to conserve it (e.g., fisheries management regulation, endangered species policies). While both of these federal governments have implemented policies that preserve the viability of salmon populations, they have sometimes neglected the interests of the affected indigenous peoples’ *indigeneity*. The overarching theme of indigeneity is that native peoples have intact customs and traditions that were passed down by their ancestors as well as an established territory prior to contact with European settlers

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<sup>1</sup> Jonathan M. Hanna, ““Oncorhynchus” Spp.: Climate Change, Pacific Northwest Tribes, and Salmon,” *Natural Resources & Environment* 22, no. 2 (2007), p.13.

and colonial governments.<sup>2</sup> Indigeneity, as a perspective, advocates that ruling governments should act in a way that does not interfere with the rights of their respective indigenous cultures.<sup>3</sup>

This thesis draws on anthropological, sociological, and scientific research to explore the ways in which indigenous cultures have been affected by the policy decisions of the U.S. and Canadian federal governments, especially those affecting salmon fisheries. It endeavors to answer the following questions:

1. How did federal policies affect salmon and the associated cultural integrity of Native Americans and First Nations<sup>4</sup> cultural practices? What policy decisions have affected their cultural integrity?
2. What similarities and differences are there between the United States and Canada in how they conduct their fisheries policies, especially in regards to fisheries management and indigenous peoples' policies?
3. Which government has better preserved cultural integrity, especially with respect to the role of salmon?

This thesis uses a “matched pairs case study” methodology that examines nine examples to address these questions. The findings suggest that Canada has better accommodated the rights of its indigenous peoples because it actively incorporated these rights into federal legislation, wild salmon policies and strategies, and because of modern-day treaty-making.

However, both Canada and the U.S. have unique policy issues including the need to create effective co-management schemes and equally distribute fish catch between indigenous and non-indigenous fishing interests. For the U.S., the issue is more complex, because state govern-

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<sup>2</sup> Johan Sandberg McGuinne, "Official Definitions of Indigeneity," Indigeneity, Language, and Authenticity (blog), 2014, accessed June 6, 2014, <http://johansandbergmcguinne.wordpress.com/official-definitions-of-indigeneity/>.

<sup>3</sup> Rachel Davis, "Summary of the UN Declaration on the Rights of Indigenous Peoples," (Sydney, New South Wales, Australia: University of Technology Sydney, 2007). [http://www.jumbunna.uts.edu.au/pdfs/JIHLBP8\\_11\\_07.pdf](http://www.jumbunna.uts.edu.au/pdfs/JIHLBP8_11_07.pdf).

<sup>4</sup> In the United States indigenous peoples are referred to as “Native Americans.” In Canada, they are referred to as “First Nations.” These terms will denote the term “indigenous peoples” in Chapters 4 and 5.

ments in the United States have more legal authority over fisheries conservation than do the provincial governments in Canada. In the U.S, state policies have often failed to adequately accommodate indigenous interests. By considering how governments have accommodated or impacted their respective indigenous peoples, future policy makers can determine the best practices to balance the rights of indigenous peoples in today's environment when Pacific salmon are significantly less abundant than they were prior to the mid-1800s.

### **Why Indigenous Peoples?**

Dr. Leena Heinämäki, Research Fellow at the Northern Institute for Environmental and Minority Law (NIEM), writes about the importance of incorporating the rights of indigenous peoples into natural resource policies. She states that there is a “linkage between environmental sustainability and rights of indigenous peoples, in particular, their right to traditional livelihoods.”<sup>5</sup> Her argument is that the indigenous cultures are a part of the global community and they are entitled to enduring rights in an ever-changing world. That changing world includes new standards of living, the demand for abundant resources, and the full access to those resources for contemporary society.

This is a significant and complex issue for the federal governments of the United States and Canada as they endeavor to balance the management of natural resources such as the Pacific salmon to meet the needs of both indigenous and non-indigenous peoples. The Pacific salmon has declined since the mid-1800s due to overfishing, dam construction, pollution, and changes in ocean and river conditions.<sup>6</sup> This has exacerbated disagreements between the governments of the United States and Canada and their respective indigenous cultures about how to best conserve and

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<sup>5</sup> Leena Heinämäki, "Protecting the Rights of Indigenous Peoples – Promoting the Sustainability of the Global Environment?," *International Community Law Review* 11, no. 1 (2009), p. 3.

<sup>6</sup> Gunnar Knapp, Cathy A. Roheim, and James L. Anderson, "Great Salmon Run: Competition between Wild and Farmed Salmon," (Washington, DC: TRAFFIC NORTH AMERICA-World Wildlife Fund, 2007).

distribute salmon resources. The significance of this issue, as pointed out by Gunnar Knapp in the *Great Salmon Run: Competition between Wild and Farmed Salmon*, is that “Wild salmon are very important to many different people in North America. For well over a century, the commercial wild salmon industry has provided a living—and a way of life—to fishermen, processors, and coastal communities from California to Alaska.”<sup>7</sup> From commercial and sport fishery activities to the Native American/First Nations subsistence needs, the salmon has been central to the Pacific Northwest way of life.

A significant factor in this conflict is that there are many different viewpoints on how the resource should be utilized and distributed between interested parties. Specifically, the problems stem from “narrow definitions of value of natural resources (such as salmon) as commercial commodities.”<sup>8</sup> This way of thinking began during the colonial period as Euro-American/Euro-Canadian cultures expanded towards the West seeking profit by exploiting natural resources such as salmon, timber, and farmland.<sup>9</sup> Hydropower was not an expansionist resource. Construction of hydroelectric dams during the early 20<sup>th</sup> century was promoted specifically by the U.S. federal government for electric power generation.<sup>10</sup> The Native American/First Nations people, on the other hand, saw salmon as more than just a resource. They built their lives around the salmon as an integral part of their culture and society, and valued the overall health of the environment. They depended on the salmon for food, ceremonial, and social purposes as an integral part of

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<sup>7</sup> Ibid., p. iv.

<sup>8</sup>National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest* (Washington, DC, USA: National Academies Press, 1996), p. 143, <http://site.ebrary.com/lib/jmulibrary/detail.action?docID=10062880>.

<sup>9</sup> Ernie Niemi et al., "Salmon and the Economy: A Handbook for Understanding the Issues in Washington and Oregon," (Eugene, Oregon: ECONorthwest, 1999).

<sup>10</sup> Roberta Ulrich, *Empty Nets: Indians, Dams, and the Columbia River*, 2 ed. (Corvallis, Oregon: Oregon State University Press, 2007).

their way of life.<sup>11</sup> Without salmon, that way of life is diminished and their traditional culture is one step closer to irrelevance in modern society.

Since the establishment of non-indigenous settlements in the Western United States and Canada in the mid-1800s, the rights to salmon fisheries have been contested by both the Euro-Americans/Euro-Canadians and the Native Americans/First Nations. Over time, the issue became more complicated due to the development of other industries such as timber, agriculture, and hydropower and by urban development.<sup>12</sup> As a result of the ways in which resources were perceived, harvested, and depleted, the indigenous cultures of the Pacific Northwest have faced both cultural and environmental degradation. In summary, best stated by Garth Harmsworth, the indigenous cultures are “increasingly swamped by a tide of global amorphous cultures dominated by capitalism, consumerism, and (Westernization), which are being used to define a new set of core values and principles.”<sup>13</sup> This thesis explores the degree to which indigenous cultural traits based on salmon have persisted in the face of public policies that reflect the forces of Westernization.

An important reason for conducting research on the issues of salmon fisheries and Pacific Northwest cultures in both Canada and the United States is summed up by Quentin Gausset’s article, “Indigeneity and Autochthony<sup>14</sup>: a couple of false twins?”:

“Peoples regarded as ‘indigenous’ have fascinated anthropologists since the birth of the discipline, the latter being the product of 19<sup>th</sup>-century colonialism but also of increasing concern for the direction industrialising society was taking and an

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<sup>11</sup> "Our Place at the Table: First Nations in The BC Fishery," ed. First Nation Panel on Fisheries (West Vancouver, BC 2004). <http://www.fns.bc.ca/pdf/FNFishPanelReport0604.pdf>.

<sup>12</sup> Niemi et al., "Salmon and the Economy: A Handbook for Understanding the Issues in Washington and Oregon." (Eugene, Oregon: ECONorthwest, 1999).

<sup>13</sup> Garth Harmsworth, "Indigenous Concepts, Values, and Knowledge for Sustainable Development: New Zealand Case Studies," *7th Joint Conference: "Preservation of Ancient Cultures and the Globalization Scenario"* (2002), p. 1, [http://www.landcareresearch.co.nz/publications/researchpubs/harmsworth\\_indigenous\\_concepts.pdf](http://www.landcareresearch.co.nz/publications/researchpubs/harmsworth_indigenous_concepts.pdf).

<sup>14</sup> As defined by Quentin Gausset, Autochthony refers to “(indigenous) people (who) are anchored in their territory, from which they are said to originate.”

intense interest in other social possibilities. Students today are still drawn to the discipline by such concerns and interests; and depictions of certain groups (Native Americans, Pygmies, etc.) as living in ways supposedly untouched by industrial society, or as under threat by this society, continue to play a role in drawing people to study anthropology at university.”<sup>15</sup>

The importance of change is emphasized in this thesis because most, if not all, culture groups change. Culture is dynamic, rather than static. As Lesley Head puts it, “while cultural traditions are known to be resilient through time, it is important to (recognize) the normality of change and adaptation to prevailing social and environmental conditions.”<sup>16</sup> One task of this thesis is to try to evaluate the degree to which cultural change may reflect a resilient adaptation to the changing conditions of salmon and the degree to which a cultural trait may simply have been extinguished.

### **Structure of the Thesis**

Chapter 2 provides background on public policies that have affected Pacific Northwest salmon fisheries, indigeneity and the idea of culture, and a historical background of federal-indigenous peoples’ relations. It begins with an examination of salmon ecology, including the types of species, their lifecycle, and their geographical distribution. The past and current threats to salmon populations are also examined, beginning with the estimates of salmon populations prior to the arrival of Euro-Americans and continuing with a description of how the salmon resources were depleted by overfishing, with the impacts of industrial harvest technologies and techniques, hydropower dam construction, climate change, and aquaculture. Later in the chapter,

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<sup>15</sup> Quentin Gausset, Justin Kenrick, and Robert Gibb, "Indigeneity and Autochtony: A Couple of False Twins?," *Social Anthropology* 19, no. 2 (2011), p. 135, [http://www.san.ed.ac.uk/\\_\\_data/assets/pdf\\_file/0010/71776/Indigeneity\\_and\\_autochthony-a\\_couple\\_of\\_false\\_twins\\_Quentin\\_Gausset\\_Justin\\_Kenrick\\_and\\_Robert\\_Gibb\\_Soc\\_Anth\\_May\\_2011\\_19-2\\_.pdf](http://www.san.ed.ac.uk/__data/assets/pdf_file/0010/71776/Indigeneity_and_autochthony-a_couple_of_false_twins_Quentin_Gausset_Justin_Kenrick_and_Robert_Gibb_Soc_Anth_May_2011_19-2_.pdf).

<sup>16</sup> Lesley Head, David Trigger, and Jane Mulcock, "Culture as a Concept and Influence in Environmental Research and Management," *Conservation and Society* 3, no. 2 (2005), <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1072&context=scipapers>.

the issues of indigeneity and why it is important to fisheries policy and management is introduced by examining the origins of indigeneity and its meaning, and the meaning of culture. The chapter ends with a historical examination of indigenous peoples' relations to the federal governments in both the United States and Canada, including the rights and powers granted by treaties. This information provides a basis for better understanding how each nation reached its current policy decisions impacting fisheries and indigenous peoples.

Chapter 3 explains the methods which were used to conduct the research presented. It begins with the basic concept of a "desk study" and describes the steps involved in designing the "matched pairs case study." It explains how the nine examples of indigenous groups were selected and analyzed based on the listed cultural traits. It also explains how the impacts on cultural integrity were measured and examines what policy categories most significantly impacted indigenous peoples. These methods are applied in Chapters 4 and 5 to quantify the extent of impacts on the United States' and Canada's respective indigenous peoples.

Chapters 4 and 5 examine the individual policy histories of the United States and Canada. This is essential to the thesis because, although both the United States and Canada have federal fisheries policies, they distribute authority differently. For example, in the United States, fisheries policy has been interpreted as a reserved power of the states.<sup>17</sup> Canada's federal government, on the other hand, maintains authority over regulations pertaining to both aboriginal relations and fisheries policy.<sup>18</sup> In addition, each of these chapters examines the nation's policy history with its indigenous populations, often called Native Americans in the United States and First Nations in Canada. In each case, the objective is to examine how legislative and policy actions have affect-

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<sup>17</sup> Jennifer Sepez-Aradanas, "Treaty Rights and the Right to Culture: Native American Subsistence Issues in Us Law," *Cultural Dynamics* 14, no. 2 (2002).

<sup>18</sup> Knapp, Roheim, and Anderson, "Great Salmon Run: Competition between Wild and Farmed Salmon," (Washington, DC: TRAFFIC NORTH AMERICA-World Wildlife Fund, 2007).



ed the cultural traits of each nation's indigenous people. Also included is a discussion of policies, issues, and relationships specific native tribes have with their federal governments.

## Chapter 2-The Ecological, the Cultural, the Policy Context

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To understand the salmon related issues that challenge the federal governments of the United States and Canada and their respective indigenous cultures, one must understand their contextual background. This chapter presents an overview of three essential topics. First, salmon biology and ecology are introduced as well as the threats to salmon species, including overfishing, agriculture, hydroelectric dams, and aquaculture. The purpose of this review is to establish the biological and ecological context in which cultural traits are anchored and that shape federal policies. Second, definitions of indigeneity and culture are discussed, along with the relationship between fishing rights and culture. Finally, the chapter explores policy dimensions that affect salmon fisheries and the federal policies toward indigenous peoples.

### The Ecological Context

The wild Pacific salmon (*Oncorhynchus*) is a member of the Salmonidae family that includes seven species, including steelhead and cutthroat trout.<sup>19</sup> However, this thesis focuses on the five *Oncorhynchus* spp. species: the pink, sockeye, chum, coho, and Chinook. These five Pacific Northwest species were selected because the term “‘Pacific (salmon)’ has been traditionally applied to the five (aforementioned) species of fishes in the genus *Oncorhynchus* that are native to the North American...coasts of the Pacific Ocean.”<sup>20</sup> Each species is made up of multiple populations that have adapted to the specific conditions of their environment.

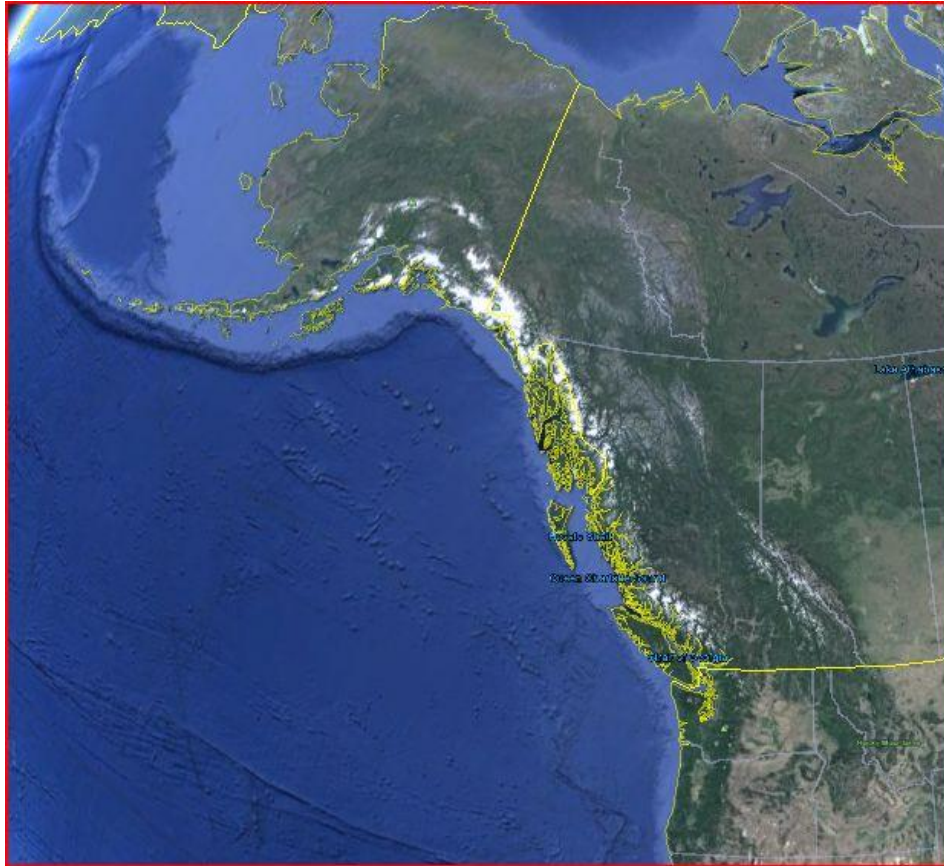
The Pacific Northwest region of North America is a diverse geographic area (Figure 1). It includes temperate rainforests, mountains, high deserts, and an extensive coastal area. The U.S.

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<sup>19</sup>Thomas P. Quinn, *Behavior and Ecology of Pacific Salmon and Trout* (Vancouver, BC: UBC Press, 2004), <http://site.ebrary.com/lib/jmulibrary/detail.action?docID=10146831>.

<sup>20</sup> *Ibid.*, p. viii.

Pacific Northwest includes the northern part of California, and the states of Oregon, Washington, and Alaska. Canada's Pacific Northwest primarily consists of the province of British Columbia.



**Figure 1. Map of the Pacific Northwest Region.** Source: Author.

Each of the five species of salmon relevant to this study has a different geographic distribution and range, and the culture groups discussed later in this thesis are culturally anchored by just one or two specific species.

Pink salmon (*Oncorhynchus gobuscha*), are the most abundant species of salmon.<sup>21</sup> In 2006, the run size was approximately 401.8 million wild salmon.<sup>22</sup> This fish has a native range extending to as far south as North Central California to as far north as the Mackenzie River,<sup>23</sup> with the heart of its range between central Alaska to the Fraser River in Canada (See pink line in Map 2).<sup>24</sup> Although abundant in parts in Canada and Alaska, this fish is not commonly found in areas such as the Puget Sound, Washington, Oregon, and California.<sup>25</sup> Neither the United States nor Canada lists any pink populations as endangered.

Sockeye salmon (*Oncorhynchus nerka*)<sup>26</sup> are the second most abundant salmon species.<sup>27</sup> Their 2006 run size was about 179.2 million wild salmon.<sup>28</sup> Their geographic range begins as far south as the Sacramento River in California and extends as far north as Alaska's Kotzebue Sound (See red line in Map 2).<sup>29</sup> Sockeye are very commonly found in the Columbia River.<sup>30</sup> The

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<sup>21</sup> National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*.

<sup>22</sup> Masahide Kaeriyama, Hyunju Seo, and Hideaki Kudo, "Trends in Run Size and Carrying Capacity of Pacific Salmon in the North Pacific Ocean," *North Pacific Anadromous Fish Commission Bulletin* 5 (2009), [http://www.npafc.org/new/publications/Bulletin/Bulletin%20No.%205/NPAFC\\_Bull\\_5\\_293-302\(Kaeriyama\).pdf](http://www.npafc.org/new/publications/Bulletin/Bulletin%20No.%205/NPAFC_Bull_5_293-302(Kaeriyama).pdf).

<sup>23</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*.

<sup>24</sup> Ibid.

<sup>25</sup> National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*.

<sup>26</sup> D. Bruce Johnsen, "Salmon, Science, and Reciprocity on the Northwest Coast," *Ecology and Society* 14, no. 2 (2009), [http://www.law.gmu.edu/assets/files/publications/working\\_papers/1014SalmonScience.pdf](http://www.law.gmu.edu/assets/files/publications/working_papers/1014SalmonScience.pdf).

<sup>27</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*.

<sup>28</sup> Kaeriyama, Seo, and Kudo, "Trends in Run Size and Carrying Capacity of Pacific Salmon in the North Pacific Ocean."

<sup>29</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*.

<sup>30</sup> "Sockeye Salmon," Columbia River Inter-Tribal Fish Commission, accessed August 27, 2014. <http://www.critfc.org/salmon-culture/columbia-river-salmon/columbia-river-salmon-species/sockeye-salmon/>.

United States and Canada each have two sockeye populations listed under their respective endangered species lists.<sup>31 32</sup>

The chum salmon (*Oncorhynchus keta*) is the third most abundant species of salmon in the Pacific Northwest.<sup>33</sup> Their 2006 run size was about 88.9 million wild salmon.<sup>34</sup> This fish is a broadly distributed species with a geographic range from as far south as the Sacramento River to as far north as the Arctic Ocean (See brown line in Figure 2).<sup>35</sup> There are two chum populations listed under the U.S. Endangered Species list.<sup>36</sup> Canada does not list any chum populations under the Species at Risk Act.

The coho salmon (*Oncorhynchus kisutch*) has a geographic range similar to that of the Chinook (See blue line in Figure 2).<sup>37</sup> Their present estimated run size in Oregon is around 760,000-1.4 million.<sup>38</sup> These fish are also very common in the Columbia River.<sup>39</sup> The U.S. has four coho populations listed under the Endangered Species Act.<sup>40</sup> Canada lists one coho population as threatened.<sup>41</sup>

The Chinook salmon (*Oncorhynchus tshawytscha*) ranges from south-central California to Kotzebue Sound in Alaska (See green line in Figure 2).<sup>42</sup> Their estimated present population

<sup>31</sup> "Search Aquatic Species at Risk," Fisheries and Oceans Canada, 2014, accessed October 15, 2014. <http://www.dfo-mpo.gc.ca/species-especies/listing-eng.htm>.

<sup>32</sup> "Endangered and Threatened Marine Species under NMFS' Jurisdiction," NOAA Fisheries, last modified 2014-10-09, 2014, accessed October 15, 2014. <http://www.nmfs.noaa.gov/pr/species/esa/listed.htm#fish>.

<sup>33</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*.

<sup>34</sup> Kaeriyama, Seo, and Kudo, "Trends in Run Size and Carrying Capacity of Pacific Salmon in the North Pacific Ocean."

<sup>35</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*.

<sup>36</sup> "Endangered and Threatened Marine Species under NMFS' Jurisdiction."

<sup>37</sup> National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*, p. 32.

<sup>38</sup> Chad C. Meengs and Robert T. Lackey, "Estimating the Size of Historical Oregon Salmon Runs," *Reviews in Fisheries Science* 13, no. 1 (2005),

<http://www.epa.gov/wed/pages/staff/lackey/pubs/estimating.pdf>.

<sup>39</sup> "Coho Salmon," Columbia River Inter-Tribal Fish Commission, accessed 27 August, 2014.

<http://www.critfc.org/salmon-culture/columbia-river-salmon/columbia-river-salmon-species/coho-salmon/>.

<sup>40</sup> "Endangered and Threatened Marine Species under NMFS' Jurisdiction."

<sup>41</sup> "Search Aquatic Species at Risk."

<sup>42</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*.

size in Oregon is 284,000-361,000.<sup>43</sup> Chinook originate in larger rivers<sup>44</sup> such as the Columbia River.<sup>45</sup> Nine Chinook populations are listed under the U.S. Endangered Species Act.<sup>46</sup> Only one Chinook population is listed under Canada's Species at Risk Act.<sup>47</sup>

All five species of salmon are protected under the Pacific Salmon Treaty of 1985 and are co-managed by the United States and Canada so that their populations and catch are maintained at healthy levels in specific locations.<sup>48</sup> Despite this, there are many threatened Pacific Northwest salmon populations. Of the five salmon species, the Chinook are the most threatened in the United States with nine populations protected under the Endangered Species Act. Two of these are located in the Columbia River. This is significant because the Columbia River populations have been impacted by the construction of 14 hydroelectric dams.<sup>49</sup> The pink salmon, on the other hand, has the highest population runs and is not listed under either the U.S. Endangered Species Act or Canada's Species at Risk Act. The population sizes of different species impact how the salmon are monitored and influence policy debates on how to conserve salmon species so that they may be enhanced for future use.

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<sup>43</sup> Meengs and Lackey, "Estimating the Size of Historical Oregon Salmon Runs."

<sup>44</sup> National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*.

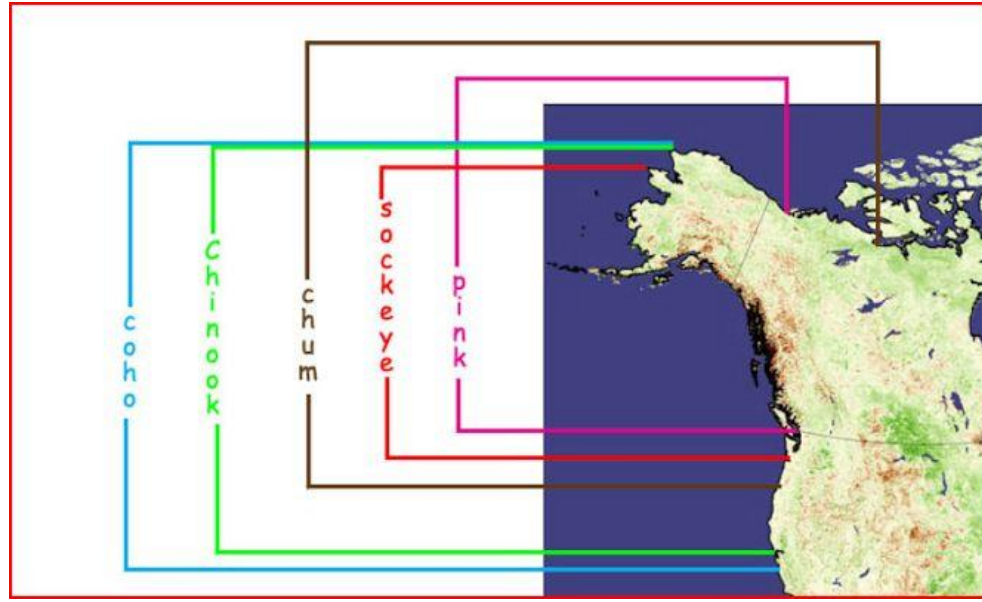
<sup>45</sup> "Chinook Salmon," Columbia River Inter-Tribal Fish Commission, accessed August 27, 2014. <http://www.critfc.org/salmon-culture/columbia-river-salmon/columbia-river-salmon-species/chinook-salmon/>.

<sup>46</sup> "Endangered and Threatened Marine Species under NMFS' Jurisdiction,"

<sup>47</sup> "Search Aquatic Species at Risk,"

<sup>48</sup> Kathleen A. Miller "North American Pacific Salmon: A Case of Fragile Cooperation," FAO Corporate Document Repository, 2003, accessed July 15, 2014, <http://www.fao.org/docrep/006/y4652e/y4652e09.htm>.

<sup>49</sup> John Harrison, "Hydropower," nwcouncil.org, 2008, accessed October 7, 2014, <https://www.nwcouncil.org/history/Hydropower>.



**Figure 2. The Pacific Northwest Salmon's Ecological Range.** Source: "Salmon Species Diversity." 2003. Accessed October 19, 2014. <http://www.marinebio.net/marinescience/05nekton/saspddiv.htm>.

### ***General Life Cycle of the Pacific Salmon***

The lifecycle of the salmon is important to the analysis in this thesis because salmon are a keystone species in the Pacific Northwest. When adult salmon die, they provide essential nutrients such as nitrogen and phosphorous, which enter the food chain and help support the growth of juvenile salmon. Studies have shown that at least 39% of the nitrogen absorbed by juvenile salmon as they feed on organic matter in the freshwater streams of their birth is marine-derived nitrogen. The extra nutrients from this natural process allow juvenile fish to grow stronger.<sup>50</sup> They also serve as a fertilizer for nutrient-poor ecosystems.<sup>51</sup> When birds and mammals consume salmon and deposit them through fecal matter, they also deposit nitrogen to plants. In one study,

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<sup>50</sup> Stephen Watkinson, "Life after Death: The Importance of Salmon Carcasses to British Columbia's Watersheds," *Arctic* 53, no. 1 (2000).

<sup>51</sup> Heather Evelyn Castleden, "As Sacred as Cedar and Salmon: A Collaborative Study with Huu-Ay-Aht First Nation, British Columbia into Understanding the Meaning of 'Resources' from an Indigenous Worldview" (Ph.D, University of Alberta (Canada), 2007).



it provided as much as 18% of nitrogen to foliage.<sup>52</sup> As a result, areas such as the cedar forests in West Vancouver Island benefit from salmon carcasses because they absorb the essential nutrients required for healthy growth.<sup>53</sup>

Pacific Northwest indigenous cultures understood the need to return nutrients to the soil, as evidenced by their myths, legends, and cultural practices. The Lummi people of the Puget Sound region display an understanding of this process in their traditional stories and ceremonies, which serve as a reminder that respect for salmon is important to the health and well-being of the region. The Lummi myth of the Salmon Woman tells the story about how humans failed to respect her gift of salmon because they did not properly dispose of the carcasses. As a result, the Salmon Woman and her children left, and the people suffered.<sup>54</sup> The Lummi understood that without salmon, their way of life would cease to exist. This is emphasized in the Lummi's First Salmon Ceremony: "Our people honored the salmon each year by holding a salmon ceremony to respect the gift that the Salmon Woman provides to us, the sacrifice of her salmon children, and to pass down the tradition of respect taught to us by our elders."<sup>55</sup> When the Lummi return the first salmon caught to the water, they demonstrate understanding that salmon carcasses provide nutrients to the ecosystem, allowing juvenile salmon to grow strong and provide food for the indigenous peoples of the Pacific Northwest.

Salmon are born in fresh water streams, but migrate to the ocean to feed and grow. Before reaching the ocean, salmon must stop in an estuary before they can complete their migra-

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<sup>52</sup> Watkinson, "Life after Death: The Importance of Salmon Carcasses to British Columbia's Watersheds."

<sup>53</sup> Castleden, "As Sacred as Cedar and Salmon: A Collaborative Study with Huu-Ay-Aht First Nation, British Columbia into Understanding the Meaning of 'Resources' from an Indigenous Worldview."

<sup>54</sup> "Lummi Natural Resources: Natural Resources Commission: First Salmon Ceremony," Lummi Natural Resources, accessed September 10, 2014, <http://lnnr.lummi-nsn.gov/LummiWebsite/Website.php?PageID=190>.

<sup>55</sup> Ibid.

tion.<sup>56</sup> In the estuary, the salmon naturally undergoes smoltification, in which a physical change occurs in the biology of the fish, adapting them to saltwater ocean conditions.<sup>57</sup> After smoltification, the salmon begin life in the sea. Salmon generally reside in the ocean for approximately one to five years, depending on the species, before they return to the stream beds of their birth.<sup>58</sup> On their way, they must, again, stop in an estuary to readapt to freshwater conditions before returning to their birthplace and preparing to breed the next generation.<sup>59</sup> Spawning adult salmon die within two weeks.<sup>60</sup>

Four key features distinguish the life cycle of the Pacific salmon. First, salmon spend between 1-5 years in the ocean before returning to their breeding grounds.<sup>61</sup> Second, they have a biological homing device, which, at maturity, guides them as they return to their original spawning grounds. Each salmon population group has its own unique biological adaptations that have been affected by physical factors in its environment such as temperature, river flow, gravel size, and other diverse biotic factors.<sup>62</sup> A third factor is that salmon are semelparous, meaning that salmon are “born in large numbers, reproduce only before dying, grow quickly, suffer high mortality, live fairly short lives, and are extremely fecund.”<sup>63</sup> Fourth, salmon are heritable, meaning that the salmon’s genetic diversity is passed on with each successive generation. Because the salmon’s lifecycle and the time between generations are short, and because reproduction is abundant, they can easily adapt to small changes in the environment.<sup>64</sup>

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<sup>56</sup> National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*.

<sup>57</sup> Ibid.

<sup>58</sup> Johnsen, "Salmon, Science, and Reciprocity on the Northwest Coast."

<sup>59</sup> National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*, p. 30-31.

<sup>60</sup> Ibid.

<sup>61</sup> Johnsen, "Salmon, Science, and Reciprocity on the Northwest Coast."

<sup>62</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*.

<sup>63</sup> Johnsen, "Salmon, Science, and Reciprocity on the Northwest Coast," p. 2.

<sup>64</sup> Ibid.

### ***Threats to Pacific Northwest Salmon Fisheries***

Pacific salmon populations have substantially decreased since the nineteenth century. Salmon runs, measured in millions of salmon that return to their spawning grounds, have declined in such locations as British Columbia from historic numbers (late 1800s) of 44-93 million to current run sizes of 24.8 million salmon. With the exception of Alaska, which has seen an increase in salmon runs from a historic size of 150-200 million to a more recent size of 115-250 million, declines in salmon runs have been a common pattern in regions such as the Puget Sound (from 13-27 million to 1.6 million) and the Columbia River Basin (from 11-15 million to 0.11-0.33 million) in the late 20<sup>th</sup> century.<sup>65</sup> It is estimated that many salmon populations have been reduced to less than 10% of their historic population levels in the late 1850s.<sup>66</sup> Declines began with the rise of commercial salmon fishing to support the cannery industry which developed in the second half of the 1800s.<sup>67</sup> Other causes of this decline include stream pollution due to logging and agriculture.<sup>68</sup> Industrial uses of the Pacific Northwest Rivers such as hydroelectric dams, led to habitat destruction and disruption of salmon migration routes. Today the aquaculture industry poses a potential threat to the native salmon populations.

Pacific Northwest salmon attracted the attention of many commercial fish canneries in the late 1800s. During this period, people believed that salmon were an inexhaustible resource. Commercial salmon canneries were established along territorial waters where the salmon return to spawn. Such locations were ideal because the salmon were more bountiful and easier to har-

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<sup>65</sup> Robert T Lackey, "Restoring Wild Salmon to the Pacific Northwest: Chasing an Illusion?," *What We Don't Know about Pacific Northwest Fish Runs --- An Inquiry into Decision-Making*. (2000), <http://www.epa.gov/wed/pages/staff/lackey/pubs/illusion.htm>.

<sup>66</sup> Robert T. Lackey, "Salmon Decline in Western North America: Historical Context," (Washington, DC: Environmental Information Coalition, National Council for Science and the Environment, 2008), <http://oregonstate.edu/dept/fw/lackey/ENCYCLOPEDIA-OF-EARTH-LACKEY-SALMON-HISTORY-MS-2008.pdf>.

<sup>67</sup> Johnsen, "Salmon, Science, and Reciprocity on the Northwest Coast."

<sup>68</sup> Lackey, "Restoring Wild Salmon to the Pacific Northwest: Chasing an Illusion?."

vest.<sup>69</sup> In addition, there was easy access to cannery facilities from the fish traps where the salmon were caught.<sup>70</sup> This was, as John Sisk states, “the most efficient way to obtain the resource in a quantity large enough to ensure steady operation of the canneries.”<sup>71</sup>

Pacific Northwest canning operations employed not just Euro-American and Asian laborers, but also indigenous peoples such as the Lummi<sup>72</sup> and the Tlingit<sup>73</sup> of Washington and Alaska. These businesses used indigenous peoples to harvest fish and as processing employees. A consequence of this practice was that it limited indigenous peoples’ participation in harvesting salmon for their own subsistence or trading purposes.<sup>74</sup> As more entrepreneurs migrated to the area and established cannery operations from as far south as California<sup>75</sup> to as far north as Southeast Alaska,<sup>76</sup> salmon resources were depleted. Although regulations to restrict fishing methods, such as traps, were enacted in the United States and Canada, 20<sup>th</sup> century technologies and more

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<sup>69</sup> David Fluharty, "Habitat Protection, Ecological Issues, and Implementation of the Sustainable Fisheries Act," *Ecological Applications* 10, no. 2 (2000).

<sup>70</sup> Daniel L. Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery" (Ph.d, University of British Columbia, 1986).  
<https://circle.ubc.ca/handle/2429/26962>

<sup>71</sup> John Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status," in *The Coastal Forests and Mountains Ecoregion of Southeastern Alaska and the Tongass National Forest*, ed. J. Schoen and E. Dovichin (Anchorage, AK: Audubon Alaska and the Nature Conservancy, 2007), p. 4,  
[https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/9.5\\_SalmonIndustry.pdf](https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/9.5_SalmonIndustry.pdf).

<sup>72</sup> Daniel L. Boxberger, "The Lummi Indians and the Canadian/American Pacific Salmon Treaty," *American Indian Quarterly* 12, no. 4 (1988).

<sup>73</sup> David F. Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*(Seattle, WA: University of Washington Press, 2009).

<sup>74</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery".

<sup>75</sup> John Harrison, "Canneries," [nwcouncil.org](http://nwcouncil.org), 2011, accessed 1 September, 2014.  
<https://www.nwcouncil.org/history/Canneries>.

<sup>76</sup> John Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status," in *The Coastal Forests and Mountains Ecoregion of Southeastern Alaska and the Tongass National Forest* (2007); Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status."

efficient methods of harvesting salmon, along with strong consumer demand, led to continuing degradation of salmon populations.<sup>77</sup>

Other commercial activities which disrupt the natural salmon habitat and ecology, such as logging and land development, have limited the amount of salmon that spawn, are reared, and are available to be caught. Forests are important to salmon habitats because they provide an ecological niche for salmon development and survival. They provide shade to maintain cool temperatures for both juvenile and adult salmon.<sup>78</sup> In return, when adult salmon die, their carcasses provide essential nutrients such as nitrogen to the forest.<sup>79</sup> Clear cutting, such as in British Columbia, disrupts this ecological balance. Clear cutting trees without replanting them, can also lead to soil erosion, leaving salmon habitats degraded. Such actions have implications for indigenous peoples such as the Huu-ay-aht because they believe “as the forest went, so did the fish, so did the Huu-ay-aht.”<sup>80</sup> The forests, salmon, and indigenous peoples are interconnected to each other because without forests, salmon are unable to thrive and indigenous peoples’ way of life is diminished.

It has been said that “Of (all) the various human-caused changes in the region, particularly the Columbia River Basin, perhaps none (have) had greater impact than (hydroelectric) dams.”<sup>81</sup> The purpose of dams is to provide water resources for agricultural purposes and hydroelectric power for the growing communities in the Pacific Northwest.<sup>82</sup> Since the 1930s, 14

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<sup>77</sup> Mansel G. Blackford, *American Business, Politics, and Society : Making Seafood Sustainable : American Experiences in Global Perspective*(Philadelphia, PA: University of Pennsylvania Press, 2012).

<http://site.ebrary.com/lib/jmulibrary/detail.action?docID=10642750>.

<sup>78</sup> "Forest and Sea: The Salmon Connection," Encounters, accessed October 9, 2014.

<http://www.encountersnorth.org/wildexplorer/salmon/forest-and-sea-salmon.html>.

<sup>79</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*. (Vancouver, BC: UBC Press, 2004).

<sup>80</sup> Castleden, "As Sacred as Cedar and Salmon: A Collaborative Study with HUU-Ay-Aht First Nation, British Columbia into Understanding the Meaning of 'Resources' from an Indigenous Worldview," p. 56.

<sup>81</sup> National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*, p. 60.

<sup>82</sup> Gro B. Ween, "Two Rivers: The Politics of Wild Salmon Indigenous Rights and Natural Resource Management," *Sustainability* 5, no. 2 (2013), <http://www.mdpi.com/2071-1050/5/2/478>.

mainstream hydroelectric dams were constructed on the Columbia River to further the economic prosperity of the Pacific Northwest. These dams produce 8,664 megawatts of electricity per year.<sup>83</sup> However, the construction of dams inundated river ways, which led to habitat destruction and the disruption of salmon migration routes. As reservoirs formed behind the dams, native salmon populations were impacted. In addition, this activity “increases (water) temperature and deprives the salmon...of dissolved oxygen,” which impairs healthy fish growth and decreases their survival capabilities.<sup>84</sup> For example, prior to dam construction, there were an estimated “7.5-10 million adult salmon (that) returned to the (Columbia) river annually.”<sup>85</sup> However, with the construction of dams along the river, salmon populations were reduced to 30% of the historic populations.<sup>86</sup> Consequently, fewer salmon populations are able to return to their spawning grounds and the offspring of those that are able to spawn may have lower survival rates.<sup>87</sup>

A potential new threat to native salmon populations is the artificial rearing of fish species through aquaculture. Aquaculture, (fish farming), hatches and rears fish species such as Atlantic salmon and is perceived as a way to reduce the pressure on commercial fisheries by providing an alternative source of fish. It is a growing industry in the Pacific Northwest, and in 2000, “fish-processing companies harvested nearly 30 million metric tons (mmt) of seafood from fish farms, including...salmon.”<sup>88</sup> Although this industry has economic benefits, there are problems related to management and control issues. Some fish farms rear non-native species and genetically engineered salmon species have been proposed. Escape of these fish could cause ecosystem disrup-

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<sup>83</sup> Harrison, "Hydropower."

<sup>84</sup> Brian Richard Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," *Boston College Environmental Affairs Law Review* 14, no. 2 (1987), p. 317.

<sup>85</sup> John W. Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers," *Environmental Management* 47, no. 1 (2011), p. 147.

<sup>86</sup> *Ibid.*, p. 149.

<sup>87</sup> Hanna, "'Oncorhynchus' Spp.: Climate Change, Pacific Northwest Tribes, and Salmon."

<sup>88</sup> Blackford, *American Business, Politics, and Society : Making Seafood Sustainable : American Experiences in Global Perspective*.

tion. In addition, farmed salmon are reared in pens in the ocean, which is not a closed environment.<sup>89</sup> There is potential for artificially raised fish and their byproducts to enter the ecosystem and destroy wild species of fish through water pollution, cross-breeding, and/or the spread of parasites and diseases. Groups including the First Nations of Bella Bella are especially opposed to the aquaculture program because many of these facilities are located within their traditional territorial fishing sites.<sup>90</sup> The consensus is that if artificially raised, non-native fish escape into the Pacific Northwest, the region's ecology is threatened. Problems regarding First Nations and aquaculture will be further discussed in Chapter 5 as part of the section on Canadian fisheries policy.

Any disruption of the salmon lifecycle disrupts the indigenous peoples' way of life because they are interconnected to each other. To Pacific Northwest indigenous peoples, salmon are not just a protein source, easily replaced by other sources of food. Salmon are central to their way of life, their social structure, spirituality and traditions. Since indigenous tribes are autochthonous<sup>91</sup> (e.g. geographically locked to their land), if salmon populations are disrupted by overfishing, land development, aquaculture, or restrictive federal policies, indigenous peoples are not only economically impacted but also socially and spiritually impacted. This is the case in the Klamath River Basin where the Karuk tribe is unable to fish for salmon because salmon habitat was destroyed by the construction of dams. As a result, salmon populations in the area are less abundant because they are unable to arrive at their spawning grounds and provide for the next

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<sup>89</sup> Ibid.

<sup>90</sup> Kira Gerwing and Timothy McDaniels, "Listening to the Salmon People: Coastal First Nations' Objectives Regarding Salmon Aquaculture in British Columbia," *Society & Natural Resources* 19, no. 3 (2006).

<sup>91</sup> Gausset, Kenrick, and Gibb, "Indigeneity and Autochtony: A Couple of False Twins?."

generation.<sup>92</sup> Without abundant salmon resources and healthy ecosystems to rear them, the indigenous people suffer economically and culturally.

### The Cultural Context

The concept of *culture* needs to be addressed before one can understand the importance of *indigeneity*. The term *culture* is “a broad body of beliefs, customary behaviours, and modes of social organization that are transmitted over generations.”<sup>93</sup>

Pacific Northwest fisheries issues can be seen as a conflict between the Western capitalist culture of the United States and Canada and the subsistence-based indigenous cultures as reflected by their different views on wild Pacific salmon. The Pacific Northwest tribes are autochthonous, and they perceive salmon as sacred because the fish are essential to their survival. As a result, Pacific Northwest indigenous peoples endeavor to “manage (themselves) within the resource instead of trying to manage the resource.”<sup>94</sup>

Traditionally, salmon serve as both the main food and the primary economic activity for the indigenous peoples in the Pacific Northwest. In this region, the indigenous cultures had a subsistence-based economy. They did not farm, but instead gathered and harvested available food resources. Salmon is a major source of protein.<sup>95</sup> Historically, individual indigenous peoples consumed an average of about a pound of salmon every day.<sup>96</sup> Fishing for and preserving salmon for future use and trade were significant economic activities because they provided work

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<sup>92</sup> Gould, Erin, "Salmon as a Sacred Resource in the Klamath River," *Indigenous Religious Traditions*, 2014, accessed June 28, 2014. <http://sites.coloradocollege.edu/indigenoustraditions/sacred-lands/salmon-as-a-sacred-resource-in-the-klamath-river/>.

<sup>93</sup> Lesly Head, David Trigger, and Jane Mulcock, "Culture as Concept and Influence in Environmental Research and Management," *Conservation and Society* 3, no. 2 (2005), p. 255.

<sup>94</sup> Dorothee Schreiber, "Our Wealth Sits on the Table: Food, Resistance, and Salmon Farming in Two First Nations Communities," *American Indian Quarterly* 26, no. 3 (2002). *JSTOR Journals*, EBSCOhost, accessed August 31, 2014.

<sup>95</sup> Roseanne C. Schuster et al., "Importance of Traditional Foods for the Food Security of Two First Nations Communities in the Yukon, Canada," *International Journal Of Circumpolar Health* 70, no. 3 (2011).

<sup>96</sup> "We Are All Salmon People," Columbia River Inter-Tribal Fish Commission, accessed October 16, 2014, <http://www.critfc.org/salmon-culture/we-are-all-salmon-people/>.



for everyone. Men would fish while woman would process the salmon.<sup>97</sup> Without access to traditional sources of salmon, indigenous peoples lost not just their food source but their occupations.

Salmon are central to the indigenous peoples' economy as well as their material culture. Salmon were used to trade for needed materials either within or between tribes. For example, the potlatch was a common traditional economic and material cultural practice. Its purpose was to "give with the (expectation) of a return gift."<sup>98</sup> In Tlingit society, potlatches functioned to "solidify clan 'ownership' of fishing and hunting areas," by displaying wealth in food resources.<sup>99</sup> Wealth was not measured by monetary instruments but by physical goods such as salmon. If one group had diminished salmon resources, potlatches offered an opportunity for participating tribes to exchange other goods for needed salmon, benefitting both. In addition, trade served an ancillary purpose for tribes: "trading was more than a simple act of economic exchange. Here Indians met old friends, made new ones, and heard the latest news."<sup>100</sup> Potlatches met not only economic needs but also social and material cultural needs because they brought people together to exchange material and cultural resources with each other.

The salmon was more than a major source of food, but also had important social, spiritual and ceremonial purposes.<sup>101</sup> One ceremony common to many indigenous groups throughout the Pacific Northwest is the First Salmon Ceremony.<sup>102 103</sup> The purpose of the ceremony is to cele-

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<sup>97</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery".

<sup>98</sup> Johnsen, "Salmon, Science, and Reciprocity on the Northwest Coast," p. 4.

<sup>99</sup> David Francis Arnold, "'Putting up Fish': Environment, Work, and Culture in Tlingit Society, 1780s-1940s" (Ph.D., University of California, Los Angeles, 1997), p. 28-29.

<sup>100</sup> James P. Ronda, "Down the Columbia," *Lewis and Clark among the Indians*, 1984, accessed October 7, 2014. [http://lewisandclarkjournals.unl.edu/read/?\\_xmlsrc=lc.ronda.01.07&\\_xslsrc=LCstyles.xsl](http://lewisandclarkjournals.unl.edu/read/?_xmlsrc=lc.ronda.01.07&_xslsrc=LCstyles.xsl).

<sup>101</sup> "Our Place at the Table: First Nations in The BC Fishery," p. 10.

<sup>102</sup> Erna Gunther, "An Analysis of the First Salmon Ceremony," *American Anthropologist* 28, no. 4 (1926).

<sup>103</sup> "First Salmon Feast," Columbia River Inter-Tribal Fish Commission, Columbia River Inter-Tribal Fish Commission, accessed June 28, 2014. <http://www.critfc.org/salmon-culture/tribal-salmon-culture/first-salmon-feast/>.

brate the return of the salmon and express gratitude for this important gift that has been provided to the indigenous peoples. Typically, their ceremony begins with the blessing of the first salmon caught. Then the salmon are butchered, cooked and consumed by the people. Finally, the remains are returned to the river or sea.<sup>104</sup> In some cases, no one may catch additional salmon until the ceremony is complete, giving some salmon the time to make their way upstream to spawn before indigenous fishers begin fishing in earnest. The ceremonies are social gatherings that pass down traditions and stories to the next generation so that young people will honor and respect the next generation of salmon. There are many variations on the basic First Salmon Ceremony. For example, Columbia River tribes celebrate the First Salmon Feast during which they not only bless the fish but also the water that provides the fish.<sup>105</sup> First salmon ceremonies honor the salmon's life giving gift to indigenous people who recognize that salmon have sustained them since time immemorial.

These ceremonies also include recitation of the indigenous peoples' respective creation stories. Many indigenous peoples of the Pacific Northwest, including Washington and Oregon, share a common story of how Coyote provided salmon to the people.<sup>106</sup> This story, as related by Charles Sam III, tells of a time when Coyote collected gifts from nature to provide for the human inhabitants. In the story, the salmon decides to give up both its body and its voice. The sacrifice was made with one condition, that "“with these gifts come a big responsibility, though; I ask that humans speak for me and for all other animals and plants of the earth. The humans must promise to protect us now and for future generations.””<sup>107</sup>

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<sup>104</sup> Pamela T. Amoss, "The Fish God Gave Us: The First Salmon Ceremony Revived," *Arctic Anthropology* 24, no. 1 (1987).

<sup>105</sup> "First Salmon Feast."

<sup>106</sup> Jay Miller, "Salmon, the Lifegiving Gift," American Indians of the Pacific Northwest Collection, accessed July 14, 2014. <https://content.lib.washington.edu/aipnw/miller2.html>.

<sup>107</sup> Charles F. Sams III, "Wakanish Naknoowee Thluma: 'Keepers of the Salmon'," *Oregon Historical Quarterly* 108, no. 4 (2007), p. 645.

Other stories relate what happens when people do not respect the salmon. The Lummi legend about the Salmon Woman tells people about how she was insulted by the people because her children were consumed but their carcasses were left on the shoreline. In response, the Salmon Woman restored her children into whole salmon; she transformed into a salmon and left the area with her children.<sup>108</sup> This story was intended to convey that, if the people did not properly return the uneaten parts of the salmon to the river as is Lummi tradition, the salmon would not return to provide food for the Lummi.<sup>109</sup> In honor of the Salmon Woman, the Lummi practice the proper disposal of salmon carcasses in their First Salmon Ceremony. This activity has an important environmental message as well as a cultural connection because the indigenous peoples justifiably believe that this practice will cause the salmon to return more plentifully because it enriches the environment.<sup>110</sup> Traditional stories, such as these, in which salmon are seen as a sacred gift from a creator, are important because they influence the Pacific Northwest tribes' commitment as stewards of the salmon.<sup>111</sup>

Indigenous people also show their respect for the salmon by using traditional harvesting technologies and stewardship practices. A common example was the use of fish weirs. This practice involves devising barriers to trap salmon based on their size, allowing indigenous fishers to select fish of proper quality for their needs while releasing the remaining fish to return to their spawning grounds.<sup>112</sup> Other techniques and technologies such as dipnets, platforms,<sup>113</sup> and reef

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<sup>108</sup> "Lummi Natural Resources: Natural Resources Commission: First Salmon Ceremony."

<sup>109</sup> Ibid.

<sup>110</sup> Miller, "Salmon, the Lifegiving Gift."

<sup>111</sup> Ibid.

<sup>112</sup> James Thomas Jones, "'We Looked after All the Salmon Streams': Traditional Heiltsuk Cultural Stewardship of Salmon and Salmon Streams. A Preliminary Assessment" (Master's thesis., University of Victoria (Canada), 2002).

<sup>113</sup> "Tribal Salmon Culture," Columbia River Inter-Tribal Fish Commission, accessed July 8, 2014. <http://www.critfc.org/salmon-culture/tribal-salmon-culture/>.

nets<sup>114</sup> capture and allow release of unwanted salmon without harming them physically or ecologically.

Societies have not always valued indigenous peoples and their cultures. Western society has, at times, sought to diminish or even extinguish them. Beginning in the latter half of the 20<sup>th</sup> century, however, many have come to realize that indigenous cultures are a valuable resource requiring protection. In 1972, the UN Working Group for Indigenous Peoples,<sup>115</sup> used the term *Indigeneity* to describe a global movement to resist actions, including forced assimilation and other forms of cultural destruction, that threaten the world's indigenous cultures.<sup>116</sup> The term derives from the word, indigenous, meaning the descendants of the "original...country or an area."<sup>117</sup> This definition includes people with a cultural tie to an area before successive settlers arrived to colonize it. In addition, indigeneity seeks to perpetuate unique and distinctive cultures, preserve the right to self-determination, and protect those who are dispossessed or marginalized by another society.<sup>118</sup>

### ***The Concept of Indigeneity***

Although the term *culture* is related to indigeneity, they are not synonymous. According Grant Arndt, a professor of Anthropology and American Indian Studies, the concept of indigeneity began in the 1960s and 1970s as a response to the increasing indigenous movements in the world, especially in Canada, the United States and Latin America.<sup>119</sup> In these countries, indigenous groups were marginalized due to colonial and settlement activities of European peo-

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<sup>114</sup> "Wild Pacific Salmon," Lummi Island Wild, 2014, accessed September 3, 2014, <http://www.lummiislandwild.com/about-reefnetting.cfm>.

<sup>115</sup> McGuinne, "Official Definitions of Indigeneity," .

<sup>116</sup> Grant Arndt, "The Emergence of Indigeneity and the Politics of Race and Culture in Native North America," *Reviews in Anthropology* 43, no. 1 (2014).

<sup>117</sup> Gausset, Kenrick, and Gibb, "Indigeneity and Autochtony: A Couple of False Twins?," p. 136.

<sup>118</sup> *Ibid.*

<sup>119</sup> Arndt, "The Emergence of Indigeneity and the Politics of Race and Culture in Native North America."

ples.<sup>120</sup> In 1983, the United Nations Working Group for Indigenous Peoples created basic criteria for indigeneity:

“(a) (Indigenous Peoples are descendents) which were in the territory at the time when other groups of different cultures or ethnic origin arrived there; (b) precisely because of their isolation from other segments of the country’s population they have almost preserved intact the customs and traditions of their ancestors which are similar to those characterised as indigenous; (c) they are, even if only formally, placed under a state structure which incorporates national, social and cultural characteristics alien to their own.”<sup>121</sup>

Describing the qualities that define a people as indigenous was a first step in the promotion of a progressive movement to bring indigenous peoples and contemporary society together to achieve a desirable post-colonial relationship. The goal was to “presuppose a sphere of commonality among those who form a world collectively of ‘indigenous peoples.’”<sup>122</sup> It was hoped that a combined effort of many indigenous groups would help these groups raise worldwide awareness and obtain their inherent rights more quickly. However, according to Grant Arndt, the indigeneity movement did not gain global recognition until the late 1980s and early 1990s, when the movement to preserve indigenous cultures such as those of the indigenous and environmental movement in the Amazon Rainforest attracted worldwide interest. Such movements, according to Arndt, are important because they help “provoke ongoing reflections on the politics of ethnographic research and representation,” and influence governments to seek new relationships between non-indigenous, contemporary cultures and indigenous cultures.<sup>123</sup>

Although indigeneity has sparked a movement, many indigenous cultures continue to require protection and support. In response, the 2007 UN Declaration on the Rights of Indigenous Peoples was developed. This new document’s goal is to bolster the inherent rights of indigenous

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<sup>120</sup> Gausset, Kenrick, and Gibb, "Indigeneity and Autochtony: A Couple of False Twins?."

<sup>121</sup> McGuinne, "Official Definitions of Indigeneity."

<sup>122</sup> Francesca Merlan, "Indigeneity: Global and Local," *Current Anthropology* 50, no. 3 (2009), p. 303.

<sup>123</sup> Arndt, "The Emergence of Indigeneity and the Politics of Race and Culture in Native North America," p. 82.

cultures around the world. It specifies issues that must be addressed by signatories, including: “(1) self-determination; (2) lands, territories, and resources; (3) international peace and cooperation; (4) cultural, political, and social rights; (5) relocation and occupation; and (6) treaties.”<sup>124</sup> Yet, many issues remain. According to Francesca Merlan, some nations, including the United States, Canada, New Zealand, and Australia, have difficulty with this document stemming from concern about ambiguous rights, including the right to self-determination and the right to resources.<sup>125 126</sup> These nations fear that this kind of ambiguity could lead to “‘possible secession’ and thus in fact (threaten) their political unity, territorial integrity, and stability.”<sup>127</sup>

While these concerns may be legitimate, lack of support for the UN document does not prevent indigenous groups from claiming their rights. For example, the American Indian Movement did not solely rely on UN declarations and achieved many of its objectives by confronting state, local and federal governments. Grant Arndt summarizes this clearly:

“Despite the role of American Indian struggles in the emergence of the global movement and its rhetoric of sovereignty...indigenous peoples in the United States have tended to assert their rights within a distinctive historical and institutional context, rarely to the United Nations, but rather in relationship to the federal (government) and in certain circumstances, state and local governments.”<sup>128</sup>

For example, in the 1960s the Puyallup, Nisqually and Muckleshoot tribes organized “fish-ins” on the Puget Sound to protest the state’s authority over treaty fishing rights.<sup>129</sup> The tribes were dissatisfied with the state regulations that restricted their inherent and federally recognized right to fish for salmon. The movement’s objective was to obtain a Supreme Court ruling on whether state governments had authority to regulate tribal fishing. The Supreme Court ruled

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<sup>124</sup> Merlan, "Indigeneity: Global and Local," p. 316.

<sup>125</sup> Gausset, Kenrick, and Gibb, "Indigeneity and Autochtony: A Couple of False Twins?."

<sup>126</sup> Merlan, "Indigeneity: Global and Local."

<sup>127</sup> Ibid. p. 317

<sup>128</sup> Arndt, "The Emergence of Indigeneity and the Politics of Race and Culture in Native North America," p. 83.

<sup>129</sup> Fronda Woods, "Who's in Charge of Fishing?," *Oregon Historical Quarterly* 106, no. 3 (2005).

that any hunting and fishing regulation had to be “reasonable and necessary to conserve the fishery,’ ....provided the regulation meets appropriate standards and does not discriminate against the Indians.”<sup>130</sup> This set a precedent for future court decisions regarding the powers of the state and federal government to set fishing regulations and restrict Native American fishing rights which has implications for the tribes presented in the next few chapters.

The argument for cultural recognition of indigenous cultures in the United States has its historic basis in federal actions such as treaty-based diplomacy, court decisions, and legislation such as the Indian Reorganization Act of 1934.<sup>131</sup> This is also the case in Canada with regard to its First Nations.<sup>132</sup> The UN Charter is, therefore, only one of many documents supporting indigenous groups as they assert their rights to autonomy and self-determination.

For the “matched pairs case study” with nine examples, the tribes express their indigeneity/cultural integrity in similar ways. For example, all indigenous peoples in the study continue to practice salmon fishing and ceremonies such as the First Salmon<sup>133</sup>/Feast<sup>134</sup> that celebrates the first salmon caught for the season. Although customs and practices have changed since the 1850s, all the case study tribes exhibited some of the qualities of indigeneity defined by the 2007 UN Declaration on the Rights of Indigenous Peoples.

Most of the case studies presented in this thesis have a federal treaty that defines tribal territory and confirms the group’s cultural right to practice salmon fishing and harvest fish. Those groups without treaties, such as the Heiltsuk and St’at’imc of Canada, claim their right to self-determination to harvest salmon citing federal laws such as the Canadian Constitution Act of

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<sup>130</sup> Ibid., p. 423-424.

<sup>131</sup> Arndt, "The Emergence of Indigeneity and the Politics of Race and Culture in Native North America."

<sup>132</sup> "A History of Treaty-Making in Canada," Aboriginal Affairs and Northern Development Canada, 2011, accessed July 14, 2014. <https://www.aadnc-aandc.gc.ca/eng/1314977704533/1314977734895>.

<sup>133</sup> Amoss, "The Fish God Gave Us: The First Salmon Ceremony Revived."

<sup>134</sup> "First Salmon Feast."

1982<sup>135</sup> that protect indigenous peoples' rights. In the United States, however, indigenous peoples sometimes had to go through the courts to define their fishing rights. Examples include the Boldt decision of the 1970s that determined a 50% split of the salmon harvest between indigenous and non-indigenous peoples.<sup>136</sup>

### ***Cultural Perceptions of Natural Resources***

Western capitalist cultures have historically perceived resources as something to extract in order to make a profit. This is exemplified by the Pacific Northwest salmon cannery industry of the 19<sup>th</sup> century. Entrepreneurs dominated the Pacific Northwest fishery during this period, developing canneries and fish traps, and harvesting salmon at high rate in rivers and coastal areas throughout the region.<sup>137 138</sup> In the late 1800s, cannery operations in the Puget Sound area harvested large quantities of sockeye salmon which were commercially desirable due to their red flesh. The cannery entrepreneurs firmly believed that they "found virtually an unlimited supply of natural resources."<sup>139</sup> When overfishing caused the depletion of the salmon resources, efforts to enhance salmon abundance were initiated. Conservation strategies in Washington and Oregon limited fish traps that blocked rivers, the implementation of seasonal closures, and the issuance of fisheries licenses in an attempt to increase salmon populations by allowing fish to return to their spawning grounds.<sup>140</sup> Although many of these activities were beneficial, much of the effort was motivated by commercial interests hoping to provide fish for the canning industry. The Western capitalist culture promoted conservation, innovation, and exploitation in pursuit of profit.

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<sup>135</sup> Geoff Regan, "Canada's Policy for Conservation of Wild Pacific Salmon," ed. Department of Fisheries and Oceans Canada (Vancouver, BC: Her Majesty the Queen in Right of Canada, 2005). <http://www.pac.dfo-mpo.gc.ca/publications/pdfs/wsp-eng.pdf>.

<sup>136</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention."

<sup>137</sup> Woods, "Who's in Charge of Fishing?."

<sup>138</sup> Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status."

<sup>139</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery," p. 83.

<sup>140</sup> Woods, "Who's in Charge of Fishing?."



Prior to European contact, the salmon was, and still is, the common heritage of the indigenous peoples of the Pacific Northwest. The food, social, economic, material culture, ceremonial, cycles of heritage, and technological cultural traits related to salmon are essential to indigenous cultures in the Pacific Northwest. The people see themselves as interconnected with the Pacific salmon.

The two conceptions provide a dichotomy. Western capitalists perceive resources such as salmon as commodities to be conserved so that they can be exploited as a means to economic and monetary benefit. Indigenous peoples, on the other hand, perceive salmon as essential to their physical and cultural well-being and believe that proper stewardship is the key to preserving both salmon and people. These differing points of view have led to problems, especially when it seemed that Western capitalists exploited and managed resources without consideration of how their actions would affect indigenous tribes. Policy decisions dictated by Western cultures, such as those impacting the Lummi participation in the commercial salmon industry and limiting their fishing for cultural purposes, have dramatically impacted Lummi economic and political participation.<sup>141</sup> As a result, natural resources such as salmon are depleted and cultures diminish.

The 2007 UN Charter for Indigenous Rights on Cultural Integrity states that *cultural integrity* is the maintenance of individual cultures and that the ruling states have a duty to act in a way that does not interfere with those cultural rights.<sup>142</sup> To live up to this ideal, it is important to recognize the cultural traits of indigenous people in order to preserve them. This thesis focuses on the specific cultural traits of specific Pacific Northwest indigenous tribes that have been affected by federal policies impacting specific salmon fisheries. It will examine how well the Unit-

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<sup>141</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

<sup>142</sup> Davis, "Summary of the UN Declaration on the Rights of Indigenous Peoples."

ed States and Canada preserved these indigenous peoples' "right to practice and revitalize their cultural traditions and customs in all their manifestations (Article 11)."<sup>143</sup>

### **The Policy Context**

In order to understand the impacts of U.S. and Canadian policies on salmon fisheries and native peoples, one must understand the different types of public policies that are at work with respect to this issue. These policies include three broad categories: 1) the right to fish as established under treaties, 2) endangered species protection, and 3) fisheries management. Of these three, fisheries management is the most complex because it incorporates federal and state/provincial policies, bilateral treaties between the U.S. and Canada, and (for the United States) a series of judicial rulings establishing the regulatory power of state governments over their natural resources. The scope and character of each of these categories of policies is reviewed in detail in Chapters 4 and 5; the nature and significance of these policies are briefly introduced here.

### ***Treaty-Based Fisheries Rights***

The evolution of relations between North American indigenous peoples and non-indigenous Euro-American settlers began prior to the American Revolution, as a result of settlements founded by major European nations, such as Britain and France. In an effort to maintain control of their North American territories, the British formed alliances with indigenous groups for military purposes to protect trade and commerce, and defend territory interests.<sup>144</sup> Such treaties were valuable to both the indigenous peoples and the British because they assured "peace and

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<sup>143</sup> Ibid., p. 9.

<sup>144</sup> Stephen L. Pevar, *The Rights of Indians and Tribes*, 3 ed. (New York, New York: New York University Press, 2004).

friendship accords.”<sup>145</sup> In 1763, following the Seven Years War, <sup>146</sup> a royal proclamation was declared implementing “Indian Territories”<sup>147</sup> as a reward for the indigenous peoples’ alliance with Britain. This proclamation, which predates the independence of the United States and Canada, promised to protect Indian (indigenous peoples’) sovereignty by strictly regulating governmental land takings, requiring negotiating land surrenders before the Crown occupied land.<sup>148</sup> However, as the United States, and later Canada, became independent and their Euro-American populations increased, competition for land and natural resources increased conflict between Euro-American settlers and indigenous peoples. Treaties typically established specific fisheries rights for specific indigenous tribes.

### ***Endangered Species Legislation***

The Endangered Species Act<sup>149</sup> and the Species at Risk Act<sup>150</sup> are the United States and Canada’s respective legislation for the protection of any species of plants and animals that are threatened or endangered to become extinct. The purpose of listing endangered species was to identify flora and fauna at risk of extinction and “facilitate recovery of species that were on the path to extinction.”<sup>151</sup> Their duties are to “implement automatic prohibitions, develop recovery and action plans, plan and implement critical habitat protection, and conduct consultations within

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<sup>145</sup> Ken Coates, "Breathing New Life into Treaties: History, Politics, the Law, and Aboriginal Grievances in Canada's Maritime Provinces," *Agricultural History* 77, no. 2 (2003), p. 339.

<sup>146</sup> "A History of Treaty-Making in Canada."

<sup>147</sup> Ibid.

<sup>148</sup> Coates, "Breathing New Life into Treaties: History, Politics, the Law, and Aboriginal Grievances in Canada's Maritime Provinces."

<sup>149</sup> Colleen M. Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans," *Idaho Law Review* 41, no. 1 (2004).

<sup>150</sup> Michael C. Healey, "Resilient Salmon, Resilient Fisheries for British Columbia, Canada," *Ecology & Society* 14, no. 1 (2009).

<sup>151</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans," p. 212.

specified timelines.”<sup>152</sup> Restrictions and recovery plans are implemented to include either an entire species or a site-specific species. For example, in the United States, a total of 18 salmon populations are listed as threatened or endangered by the National Oceanic and Atmospheric Administration (NOAA).<sup>153</sup> The coho salmon from the Klamath River Basin is one example that was listed as endangered in 1997.<sup>154</sup> In Canada, the Chinook in the Okanagan region, the coho in the Interior Fraser River, and the sockeye populations in the Cultus and Sakinaw regions are all listed as endangered.<sup>155</sup> Both countries conserve salmon species by their individual stock.

The actions of listing salmon species have implications for indigenous peoples because their access to salmon can be regulated under these laws. For example, both federal governments have authority over endangered species and can dictate how fish are managed and how indigenous peoples’ fishing activities are restricted. However, consultation is required in order to properly accommodate tribal interests and participation.<sup>156</sup> This is a similar situation for Canadian First Nations but the Canadian tribes presented in Chapter 5 may not be impacted because their specific salmon populations are not listed under the Species at Risk Act.

### ***Fisheries Management Policies***

Fisheries management policy ensures “that the optimal benefits (of aquatic resources) are obtained by local users, State or region from the sustainable utilization of aquatic resources to which they have access.”<sup>157</sup> Basically, it identifies the nature of existing fisheries and analyzes factors that threaten fisheries health, including overfishing and ecological damage. When there is

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<sup>152</sup> Regan, "Canada's Policy for Conservation of Wild Pacific Salmon," p. 41.

<sup>153</sup> "Endangered and Threatened Marine Species under NMFS' Jurisdiction,"

<sup>154</sup> Rebecca Cruz Guiao, "How Tribal Water Rights Are Won in the West: Three Case Studies from the Northwest," *American Indian Law Review* 37, no. 1 (2012).

<sup>155</sup> "Search Aquatic Species at Risk."

<sup>156</sup> Colleen M. student author Diener, "Natural Resources Management and Species Protection in Indian Country: Alternativesto Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans," *Idaho Law Review* 41, no. 1 (2004).

<sup>157</sup> "Fisheries Management-Introduction," Fisheries Management, 1997, accessed October 15, 2014. <http://www.fao.org/docrep/003/w4230e/w4230e05.htm#bm05.1>.

uncertainty, the Precautionary Principle is utilized because “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”<sup>158</sup> Then it sets goals and objectives such as a desirable species population size, a timeframe to achieve it and actions such as regulating fishing methods, designating a time and place to fish, and ecosystem recovery plans.<sup>159</sup> Washington State’s Initiative 77 is an example of legislation that banned commercial and subsistence fish traps and limited the number of fishing licenses that could be sold in order to enhance the escapement rate of salmon in the region.<sup>160</sup> It entails consultation and negotiation with interested parties as well as annually reviewing and revising appropriate measures. This ensures that concerns of stakeholders are “appropriately considered and catered for in planning and integration of (management) activities.”<sup>161</sup> The objective is to identify the actual or potential short-term and long-term biological and ecological impacts if an aquatic species continues to be fully exploited, over-exploited, or depleted so that appropriate actions and rules are implemented to preserve the long-term health of salmon species.<sup>162</sup>

Intergovernmental authority and relations are important dimensions of fisheries policy. The United States and Canada are both federal governments. While the United States has authority over indigenous peoples’ interests and provides national standards to conserve salmon, the state governments have the authority to place restrictions on harvesting salmon. The Canadian federal government has more authority to regulate both salmon fisheries management and indigenous people’s interests through the British North American Act of 1867<sup>163</sup> and the Canada Fish-

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<sup>158</sup> Ibid.

<sup>159</sup> Ibid.

<sup>160</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

<sup>161</sup> "Fisheries Management-Introduction."

<sup>162</sup> Ibid.

<sup>163</sup> "A History of Treaty-Making in Canada."

eries Act of 1868.<sup>164</sup> However, judicial rulings impacted the way both governments implemented salmon policies by considering the rights of indigenous peoples. The United States' *Boldt* Decision in 1974 that established that 50% of total salmon catch would be distributed to Native Americans.<sup>165</sup>

In addition, bilateral treaties between the United States and Canada are required to facilitate transboundary salmon species. The Pacific Salmon Treaty of 1985 is the current agreement between the United States and Canada to coordinate Pacific salmon fisheries management.<sup>166</sup> Because salmon are a migratory species, this treaty seeks to promote a more cooperative, international plan to conserve salmon species without harming any parties' salmon interests.<sup>167</sup> It maintains the respective indigenous peoples' inherent rights to fish.<sup>168</sup> However, it does regulate the amount of catch Canada and the United States can obtain. In one example, sockeye salmon migrating from the ocean originated from the Fraser River Basin in British Columbia. In 1985, in order to assure the abundance of salmon in the region, the United States would be allocated 24-33% of the total salmon runs depending on the population fluctuations.<sup>169</sup> This can affect all parties involved in salmon fishing because it allocates more fish to one part than the other.

All policy categories are utilized to better facilitate salmon conservation for healthy population sizes. Restrictions pertaining to the seasonal, technological, and size of salmon runs and catch are important in order to maintain long-term economic benefits of aquatic resources. Activities such as ecological restoration also play a key role because they help preserve the long-

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<sup>164</sup> Regan, "Canada's Policy for Conservation of Wild Pacific Salmon."

<sup>165</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention."

<sup>166</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon," (2013), p. 10.

<sup>167</sup> Joy A. Yanagida, "The Pacific Salmon Treaty," *The American Journal of International Law* 81, no. 3 (1987).

<sup>168</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."

<sup>169</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

term populations of salmon species. These are all essential in providing interested parties such as the indigenous peoples with abundant salmon resources.

## **Summary**

The ecological, cultural, and policy contexts are important for analyzing how Canada and the United States' federal fisheries policies impacted their respective indigenous cultures. This is a complex web of international, federal, and state/provincial fisheries regulations that affects native peoples because everything that is needed to be considered in fisheries management is interconnected. The salmon life cycle drives salmon to specific spawning locations that are linked to specific traditional fishing grounds that are important to individual indigenous groups due to their autochthonous nature. This nature influences indigenous peoples' creation myths, ceremonies, and rituals tied to the salmon species. In addition, the abundance or decline of salmon species influences the kinds of policy measures taken in order to enhance salmon species. However, salmon fisheries management is tailored to geographic location, not by species, and includes the consideration of interested parties so that proper measures are implemented. This has implications for indigenous peoples because each tribe is impacted by different activities unique to their location and fisheries management must be tailored to fit their needs.

## **Chapter 3: Methodology**

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This research is a qualitative case study using a “matched pairs case study” methodology and the primary activity of this research was a “desk study.” Research was based on an extensive literature review of secondary resources. Resources included books pertaining to the historical backgrounds of the indigenous cultures of the United States and Canada and both nations’ federal policy decisions during the height of the commercial salmon industry. It also included academic journals, reports, and dissertations, websites such as tribal/intertribal websites, U.S. and Canadian government websites, and other relevant websites with substantial information pertaining to the subject matter, such as University of Washington and University of British Columbia websites. Additional research utilized both U.S. and Canadian government documents, including policies relating to salmon fisheries and to the nations’ respective indigenous cultures. Also, an understanding of salmon ecology/biology was necessary because it clarifies the unique nature of salmon species and improves understanding of the ways in which the lifecycles of the fish relate to the cultural traits of indigenous people. In addition, since most of the problems facing salmon populations are caused by anthropogenic activity, research included an examination of dams, overfishing, the spread of aquaculture, and other economic activities which have affected the salmon populations.

### **Study Variables**

The purpose of the matched pairs approach is to compare and contrast the impacts of U.S. and Canadian policies on indigenous peoples in order to identify the extent of impacts on their respective indigenous peoples. In order to study the impacts of federal fisheries policies on indigenous peoples, study variables were established. It was essential to identify the dependent and independent factors impacting indigenous peoples in both the United States and Canada as this



information adds depth to the research by identifying what was impacted and the factors that impacted the tribes.<sup>170</sup>

In Table 1, below, are the dependent and independent variables deemed to be important to this research. The dependent variables are the integrity of the cultural traits over time. As mentioned earlier in Chapter 2, these variables are the seven cultural traits of food, ceremony, social, economy, technology, material culture, and cycles of heritage/education. Each cultural trait has an important relationship to each tribe's cultural integrity and is dependent on the availability of salmon. As mentioned in Chapter 2, the indigenous tribes of the Pacific Northwest are autochthonous and have built their cultures around the salmon resources. In an effort to satisfy their indigenous and non-indigenous populations' need to access to natural resources in the Pacific Northwest, the U.S. and Canada have implemented policies that regulate and manage salmon stocks. These include negotiating treaties that provide the indigenous tribes right to fish, the implementation of endangered species legislation that restricts the takings of specific floral and faunal species such as salmon, and fisheries management policies that control salmon populations. These are important because the outcomes resulting from of each independent variable impact the dependent variables in one form or another. This process demonstrates the extent of damage to cultural integrity for each of the nine examples presented in this thesis.

**Table 1. Dependent and Independent Variables to the Research**

| Dependent Variable: Cultural Traits   | Independent Variable: Policies that affect salmon fisheries and indigenous peoples   |
|---|--|
| <ul style="list-style-type: none"> <li>• Food</li> <li>• Ceremony</li> <li>• Social</li> <li>• Economy</li> <li>• Technology</li> <li>• Material Culture</li> <li>• Cycles of Heritage/Education</li> </ul> | <ul style="list-style-type: none"> <li>• Treaty rights to fish</li> <li>• Endangered species legislation</li> <li>• Fisheries management policy</li> </ul> |

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<sup>170</sup> Robert K. Yin, *Case Study Research: Design and Methods*, 3 ed., vol. 5(Tousand Oaks, CA: SAGE Publications, 2003).

## **The Matched Pairs Case Study Method**

A case study research design logically connects the empirical data to research questions and conclusions. In this study, it explains how the dependent variables were impacted by independent variables to convey an understanding of the level of impact on cultural traits. It first poses study questions to help guide the research toward conclusions by asking how or why something occurred. Study propositions provide a topic of interest, such as fisheries management, to delineate the scope of the subject to be analyzed. In addition, a unit of analysis is necessary to measure the impacts in the case studies in order to form conclusions about the data.<sup>171</sup> In this study, each individual “case” being examined involves the ways in which indigenous tribes have been and are currently impacted by federal policies.

The matched pairs approach is a method used to compare dependent variables within a specific field. This thesis compares the cultural traits of the nine examples within an overarching scope. It allows for the control of confounding influences on dependent variables so as to focus on the impacts of policies on cultural traits. In order to detect the impacts of policies on specific native groups, the policies of the U.S. and Canada are compared as they have similar political cultures and territorial history in the Pacific Northwest. Only one species (salmon) is used. This design demonstrates how policies of the two nations are the same or different, and how the contexts of the nine individual tribal cases influence outcomes.

Pattern matching allows the analysis to be quantified so that the “matched pairs case study can be evaluated.” Specifically, an explanatory pattern matching technique is utilized because “the patterns may be related to the dependent or the independent variables of study (or

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<sup>171</sup> Ibid.

both).”<sup>172</sup> These require specific variables to be defined before data collection can commence.<sup>173</sup>

In this thesis, the cultural traits’ integrity (dependent variable) is being measured by the federal policies (independent variable) to determine the level of impact in both the United States and Canada. It converts qualitative data into quantitative data to determine how and why cultural traits were impacted by federal policies.

### **Case Selection Criteria**

This thesis focuses on how the United States’ and Canada’s salmon fisheries policies impacted their indigenous peoples and the Pacific salmon in the Pacific Northwest region. Selection criteria are important to this thesis because the cases must allow comparison between the United States’ and Canada’s policies on fisheries management and tribal fishing rights. This study analyzes the impacts on indigenous peoples in the two countries, basing the level of impact on indigenous tribes on how the policies accommodated their interests. Selection criteria creates a focus to the research by providing specific locations, resources, group of peoples, and sets of dependent variables that have been impacted by independent variables. This allows the matched pairs case study to function properly as the nations’ policies and their effects on their respective indigenous people can be compared and contrasted. The selection criteria for this study are as follows:

- 1) The traditional lands of indigenous tribes included in the study must have been located within the Pacific Northwest region. For the purpose of this study, the Pacific Northwest region stretches from the Sacramento River area in Northern California to as far north as Alaska’s Kotzebue Sound. It includes the states of Alaska, Washington, Oregon, Idaho, and the northern part of California, as well as the Canadian province of British Columbia. The traditional lands of the tribes selected must have been within the historic range of the salmon species identified in the previous chapter. Tribal homelands of indigenous peoples dependent on salmon were influenced by the migration patterns of specific salmon species and cultural traits of these tribes are influenced by the predictable pattern of salmon migrating to the ocean and returning to spawn.

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<sup>172</sup> Ibid., p. 116.

<sup>173</sup> Ibid.

- 2) Only recognized indigenous tribes were included in this study. All tribes presented in this thesis have been formally recognized by the federal governments of the U.S. or Canada, either through legislation or by treaties that established territory as well as listing the rights of the indigenous peoples. Unaffiliated individuals of indigenous ancestry and unrecognized groups were not included in this study.
- 3) Tribes selected for the study all had a history of fishing and/or actively fish salmon today. There had to be a significant current and/or historic cultural tie to the salmon resource. Both historic and current tribal fishing practices are relevant as the effects of policies instituted by the federal governments of Canada and the United States are the focus of this study.
- 4) The selected tribes had at least one cultural trait tied to salmon that was affected by their nation's federal policy. The seven cultural traits included in this study are discussed in Chapter 2 and include food, social, ceremony, economy, technology, material culture, and the cycles of heritage/education.
- 5) The traditional territory of selected tribes was on the coast or within a watershed on the historic migration route of native salmon.

As a result of these selection criteria, nine tribes were identified for use in this study.

Five tribes were selected as case studies for the U.S. Pacific Northwest: the Lummi of the Puget Sound area,<sup>174</sup> Yakama of South-Central Washington,<sup>175</sup> Nez Perce of Eastern Oregon and Washington/Western Idaho,<sup>176</sup> Tlingit of Southeast Alaska,<sup>177</sup> and Karuk of the Klamath River Basin in Southern Oregon and Northern California.<sup>178</sup> For Canada, four British Columbia First Nations were selected. These include the Huu-ay-aht of West Vancouver Island, Heiltsuk of the Central

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<sup>174</sup> Boxberger, "The Lummi Indians and the Canadian/American Pacific Salmon Treaty."

<sup>175</sup> "The Confederated Tribes and Bands of the Yakama Nation," Columbia River Inter-Tribal Fish Commission, accessed 26 August, 2014. [http://www.critfc.org/member\\_tribes\\_overview/the-confederated-tribes-and-bands-of-the-yakama-nation/](http://www.critfc.org/member_tribes_overview/the-confederated-tribes-and-bands-of-the-yakama-nation/).

<sup>176</sup> M. D. Solomon, "Winters in Salmon Country: The Nez Perce Tribe's Instream Flow Claims," *Proteus* 26, no. 1 (2009), <http://www.scopus.com/record/display.url?eid=2-s2.0-84884216176&origin=inward&txGid=A2A3EC8FDF4C24CE6BB4E75551C8A97.mw4ft95QGjz1tIFG9Aluw%3a1>.

<sup>177</sup> Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*.

<sup>178</sup> Gould, "Salmon as a Sacred Resource in the Klamath River," 2014, accessed June 28, 2014. <http://sites.coloradocollege.edu/indigenoustraditions/sacred-lands/salmon-as-a-sacred-resource-in-the-klamath-river/>.

Coast of British Columbia, Nisga'a of the Nass River in Northwest British Columbia, and St'at'imc (Lillooet) of the Southern Interior of British Columbia.<sup>179</sup>

In order to conduct the pattern matching portion of this study, two sets of tables were created to organize the findings of the research. The first set of tables pertains to the various cultural traits that relate to indigeneity. These traits include the use of salmon for food, social, and ceremonial purposes including the First Salmon Ceremony,<sup>180</sup> as well as the economic importance of salmon to the individual tribes. It also includes the changes which have occurred in fishing technology, material culture, and the cycles of heritage/education (e.g. how beliefs are passed on to future generations.) There are separate tables for the United States and Canada with their respective Indian Nations to help compare and contrast the overall impacts on indigenous cultures.

The first set of tables shows the historic changes in these cultural traits due to factors such as laws and regulations, economic development, and government policies. All cells are marked using a binary code to indicate the impact on cultural traits (See Table 2 for an example). A "0" indicates that there has been little to no impact on the cultural trait. A "1" indicates the cultural trait adapted. "Adapted" is used to describe the cultural trait as resilient because, although aspects of it have changed, it has survived in some form and is still significant to indigenous peoples. Finally, a "2" indicates that the cultural trait was impacted and/or has been extinguished. Although most, if not all, cultural traits have been impacted to some extent, varying levels of impact have been experienced. In order to provide clarity, a color coding scheme was utilized to indicate the impact on cultural traits. Red indicates that the cultural trait has been significantly impacted or extinguished and that there is little chance that the cultural trait will return. Orange represents a moderate impact or change in the cultural trait or practice. Green represents

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<sup>179</sup> Robert J. Muckle, *First Nations of British Columbia : An Anthropological Survey (2nd Edition)* (Vancouver, BC: UBC Press, 2006), <http://site.ebrary.com/lib/jmulibrary/detail.action?docID=10214445>.

<sup>180</sup> "Our Place at the Table: First Nations in The BC Fishery."

little to no change in a cultural trait or practice which remains culturally significant even if minor facets have changed. When there was insufficient information to evaluate a cultural trait, the space was left blank. Details of impacts will be provided for each indigenous tribe in the United States and Canada.

**Table 2. Fisheries Management Impacts on Cultural Traits Template**

| Tribe/First Nation Name      |  |  |  |  |
|------------------------------|--|--|--|--|
| <b>Cultural Trait</b>        |  |  |  |  |
| Food                         |  |  |  |  |
| Ceremony                     |  |  |  |  |
| Social                       |  |  |  |  |
| Economy                      |  |  |  |  |
| Technology                   |  |  |  |  |
| Material Culture             |  |  |  |  |
| cycles of heritage/Education |  |  |  |  |

0= Not Impacted; 1 = Adapted; 2 = Impacted. Green = Little to No Impact; Orange = Moderately Impacted; Red = Significantly Impacted.

The color coding allows easy identification of patterns of impact on specific cultural traits. It allows the reader to easily evaluate the status of these indigenous groups in relation to the six issues listed by the UN Declaration on the Rights of Indigenous Peoples in the face of resource scarcity. Questions include:

1. How did the federal government impact the indigenous peoples' rights to self-determination and right to access salmon for food, social, and ceremonial<sup>181</sup> purposes?
2. How did the federal government impact the economy of the indigenous cultures?
3. Are there any adaptations to the cultural traits?

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<sup>181</sup> Ibid.

The second set of tables pertains to the ways in which specific federal fisheries policies in the United States and Canada have had significant impact on indigenous cultures (See Table 3). Each table will provide the names of fisheries management policy categories as well as present the phases of salmon depletion. There are two causal categories of salmon depletion: 1) depletion through overharvesting, and 2) depletion through development (such as dams, agriculture, etc.).<sup>182</sup> Each cell is marked by either a “Yes” or “No” indicating whether a policy or phase had an effect on the individual indigenous tribe. If a cell is marked “Yes,” then detail will be provided in each case study to explain the ways in which the tribe was affected. In addition, there will be a separate cell that visually displays the relationship that the Native American/First Nation tribe experiences with the federal government. It will indicate whether the tribe has a treaty or if the tribe was required to obtain its rights through the courts, or by other means.

**Table 3 Policy Categories Template**

| Tribe/Relationship/Policy | Salmon Species | Federal Relationship | Fisheries Management Phase 1: Over Fishing | Fisheries Management Phase 2: Dams |
|---------------------------|----------------|----------------------|--|------------------------------------|
|                           |                |                      |  |                                    |
|                           |                |                      |  |                                    |
|                           |                |                      |  |                                    |

This material also discusses whether policies of government entities other than federal governments affected the indigenous cultures through policy. This is particularly important in the U.S., where the federal government has authority over the well-being of indigenous peoples and certain natural resources, but state governments also regulate land use. This helps to identify which governmental body or bodies have had the most significant impacts on fisheries management and indigenous peoples’ interests. The result is a summary of how the major policies and

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<sup>182</sup>National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*, p. 254.

other outside impacts affected the cultural traits of each highlighted Indian tribe in the Pacific Northwest.

As mentioned earlier, the analysis in this thesis is based on the best available information provided by secondary resources and not on personal interviews, as this is primarily a “desk study.” The information presented may not reflect the current state of all indigenous peoples. More importantly, it is not the objective of this study to speak for indigenous peoples but to further understanding of the impacts of the United States’ and Canada’s respective fisheries policies relative to indigenous peoples’ way of life.

## **Summary**

A comprehensive literature review was conducted to collect relevant information including the historical development of fisheries management and policy in both Canada and the United States as well as how indigenous people were affected by these federal policies and actions. Nine indigenous peoples from both Canada and the United States were selected to determine the impacts on seven cultural traits that were selected based on the concepts of indigeneity as well as the tribes’ listed cultural practices. The impacts on cultural traits were graded using a binary system and a three-color code scale and were evaluated based on subjective judgments influenced by the literature review. The objective is to determine what indigenous qualities were impacted by the policies of their respective federal governments and the severity of those impacts.

The data from both Canada and the United States are both examined to compare and contrast the policy decisions and their effects on indigenous cultures. The results shown in the tables are summarized to determine if either Canada or the United States has better accommodated their respective Native American/First Nation tribes through fisheries policy in the Pacific Northwest region. The best policy decisions balance the conservation of wild salmon populations and the rights of indigenous cultures. Such policies are central to the overall enhancement of salmon populations and maintain the cultural integrity of indigenous cultures.



This information provides a response to the first questions posed in Chapter 1: How do Canadian and United States fisheries policies affect the cultural integrity of the selected indigenous peoples? What actions have affected cultural integrity? The methodology presented in this section establishes a framework to facilitate understanding of how the Canadian and the United States federal fisheries policies have impacted indigenous peoples in regards to salmon fisheries management.

It is hoped that this information will provide insight into the consequences of policy decisions and may assist in finding a proper balance between competing interests. In short, “the cultural of protection of indigenous peoples involves providing environmental guarantees that allow them to maintain the harmonious relationship with the earth that is central to their cultural survival.”<sup>183</sup> Whether in the U.S. or Canada, progressive strides in accommodating individual Native American/First Nations tribes’ cultural right to fish for salmon are essential in order to balance fisheries and maintain indigenous peoples’ culture and way of life.

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<sup>183</sup> Heinämäki, "Protecting the Rights of Indigenous Peoples – Promoting the Sustainability of the Global Environment?," p. 14.

## **Chapter 4: U.S. Policy in Context to Tribal Fishing Rights and Fisheries Management**

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This chapter provides a brief look at the relationships between the federal government of the United States and the Native Americans. It starts by examining the policies and duties of the federal government towards the Native Americans, including the federal court cases that set the precedent for Native American fishing rights in the Pacific Northwest. Afterwards, it examines five Native American cases to inform readers about how their fishing rights were affected by federal policy. The tribes covered in this chapter are the Yakama/Nez Perce of the Columbia River Basin, the Karuk of the Klamath River Basin, the Lummi of the Puget Sound region, and the Tlingit of Southeast Alaska.

Four broad categories of policies are evaluated in this chapter: 1) the right to fish as established under federal treaties, 2) the Endangered Species Act and its implications for salmon conservation and Native Americans, 3) fisheries management and conservation towards the enhancement of salmon populations, dam navigation, and restrictions, 4) the Supreme Court rulings deciding on the regulatory authority provided to either the federal or state governments in regards to salmon fishing rights of indigenous peoples.

### **The Right to Fish as Established Under Treaty**

Fisheries management authority is very complex due to the structure of the U.S. government. In order to understand the policy conflicts between various parties, an examination of the development of U.S. federal authority over Indian nations is required. It is rooted within the United States Constitution: “The relationship between the federal and state governments, so far as it concerns Indians, is controlled by the Supremacy Clause... (in which) ‘Laws (and) Treaties...made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, anything in the Constitution or Laws of any

State to the Contrary notwithstanding.”<sup>184</sup> In summary, any regulation or agreement that the federal government enters into is absolute and the state governments have to comply.

The treaty was important for relations with the Native Americans because it served as a tool for negotiating a balance between Euro-American and Native American interests. In Article II, Clause 2 of the United States Constitution, the president has the power, “by and with the advice and consent of the Senate, to make treaties.”<sup>185</sup> Thus any treaty negotiated between the U.S. and Native Americans was considered the law of the land. In negotiating treaties with indigenous peoples, Native Americans were seen as independent nations.<sup>186</sup> In the 1800s when the non-Indians began to settle in the West, the federal government wanted to settle on tribal land without resorting to violence. Therefore, the treaty was seen as a bridge to obtain land and make peace with the Native Americans. However, the United States had to follow two rules of treaty construction:

“First, the treaties must be interpreted as the signatory Indians would have understood them, rather than in their strict legal sense. Second, because the government had enormous advantages in negotiation and diplomacy skills, any ambiguous terms must be resolved in favor of Indians. Finally, the treaties must be construed in accordance with their objectives.”<sup>187</sup>

This would prove useful when interpreting future Native American rights in the courts because it set precedent that would affect how the state and federal governments protected the rights of indigenous peoples. Because Native Americans were perceived to not understand contemporary society’s legal process, these rules sought to give them a greater advantage in treaty negotiations.

Within each treaty negotiated with Native Americans in the Pacific Northwest, “(the) right of taking fish, at all usual and accustomed grounds and stations,” protects Native Ameri-

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<sup>184</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 322.

<sup>185</sup> "Article II," US Constitution, 2014, accessed 8, 2014, <http://www.law.cornell.edu/constitution/articleii>.

<sup>186</sup> Pevar, *The Rights of Indians and Tribes*.

<sup>187</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 320.

cans' inherent right to fish resources.<sup>188</sup> Between 1854 and 1855, as representatives of the Washington and Oregon territories, Isaac Stevens and Joel Palmer, insisted that the treaties negotiated with the federal government allowed tribes in these territories "to continue traditional food-gathering practices outside the reservations."<sup>189</sup> These treaties included the phrase "*in common with*," to indicate that traditional subsistence activities that were conducted on land owned by non-Indian citizens were protected by treaty.<sup>190</sup> Both parties understood that although "the white man's growing presence required (Native Americans) to sell much of (their) homeland; they desperately sought to retain their traditional fishing grounds. Indeed, the government negotiators recognized that preserving the right to fish was indispensable to the conclusion of any treaty with the Pacific Northwest Indians."<sup>191</sup> The "in common with" clause would be argued in Supreme Court cases such as *State v. Tulee* because the Washington State government believed that their regulations applied to all residents of the state. Although tribal fishing rights were protected by federal treaties, the Washington State government believed that fishing regulation of both Native and Non-Native peoples was "necessary for the conservation of fish."<sup>192</sup>

In exchange, Native Americans permitted the federal government to be the trustee of traditional land areas. When the United States government established treaties with the Native Americans, it promised to "respect 'the sovereignty of the tribes... would 'protect' the tribes... [and would] provide food, clothing, and services to the tribes."<sup>193</sup> The Federal government is obligated to support the well-being of the Native Americans by providing services to support the best interests of the tribe. Although Native American tribes are recognized as sovereign entities

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<sup>188</sup> Ibid., p. 324.

<sup>189</sup> Woods, "Who's in Charge of Fishing?," p. 412.

<sup>190</sup> "Treaty with the Yakama, 1855," Columbia River Inter-Tribal Fish Commission, accessed September 7, 2014. [http://www.critfc.org/member\\_tribes\\_overview/the-confederated-tribes-and-bands-of-the-yakama-nation/treaty-with-the-yakama-1855/](http://www.critfc.org/member_tribes_overview/the-confederated-tribes-and-bands-of-the-yakama-nation/treaty-with-the-yakama-1855/).

<sup>191</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 315.

<sup>192</sup> Woods, "Who's in Charge of Fishing?," p. 419.

<sup>193</sup> Pevar, *The Rights of Indians and Tribes*, p. 32.

within the United States, by making the U.S. government a trustee, Native Americans cannot do anything with their tribal land without Congressional approval. As a trustee, the U.S. Congress is authorized to regulate “on-reservation hunting and fishing, and may even abrogate the right of Indians to engage in that activity.”<sup>194</sup> However, the overall result was that it placed federal authority over the signatory Native American tribes because “(t)he treaties...extinguished Indian land claims to more than one hundred thousand square miles of territory.”<sup>195</sup> This would eventually lead to further settlement and development of the ceded area by non-Indians. Nonetheless, because the land is owned by the government, states cannot enforce their laws on trust land.<sup>196 197</sup> As a result, if state governments enacted regulations that challenged this claim, the federal court will often invalidate the actions of the state “based only on the general purposes of federal statutes and treaties.”<sup>198</sup>

However, the federal government’s stance on negotiating with Native Americans changed. In 1871, Congress passed a law prohibiting federal officials from negotiating treaties with the Indian nations. The U.S. government no longer recognizes Indian tribes as independent nations and forced Native Americans to comply with federal laws.<sup>199</sup> As a result, the federal government obtained the power to extinguish Indian land and repossess it.<sup>200</sup> However, Native American rights to fishing are still part of the federal policy because the established treaties are protected under federal law.

For some Native American tribes, the ability to hunt and fish on their historic grounds has become an issue. For example, on June 17, 1982, David Sohapp Sr. was arrested by federal of-

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<sup>194</sup> Ibid., p. 222.

<sup>195</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 316.

<sup>196</sup> Pevar, *The Rights of Indians and Tribes*.

<sup>197</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention."

<sup>198</sup> Ibid., p. 322.

<sup>199</sup> Pevar, *The Rights of Indians and Tribes*.

<sup>200</sup> Ibid.

officials for allegedly poaching and selling about 40,000 salmon from the Columbia River between the states of Oregon and Washington. Known as “Salmonscam,”<sup>201</sup> the federal government blamed Sohappy and his group for illegally taking the missing salmon from fishing grounds between Bonneville Dam and McNary Dam.<sup>202</sup> Sohappy’s argument, however, was that he was practicing his treaty fishing rights on his native land. Sohappy’s wife asks, “what about my laws?... Is it a crime to survive and eat in this country?”<sup>203</sup>

Sohappy’s arrest presents a paradox because he was a member of the Confederated Tribes of the Yakama Nation, a federally-recognized tribe that is protected by a treaty. However, under the Lacey Act, which made violations against state or tribal fisheries laws a federal felony, the federal and state governments saw apprehending Sohappy as a necessary step to stem the decrease of the salmon runs on the Columbia River.<sup>204</sup> The paradox is summarized as an issue of conflicting perceptions—the conservation of salmon populations versus the protection of indigenous rights: “To state and federal fisheries officials Sohappy was a notorious poacher. To fellow river residents he was a traditional Indian.”<sup>205</sup>

### **Endangered Species Act (1973)**

The overarching theme of the 1973 Endangered Species Act (ESA) is that “All Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the (ESA purposes).”<sup>206</sup> It allows the government to restrict the takings “where the harvest ‘materially and negatively affects the threatened or en-

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<sup>201</sup> Ulrich, *Empty Nets: Indians, Dams, and the Columbia River*, p. 126.

<sup>202</sup> *Ibid.*

<sup>203</sup> Michal Conford and Michele Zaccheo, "River People: Behind the Case of David Sohappy," in *VAST: Academic video online* (New York, NY: Filmmakers Library, 1991., 1991).

<sup>204</sup> Ulrich, *Empty Nets: Indians, Dams, and the Columbia River*.

<sup>205</sup> *Ibid.*, p. 160

<sup>206</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans," p. 213.

dangered species.”<sup>207</sup> The reason for enacting this legislation is to “facilitate recovery of species that were on the path to extinction.”<sup>208</sup> Unlike many listed species, salmon are listed not as a collective species but also location-specific. Table 4 identifies those species currently listed on the ESA; any species listed in the Endangered Species list is regulated by the federal government.<sup>209</sup>

**Table 4. Salmon on the U.S. Endangered Species List**

| Species  | Year Listed | Status     |
|--|-------------|------------|
| <u>salmon, Chinook</u> ( <i>Oncorhynchus tshawytscha</i> ) |             |            |
| California coastal   | 1999        | Threatened |
| Central Valley spring-run                                  | 1999        | Threatened |
| Lower Columbia River                                       | 1999        | Threatened |
| Upper Columbia River spring-run                            | 1999        | Endangered |
| Puget Sound  | 1999        | Threatened |
| Sacramento River winter-run                                | 1994        | Endangered |
| Snake River fall-run                                       | 1992        | Threatened |
| Snake River spring/ summer-run                             | 1992        | Threatened |
| Upper Willamette River                                     | 1999        | Threatened |
| <u>salmon, chum</u> ( <i>Oncorhynchus keta</i> )           |             |            |
| ○ Columbia River   | 1999        | Threatened |
| ○ Hood Canal summer-run                                    | 1999        | Threatened |
| <u>salmon, coho</u> ( <i>Oncorhynchus kisutch</i> )        |             |            |

<sup>207</sup> Kristina Alexander, "The International Whaling Convention (IWC) and Legal Issues Related to Aboriginal Rights," ed. Congressional Research Service (Washington, DC 2013), <http://fas.org/sgp/crs/row/R40571.pdf>.

<sup>208</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans," p. 212.

<sup>209</sup> Alexander, "The International Whaling Convention (IWC) and Legal Issues Related to Aboriginal Rights."

|  |      |            |
|--|------|------------|
| o Central California coast   | 2005 | Endangered |
| o <i>original listing -</i>  | 1996 | Threatened |
| o Lower Columbia River   | 2005 | Threatened |
| o Oregon coast   | 2008 | Threatened |
| o Southern Oregon & Northern California coasts   | 1997 | Threatened |
| <a href="#">salmon, sockeye</a> ( <i>Oncorhynchus nerka</i> )  |      |            |
| o Ozette Lake  | 1999 | Threatened |
| o Snake River  | 1991 | Endangered |
| Source: National Oceanic and Atmospheric Administration, "Endangered and Threatened Marine Species Under NMFS Jurisdiction," <a href="http://www.nmfs.noaa.gov/pr/species/esa/listed.htm#fish">http://www.nmfs.noaa.gov/pr/species/esa/listed.htm#fish</a> [Accessed 17 October 2014]. |      |            |

The Yakama, Nez Perce, and Karuk tribes in this study are affected by the ESA listed species in the U.S. because they have listed salmon species that migrate through their traditional fishing grounds. In regards to tribal interests, the Endangered Species Act "cannot be imposed on tribal governments without the federal government addressing tribal interests and honoring tribal sovereignty."<sup>210</sup> The federal government and its agencies have a duty to protect the interests of Native Americans by regulating the catch of certain species by non-Indians, "so as to protect the right of tribes to harvest a sufficient number of those animals for food."<sup>211</sup> Although the law applies to Native Americans, all policies are required to be in accordance with both the ESA and the government's trust responsibilities to the Native Americans: "Any imposition of federal or state

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<sup>210</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans," p. 227.

<sup>211</sup> Pevar, *The Rights of Indians and Tribes*, p. 223.



regulations over tribal interests pursuant to the ESA without tribal government's consultation...contradicts federal guarantees and is inconsistent with well-established doctrines of Indian law."<sup>212</sup>

## **Fisheries Management and Conservation**

Early federal fisheries management in the United States took a laissez-faire<sup>213</sup> approach to fisheries management. In the late 1800s, the Pacific Northwest was dominated by natural resource industries such as mining, forestry, and fishing.<sup>214</sup> Industry leaders believed that they were harvesting an unlimited and renewable resource.<sup>215</sup> The cannery industry established itself along coastal areas and river entry ways to extract migrating salmon returning to their spawning areas. The tools they used included fish traps and commercial boats, as well as Native American labor. However, the practices were harmful to salmon populations because they extracted salmon at a rate greater than the salmon's regeneration rate. As a result, in the 1870s, Oregon and Washington created their own regulations to manage and mitigate the effects of overharvesting.<sup>216</sup>

The development of hydroelectric dams along major rivers such as the Columbia<sup>217</sup> and Klamath<sup>218</sup> has affected salmon populations and subspecies. Even though areas in the Pacific Northwest were similarly impacted by dams, different levels of impacts were felt by groups such as the Columbia River tribes as well as the Karuk of the Klamath River Basin. For example, the Columbia River Basin salmon went from a historic 11-15 million population to 0.11-0.33 million

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<sup>212</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans."

<sup>213</sup> Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*, p. 53.

<sup>214</sup> Ween, "Two Rivers: The Politics of Wild Salmon Indigenous Rights and Natural Resource Management."

<sup>215</sup> Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*.

<sup>216</sup> Woods, "Who's in Charge of Fishing?."

<sup>217</sup> Ween, "Two Rivers: The Politics of Wild Salmon Indigenous Rights and Natural Resource Management."

<sup>218</sup> Guiao, "How Tribal Water Rights Are Won in the West: Three Case Studies from the Northwest."

in the late 20<sup>th</sup> century.<sup>219</sup> The Klamath Basin salmon populations, on the other hand, decreased to about 10,000 salmon from a historic average of 150,000-400,000 salmon per year.<sup>220</sup> The reason that the Columbia River has higher salmon runs than the Klamath is that the Columbia River dams such as Bonneville Dam had mitigation methods such as fish ladders and fish hatcheries that allowed both passage and enhancement of the salmon habitat in the face of human development. These were generally successful in mitigating the impacts of salmon degradation.<sup>221</sup> The Klamath dams lack Columbia River's mitigation tools because the dams were built in the early 1900s<sup>222</sup> when the salmon's ecology was not taken into consideration.<sup>223</sup> As a result, the Karuk suffered greater salmon population loss than the Columbia River tribes.

Although the federal government manages resources on a national level, under the United States federal system, "(it is) the states, not the federal government, (that) have the primary authority to protect, preserve, and regulate the use of fish and wildlife."<sup>224</sup> The reason stems from the 10<sup>th</sup> Amendment of the U.S. Constitution: "The Powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."<sup>225</sup> Washington implemented fishing restrictions in the late 1800s because the federal government lacked fisheries management plans due to the laissez-faire approach to cannery activities such as overfishing. However, the federal government can preempt, (i.e. replace) state law through the Supremacy Clause in two ways: "If congress demonstrates the intent to occupy a giv-

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<sup>219</sup> Lackey, "Restoring Wild Salmon to the Pacific Northwest: Chasing an Illusion?."

<sup>220</sup> A. Dan Tarlock and H. Doremus, "Fish, Farms, and Clash of Cultures in the Klamath Basin, (with H. Doremus)," *Ecology* 30 (2003).

<sup>221</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

<sup>222</sup> "Executive Summary," in *Klamath Facilities Removal* (2012).

<http://klamathrestoration.gov/sites/klamathrestoration.gov/files/Additonal%20Files%20/1/Executive%20Summary.pdf>.

<sup>223</sup> Gould, "Salmon as a Sacred Resource in the Klamath River."

<sup>224</sup> Woods, "Who's in Charge of Fishing?," p. 412.

<sup>225</sup> "Tenth Amendment," US Constitution, 2014, accessed September 7, 2014. [http://www.law.cornell.edu/constitution/tenth\\_amendment](http://www.law.cornell.edu/constitution/tenth_amendment).

en area of law, state law falling within that field is preempted. Where Congress has not entirely displaced state law, 'state law is still preempted to the extent it actually conflicts with federal law.'<sup>226</sup> The U.S. Endangered Species Act (ESA) embodies this because it requires state governments to submit conservation programs that "comply with the ESA."<sup>227</sup> Fishing rights and conservation have been a subject of debate in the Supreme Court because, "whereas unrecognized aboriginal hunting and fishing rights appear to be subject to state wildlife regulation, federal recognition insulates Indian hunting and fishing rights from state laws through the Supremacy Clause."<sup>228</sup> The Supreme Court's role is to dictate what powers either the state or federal governments have over issues such as resource conservation and tribal fishing rights.

### ***Federal Policies***

Three federal policies establish a framework for the primary conservation of salmon in the Pacific Northwest. The Mitchell Act of 1938 was passed to provide tools to mitigate overharvesting and dam construction along the Columbia River. The act created fish hatcheries along the Columbia River for the purpose of enhancing salmon runs.<sup>229</sup> Today, according to the National Oceanic and Atmospheric Administration (NOAA), Mitchell Act hatcheries produce "roughly 50 percent of the salmon...released annually into the Columbia River, providing economic, cultural, and ecological benefits."<sup>230</sup>

The Magnuson-Stevens Fishery Conservation and Management Act (1976) established a 200 nautical mile Exclusive Economic Zone, preventing foreign fishers from harvesting fish

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<sup>226</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternativesto Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans," p. 214.

<sup>227</sup> Ibid., p. 213.

<sup>228</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 327.

<sup>229</sup> "Fisheries Timeline," Columbia River Inter-Tribal Fish Commission, accessed September 7, 2014. <http://www.critfc.org/about-us/fisheries-timeline/>.

<sup>230</sup> "Promoting Sustainable Fisheries, Recovery of Listed Salmonid Populations and Providing Economic Benefits," *Mitchell Act Hatcheries*(2011), [http://www.westcoast.fisheries.noaa.gov/publications/hatchery/mitchell\\_act\\_fact\\_sheet\\_011011.pdf](http://www.westcoast.fisheries.noaa.gov/publications/hatchery/mitchell_act_fact_sheet_011011.pdf).

within the aforementioned range. In addition, it established the Pacific Fishery Management Council, one of eight regional fisheries councils in the United States. They are responsible for the protection of 119 species of salmon within the jurisdictions of Washington, Oregon, and California.<sup>231</sup> Every year the council creates an action plan that sets “season length, quotas, and bag limits” depending on the size of annual salmon runs.<sup>232</sup> They also establish allocation provisions between commercial, recreational, and tribal fishing interests. The goal is to protect American fishing interests in harvesting fish.<sup>233</sup> It also curtails any non-Indian fishing by modifying the established pre-season catch by either making the Indian tribes’ season longer or adjusting their catch quotas.<sup>234</sup> This ensures that a “sufficient supply of fish will be available to fulfill the federal government’s treaty and trust obligations to Indian Tribes.”<sup>235</sup> However, it appears that this piece of legislation does not impact the examples presented in this thesis because the Ocean Management Plan lists Indian groups that are not a part of the five examples covered. It lists Native American Tribes such as the Makah.<sup>236</sup>

The Pacific Salmon Treaty of 1985 is the modern standing agreement between the United States and Canada to coordinate Pacific salmon fisheries management.<sup>237</sup> Because salmon are a migratory species and cross boundary waters, this treaty seeks to promote a more cooperative, international plan to conserve salmon species without harming any parties’ salmon interests.<sup>238</sup> In

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<sup>231</sup> "Who We Are and What We Do," Pacific Fishery Management Council, accessed October 7, 2014. <http://www.pcouncil.org/>.

<sup>232</sup> "Salmon: Background," Pacific Fishery Management Council, accessed October 15, 2014. <http://www.pcouncil.org/salmon/background/>.

<sup>233</sup> Blackford, *American Business, Politics, and Society : Making Seafood Sustainable : American Experiences in Global Perspective*.

<sup>234</sup> "2014 Federal Regulations for West Coast Salmon Fisheries," ed. National Ocean and Atmospheric Administration U.S. Department of Commerce (NOAA Fisheries Service, 2014).

<sup>235</sup> Pevar, *The Rights of Indians and Tribes*, p. 223,

<sup>236</sup> "2014 Federal Regulations for West Coast Salmon Fisheries."

<sup>237</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon," p. 10.

<sup>238</sup> Yanagida, "The Pacific Salmon Treaty."

addition, it maintains the respective indigenous peoples' inherent rights to fish.<sup>239</sup> However, it does regulate the amount of salmon that Canada and the United States can harvest such as the sockeye salmon that migrate from the ocean to the Fraser River Basin in British Columbia. In 1985, in order to assure the abundance of salmon in the region, the United States was allocated 24-33% of the total salmon run depending on the population fluctuations.<sup>240</sup> This can affect all parties involved in salmon fishing. Details on this effect will be elaborated when the impacts on the Lummi tribe are discussed.

### ***State Policies***

Since the late 1800s, fisheries regulations in Oregon and Washington have been implemented to conserve salmon species. In the 1890s, in a response to overfishing by the commercial fishing industries, the state of Washington established limits on fishing licenses that impacted indigenous peoples' way of life: "(regulations required) people who operated commercial fishing gear to obtain a state license."<sup>241</sup> This affected Native Americans such as those who fished along the Columbia River because their traditional fishing devices, such as the dip net, were restricted by the established law.<sup>242</sup>

State legislation also restricted the use of traditional techniques. Washington State's Initiative 77 for example, banned commercial and subsistence fish traps and limited the number of fishing licenses that could be sold in order to enhance the escapement of salmon in the region.<sup>243</sup> It has been reformulated into similar policies such as "limited entry" in Alaska, where the state

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<sup>239</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."

<sup>240</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery".

<sup>241</sup> Woods, "Who's in Charge of Fishing?," p. 415

<sup>242</sup> Ibid.

<sup>243</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery".

mandated that fishers buy collective, not individual fishing licenses.<sup>244</sup> As a result, fishermen were forced to buy collective licenses in order to fish. This hurt many Alaskan natives because they could not afford to purchase these permits which left them without a way to fish for salmon.

### ***Supreme Court Rulings***

Federal court decisions have been influential in defining state and federal policies regarding Native Americans and fisheries management. There are at least four major Supreme Court decisions that shaped overall fisheries policy in the Pacific Northwest. These are cases that influenced the modern fishing rights and regulations of the United States because they progressively established the powers of the state and federal government as well as the Native Americans.

In *US v. Winans* (1905), the U.S. government and Yakama Nation brought suit to the Winans family because they intentionally restricted the Yakama people from accessing their fishing grounds. The argument was that the federal government no longer held the land because “the admission of Washington into the Union superseded the treaty provision.”<sup>245</sup> The main issue of this case, as described by Fronda Woods, did not involve the state and tribal governments’ powers but the “treaty rights and property rights” of Indians and Non-Indians.<sup>246</sup> The ruling by the Supreme Court was that just because the Winans owned private property, which included Native American accustomed fishing grounds; they did not have the right to restrict Native American fishing because the federally created territories of Indians “remain binding when the territory becomes a state.”<sup>247</sup> However, the Supreme Court also ruled that federal treaties with the Indians did not interfere with state regulations: ““(the treaty) (does not) restrain the State unreasonably, if

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<sup>244</sup> Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status."

<sup>245</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 331

<sup>246</sup> Woods, "Who's in Charge of Fishing?," p. 415

<sup>247</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 331

at all, in the regulation of the right (to fish.)”<sup>248</sup> This would serve as the basis of Pacific Northwest states’ position on fisheries policy for the years to come.<sup>249 250</sup>

In *Tulee v. Washington* (1942), Sampson Tulee, a Yakama Indian, was arrested for fishing without a state license at Celilo Falls on the Columbia River because he was using a dip net, a traditional technique, to harvest salmon.<sup>251</sup> Tulee argued that his people’s treaty rights “guaranteed him unimpeded fishing rights.”<sup>252</sup> Washington State’s argument was that the restrictions placed upon fishing were based on the need to conserve salmon species: “(The) time and manner of fishing outside the reservation, as are necessary for the conservation of fish.”<sup>253</sup> The state’s reasoning was that the language of the “in common with” phrase meant restricting both Indian and Non-Indian people.<sup>254</sup>

The outcome of the case came with a mixed response. The state had no right to impose licensing fees on Indians either on or off reservations: “it acts upon the Indians as a charge for exercising the very right their ancestors intended to reserve.”<sup>255</sup> However, the Supreme Court ruled that the state could regulate salmon species for conservation purposes: “the treaty leaves the state with power to impose on Indians, equally with others, such restrictions of a purely regulatory nature concerning the time and manner of fishing outside the reservation as are necessary for the conservation of fish.”<sup>256</sup> The Court ruled that state governments had the right to place restrictions on Native Americans as long as those restrictions were on non-reservation land and

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<sup>248</sup> *Ibid.*, p. 331.

<sup>249</sup> *Ibid.*

<sup>250</sup> Woods, "Who's in Charge of Fishing?."

<sup>251</sup> *Ibid.*, p. 418.

<sup>252</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 332

<sup>253</sup> Elizabeth Roat, "Analyzing Conflicts between Indian Treaty Rights and Federal Conservation Regulations: Are State Regulation Standards Appropriate?," *Marquette Law Review* 84, no. 3 (2001), p. 708.

<sup>254</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 332.

<sup>255</sup> Woods, "Who's in Charge of Fishing?," p. 419.

<sup>256</sup> Roat, "Analyzing Conflicts between Indian Treaty Rights and Federal Conservation Regulations: Are State Regulation Standards Appropriate?," p. 708.

were applied equally to Native Americans. The ruling is important because it is a restrictive interpretation of the “in common with” provision that granted Native Americans an unregulated right to fish in traditional fishing grounds on private land.

*Puyallup Tribe v. Department of Game of Washington* (1968) was a response to major “fish-ins” in the Puget Sound region. The fish-in was a protest by Native Americans against fishing regulations imposed on them by Washington State. The state of Washington filed suit against the Puyallup, Nisqually, and Muckleshoot tribes in the hope that this case would resolve the issue of the state’s authority to regulate fishing rights granted by federal treaty once and for all.<sup>257</sup> The Supreme Court ruled that the state cannot “prevent Indians from fishing at their (usual and) accustomed grounds.”<sup>258</sup> However, they also emphasized that “(t)he state may regulate hunting and fishing on tribal land when absolutely essential for conservation purposes.”<sup>259</sup> They also ruled that any hunting and fishing regulation had to be “reasonable and necessary to conserve the fishery’ . . . provided the regulation meets appropriate standards and does not discriminate against the Indians.”<sup>260</sup> It became a far reaching decision that allowed state regulatory authority onto traditional tribal lands for the purpose of resource conservation. It also foreshadowed future court cases such as the *Boldt* decision because it influenced what regulations, such as fishing quotas, were appropriate in order to balance tribal fishing rights with fisheries conservation.<sup>261</sup>

*US v. Washington* (1974), commonly known as the *Boldt* decision, established guidelines for fair fisheries distribution between Native Americans and non-Indians. The case was brought to the Supreme Court after “fish-ins” occurred in the Puget Sound region of Washington.<sup>262</sup> The *Boldt* Decision set the precedent that “in common with” meant that harvestable fish, including

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<sup>257</sup> Woods, "Who's in Charge of Fishing?."

<sup>258</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention." p. 334.

<sup>259</sup> Pevar, *The Rights of Indians and Tribes*, p. 222.

<sup>260</sup> Woods, "Who's in Charge of Fishing?," p. 423-424.

<sup>261</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention."

<sup>262</sup> Woods, "Who's in Charge of Fishing?," p. 426.



salmon, “required a fifty-fifty split,” of total salmon catch between Native Americans and Euro-Americans.<sup>263</sup> In addition, the *Boldt* Decision declared that federally-recognized Native Americans had the right to self-regulate the fishing activities of their people, including laws passed within their tribe specifically relating to salmon fisheries. As a result of the *Boldt* Decision, “fishing by tribes that qualified for self-regulating status would not be regulated at all by the state,”<sup>264</sup> but states are required to coordinate with tribes on the best regulations that suit the needs of both Native Americans and Non-Indians.<sup>265</sup>

### **Cultural Impacts of Policies and Judicial Rulings**

The following section discusses how federal policy has affected the cultural integrity of the Yakama/Nez Perce, Karuk, Lummi, and Tlingit tribes. Each example briefly explains its traditional lifestyles, its unique problems relating to salmon, and as its current status. Table 5 will show the level of impact on the Native American tribes after Euro-American contact to indicate how much the federal policies of the United States have affected the Native American tribes. The rest of this chapter will cover the different policy dimensions that impacted the cultural integrity of the Native Americans. A summary table of how the different policy dimensions/actions have affected the Native Americans is also included at the end to indicate what policy dimensions specifically impacted each Native American tribe (See Table 6).

#### ***Yakama/Nez Perce***

Both the Yakama and the Nez Perce will be covered at the same time because, even though they possess different traditional lands, both tribes share common fishing and spiritual

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<sup>263</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 335.

<sup>264</sup> Woods, "Who's in Charge of Fishing?," p. 430.

<sup>265</sup> *Ibid.*, p. 435.

grounds at Celilo Falls, Oregon, on the Columbia River.<sup>266</sup> They harvest Chinook, coho, and sockeye salmon that return to their spawning grounds throughout the Columbia River Basin.<sup>267</sup> Both tribes' interests are governed by the Columbia River Inter-Tribal Council, whose duty is to "provide coordination and technical assistance...to ensure that treaty fishing rights issues are resolved in a way that guarantees the continuation and restoration of tribal fisheries in perpetuity."<sup>268</sup>

The Yakama's native land consists of an area as far north as Mt. Adams in Washington and as south as Celilo Falls in Oregon.<sup>269</sup> The Nez Perce land consists of an area of 17 million acres "in what (are) now Idaho, Oregon, and Washington."<sup>270</sup> Both tribes fished salmon along the Columbia River using traditional dip nets or harpoons and fished on wooden platforms in the interior Columbia River Basin.<sup>271</sup> In addition, these tribes celebrated cultural rituals such as the First Salmon Feast,<sup>272</sup> as well as other occasions such as, "births; funerals; 'giveaways' for the first anniversary marking an individual's death; weddings; 'name-giving'....'first kill'... and other celebrations," celebrate the gifts of life provided by their creators.<sup>273</sup>

Their homage and responsibility to the salmon is linked in their common Native creation story. In this story, Coyote asks the salmon to offer himself to humans. In return, salmon asks

<sup>266</sup> Ibid.

<sup>267</sup> "Important Columbia River Fish Species," Columbia River Inter-Tribal Fish Commission, 2014, accessed September 9, 2014, <http://www.critfc.org/salmon-culture/columbia-river-salmon/columbia-river-salmon-species/>.

<sup>268</sup> "The Founding of CRITFC," Columbia River Inter-Tribal Fish Commission, 2014, accessed September 9, 2014. <http://www.critfc.org/about-us/critfcs-founding/>.

<sup>269</sup> "The Confederated Tribes and Bands of the Yakama Nation," Columbia River Inter-Tribal Fish Commission, accessed 26 August, 2014. [http://www.critfc.org/member\\_tribes\\_overview/the-confederated-tribes-and-bands-of-the-yakama-nation/](http://www.critfc.org/member_tribes_overview/the-confederated-tribes-and-bands-of-the-yakama-nation/).

<sup>270</sup> "Nez Perce Tribe," Columbia River Inter-Tribal Fish Commission, accessed September 9, 2014. [http://www.critfc.org/member\\_tribes\\_overview/nez-perce-tribe/](http://www.critfc.org/member_tribes_overview/nez-perce-tribe/).

<sup>271</sup> Ween, "Two Rivers: The Politics of Wild Salmon Indigenous Rights and Natural Resource Management."

<sup>272</sup> "First Salmon Feast," accessed June 28, 2014. <http://www.critfc.org/salmon-culture/tribal-salmon-culture/first-salmon-feast/>.

<sup>273</sup> Ween, "Two Rivers: The Politics of Wild Salmon Indigenous Rights and Natural Resource Management."

the humans to “speak for me and for all the other animals and plants of the earth. The humans must promise to protect us now and for future generations.”<sup>274</sup> The tribes of the Columbia River Basin have a responsibility to care for the fish and their habitats.

However, the Yakama and Nez Perce way of life was disrupted by the arrival of Euro-American settlers. Although Lewis and Clark explored the area in the early 1800s, there were few non-indigenous settlers until the mid-1800s.<sup>275</sup> When the Treaties of 1855 were signed during the Walla Walla Council, the Yakama and Nez Perce ceded their lands to the Euro-Americans but retained their fishing rights.<sup>276</sup> Prior to European contact and dam development, there were an estimated “7.5-10 million adult salmon (that) returned to the (Columbia) river annually.”<sup>277</sup> However, with the construction of dams along the river, salmon populations were depleted to 30% of their historic numbers.<sup>278</sup> With the advent of Euro-American settlement and industry, the Columbia River Basin’s salmon spawning range was substantially affected.<sup>279</sup>

Although the industrialized system substantially reduced salmon spawning range in the Columbia River, increased negative effects came from the construction of hydroelectric dams on the Columbia River. As mentioned earlier in the chapter, dams block the salmon migration routes and prevent them from reproducing at their spawning grounds, and change salmon habitat by reducing river flow and increasing water temperature.<sup>280</sup> Dams such as Bonneville Dam were constructed for purposes such as providing irrigation, flood control, and hydroelectricity (See Figure

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<sup>274</sup> Sams III, "Wakanish Naknoowee Thluma: 'Keepers of the Salmon'," p. 645.

<sup>275</sup> Solomon, "Winters in Salmon Country: The Nez Perce Tribe's Instream Flow Claims."

<sup>276</sup> Clifford E. Trafzer, "The Legacy of the Walla Walla Council, 1855," *Oregon Historical Quarterly* 106, no. 3 (2007).

<sup>277</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers," p. 147.

<sup>278</sup> Ibid.

<sup>279</sup> Ween, "Two Rivers: The Politics of Wild Salmon Indigenous Rights and Natural Resource Management."

<sup>280</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention."

3).<sup>281</sup> When the Dalles Dam was completed in 1957, the reservoir behind the dam flooded traditional fishing grounds as well as the original site of Celilo Village. This significantly affected the Columbia River tribes because they lost their most important fishing and ceremonial areas.<sup>282</sup>

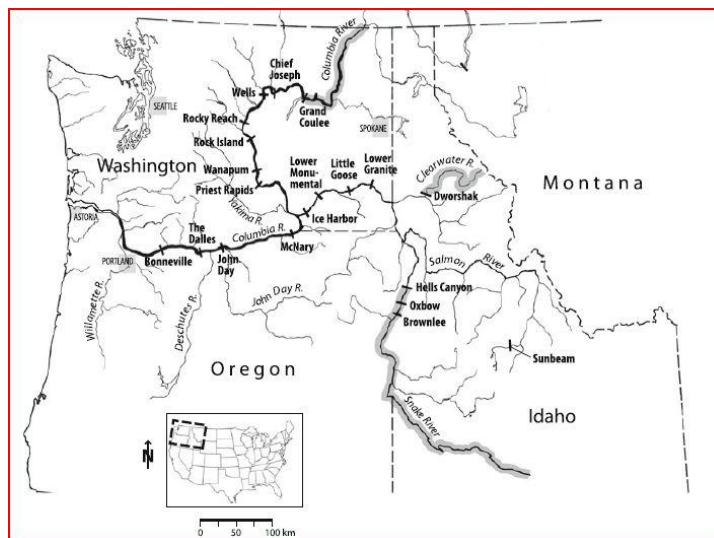


Figure 3. Dams on the Columbia River; **Source:** Ferguson, John W., Michael Healey, Patrick Dugan, and Chris Barlow. "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers." *Environmental Management* 47, no. 1 (2011): 141-59.

Although both tribes have been significantly affected by both state and federal policy actions, in the late 20<sup>th</sup> century they have achieved greater protections in fishing for salmon. For example, the *Boldt* Decision of 1974 granted Native Americans equal allocation of salmon, self-determination of tribal fisheries management, and that both the state and federal governments had to consult with Indians before any actions relating to tribal land and resources are taken.<sup>283</sup> Second, even though the dams have impacted salmon runs, both the Yakama<sup>284</sup> and Nez Perce<sup>285</sup> have developed fish hatchery projects to enhance fall Chinook stocks. Both tribes have co-

<sup>281</sup> Diana Fredlund, "The Corps of Engineers and Celilo Falls," *Oregon Historical Quarterly* 108, no. 4 (2007).

<sup>282</sup> *Ibid.*

<sup>283</sup> Woods, "Who's in Charge of Fishing?."

<sup>284</sup> "The Confederated Tribes and Bands of the Yakama Nation."

<sup>285</sup> "Nez Perce Tribe."

management responsibilities with government agencies around the Columbia River Basin. In addition, Columbia River Native Americans continue to celebrate the Salmon Feast and other ceremonies and social gatherings at the relocated Celilo Village.<sup>286</sup> The Columbia River Inter-Tribal Fish Commission provides information about where and when one can buy Pacific salmon from Columbia River Native Americans, which provides small economic benefits to the tribes.<sup>287</sup>

While the Yakama and Nez Perce achieved fishing access rights through the Supreme Court, the proliferation of dams on the Columbia River continues to impact their way of life because dams block the salmon migration routes that impact salmon abundance and availability to the Native Americans. Dams inundate the rivers and prevent salmon migration and rearing, as well as flooding tribal fishing grounds. Since the construction of dams on the Columbia River, salmon populations have been reduced to about 30% of their original runs.<sup>288</sup> This is significant to the aforementioned tribes because their fishing rights are geographically locked to their traditional territories. With reduced salmon populations, salmon become less abundant for the tribes of the Columbia River which significantly impacts their food and economic cultural traits because there are not enough salmon resources to consume or sell (See Table 5).

### ***Karuk Nation***

The Karuk Nation's native land consists of the Klamath River Basin in Oregon and Northern California. Their traditional fishing grounds are located on the Lower Klamath Basin (See Figure 4). This region was known for its abundance of salmon such as the coho. They historically harvested salmon by utilizing traditional harvest technologies including fish weirs, fish

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<sup>286</sup> George W. Aguilar Sr, *When the River Ran Wild* (Portland, OR: Oregon Historical Society Press, 2005).

<sup>287</sup> "Buying Salmon," Columbia River Inter-Tribal Fish Commission, accessed August 11, 2014, <http://www.critfc.org/harvest/>.

<sup>288</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

spears, dip nets, and wooden platforms on the Klamath River.<sup>289</sup> Finally, like many other Native American tribes, the salmon was central to their lifestyle for food, ceremonial, and economic purposes. They celebrate the First Salmon Ceremony<sup>290 291</sup> and practice fishing and disposal rituals to honor salmon.<sup>292</sup> The most prevalent salmon species is the coho salmon.<sup>293</sup>

In addition, the Karuk's responsibility for the salmon stems from their myths about how Coyote provided salmon. The myth states that when the Karuk's creator, Kareya, made all living things, he created a fish dam that blocked salmon from swimming upstream. He locked the dam and gave the key to two hags to protect it. The result was that the Karuk people starved because they did not have enough food to sustain themselves. Coyote decided to trick the hags by chewing on a piece of bark to give off the appearance that he was eating salmon so that the hags would use the key to obtain salmon for themselves. Coyote snatched the key from one of the hags and unlocked the dam so that salmon swam upriver and provide food to the Karuk.<sup>294</sup>

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<sup>289</sup> Andrew Chambers, "Ukni "And So It Was"," in *Karuk Fishing Rights Video*, ed. Andrew Chambers (2000). <http://www.karuk.us/index.php/departments/natural-resources/somes-bar-water-quality>.

<sup>290</sup> Gunther, "An Analysis of the First Salmon Ceremony."

<sup>291</sup> "First Salmon Feast."

<sup>292</sup> Gould, "Salmon as a Sacred Resource in the Klamath River."

<sup>293</sup> Ibid.

<sup>294</sup> Steven Powers and John Wesley Powell, *Tribes of California*, (Washington, DC: U.S. Government Printing Office, 1877), <https://archive.org/details/tribescaliforni00powegoog>.

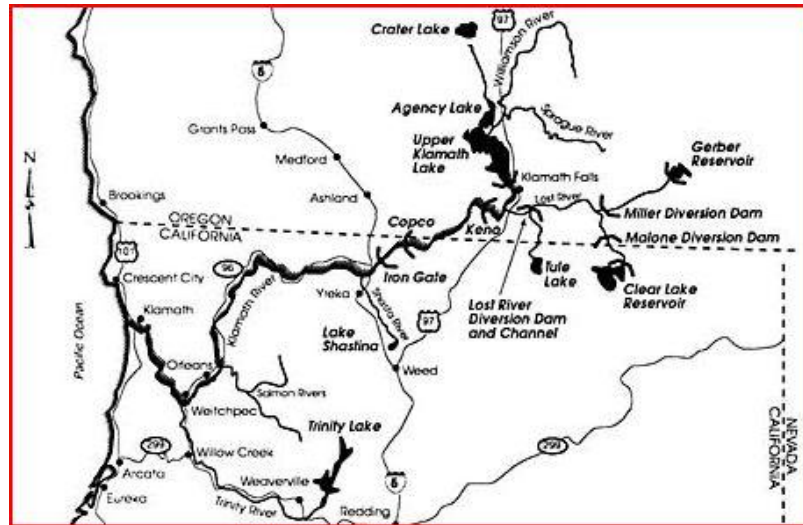


Figure 4. The Klamath River Basin; Source: Gould, Erin. "Salmon as a Sacred Resource in the Klamath River." 2014. Accessed June 28, 2014. <http://sites.coloradocollege.edu/indigenoustraditions/sacred-lands/salmon-as-a-sacred-resource-in-the-klamath-river/>.

However, with the migration of Euro-American settlers in the area, the Karuk way of life was significantly altered. Mining and agriculture damaged salmon habitat, but the most severe impact has been due to the construction of dams. As a result, the Klamath River Basin went from a historic annual average 150,000-400,000 salmon population to a fairly recent 10,000 wild fish.<sup>295</sup> Despite having a treaty that guarantees fishing rights, because of the low coho salmon populations, the Karuk are unable to benefit from the salmon in the region. The issue is radically diminished salmon populations and the inability to enhance them.

The Karuk's main problem is the availability of salmon species due to dams such as the Iron Gate Dam in the Klamath River Basin. Similar to the situation on the Columbia River, the dams block salmon migration routes. The Reclamation Act of 1902 granted the construction of seven dams along the Klamath River Basin for both hydroelectric generation and irrigation water. This was intended to enhance the usefulness of the region "at a time when the frontier of the

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<sup>295</sup> Tarlock and Doremus, "Fish, Farms, and Clash of Cultures in the Klamath Basin, (with H. Doremus)."

American west was still developing.<sup>296</sup> The dams were constructed without the consultation of the Klamath River Native Americans such as the Karuk. Unlike the dams on the Columbia River, these dams do not have fish ladders or other salmon-friendly infrastructure to allow fish to migrate to their natural spawning grounds. The Reclamation Act did not consider the consequences of how dams could impact salmon ecology.<sup>297</sup> As a result, the dams blocked the migration routes of coho salmon and populations were decimated.<sup>298</sup>

More importantly, drought conditions have led to disputes between farmers and the Karuk Nation over water resources. Water rights are important because the amount of water in a salmon's ecosystem affects the salmon's lifecycle and its survival. Without a proper habitat for salmon, the species is unable to procreate and provide for the Karuk people.<sup>299</sup> During a drought in 2001, a decision had to be made on how to redistribute water resources. Because of the coho's protected status under the Endangered Species Act (ESA) in 1997,<sup>300</sup> significant water resources were initially allocated for the conservation of salmon. However, President George W. Bush's administration overruled this decision to provide the majority of water resources for irrigation, leaving only 25% of the river resources available for maintenance of salmon habitat.<sup>301</sup> This impeded efforts to properly enhance salmon runs.

Although this and other decisions have degraded salmon runs important to the Karuk Nation, there has been recent progress in resolving water and fishing rights issues in the Klamath River Basin. In 2010, the Klamath River Basin Agreement (KBRA) was established to enhance the region's water supply and restore the salmon resource. The Klamath Basin River Agreement

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<sup>296</sup> "Executive Summary," p. 13.

<sup>297</sup> Ibid.

<sup>298</sup> Alison Hope Alkon and Kari Marie Norgaard, "Breaking the Food Chains: An Investigation of Food Justice Activism," *Sociological Inquiry* 79, no. 3 (2009).

<sup>299</sup> Ibid.

<sup>300</sup> Guiao, "How Tribal Water Rights Are Won in the West: Three Case Studies from the Northwest."

<sup>301</sup> Ibid.



assures dam removal along the Klamath River Basin, and “calls for \$350 million dollars to be spent on restoring and reintroducing salmon....to over 600 stream-miles of historic habitat upstream of the dams.”<sup>302</sup> This is an important first step for the Klamath River tribes and the federal government because it ensures that all parties obtain equal rights to natural resources, such as water and salmon. It also provides plans for future salmon enhancement projects.<sup>303</sup>

This has significant implications for the food and economic cultural traits because the availability of salmon for the Karuk tribe in the region is impacted due to improper federal measures taken in the past based on conflicting interests. As a result of the construction of dams in the area, the salmon runs have been reduced to as low as 10,000 salmon.<sup>304</sup> The dams reduce water quality and salmon habitats are unable to support healthy salmon stocks.<sup>305</sup> This impacts the Karuk because the salmon is no longer a reliable resource to support tribal subsistence fishing. Recent actions such as redistributing 75% of river water for irrigation significantly impacted salmon restoration efforts because it deprived essential water resources to maintain healthy salmon habitats.<sup>306</sup> The U.S. government failed to protect salmon populations as well as traditional fishing rights by reducing the potential availability of salmon species. The Klamath River Basin Agreement seeks to change that by planning to remove the dam, enhance salmon species, and improve Karuk way of life in the region. However, until it is fully implemented, the Karuk way of life still remains significantly impacted (See Table 5).

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<sup>302</sup> Ibid., p. 311

<sup>303</sup> Ibid.

<sup>304</sup> Tarlock and Doremus, "Fish, Farms, and Clash of Cultures in the Klamath Basin, (with H. Doremus)."

<sup>305</sup> Gould, "Salmon as a Sacred Resource in the Klamath River."

<sup>306</sup> Guiao, "How Tribal Water Rights Are Won in the West: Three Case Studies from the Northwest."

## ***Lummi Nation***

The Lummi Nation has thrived in what is now the Puget Sound area of Washington State.<sup>307</sup> Their traditional land and fishing grounds range from the San Juan Islands and the mainland area of the Nooksack River to Point Roberts.<sup>308</sup> Lummi society was structured around the individual land claims of family tribes. They were considered “Patrilocal,” (i.e. the man of the house managed the subsistence activities of their specified area).<sup>309</sup> All food supplies were collected to meet the needs of an individual household. However, during large salmon runs, family tribes cooperated to harvest an adequate supply of salmon for all.<sup>310</sup>

The Lummi lifestyle “revolved around the (salmon).”<sup>311</sup> It was the major source of protein for the Lummi community. The men were the fishers while the women processed and preserved the salmon.<sup>312</sup> The Lummi have historically used most of the traditional fishing technologies known to the indigenous peoples of the Pacific Northwest. They used harpoons, gaffs, and dip-nets for smaller fishing operations, weirs (which were usually located on major rivers), and nets such as gill nets, trawls, and seines,<sup>313</sup> and the reef net.<sup>314</sup> The First Salmon Ceremony is an important cultural practice because it celebrates not only the return of the important resource but also looked forward to the future abundance of the salmon.<sup>315</sup> Practices such as proper disposal

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<sup>307</sup> "Background Information on the Lummi Nation," (National Museum of the American Indian).

<sup>308</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery," p. 274.

<sup>309</sup> *Ibid.*, p. 37.

<sup>310</sup> *Ibid.*, p. 36.

<sup>311</sup> "Background Information on the Lummi Nation," (2014), [http://www.nmai.si.edu/environment/pdf/07\\_01\\_Teacher\\_Background\\_Lummi.pdf](http://www.nmai.si.edu/environment/pdf/07_01_Teacher_Background_Lummi.pdf).

<sup>312</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

<sup>313</sup> *Ibid.*

<sup>314</sup> "Wild Pacific Salmon."

<sup>315</sup> "Lummi Nation - Our Future," *National Museum of the American Indian*, no. July 1, <http://www.nmai.si.edu/environment/lummi/Future.aspx>.

of salmon carcasses in the ocean provide a spiritual connection to the salmon.<sup>316</sup> Although all salmon species were harvested, the Lummi primarily fished for sockeye salmon (See Table 6). The sockeye were the most accessible of the fish resources in the area because they “(entered) rivers fed by lakes and usually spawn in tributary systems of those lakes.”<sup>317</sup>

The Lummi way of life was significantly disrupted by the arrival of Euro-American settlers in the Puget Sound region and the establishment of the commercial salmon industry in the late 1800s. The canneries set up fish traps along nearby rivers to catch salmon migrating from the ocean. These businesses, which employed indigenous people to catch and process fish, changed the Lummi way of life because they established a wage-based economy, supplanting the traditional patrilocal subsistence economy. The Lummi attempted to adapt by integrating their traditional ways into the new commercial economy. For example, Lummi men worked for the businesses in the traditional role of fishermen and Lummi women processed the caught salmon.<sup>318</sup> During this period, instances of forced assimilation and the loss of traditional fishing sites threatened the Lummi way of life. Although the Treaty of Point Elliot of 1855 protected Lummi fishing rights, the rights conferred by the treaty were sometimes challenged by state/territorial ruling bodies and the dominant industries. In 1915, for example, when the first Washington State fisheries code was signed into law, Lummi subsistence fishing rights were restricted to within reservation waters and only during state-established fishing seasons.<sup>319</sup>

Even after the *Boldt* Decision established the Lummi’s right to a fair catch of salmon, they were unable to fully benefit because they had become dependent on the employment and the monetary resources of the commercial salmon industry. In the 1960s, According to David Box-

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<sup>316</sup> "Background Information on the Lummi Nation."

<sup>317</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery," p. 40.

<sup>318</sup> Ibid.

<sup>319</sup> Ibid.

berger, there were only 12 Lummi fishers employed in the commercial salmon industry.<sup>320</sup> In addition, state legislation restricted the use of fish traps as well as restricting Native Americans from purchasing fishing licenses, which included Initiative 77 mentioned earlier in the chapter (See Table 6).<sup>321</sup>

The Pacific Salmon Treaty of 1985 further limited Lummi participation in the fishery because it limited the amount of Fraser River sockeye catch that all United States stakeholders, including the Lummi, are allowed to harvest. Daniel Boxberger predicted that, despite the increased size of the Lummi fishing fleet, this treaty would cause Lummi fishers to catch fewer salmon than they did under the *Boldt* Decision.<sup>322</sup>

Although the Lummi have recently regained some fishing rights, they are still affected by past federal decisions which have impacted the salmon resource. The Lummi's issues began with the proliferation of the cannery industry during the mid to late 1800s. Although the treaty of Point Elliot protected their fishing rights within their traditional territory, the availability of sockeye was reduced due to the laissez-faire approach to the cannery industry that extracted more salmon than can be regenerated. As a result, the Lummi were unable to traditionally harvest salmon as a main source of subsistence and were forced to work for the cannery industry. However, when canneries substituted Lummi workers for migrant workers, such as Japanese employees, Lummi way of life further diminished. More importantly, with the implementation of state restrictions on traps and the number of fishing licenses that are available, the Lummi could not fully participate in the salmon fishery. As a result, their food, ceremonial, economic, technological cultural traits have been significantly impacted because few Lummi have the means to practice their federally protected fishing rights (See Table 5).

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<sup>320</sup> Ibid., p. 254.

<sup>321</sup> Ibid.

<sup>322</sup> Boxberger, "The Lummi Indians and the Canadian/American Pacific Salmon Treaty."

The Lummi economy has been altered significantly because fishing for salmon is no longer the largest source of income due to lower salmon runs than in previous years. In 2013, for instance, the sockeye salmon runs had to be closed because there were fewer returns compared to the previous three years. The low runs of sockeye salmon in the region resulted in a loss of \$1.3 million worth of salmon.<sup>323</sup> Salmon fishing is no longer considered a steady source of income. The Lummi have responded by developing hatchery programs and stream restoration projects in an attempt to restore more natural salmon runs.<sup>324</sup> Although traditional practices such as the First Salmon Ceremony<sup>325</sup> are still important, some fear that the next generation will not celebrate traditional ceremonies because fishing is no longer a viable economic option: "How do we tell our younger kids, if they don't see us smoking fish, and don't see us canning fish, and don't see us salting fish? I don't know how they are going to learn it if there is no salmon season."<sup>326</sup>

### ***Tlingit***

The Tlingit people's native territory is the southeast region of Alaska. They historically harvested all five species of salmon, with sockeye representing the majority of the catch. Tlingit villages were scattered around the region, primarily along rivers and in coastal areas. Salmon was an important source of food because it was abundant in isolated areas such as Alaska.<sup>327</sup> The Tlingit utilized spears, reef nets, wooden weirs, and a variety of fish traps to harvest their salm-

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<sup>323</sup> "Lummi Nation Seeks Federal Relief Following Fishery Closure," Northwest Indian Fisheries Commission, 2013, accessed September 2, 2014. <http://nwifc.org/2013/11/lummi-nation-seeks-federal-relief-following-fishery-closure/>.

<sup>324</sup> "Background Information on the Lummi Nation."

<sup>325</sup> "Lummi Nation - Our Future," American Indian Responses to Environmental Challenges, accessed July 1, 2014. <http://www.nmai.si.edu/environment/lummi/Future.aspx>.

<sup>326</sup> "Lummi Nation-Our Environmental Challenge," *National Museum of the American Indian*, [http://www.nmai.si.edu/environment/pdf/transcripts/04\\_04\\_Lummi\\_Nation\\_Challenge.pdf](http://www.nmai.si.edu/environment/pdf/transcripts/04_04_Lummi_Nation_Challenge.pdf).

<sup>327</sup> Schuster et al., "Importance of Traditional Foods for the Food Security of Two First Nations Communities in the Yukon, Canada."

on.<sup>328</sup> Their cultural traditions include the First Salmon Ceremony and the Potlatch<sup>329</sup> to both celebrate and redistribute food resources to their people and their neighboring tribes (See Table 5). Each family in the tribe also had a claim to a specific stream or piece of land for subsistence uses.<sup>330</sup>

When the United States claimed Alaska as a territory in the 1860s, the Tlingit way of life was threatened due to the growth of the salmon canning industry. The period from the 1860s to 1910s was characterized as a laissez-faire approach with little federal regulation.<sup>331</sup> The canneries in Alaska doubled from six cannery industries to twelve by the year 1889. This resulted in overfishing of the resource.

Because the Tlingit had no treaty to protect their territorial claims prior to Alaskan statehood, the cannery companies had complete control over the Alaskan fisheries (See Table 6).<sup>332</sup> As a result, the Tlingit were forced to seek work in the canneries so that they could survive economically. Though some canneries employed indigenous people, others preferred to hire non-native people, such as Chinese immigrant workers. Like the Lummi and other Native American tribes, the Tlingit suffered economically because they had lost their traditional subsistence way of life but were not able to fully participate in the commercial salmon industry.<sup>333</sup> The cannery industry's use of fish traps, which were extremely efficient in catching salmon, led to the eventual decline of the salmon stocks in the early 1900s. Federal legislation such as the White Act of 1924 sought to mitigate the effects by granting the Secretary of Commerce "the authority to regulate salmon fishing, including gear and harvest timing... (and requiring) that 50% of all salmon runs

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<sup>328</sup> Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*, p. 27.

<sup>329</sup> Ibid., p. 30-31.

<sup>330</sup> Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status."

<sup>331</sup> Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*.

<sup>332</sup> Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status."

<sup>333</sup> Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*.

be allowed to pass upriver to spawn and sustain the runs.”<sup>334</sup> However, this was ineffective because it lacked appropriate funding and enforcement of catch regulations.

It was not until Alaska achieved statehood in 1959 that effective natural resource policies began to take shape. One of the principle management practices involved the sustained yield principle: “natural resources are to be managed on the sustained yield principle, providing their utilization, developments, and conservation for the maximum benefit of the people, subject to preferences among beneficial uses.”<sup>335</sup> The natural resources of Alaska, such as salmon, became a common use resource. Therefore, measures had to be taken in order to preserve their abundance. A year after the state’s constitution was ratified; the use of fish traps was banned.<sup>336</sup> Although an important first step, it was not enough to ensure a sustainable salmon industry. When salmon populations declined in 1972, “limited entry” rules were established, which reduced the number of fishers by making them buy individual fishing licenses, not collective ones.<sup>337</sup> As a result of Alaska’s commitment to fisheries conservation, the salmon species are currently maintained at healthy levels. However, with the limited entry system, many Alaskan Natives were barred from participating in the commercial fishery, as they were unable to afford to purchase permits.

The Tlingit are impacted by the Pacific Salmon Treaty because of the method used to allocate sockeye salmon between the United States and Canada. For example, the Taku River is a transboundary river in southeast Alaska and northern British Columbia. One of the provisions within the treaty includes a total harvest allocation of 82% of salmon going to the United States

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<sup>334</sup> Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status," p. 5.

<sup>335</sup> *Ibid.*, p. 6.

<sup>336</sup> *Ibid.*

<sup>337</sup> *Ibid.*

while Canada has an allocation of 18%.<sup>338</sup> This does not satisfy the Taku River Tlingit, located in Canada, because Canada receives fewer sockeye.<sup>339</sup> Amendments to the Pacific Salmon Treaty in 2012 changed the conservation and harvest strategy. Instead of a constant 82% to 18% split, both Canada and the United States agreed to create policies that allow an equal allocation of sockeye in the region by producing a sockeye return goal of 100,000 per year. The United States agreed to adjust its salmon catch percentage by decreasing the percentage of salmon caught based on increased annual sockeye returns.<sup>340</sup> Although the example given is Canadian, it indicates that not all Tlingit are satisfied with policy decisions of United States government to enhance salmon runs. It proves to be somewhat ineffective in accommodating tribal interests because of the restrictions by the state government and the depressed tribal economy in the region.

The Tlingit have been significantly impacted by the accessibility and availability of salmon species because they do not have a federal treaty to protect their rights. In addition, the impacts on the Tlingit are rooted in the cannery industry because of the earlier laissez-faire approach to the salmon industry. Like the Lummi, the Tlingit were forced to work for as well as build their lives around the canneries due to the high numbers of salmon caught by the canneries. When the canneries substituted migrant workers for the Tlingit, they were left economically depressed. Also, state restrictions on fishing technologies as well as on the number of fishing licenses that are available prevent them from further participating in the salmon fishery. Even though the salmon have become more abundant in the Alaskan region in recent years, the policy impacts by the federal and the Alaskan government have significantly affected the Tlingit way of

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<sup>338</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."

<sup>339</sup> Susan L. Dain-Owens, "Striving to Keep a Promise: Place-Based Salmon Management in Taku River Tlingit Territory" (The University of British Columbia, 2005), <http://www.roundriver.info/wp-content/uploads/pubs/taku/reports/striving.pdf>.

<sup>340</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."



life. They have insufficient protection from policies that seek to enhance the availability of salmon species for other interested parties. Today, Tlingit's subsistence fishing still exists, but it has been significantly affected. The causes of decline were based on "technology and global capitalism."<sup>341</sup> Overall, the Tlingit and other Alaskan Natives consider the loss of their traditional way of life as a "bitter pill."<sup>342</sup>

## Summary

Provided in Tables 5 and 6 are the ways in which federal policy decisions have affected the Native American case studies. Although every cultural trait was impacted or adapted, some were impacted more than others. The reason is not just the restrictions placed on certain technologies, but whether the issues have been resolved. The cultural traits of the Karuk have been overall significantly affected because the recently agreed Klamath River Basin Agreements have not been implemented. The Yakama/Nez Perce, on the other hand, capitalized on the Supreme Court decisions and also utilizes fish hatcheries to mitigate the effects of dams and overfishing. Cultural heritage is split between adapted and significantly impacted because each group has been affected in different ways. The Yakama/Nez Perce tribes still practice their cultural ceremonies at the new Celilo Village location, while the Karuk have struggled to practice their ceremonies because fish runs have substantially declined due to the dams.

Policies to protect and conserve the salmon species have not always benefitted the Native Americans. The reason is based on the powers of the state and federal government. State governments such as Washington have direct control over the number of fish licenses that are distributed as well as where, when, and how much salmon can be caught. Although the treaties and the Supreme Court rulings such as the *Boldt* Decision dictated fishing rights of tribes as well as how

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<sup>341</sup> Arnold, *Fishermen's Frontier : People and Salmon in Southeast Alaska*, p. 189.

<sup>342</sup> *Ibid.*, p. 171-172.

both the state and federal governments should accommodate them, sometimes there has been a grey area. For example, when the federal government arrested David Sohapp for allegedly poaching 40,000 salmon, it sparked an outcry because the tribes argued that he was practicing his traditional rights. It displays how the relationship between tribal and federal interests is still strained and confusing.

In addition, most federal policies have not been effective for indigenous peoples. For example, the Magnuson-Stevens Act gives the federal government the right to regulate only within the Exclusive Economic Zone in Open Ocean. The state government, on the other hand, has more control over the inland and coastal fisheries. When the state governments implemented fishing license restrictions, it constrained the Native Americans by leaving them economically depressed without an alternative means of support. Although treaty fishing rights are protected by the federal government, the states historically had more authority over the coastal and inland fisheries because of the federal government's laissez-faire approach during the cannery era. The construction of dams was especially damaging because the federal government did not foresee the consequences of inundating the river as their main concern was to enhance the economy of the Pacific Northwest. Although measures such as the Magnuson-Stevens Act,<sup>343</sup> the Endangered Species Act,<sup>344</sup> and the Pacific Salmon Treaty<sup>345</sup> ensure that federal fisheries management will not interfere with Native American treaty rights, enforcement of fair distribution of salmon resources between the Indians and non-Indians has been more difficult because of the state regulations.

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<sup>343</sup> Blackford, *American Business, Politics, and Society : Making Seafood Sustainable : American Experiences in Global Perspective*.

<sup>344</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans."

<sup>345</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."

**Table 5. Fisheries Management Impacts on Native American Cultural Traits**

| Tribe/First Nation Name      | Yakama/Nez Perce | Karuk | Lummi | Tlingit |
|------------------------------|------------------|-------|-------|---------|
| <b>Cultural Trait</b>        |                  |       |       |         |
| Food                         | 2                | 2     | 2     | 1       |
| Ceremony                     | 1                |       | 1     | 1       |
| Social                       |                  |       |       |         |
| Economy                      | 2                | 2     | 2     | 2       |
| Technology                   |                  |       | 2     | 2       |
| Material Culture             |                  |       |       |         |
| cycles of heritage/Education |                  |       |       |         |

Note: 0= Not Impacted; 1 = Adapted; 2 = Impacted Green = Little to No Impact; Orange = Moderately Impacted; Red = Significantly Impacted.

**Table 6. Policy Categories that Impacted Native Americans**

| Tribe/Relationship/Policy | Salmon Species       | Treaty Yes/No | State Regulations | Phase 1: Over Fishing | Phase 2: Dams |
|---------------------------|----------------------|---------------|-------------------|-----------------------|---------------|
| Yakama/Nez Perce          | Chinook/Coho/Sockeye | Yes           | Yes               | Yes                   | Yes           |
| Karuk                     | Coho                 | Yes           | Yes               | Yes                   | Yes           |
| Lummi                     | Sockeye              | Yes           | Yes               | Yes                   | No            |
| Tlingit                   | Sockeye              | No            | Yes               | Yes                   | No            |

## **Chapter 5: Canadian Policy in Context to Tribal Fishing Rights and Fisheries Management**

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This chapter discusses the Canadian (Crown) federal policy and how it may have affected salmon fisheries and indigenous cultures. Like the previous chapter, it follows the same steps in order to understand the Canadian stance on fisheries management and how well it fits First Nations interests. It begins with a brief history of First Nations policy, from the time of British rule in the 18<sup>th</sup> century to contemporary times with the acceptance of First Nations culture and modern-day treaty making. The next section examines Canadian fisheries policy, including early 19<sup>th</sup> century fisheries policy, the Pacific Salmon Treaty of 1985, and how First Nations fisheries interests are accommodated in fisheries management. Then it examines the policy impacts on four Northwest First Nations, including the impacts on cultural traits on Table 7 as well as the policy categories that impact First Nations on Table 8. The chapter concludes with a summary of the findings. It will discuss the advantages of the Canadian system in which the federal government has a major role in both salmon fisheries management and First Nations affairs, unlike the system in the United States, where relations with indigenous peoples are a function of the federal government while fisheries policies are primarily regulated by state and local authorities.

### **Brief history of Canadian First Nations Policy**

When Britain established settlement in North America, they were competing with other European nations, such as France, for land and trading opportunities. Throughout the American colonies which now make up the United States and Canada, during the colonial period, British policy was to form alliances with the Indians. These military and trade alliances protected commercial and territory interests against incursions by the French.<sup>346</sup> As a reward for First Nation's

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<sup>346</sup> Pevar, *The Rights of Indians and Tribes*.

alliance with Britain, King George the Third issued a royal proclamation in 1763.<sup>347</sup> It ensured Indian sovereignty by strictly regulating governmental land takings and negotiating land surrenders before the Crown occupied the land.<sup>348</sup>

The British North America Act of 1867 bestowed the duty of regulating First Nations affairs upon the newly formed federal government of Canada. The Canadian federal government used this authority to incentivize First Nations people to assimilate into Euro-Canadian society. This was further emphasized with the passing of the Indian Act of 1876. This law provided greater authority to assimilate First Nations into the “modern” world.<sup>349</sup> As in the United States, 19<sup>th</sup> century Canadians saw little value in protecting indigenous cultural traits and actively sought to extinguish them. They sought to “civilize” the First Nations people by instilling their belief system: “(the objective was for First Nations) to abandon their traditional ways of life and (adopt) a more...sedentary, more British lifestyle.”<sup>350</sup>

Canada’s Constitution Act 1982 resulted in important improvements for First Nations people in Canada. This act declared that First Nations traditional and societal rights were protected under the Constitution of Canada. The Canadian Constitution, “the supreme law of the land states that ‘the Aboriginal and treaty rights of the Aboriginal peoples of Canada are hereby recognized and affirmed.’”<sup>351</sup> Regardless of whether First Nation groups had a pre-established treaty with the federal government, the rights of all First Nations peoples are now protected and can-

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<sup>347</sup> "A History of Treaty-Making in Canada," last modified: 2011-09-02, <https://www.aadnc-aandc.gc.ca/eng/1314977704533/1314977734895>.

<sup>348</sup> Coates, "Breathing New Life into Treaties: History, Politics, the Law, and Aboriginal Grievances in Canada's Maritime Provinces."

<sup>349</sup> "A History of Treaty-Making in Canada."

<sup>350</sup> Ibid.

<sup>351</sup> "Why Is Canada Negotiating Treaties in BC?," last modified: 2010-09-15, accessed July 17, 2014. <http://www.aadnc-aandc.gc.ca/eng/1100100022836/1100100022837>.

not be infringed upon unless justified.<sup>352</sup> It establishes that First Nations have equal consideration of interests with all other Canadians in regards to livelihood and cultural autonomy.

The treaty was important to early Canadian policies towards First Nations because they assured “peace and friendship accords.”<sup>353</sup> The earliest treaties established between First Nations occurred in Nova Scotia in the 18<sup>th</sup> Century, between the Crown and the Mi’kmaq and Maliseet First Nations.<sup>354</sup> In return for a British-Indian alliance, the treaty promised to preserve the Indians’ sovereignty and autonomy.<sup>355</sup> However, as the need for military alliances diminished in the 19<sup>th</sup> century, treaties transitioned toward land surrenders. In exchange for land holdings in Canada, First Nations received a “lump sum of cash payments and goods, and the continued right to hunt and fish.”<sup>356</sup> This practice would continue until 1862 because the government of Canada chose not to fully recognize aboriginal title. This contradicted past British proclamations.<sup>357</sup> Similar to the United States and its Native Americans, First Nations obtained fishing rights on their traditional land even though Canada was the trustee of the land.

Unlike the United States, Canada continues to negotiate treaties with First Nations.<sup>358</sup> These modern-day treaties are not negotiated because the federal government wishes to obtain land but are intended to provide clarification, reconciliation, and protection for First Nation land, resources, and rights.<sup>359</sup> The reason for modern-day treaty negotiations in British Columbia is best explained by the Aboriginal Affairs and Northern Development Canada: “Through the 19<sup>th</sup> and 20<sup>th</sup> Centuries, the federal government signed the majority of treaties with Aboriginal people

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<sup>352</sup> Regan, "Canada's Policy for Conservation of Wild Pacific Salmon."

<sup>353</sup> Coates, "Breathing New Life into Treaties: History, Politics, the Law, and Aboriginal Grievances in Canada's Maritime Provinces," p. 339.

<sup>354</sup> "A History of Treaty-Making in Canada."

<sup>355</sup> Pevar, *The Rights of Indians and Tribes*.

<sup>356</sup> "A History of Treaty-Making in Canada."

<sup>357</sup> Ibid.

<sup>358</sup> Ibid.

<sup>359</sup> "About First Nations Treaty Process," British Columbia, 2014, accessed July 26, 2014, <http://www2.gov.bc.ca/gov/topic.page?id=E752829378314CA38D0EC1C10CB44C28>.

across the rest of Canada. However, very few treaties were negotiated or concluded in BC.”<sup>360</sup>

The earliest known treaties signed in British Columbia were the Douglas Treaties of 1850-1854.<sup>361</sup> Today’s negotiations are between the First Nations and the Canadian federal government, and facilitated by the British Columbia Treaty Commission.<sup>362</sup>

The modern-day treaty negotiation is a 6-step process that is overseen by the British Columbia (BC) Treaty Commission.<sup>363</sup> Step 1 is the Statement of Intent to Negotiate. The governing First Nation body sends a Statement of Intent (SOI) to negotiate a treaty with the federal government of Canada and the provincial government of British Columbia. This requires a description of the First Nation’s geographic boundaries that they inhabit and want to preserve. Step 2 is the readiness to negotiate process, during which both the Canadian government and the First Nation’s governments iron out details including preparations for negotiation as well as designating a negotiator. Step 3, also requires consultation on the regional and local level in order to effectively provide the proper provisions so that every party is satisfied. Step 4, negotiation of an agreement in principle, encompasses the bulk of negotiations and specific provisions, including, “existing and future interests in land, sea, and resources; structures and authorities of government; ...and so on.”<sup>364</sup> Step 5 is the negotiation to finalize a treaty, where both parties settle technicalities and other legal issues. Finally, once all negotiations and critiques have been settled, both parties implement the treaty, thus the provisions of the treaty, whether immediate or long-term, are enacted.<sup>365</sup>

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<sup>360</sup> "Why Is Canada Negotiating Treaties in BC?."

<sup>361</sup> "A History of Treaty-Making in Canada."

<sup>362</sup> "About First Nations Treaty Process."

<sup>363</sup> "Six Stages: Policies and Procedures," BC Treaty Commission, 2009, accessed June 28, 2014, <http://www.bctreaty.net/files/sixstages.php>.

<sup>364</sup> Ibid.

<sup>365</sup> Ibid.

While this has been beneficial to Canada, it is still a developing process that has produced only a few official treaties. The British Columbia Treaties Commission's has a list of First Nations that have successfully implemented treaties or have agreements in principle. Of these, only six First Nations have implemented treaties. Of the four case studies presented in this chapter, only two have well-established treaties with the Canadian Federal government: The Huu-ay-aht<sup>366</sup> and the Nisga'a.<sup>367</sup> This lack of completed treaties in British Columbia has an impact on First Nations without treaties because they are unable to protect their interests in salmon fishing grounds and habitats. This will be covered when the Heiltsuk and the St'at'imc First Nations are presented later on in the chapter.

The four basic policy concepts presented in this chapter are aimed toward accommodating aboriginal interests. The role of the Aboriginal Affairs and Northern Development Canada is to "examine the evolution of the treaty process in Canada and also to examine the historical evolution and shaping of Canada."<sup>368</sup> It displays an evolution of how First Nations claimed aboriginal fishing rights and how they continue to fight for salmon conservation. From the formation of the federal government of Canada to instilling aboriginal fishing rights into the aboriginal fisheries strategy, the policies seek to provide an understanding of aboriginal fishing rights as well as how to enhance the salmon fisheries so that the First Nations can benefit from abundant salmon resources.

The United States and Canada have a similar policy history because both nations sought to expand their authority over North America and included, at some point in time, treaty negotiations with indigenous peoples. In order for that to happen, both nations established treaties with

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<sup>366</sup> Dave Haggard and Mark Smith, "Maa-Nulth First Nations," 2009, accessed July 26, 2014. <http://bctreaty.net/nations/maanulth.php>.

<sup>367</sup> Edward Allen, "Our Treaty, Our Inherent Right to Self-Government: An Overview of the Nisga'a Final Agreement," *International Journal on Minority & Group Rights* 11, no. 3 (2004).

<sup>368</sup> "A History of Treaty-Making in Canada."



their respective indigenous peoples that included tribal fishing rights in exchange for indigenous land. However, Canada is the only government that continues to negotiate treaties with First Nations. In 1871, the U.S. Congress passed a law prohibiting federal officials from negotiating treaties with the Indian nations.<sup>369</sup> Although this law prohibits the U.S. government from negotiating treaties with Native Americans,<sup>370</sup> the United States continues to negotiate agreements with Native Americans. The Klamath Basin Restoration Agreement, for example, negotiates fishing and water rights, and ecological restoration projects between interested parties in the Klamath River Basin.<sup>371</sup>

### **Species at Risk Act 2003**

The overarching objective of the Species at Risk Act 2003<sup>372</sup> is to list and evaluate species at risk of extinction in Canada.<sup>373</sup> The Department of Fisheries and Oceans (DFO) is one of the federal departments entrusted to protect endangered species in Canada. Its duties are to “implement automatic prohibitions, develop recovery and action plans, plan and implement critical habitat protection, and conduct consultations within specified timelines.”<sup>374</sup> Four species of salmon are listed under the Species at Risk Act: The Chinook salmon of the Okanagan population, the coho salmon in the Interior Fraser River, the sockeyes in the Cultus and Sakinaw populations.<sup>375</sup> However, it appears none of these species impact the First Nations examples presented because the listed salmon species do not exist within the territory of the First Nations presented in this research.

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<sup>369</sup>Pevar, *The Rights of Indians and Tribes*.

<sup>370</sup>*Ibid.*

<sup>371</sup>Guiao, "How Tribal Water Rights Are Won in the West: Three Case Studies from the Northwest."

<sup>372</sup>Healey, "Resilient Salmon, Resilient Fisheries for British Columbia, Canada."

<sup>373</sup>C. Scott Findlay et al., "Species Listing under Canada's Species at Risk Act," *Conservation Biology* 23, no. 6 (2009).

<sup>374</sup>Regan, "Canada's Policy for Conservation of Wild Pacific Salmon," p. 41.

<sup>375</sup>"Search Aquatic Species at Risk."

Canada and the United States have experienced different challenges in the terms of conserving and restoring salmon populations. For example, the decline of salmon populations has been significant to both nations but has occurred at different rates. In 2006, Canada's Nass River region achieved a total production of 0.75 million sockeye which met the required 200,000 escapement for healthy salmon populations.<sup>376</sup> The United States, on the other hand, has experienced declines in salmon runs. In 2013, for instance, the sockeye salmon runs had to be closed because there were fewer returns compared to the previous three years. As a result, the region lost \$1.3 million worth of salmon.<sup>377</sup> In addition, the United States and Canada have different degrees of challenges in conserving and restoring salmon populations that impact their respective indigenous peoples. For example, First Nations are not impacted by hydroelectric dams because the government of Canada determined that the needs of the First Nations fisheries interests far outweighed the need for hydroelectric dams on the Fraser River (See Table 8).<sup>378</sup> The Canadian government believed that the inundation of land due to the construction of dams on the river would significantly impact the salmon populations.<sup>379</sup> Since the construction of hydroelectric dams on the Columbia River such as Bonneville Dam in the 1930s, the region has experienced a 70% decrease in historic salmon runs.<sup>380</sup> As a result, aggressive policies to conserve salmon species are more prevalent in the United States than in Canada.

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<sup>376</sup> David Levy, "Nass River Salmon Fishery Report Card," (Ottawa, Ontario, Canada 2006), <http://www.sierraclub.ca/national/postings/scc-nass-salmon-report-card.pdf>.

<sup>377</sup> "Lummi Nation Seeks Federal Relief Following Fishery Closure."

<sup>378</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

<sup>379</sup> Ibid.

<sup>380</sup> Ibid.

## Brief history of Fisheries Policy

The Fisheries Act of 1868 is one of Canada's first laws passed after Canadian Confederation.<sup>381</sup> It is considered Canada's "primary legislative basis for fisheries management in Canada."<sup>382</sup> The Minister of Fisheries and Oceans has the authority to develop conservation and enforcement standards to protect fisheries resources and habitats. It also authorizes the Minister to determine allocation quotas between parties.<sup>383</sup> These include the protection of commercial, recreational, and Aboriginal (First Nation's) interests from activities that cause harm to fish populations and their ecosystems. The overall goal is "to provide for the sustainability and ongoing productivity of commercial, recreational and Aboriginal fisheries."<sup>384</sup>

As stated in the previous chapter, the Pacific Salmon Treaty of 1985 is the legislative agreement between the United States and Canada to coordinate and regulate Pacific salmon fisheries management.<sup>385</sup> The main reason for implementation was the decrease in the number of salmon returning to their spawning grounds because either the U.S. or Canadian fishing fleets were intercepting them. For example, in 1985, in order to assure the abundance of Fraser River sockeye salmon in the region, the United States was allocated 24-33% of the total salmon runs depending on the population fluctuations.<sup>386</sup> The Fraser River Panel, established by the treaty, coordinates and calculates the size of the annual salmon runs and then adjusts the Total Allowable Catch (TAC) for the United States to permit both nations abundant returns of sockeye salm-

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<sup>381</sup> "Fisheries Protection Policy Statement," Fisheries and Oceans Canada, 2014, accessed July 18, 2014. <http://www.dfo-mpo.gc.ca/pnw-ppe/pol/index-eng.html>.

<sup>382</sup> Regan, "Canada's Policy for Conservation of Wild Pacific Salmon," p. 41

<sup>383</sup> Ibid.

<sup>384</sup> "Fisheries Protection Policy Statement."

<sup>385</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."

<sup>386</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

on.<sup>387</sup> This treaty seeks to promote a more cooperative, international plan to conserve salmon species while protecting each party's salmon related interests.<sup>388</sup> Positive outcomes have resulted for First Nation groups such as the Nisga'a because they are able to monitor and allocate the proper amount of salmon resources in river basins such as the Nass River.

The Aboriginal Fisheries Strategy of 1992 is Canada's salmon conservation and management plan that includes First Nation participation in fisheries management and improved capacity and skills for Aboriginal fisheries management.<sup>389</sup> This fisheries management strategy is designed to be consistent with Canadian Supreme Court's *Sparrow* decision in 1990.<sup>390</sup> In the *Sparrow* case, the Canadian Supreme Court found that an "Aboriginal group has a right to fish for food, social and ceremonial purposes; it takes priority, after conservation, over other uses of the resource."<sup>391</sup> Although conservation has the highest priority, the First Nations' concerns also have high priority and are incorporated into fisheries management decisions. Overall, as stated by the Canadian Department of Fisheries and Oceans, "(the agreement) seeks to provide for the effective management and regulation of fishing by Aboriginal communities through negotiation of mutually acceptable and time-limited agreements between the Department and Aboriginal groups."<sup>392</sup>

In addition to the legislation and agreements that the Canadian government has implemented, Canada has also established a Wild Salmon Policy. Figure 5, below, summarizes the goals, objectives, strategies, and the guiding principles of the federal government's strategy to

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<sup>387</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."

<sup>388</sup> Yanagida, "The Pacific Salmon Treaty."

<sup>389</sup> "Aboriginal Fisheries Strategy," 2014, accessed July 17, 2014, <http://www.dfo-mpo.gc.ca/fm-gp/aboriginal-autochtones/afs-srapa-eng.htm>.

<sup>390</sup> "Strengthening Our Relationship - the Aboriginal Fisheries Strategy and Beyond," Fisheries and Oceans Canada, 2003, accessed June 30, 2014, <http://www.dfo-mpo.gc.ca/fm-gp/aboriginal-autochtones/afs/afsoc03-eng.htm>.

<sup>391</sup> "Aboriginal Fisheries Strategy."

<sup>392</sup> Regan, "Canada's Policy for Conservation of Wild Pacific Salmon," p. 44.

conserve and enhance the wild Pacific salmon populations. The goal of the policy is to “restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada.”<sup>393</sup> It is guided by four principles: 1) Conservation-maintain salmon populations and their habitats, 2) Honor the obligations to First Nations-consult with First Nations to include them in the policy formation process, 3) Sustainable use of resources so that future generations will benefit; and 4) it is an Open Process in order to make information and decisions transparent and available to stakeholders.<sup>394</sup> These pillars of the Canadian Wild Salmon Policy influence the nation’s relationships with its stakeholders because they encourage win-win solutions that which will allow all to benefit from conserved salmon resources.

The Canadian and United States share similar fisheries management policies because both seek to conserve salmon populations by restricting their catch. For example, both the United States and Canada agree to set total allowable catch percentages in the Pacific Salmon Treaty so as to conserve salmon species in transboundary locations. The United States and Canada agreed to an 82% to 18% split on the amount of sockeye that originated from the Taku River in Alaska and British Columbia.<sup>395</sup> In addition to transboundary percentage allocations, both nations provide allocations to their respective interested parties. The United States’ and Canada’s fisheries management plans for salmon includes an allocation of salmon based on a region’s predicted run size. The U.S.’ 2014 Federal Regulations for West Coast Salmon Fisheries<sup>396</sup> and Canada’s Nisga’a Final Agreement<sup>397</sup> have such adjusted Total Allowable Catch provisions. Although both nations are required to consult with their respective indigenous peoples, there are different levels in the degree to which indigenous peoples are consulted because it is based on the affected re-

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<sup>393</sup> Ibid., p. 8.

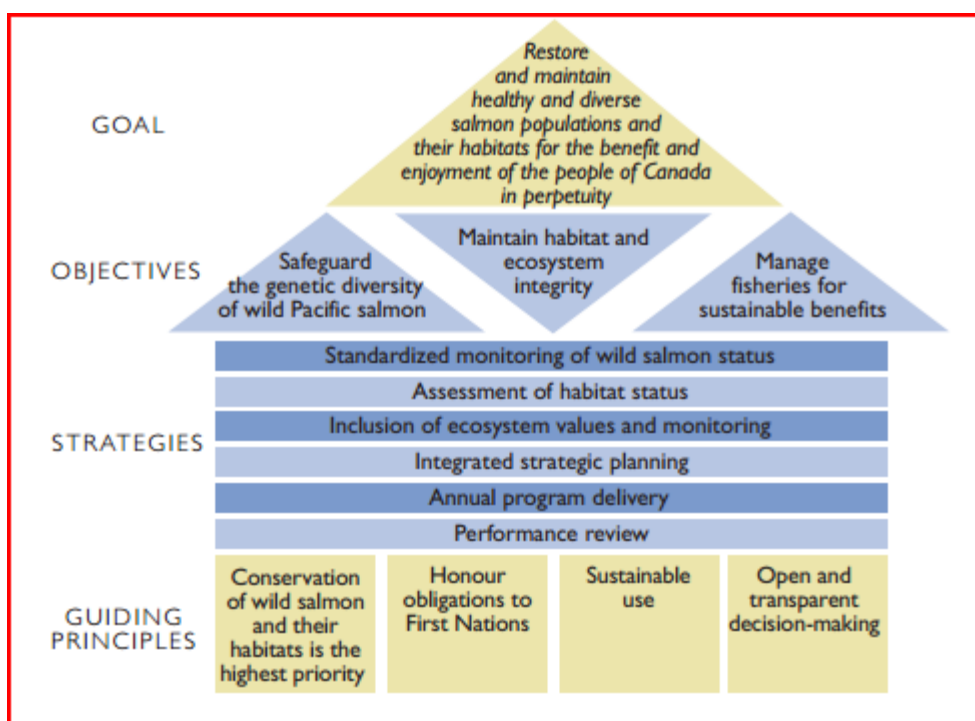
<sup>394</sup> Ibid., p. 8-9.

<sup>395</sup> "Treaty between the Government of Canada and the Government of the United States of America Concerning Salmon."

<sup>396</sup> "2014 Federal Regulations for West Coast Salmon Fisheries."

<sup>397</sup> Muckle, *First Nations of British Columbia : An Anthropological Survey (2nd Edition)*.

gion. In the United States, the Klamath River Basin has been significantly impacted because the salmon populations greatly declined from a high of nearly 400,000 to a low of 10,000 salmon due to the construction of dams in the region.<sup>398</sup> As a result, the Klamath Basin Restoration Agreement seeks to remediate the impacts by consulting with interested parties in the region to determine the best course of action to conserve salmon species. Canada, on the other hand, does not have hydroelectric dams that impact salmon fisheries.<sup>399</sup> As a result, the level of involvement is different between the U.S. and Canada and their respective tribes.



**Figure 5: Overview of Canada's Wild Pacific Salmon Policy;** Source: Regan, Geoff. "Canada's Policy for Conservation of Wild Pacific Salmon." edited by Department of Fisheries and Oceans Canada, 57. Vancouver, BC: Her Majesty the Queen in Right of Canada, 2005.

<sup>398</sup> Tarlock and Doremus, "Fish, Farms, and Clash of Cultures in the Klamath Basin, (with H. Doremus)."

<sup>399</sup> Gould, "Salmon as a Sacred Resource in the Klamath River."

## **British Columbia First Nations Tribes Case Studies**

Like the United States Case Studies, this thesis will explore four First Nation groups to determine how they were affected by federal government fisheries policy or by other factors that significantly impact fisheries management and First Nation's rights. It starts with the Huu-ay-aht of West Vancouver Island and the Nisga'a of the Nass River because both have standing treaties with the federal government of Canada. The other two case studies, the Heiltsuk of the Central Coast of British Columbia and St'at'imc (Lillooet) of the Lower Fraser River, on the other hand, do not have treaties. These are summarized in the tables at the end of the chapter (See Table 7). A summary table of how the different policy dimensions/actions have affected the First Nations is also included at the end to indicate what policy dimensions specifically impacted each First Nation tribe (See Table 8).

### ***Nisga'a First Nations***

The Nisga'a traditional lands are located in the Nass River area of Northwest British Columbia.<sup>400</sup> Today, their society consists of sixty houses which are divided between four groups.<sup>401</sup> The Nass River is considered relatively pristine with minimal development. As a result, fish species are able to thrive due to the "low pressure on freshwater habitats."<sup>402</sup> The most prevalent salmon species is the sockeye and it is not listed under the Species at Risk Act. The salmon for this tribe is connected to their food and economic well-being because it is a source of sustenance and trade.<sup>403</sup>

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<sup>400</sup> Muckle, *First Nations of British Columbia : An Anthropological Survey (2nd Edition)*.

<sup>401</sup> Ibid.

<sup>402</sup> Levy, "Nass River Salmon Fishery Report Card," p. 1.

<sup>403</sup> Allen, "Our Treaty, Our Inherent Right to Self-Government: An Overview of the Nisga'a Final Agreement."

Unlike most First Nations, they have a very effective agreement with the federal government of Canada. The Nisga'a Final Agreement of 2000 was the first official treaty agreed upon between the federal government and a First Nation. Even though it is not a part of the British Columbia Treaty Commission, it guarantees the Nisga'a First Nation's right to fish for salmon.<sup>404</sup> First, it grants them the right to harvest and trade Nass River salmon between other Aboriginal groups harvested in Nisga'a fisheries.<sup>405</sup> Second, the Nisga'a is allocated at least "13 percent of each year's adjusted total allowable catch for Nass sockeye salmon."<sup>406</sup> In addition, the treaty created a Joint Fisheries Management Committee that manages the Nass River fisheries. They utilize fish wheels to tag, monitor, and collect data on stock assessments in order to establish proper management schemes in the Nass River area.<sup>407</sup> The Nisga'a people are responsible for catch and management of the fishery while the federal government has final authority over any decisions.<sup>408</sup> As a result, the agreement "provides Nass area salmon stocks with a greater degree of protection from overharvesting than most, if not all, other B.C. salmon stocks," as well as jobs and opportunities to fish for salmon.<sup>409</sup>

The process has been such a success that the Nass River has been considered one of the "healthiest river systems in the world."<sup>410</sup> According to a Sierra Club report, conservation and monitoring efforts have met escapement goals provided by the Pacific Salmon Treaty's stock assessment requirements. In 2006, the region achieved a total production of 0.75 million sockeye produced which met the required 200,000 escapement for healthy salmon populations.<sup>411</sup> As a

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<sup>404</sup> Ibid.

<sup>405</sup> Muckle, *First Nations of British Columbia : An Anthropological Survey (2nd Edition)*.

<sup>406</sup> Ibid., p. 136.

<sup>407</sup> "Fisheries Management," Nisga'a Lisims Government, accessed August 11, 2014. <http://www.nisgaanation.ca/fisheries-management>.

<sup>408</sup> "Our Place at the Table: First Nations in The BC Fishery."

<sup>409</sup> Ibid., p. 40.

<sup>410</sup> "Fisheries Management."

<sup>411</sup> Levy, "Nass River Salmon Fishery Report Card."



result, the policy reflects the qualities of Wild Salmon Policy because the habitat has been maintained to enhance salmon species at a rate large enough so that the Nisga'a and other First Nations in the region are able to benefit from the increased salmon runs.

### ***Huu-ay-aht First Nations***

The Huu-ay-aht is a sub-group of the Nuu-chah-nulth First Nations in the West Vancouver Island region.<sup>412</sup> Its traditional area extends about 300 km along Western Vancouver Island from Brooks Peninsula in the north to as far south as Point-no-Point, with an inland border going as far east as the Beaumont Mountain Range.<sup>413</sup> Their traditional territory is located in the Barkley Sound, just 250 km northwest of Victoria, the provincial capital of British Columbia.<sup>414</sup> It also includes the Sarita River Watershed.<sup>415</sup> The Huu-ay-aht centered their lives around the resources that were available to them, including marine resources such as salmon. According to Heather Castleden in her study in 2007, the Huu-ay-aht still fish for subsistence purposes, for ceremonial purposes, and social purposes. Hereditary chiefs still perform traditional distribution ceremonies to redistribute resources among its people.<sup>416</sup>

The Huu-ay-aht way of life has been significantly affected by environmental degradation of salmon habitats as well as fisheries policy decisions made by the federal government. The actions of the logging industry had a major effect on the Huu-ay-aht First Nations' ability to harvest salmon. In the Sarita Watershed, for example, logging practices in the 1950s and 1960s impacted the area because overharvesting of timber destroyed the natural riparian buffer in the watershed.

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<sup>412</sup> Muckle, *First Nations of British Columbia : An Anthropological Survey (2nd Edition)*.

<sup>413</sup> Castleden, "As Sacred as Cedar and Salmon: A Collaborative Study with Huu-Ay-Aht First Nation, British Columbia into Understanding the Meaning of 'Resources' from an Indigenous Worldview".

<sup>414</sup> *Ibid.*

<sup>415</sup> "The Sarita River," Huu-ay-aht First Nations, accessed July 10, 2014. [http://huuayaht.org/?page\\_id=141](http://huuayaht.org/?page_id=141).

<sup>416</sup> Castleden, "As Sacred as Cedar and Salmon: A Collaborative Study with Huu-Ay-Aht First Nation, British Columbia into Understanding the Meaning of 'Resources' from an Indigenous Worldview".

This resulted in the destruction of fish habitats in the area.<sup>417</sup> The trees provided a riparian buffer for fish streams that controlled the flow of the river as well as the rate of erosion that impacts fish habitats. Karen Barry states that overall, “the Sarita River watershed has been significantly impacted by forest activities...many west coast salmon rely on estuaries as rearing habitat for some duration; therefore the Sarita River estuary warrants more attention.”<sup>418</sup>

The Huu-ay-aht First Nation has also been impacted economically. According to Heather Castleden, since the federal government implemented a limit on fish licenses for both indigenous and non-indigenous peoples, the Huu-ay-aht commercial salmon industry shrank from 65 licensed fishers to 2 active licenses.<sup>419</sup> Although they are unable to fish for commercial purposes, they have been able to be employed in hatcheries and salmon restoration projects, as well as fish for sustenance.<sup>420</sup> As a result, their economy is moderately impacted because they were able to adapt to new industries and projects (See Table 7).

However, the Huu-ay-aht is also a treaty-recognized First Nation. The Huu-ay-aht never signed a treaty when Euro-Canadians began to settle in the area in the late 19<sup>th</sup> century.<sup>421</sup> However, in 2011, in association with the Maa-nulth First Nations, the Huu-ay-aht and the federal government of Canada agreed on a treaty that lists the rights and obligations of both parties in regards to traditional land and resources in the area. Those include the right to harvest, barter, and sell salmon species with other First Nations and for food, ceremonial, and social purposes.<sup>422</sup>

Although limits on fishing activities as well as habitat degradation have impacted the Huu-ay-aht food and economic cultural traits by restricting fishing licenses as well as habitat de-

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<sup>417</sup> "The Sarita River."

<sup>418</sup> Karen L. Barry, "Habitat Status Report for the Sarita River Watershed, Vancouver Island, Bc," (Nanaimo, BC 2010), p. 35. <http://www.dfo-mpo.gc.ca/Library/347392.pdf>.

<sup>419</sup> Castleden, "As Sacred as Cedar and Salmon: A Collaborative Study with Huu-Ay-Aht First Nation, British Columbia into Understanding the Meaning of 'Resources' from an Indigenous Worldview".

<sup>420</sup> Ibid.

<sup>421</sup> Ibid.

<sup>422</sup> Haggard and Smith, "Maa-Nulth First Nations."

struction due to overharvesting trees, efforts to remediate the loss of salmon populations through treaties have been established due to the significance of salmon to the Huu-ay-aht First Nation. Even efforts that predated the signing of the treaty had an impact on Huu-ay-aht way of life. The 2003 Huu-ay-aht funded film, *Return of the River*, documented their efforts to restore the Sarita River without government support.<sup>423</sup>

### ***Heiltsuk First Nations***

The Heiltsuk First Nations traditional center is located in Bella Bella on the central coast of British Columbia.<sup>424</sup> The traditional land consists of an area between 15,000<sup>425</sup> and over 16,000<sup>426</sup> square kilometers of land. Its territory consists of the land and the waters adjacent to it.<sup>427</sup> In addition, all five salmon species were abundant in the area, especially the sockeye salmon, which is still central to the sustenance and well-being of the Heiltsuk.<sup>428</sup>

Heiltsuk First Nations practiced traditional salmon harvesting through the use of weirs and stone walls, as well as spearing and gaffing. In addition, traditional practices such as the potlatch and First Salmon Ceremony were practiced as a ways to 1) redistribute the wealth around the group and 2) ensure that even a more plentiful salmon run returns the next year. Oral tradition, according to James Thomas Jones, who studied the Heiltsuk culture in the late 1990s and early 2000s, stated that the Heiltsuk have a responsibility to care for the salmon.<sup>429</sup> The Central

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<sup>423</sup> David Wiwchar, "Documentary on Watershed Protection Premieres," *Raven's Eye* 6, no. 9 (2003).

<sup>424</sup> Jones, "'We Looked after All the Salmon Streams': Traditional Heiltsuk Cultural Stewardship of Salmon and Salmon Streams. A Preliminary Assessment".

<sup>425</sup> Ibid.

<sup>426</sup> "Heiltsuk Nation," Central Coast Indigenous Resource Alliance, 2014, accessed July 29, 2014. <http://ccira.ca/site/communities/heiltsuk.html>.

<sup>427</sup> Jones, "'We Looked after All the Salmon Streams': Traditional Heiltsuk Cultural Stewardship of Salmon and Salmon Streams. A Preliminary Assessment".

<sup>428</sup> Ibid.

<sup>429</sup> Ibid.

Coast Indigenous Resource Alliance refers to the Heiltsuk law of Gvi'ilas, i.e. the spiritual connection with the people and their resources as an important cultural tradition:

“It was believed that all living matter had a spiritual essence that was respected, and interconnectedness was understood. Each family was given responsibility over specific land and water bases. Sustainable use and management was enforced by certain practices and teachings.”<sup>430</sup>

An example of one such oral tradition was that salmon were once distant cousins of the Heiltsuk. The belief was that they would return to provide food for the people. However, if fish were not properly selected or were improperly disposed of, it was the belief that the salmon would either disappear or not return in sufficient numbers.<sup>431</sup> Salmon was considered to be a gift that should not be taken for granted and should be shared with others. It was an important resource for the survival and economic stability of the Heiltsuk.

The cultural integrity of the Heiltsuk has been affected primarily by the lack of a historic or modern First Nation treaty, as their traditional fishing rights, including the rights to fish for food and economic purposes, as well as “the right to manage and protect fisheries resources and habitats” within their territory,<sup>432</sup> have not been recognized by the Canadian government. Their way of life began to diminish with the growth of the commercial salmon industry. When canneries were established in the late 1800s, they overexploited salmon and affected the resource base of the Heiltsuk Nation’s territory. Overharvest of salmon also affected the Heiltsuk culture by reducing their subsistence economy and food supply due to cannery operators “ultimately (pushing the Heiltsuk) out of commercial fishing, (and) essentially due to stock declines, (left the) community largely on welfare.”<sup>433</sup> This First Nation’s frustration also stems from the ever-

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<sup>430</sup> "Heiltsuk Nation."

<sup>431</sup> ""We Looked after All the Salmon Streams": Traditional Heiltsuk Cultural Stewardship of Salmon and Salmon Streams. A Preliminary Assessment," p. 57-58.

<sup>432</sup> "Our Place at the Table: First Nations in The BC Fishery," p. 10.

<sup>433</sup> ""We Looked after All the Salmon Streams": Traditional Heiltsuk Cultural Stewardship of Salmon and Salmon Streams. A Preliminary Assessment," p. 202.

evolving exploitation of natural resources in the area since the late 1800s; the experience of the Heiltsuk stands in sharp contrast to the Nisga'a Nation, which has a high degree of control over fisheries management within its territory.

Although their traditional ways and access to salmon are protected by the Constitution Act of 1982, the Heiltsuk simply are not a treaty-recognized First Nation and do not have federal agreement to clarify their rights and title. This is seen more recently as the Heiltsuk's inability to control commercial activity within their territory.<sup>434</sup> For example, in 2003 and without the consent of the Heiltsuk, the Norwegian Company Panfish-Omega established a salmon aquaculture hatchery at Ocean Falls. The company produces over 10 million *Atlantic* salmon smolts per year in waters inhabited by *Pacific* salmon species.<sup>435</sup> The Heiltsuk oppose this hatchery because it introduces an exotic salmon species to the region and threatens wild salmon populations with the risks of Atlantic salmon inter-breeding and disease, as well as pollution from forms of waste such as "feed, sewage, and pharmaceuticals."<sup>436, 437</sup>

It is difficult to point to instances in which the actual cultural traits of the Heiltsuk have been affected by Canadian policies. However, it is clear that there has been a long-term violation of the basic principle of indigeneity. The Heiltsuk First Nation does not control the economic activity within its traditional territory, and Canada, as the ruling government, does not prevent interference with the resource rights of this indigenous culture (See Tables 7 and 8).<sup>438</sup> The consequence is that the ecological foundation of the Heiltsuk's salmon culture has started a century-

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<sup>434</sup> Karen Wonders, "Heiltsuk," First Nations Land Rights and Environmentalism in British Columbia, 2008, accessed July 29, 2014, <http://www.firstnations.de/fisheries/heiltsuk.htm>.

<sup>435</sup> Ibid.

<sup>436</sup> Dorothee Schreiber, "First Nations, Consultation, and the Rule of Law: Salmon Farming and Colonialism in British Columbia," *American Indian Culture & Research Journal* 30, no. 4 (2006).

<sup>437</sup> Wonders, "Heiltsuk."

<sup>438</sup> Davis, "Summary of the UN Declaration on the Rights of Indigenous Peoples."

long process of change, and one in which the Heiltsuk law of Gvi'ilas, the spiritual foundation of the sustainable management of their resources, cannot be practiced.

### ***St'at'imc First Nations (Lillooet<sup>439</sup>)***

The St'at'imc ("formerly known as the Lillooet") native land is in the southern region of British Columbia.<sup>440</sup> Their traditional fishing grounds are located in the Lower Fraser watershed. Their main salmon catch consists of sockeye.<sup>441</sup> The Fraser River watershed, according to Colleen Jacob et al., "has the past been the most economically valuable commercial salmon fishery in Canada, shared with fishers from the United States under the Pacific Salmon Treaty."<sup>442</sup>

The St'at'imc, unlike other Northwest indigenous peoples, have built their lives around one specific salmon species. The sockeye is the significant species for harvest, ceremonial, and economic purposes since time immemorial.<sup>443</sup> However, unlike other Northwest Indigenous peoples, the St'at'imc have their own First Salmon Ceremony to honor them.<sup>444</sup> According to Erna Gunther, it is elaborate because the salmon have to be caught, evaluated, harvested, cut up and distributed in a very specific way. Everyone from the male fishers to the women processing the fish has a role to play.<sup>445</sup>

Like the Heiltsuk, the St'at'imc do not have an implemented treaty with the federal government. However, they have benefitted from the accommodations made by the federal government. For example, the Department of Fisheries and Ocean's Aboriginal Fisheries Strategy posi-

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<sup>439</sup> "First Nations," District of Lillooet, 2014, accessed July 27, 2014.

<http://www.lillooetbc.com/Residents/First-Nations.aspx>.

<sup>440</sup> Muckle, *First Nations of British Columbia : An Anthropological Survey (2nd Edition)*, p. 128.

<sup>441</sup> Colleen Jacob, Tim McDaniels, and Scott Hinch, "Indigenous Culture and Adaptation to Climate Change: Sockeye Salmon and the St'at'imc People," *Mitigation & Adaptation Strategies for Global Change* 15, no. 8 (2010).

<sup>442</sup> *Ibid.*, p. 859-860.

<sup>443</sup> *Ibid.*

<sup>444</sup> Gunther, "An Analysis of the First Salmon Ceremony."

<sup>445</sup> *Ibid.*

tively affects the First Nation group because it provides “opportunities to facilitate involvement of the (First Nation) in the management, protection and enhancement of aquatic fisheries resources, with the...DFO.”<sup>446</sup> There is better facilitation between the First Nation group and the Canadian federal government.

Although the federal government has accommodated First Nations interests effectively, there are still ongoing problems that are less related to federal policy. One of the problems, according to Jacob et. al, is that even though First Nations such as the St’at’imc, “have guaranteed rights under the Fisheries Act, management, and uncertainty over the fate of the Fraser River sockeye lead to concerns about whether those rights are being served.”<sup>447</sup> Their objective in this study was to determine the overall feeling of St’at’imc on how climate change has significantly impacted their cultural lifestyle on the Fraser River.<sup>448</sup> The study determined that “the inability to maintain traditional reliance on an important ecosystem service, due to the effects of climate change, is a grave alteration in the lives of the (St’at’imc) people.”<sup>449</sup>

The St’at’imc share a similar situation to the Heiltsuk First Nation because they do not have a treaty that defines their traditional fishing rights. In addition, it is hard to pinpoint what cultural trait has been impacted by climate change because “there are many hypotheses for the causes of (sockeye) decline, including freshwater and ocean habitat changes, over-fishing, diseases, and other factors.”<sup>450</sup> The general consensus within the St’at’imc is that climate change has impacted their food resources (see Table 7) because of “changed time and abundance of salmon runs.”<sup>451</sup> Although there is better facilitation between the St’at’imc and the Canadian govern-

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<sup>446</sup> "Fisheries," St’at’imc, 2011, accessed September 11, 2014. <http://www.statimc.ca/programs/fisheries>.

<sup>447</sup> Jacob, McDaniels, and Hinch, "Indigenous Culture and Adaptation to Climate Change: Sockeye Salmon and the St’at’imc People," p. 862.

<sup>448</sup> Ibid.

<sup>449</sup> Ibid., p. 873.

<sup>450</sup> Ibid., p. 860.

<sup>451</sup> Ibid., p. 859.

ment, without a treaty that federally recognizes First Nations fishing rights and the duties to manage resources, the St'at'imc's indigeneity and cultural integrity will continue to diminish as sockeye populations diminish.

## **Summary**

In all four First Nations group examples, the most common cultural traits that were relevant were the food and economic cultural traits. This is due to overfishing and overharvesting timber which lead to habitat degradation and impacted the salmon populations (See Table 7). Although no Canadian First Nations group has been able to maintain their lifestyle and all of the cultural traits in place prior to contact with Europeans, the amount of impact varies with each group's situation. For example, there is a major difference between First Nations that have treaties versus the ones that do not. The Heiltsuk are impacted by the lack of policy decisions in regards to the increasing aquaculture industry. The St'at'imc have been affected by low salmon run returns to the Fraser River and also the potential effects of climate change. This creates a level of uncertainty about how the First Nations will maintain their way of life because they feel like they cannot rely on the government to enhance salmon runs and protect their interests concerning habitats. Since only seven treaties were implemented since the 1990s, and six of them were part of the British Columbia (BC) Treaty Commission, the process to determine the access of salmon species in the greater British Columbia area has been slow.

However, those with established treaties have benefitted from the provisions as well as policies that support the longevity of salmon species and the interests of First Nations. The Nisga'a Agreement is the best example because it displays well-structured rights for the Nisga'a, a specific allocation percentage of salmon species, as well as a co-management scheme integrated with the Pacific Salmon Treaty so that both Canada and their First Nations benefit from abundant salmon species.



Even though Canada has well-established policy measures that accommodate First Nations interests with fisheries management, it has not necessarily been more progressive than the United States. With the exception of the Nisga'a and Huu-ay-aht, the reason is that other First Nations fishing interests have not been considered in Canadian policies. Such examples include the Heiltsuk and the establishment of aquaculture on their traditional territory because they have no treaty to support their right to self-determination (See Table 8).<sup>452</sup>

In addition, the modern-day treaty process has not been as effective in providing the federal government and First Nations with an agreement that benefits everyone. The reason is that "negotiations have been very slow, as the parties grapple with complex issues, often disagreeing on fundamental concepts of treaty, such as...governance, financial arrangements, land status, and fisheries."<sup>453</sup> This is significant for First Nations such as the Heiltsuk and St'at'imc because without a treaty, their indigeneity and cultural integrity are threatened by overharvesting salmon, environmental degradation, or aquaculture activities (see Table 8). However, for those First Nations that have federally recognized treaties, such as the Nisga'a and the Huu-ay-aht, they are far better off because they have well-defined fishing rights (see Table 8). Although there have been mixed results, the Canadian federal government has included First Nations' rights within the Canadian Constitution, a federal strategy to provide fishing rights to the First Nations, and continues to negotiate treaties with First Nations.

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<sup>452</sup> Wonders, "Heiltsuk."

<sup>453</sup> "Our Place at the Table: First Nations in The BC Fishery," p. 17.

**Table 7. Policy Impacts on the Cultural Dimensions of Canada's First Nations**

| Tribe/First Nation Name      | Nisga'a | Huu-ay-aht | Heiltsuk | St'at'imc |
|------------------------------|---------|------------|----------|-----------|
| <b>Cultural Trait</b>        |         |            |          |           |
| Food                         | 0       | 0          | 2        | 1         |
| Ceremony                     |         |            |          |           |
| Social                       |         |            |          |           |
| Economy                      | 0       | 1          | 2        |           |
| Technology                   |         |            |          |           |
| Material Culture             |         |            |          |           |
| cycles of heritage/Education |         |            |          |           |

Note: 0= Not Impacted; 1 = Adapted; 2 = Impacted Green = Little to No Impact; Orange = Moderately Impacted; Red = Significantly Impacted.

**Table 8. Policy Categories that Impacted First Nations**

| Tribe/Relationship/Policy | Salmon Species     | Treaty | Fisheries Management Phase 1: Over Fishing | Fisheries Management Phase 2: Dams |
|---------------------------|--------------------|--------|--|------------------------------------|
| Nisga'a                   | Sockeye            | Yes    | No   | No                                 |
| Huu-ay-aht                | All Salmon-Chum    | Yes    | Yes  | No                                 |
| Heiltsuk                  | All Salmon-Sockeye | No     | Yes  | No                                 |
| St'at'imc (Lillooet)      | Sockeye            | No     | No   | No                                 |

## Chapter 6-Discussion/Conclusion

After comparing the cultural impact tables from the previous two chapters (see Table 9), one sees the overall picture of how indigenous peoples have been impacted by the fisheries policies of both the United States and Canada. Although every cultural dimension has been affected in some way or another, there are differing degrees of impact within and between the nine indigenous groups examined in this study.

**Table 9. Policy Impacts on the Cultural Dimensions of U.S./Canadian Indigenous Peoples**

| Tribe/First Nation Name      | Yakama/Nez Perce | Karuk      | Lummi    | Tlingit   |
|------------------------------|------------------|------------|----------|-----------|
| <b>Cultural Trait</b>        |                  |            |          |           |
| Food                         | 2                | 2          | 2        | 1         |
| Ceremony                     | 1                |            | 1        | 1         |
| Social                       |                  |            |          |           |
| Economy                      | 2                | 2          | 2        | 2         |
| Technology                   |                  |            | 2        | 2         |
| Material Culture             |                  |            |          |           |
| cycles of heritage/Education |                  |            |          |           |
| Tribe/First Nation Name      | Nisga'a          | Huu-ay-aht | Heiltsuk | St'at'imc |
| <b>Cultural Trait</b>        |                  |            |          |           |
| Food                         | 0                | 0          | 2        | 1         |
| Ceremony                     |                  |            |          |           |
| Social                       |                  |            |          |           |
| Economy                      | 0                | 1          | 2        |           |
| Technology                   |                  |            |          |           |
| Material Culture             |                  |            |          |           |
| cycles of heritage/Education |                  |            |          |           |

0= Not Impacted; 1 = Adapted; 2 = Impacted Green = Little to No Impact; Orange = Moderately Impacted; Red = Significantly Impacted.

There are some cultural dimensions that stand out more significantly than others due to the policy actions of the United States and Canada. For example, the food and economic cultural traits were most commonly affected because of low salmon populations to support a subsistence-based economy. This is due to activities such as overfishing by commercial fisheries and the regulations by the governments (for the United States, it was state regulations; for Canada, federal

government) to control the amount of salmon caught by the indigenous peoples. However, there are different reasons for these impacts. In the United States, the major reason for salmon depletion in the Pacific Northwest was due to both overfishing and the development of dams on river ways such as the Columbia River. Dams impeded salmon migrations as well as degraded their habitat by reducing river flow, which increased water temperatures, and created ecological problems such as algae blooms. Overall, salmon habitat degradation caused by Pacific Northwest overfishing and dams decreased salmon runs in the Columbia River, decreasing their runs from their historic highs of 7.5 to 10 million to 30% of their original historic runs.<sup>454</sup> Canadian salmon, on the other hand, were not only impacted by overharvesting salmon, but also habitat degradation due to overharvesting trees in West Vancouver Island. This impacted salmon habitats by removing the natural riparian buffer that provides favorable habitat conditions for the salmon.<sup>455</sup> Without healthy ecosystems, salmon are unable to breed and thrive, and in turn, indigenous peoples suffer because the salmon are a part of their culture.

Other limitations such as harvest regulations have prevented indigenous peoples from practicing their right to fish for subsistence or economic reasons. Coastal indigenous peoples, such as the Lummi<sup>456</sup> and the Tlingit<sup>457</sup> of the states of Washington and Alaska, are unable to fully participate in the commercial fishing industry due to limited entry<sup>458</sup> laws that limit the number of commercial fishing licenses. This is similar to the situation for Canadian First Nations, such as the Huu-ay-aht, because they have limits on commercial fishing licenses.<sup>459</sup> As a result, indigenous peoples from both nations have weak economies because they are unable to capitalize on

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<sup>454</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

<sup>455</sup> "The Sarita River."

<sup>456</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

<sup>457</sup> Arnold, *Fishermen's Frontier: People and Salmon in Southeast Alaska*.

<sup>458</sup> Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status."

<sup>459</sup> Castleden, "As Sacred as Cedar and Salmon: A Collaborative Study with HUU-AY-AHT First Nation, British Columbia into Understanding the Meaning of 'Resources' from an Indigenous Worldview."

commercial fishing industry alternatives to support themselves. The Lummi exemplify this because they are unable to afford fishing boats or fishing licenses due to their overall weak economy which was impacted by the commercial salmon industry.<sup>460</sup> However, the Nisga'a is an exception because their allocation 13% of salmon in the Nass River is subject to adjustment based on the returns of salmon.<sup>461</sup> This was established upon the agreement of their treaty with the Canadian Government. The U.S. state governments did not establish adjustable harvest quotas until the U.S. Supreme Court's *Boldt* Decision declared that 50% of salmon runs were required to accommodate both indigenous and non-indigenous people's interests.<sup>462</sup>

The least impacted cultural trait affected by federal fisheries policy was the ceremonial cultural trait. Overall, both indigenous peoples of the United States and Canada still celebrate their ceremonial practices. The most common ceremonial practice still used today is the First Salmon Feast<sup>463</sup>/Ceremony.<sup>464</sup> Although U.S. and Canadian government federal limitations and other factors such as overfishing and environmental degradation have reduced the number of salmon caught, ceremonial practices still contribute to the cultural integrity of the indigenous peoples. Canada's policy that First Nations can catch salmon for "food, social, and ceremonial"<sup>465</sup> purposes influences salmon fisheries management policies because it forces policy makers to consider the cultural importance of salmon to the indigenous peoples. The Native Americans of the United States continued such ceremonies even when they were excluded from the commercial fisheries industry.

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<sup>460</sup> Ibid.

<sup>461</sup> Muckle, *First Nations of British Columbia : An Anthropological Survey (2nd Edition)*.

<sup>462</sup> Woods, "Who's in Charge of Fishing?."

<sup>463</sup> "First Salmon Feast."

<sup>464</sup> Gunther, "An Analysis of the First Salmon Ceremony."

<sup>465</sup> "Our Place at the Table: First Nations in The BC Fishery."

## Implications for Salmon Fisheries Conservation and Indigeneity

This thesis set out to explore the following questions:

- How did federal policies affect salmon and the associated cultural integrity of Native Americans and First Nations<sup>466</sup> cultural practices? What policy decisions have affected their cultural integrity?
- What similarities and differences are there between the United States and Canada in how they conduct their fisheries policies, especially in regards to fisheries management and indigenous peoples' policies?
- Which government has better preserved cultural integrity, especially with respect to the role of salmon?

Answering the first question, overall, salmon fisheries conservation policy has affected the cultural integrity of indigenous peoples by preventing them from retaining authority over traditional fisheries and practices. Brian Richard Ott emphasizes this point by stating that the motivations for conserving salmon fisheries of the U.S. government and the Native Americans diverge from one other: "The Indian tribes have a vested interest in preserving an ageless way of life.... In contrast, the state governments are concerned with the continued existence of a wildlife resource."<sup>467</sup> Conservation policies are controlled by the more dominant governments and sometimes do not reflect the interests of the indigenous peoples. In the United States, even though the federal government has the authority to regulate ocean fishing and what species are threatened by extinction, it is the states that implement the fishing regulations and conservation measures within their jurisdictions. State government policies have not always reflected the indigenous peoples' interests because the tribal right to fish for salmon and the implementation of conservation measures have generated debate and economic loss. For example, the Tlingit have been impact-

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<sup>466</sup> In the United States indigenous peoples are referred to as "Native Americans." In Canada, they are referred to as "First Nations."

<sup>467</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 343.

ed significantly because they do not have a federal treaty that establishes fishing rights and the right to monitor salmon resources within their territory.<sup>468</sup> As a result, Alaska can establish conservation policies such as limited entry to prevent overfishing to conserve salmon species without tribal consultation. However, there are exceptions such as the right to self-determination. For example, in the United States, in an effort to enhance salmon runs on the Columbia River, the Yakama and Nez Perce have established their own hatchery programs with much success.<sup>469 470</sup> In Canada, with the federal government, the Nisga'a co-manage and monitor the sockeye salmon runs on the Nass River so that they can maintain the designated returns of salmon species.<sup>471</sup>

However, the impacts of federal salmon fisheries policy on indigenous peoples in both the United States and Canada differed depending on the case. For example, the Huu-ay-aht and Nisga'a were positively affected by federal Canadian policy because they have treaties with the Canadian government that specify First Nations rights such as cultural fishing rights and the right to self-determination to regulate and enhance salmon resources in their respective territories. These were based on the *Sparrow* case decision,<sup>472</sup> Canada's Constitution Act of 1982,<sup>473</sup> and the Aboriginal Fisheries Strategy.<sup>474</sup>

The impacts of federal policies also have variable outcomes for the Native Americans. For example, even though the Yakama, Nez Perce and the Karuk have been affected by the proliferation of dams in the Columbia and Klamath River Basins, each group has experienced different levels of ecological impact. The Karuk have been significantly impacted because the Kla-

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<sup>468</sup> Sisk, "The Southeastern Alaska Salmon Industry: Historical Overview and Current Status."

<sup>469</sup> "The Confederated Tribes and Bands of the Yakama Nation."

<sup>470</sup> "Nez Perce Tribe."

<sup>471</sup> Allen, "Our Treaty, Our Inherent Right to Self-Government: An Overview of the Nisga'a Final Agreement."

<sup>472</sup> "Strengthening Our Relationship - the Aboriginal Fisheries Strategy and Beyond," 2003, accessed June 30, 2014, <http://www.dfo-mpo.gc.ca/fm-gp/aboriginal-autochtones/afs/afsoc03-eng.htm>.

<sup>473</sup> Regan, "Canada's Policy for Conservation of Wild Pacific Salmon."

<sup>474</sup> "Aboriginal Fisheries Strategy."

math River dams blocked salmon runs, increased water temperature and there were no mitigation tools to permit significant salmon movement. The Yakama/Nez Perce, on the other hand, have been less impacted because of dam mitigation efforts including hatcheries and fish ladders, as well as Supreme Court decisions that enhanced the cultural importance of fishing in federal and state policy. Even though the Karuk have the Klamath River Basin Agreement<sup>475</sup> to accommodate their interests, it still has yet to be implemented so that these projects can display their full benefits.

Answering the second question, both the United States and Canada have policies that have been effective in salmon conservation and can be utilized by policy makers. For example, the United States and Canada have endangered species lists that list certain salmon species that are threatened or endangered in a specific area.<sup>476 477</sup> In addition, the U.S. and Canada also must consult with First Nations before conservation actions are taken. For example, when drought hit the Klamath River Basin in 2001, interested parties such as the Karuk were consulted about how to redistribute water resources to balance salmon restoration and irrigation practices. Although the majority of resources ended up being redistributed to the irrigators, the Karuk's interests were considered on conserving salmon habitats.<sup>478</sup> Also, the U.S. and Canada have collaboration and consultation duties to indigenous peoples before any policy actions are taken.

The differences, however, are what separate both the United States and Canadian federal governments in their respective fisheries and indigenous people's policies. Although both federal governments have authority over their indigenous peoples, Canada has more authority over fisheries management than the Province of British Columbia. Crown Parliament has included indig-

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<sup>475</sup> Guiao, "How Tribal Water Rights Are Won in the West: Three Case Studies from the Northwest."

<sup>476</sup> Diener, "Natural Resources Management and Species Protection in Indian Country: Alternatives to Imposing Federal and State Enforcement Upon Tribal Governments and Native Americans."

<sup>477</sup> Regan, "Canada's Policy for Conservation of Wild Pacific Salmon."

<sup>478</sup> Sharon Levy, "Turbulence in the Klamath River Basin," *BioScience* 53, no. 4 (2003).



enous people's interests in their legislation and fish conservation strategies such as the Canadian Constitution Act of 1982<sup>479</sup> and Aboriginal Fisheries Strategy of 1992.<sup>480</sup> However, issues such as aquaculture are still a concern to the First Nations of Canada because there is a perception that the federal government has not consulted with them about the implications or best practices of aquaculture to prevent significant ecological damage.<sup>481</sup>

In addition, Canada has not had to deal with the ecological problems related to hydroelectric dams. For example, the Fraser River is not dammed for hydroelectric purposes because the Canadian government believed that dams would interfere with not only the health of the rivers, but the rights of First Nations.<sup>482</sup> As a result, Canada has not dealt with the issues that come with damming rivers as opposed to the United States.

The United States, on the other hand, had to deal with the state government's policies by going through the Supreme Court due to the legal limits on the role of federal government. For example, while the federal government has authority to place conservation policies on the 200 nautical mile Exclusive Economic Zone,<sup>483</sup> it does not have that same authority on either coastal or inland fisheries because the states have that authority due to the structure and powers of the United States Constitution.<sup>484</sup> This causes problems because, while the federal government can dictate how fisheries policy should accommodate indigenous peoples, the state governments still have a right to dictate the kinds of activities they implement to conserve salmon species, even at the expense of indigenous peoples. From the commercial industry to the proliferation of dams on

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<sup>479</sup> "Why Is Canada Negotiating Treaties in BC?."

<sup>480</sup> "Aboriginal Fisheries Strategy."

<sup>481</sup> Schreiber, "First Nations, Consultation, and the Rule of Law: Salmon Farming and Colonialism in British Columbia."

<sup>482</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

<sup>483</sup> Blackford, *American Business, Politics, and Society : Making Seafood Sustainable : American Experiences in Global Perspective*.

<sup>484</sup> Woods, "Who's in Charge of Fishing?."

the Columbia River, this has been a recurring problem throughout the history of the Pacific Northwest.

Additionally, although indigenous peoples have harvested all five species of salmon, the most common one was the sockeye salmon. Covered earlier in Chapter 2, sockeye are the second most abundant salmon species in the region.<sup>485</sup> Their geographical range consists of an area from as far south as the Sacramento River to as far north as Alaska,<sup>486</sup> with their populations most common in both the Fraser River<sup>487</sup> and the Columbia River.<sup>488</sup> Although their numbers have been dwindling over the last century in both areas, the Sockeye salmon are still a highly sought after fish species by both non-indigenous and indigenous peoples for both economic and non-economic purposes. According to John W. Ferguson, the Fraser River salmon have an estimated annual value of C\$41.7 million.<sup>489</sup> Even the Pacific Salmon Treaty places emphasis on the protection of sockeye so that they may return to Canadian territory.<sup>490</sup> Although this may be significant, it does not mean that conservation actions should solely focus on sockeye.

## Recommendations

Although the United States and Canada have significantly impacted their indigenous peoples in similar ways, Canada has more authority over both First Nations interests and salmon fisheries management. This is so because the British North America Act of 1867 and the Fisheries Act of 1868 allow the federal government of Canada and the Department of Fisheries and Oceans to have more authority over the management of salmon fisheries and indigenous peoples'

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<sup>485</sup> Quinn, *Behavior and Ecology of Pacific Salmon and Trout*. (Vancouver, BC: UBC Press, 2004).

<sup>486</sup> Ibid.

<sup>487</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

<sup>488</sup> "Sockeye Salmon."

<sup>489</sup> Ferguson et. al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

<sup>490</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

interests. As a result, three major actions accommodate indigenous peoples' interests: 1) they are engraved into federal legislation such as the Constitution Act of 1982, 2) fisheries policies such as the Aboriginal Fisheries Strategy and the Wild Salmon Policy seek to fulfill such practices, and 3) the modern day treaty process further defines these rights. Also, the Pacific Salmon Treaty has helped salmon species that originated in Canada to return to their spawning grounds, leaving enough runs for everyone. However, issues such as aquaculture still need to be addressed.

The United States has taken steps to accommodate indigenous people's interests but they are far from relieving the significant impacts which occurred over the last 160+ years. The problem, according to Brian Richard Ott, is that the state governments have discriminated against the indigenous peoples' right to fish for salmon and that indigenous peoples cannot do anything about it because they are politically weak.<sup>491</sup> Examples such as the "Salmonscam"<sup>492</sup> in 1982 further elaborate on his point. Although written in 1987, Ott firmly believes that, "neither the state governments nor the judicial system are fit to manage the fish resources of the Pacific Northwest."<sup>493</sup> More importantly, he firmly believes that "Federal intervention is required both to insure the Indian fishing rights guaranteed by treaty and to provide for effective management and for continued survival of the fish resource."<sup>494</sup> With federal intervention, a more effective national salmon fishery policy can be enacted.

Therefore, it is the recommendation of this research that three major policy qualities are more effective in balancing fisheries management and indigenous peoples' interests. First, fisheries policies in the United States and Canada should continue to accommodate the interests of indigenous peoples, including the right to fish, conserve, and participate in the decision-making process of creating conservation policies. This includes continued consultation with indigenous

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<sup>491</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention."

<sup>492</sup> Ulrich, *Empty Nets: Indians, Dams, and the Columbia River*, p. 126.

<sup>493</sup> Ott, "Indian Fishing Rights in the Pacific Northwest: The Need for Federal Intervention," p. 340.

<sup>494</sup> *Ibid.*, p. 343.

cultures to further accommodate their interests. Second, continue making agreements between stakeholders to ensure a proper balance between non-indigenous peoples' and indigenous peoples' interests. Canada needs to continue to push forward their treaty-making process with their indigenous peoples. Although the United States cannot negotiate treaties with their indigenous peoples, agreements such as the Klamath River Basin Agreement should serve as an example of how to enhance ecological and societal quality of life. Finally, the U.S. federal government should adopt their own aboriginal fisheries strategy similar to Canada's. It will better facilitate co-management schemes with the indigenous peoples because both can share information as well as consider the best options for enhancement of salmon runs, their habitat, as well as their longevity in the face of ecological changes.

### **Limitations and Future Investigations**

The limitations of this thesis were related to the available time and resources throughout this 13-month dual masters program. Participants in this dual masters program had to select a topic/project that could be theoretically completed over the summer and fall semesters of 2014. The original idea was to study how New Zealand handled fisheries management problems and how it accommodated the Maori. However, time and available resources led to reconfiguring the topic into a more feasible and realistic study. Understanding these limitations led to conducting a "matched pairs case study" between the United States and Canadian fisheries policies and how they accommodated their respective indigenous peoples based on the "desk study" method.

The limitation of a "desk study," however, is that it is more focused on the historical accounts based mostly on secondary resources. The resources originated from historical/past perspectives and may not reflect the current state of indigenous peoples. On the other hand, one of the benefits is that it helped measure the progress of how the federal governments' environmental policies as well as the rights and privileges of indigenous cultures (either by federal law or inherent right) have either balanced or conflicted with each other. It displays a historical progression

to how the federal governments of the United States and Canada have come to the current state of both fisheries management and indigenous peoples relations.

Another limitation pertains to the “matched pairs case study.” The “matched pairs case study” is subjective because the results are based on secondary resources. As mentioned earlier in this thesis, the reflections of past experiences may not reflect the current state or opinions of every indigenous person impacted by federal policy. For future research, a more in-depth look at a more modern salmon debate, with a specific indigenous culture, might prove to be beneficial. A more in depth experience with indigenous peoples such as those conducted by Daniel Boxberger<sup>495</sup> would prove to be beneficial because it could reflect modern fisheries management and indigenous peoples’ situations so that federal and/or state policy can better facilitate the interests of indigenous peoples and non-indigenous peoples.

This can also be applied to a more in-depth “matched pairs case study” that can include a more focused study on a specific situation that has impacted one set of indigenous peoples from both the United States and Canada and can explore the contemporary feelings and sentiments of the people in regards to current salmon fisheries policies. One example that comes to mind is to compare and contrast the impacts of the Pacific Salmon Treaty on indigenous peoples from the Strait of Juan de Fuca area to conduct a more in-depth analysis. This is inspired by John W. Ferguson’s research method where he examined the effects of damming a river for hydroelectric purposes and compared the Columbia River in the United States with the Fraser River in Canada.<sup>496</sup> It can also include surveys and an in-resident research experience such as that by James

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<sup>495</sup> Boxberger, "Resource Allocation and Control on the Lummi Indian Reservation: A Century of Conflict and Change in the Salmon Fishery."

<sup>496</sup> Ferguson et al., "Potential Effects of Dams on Migratory Fish in the Mekong River: Lessons from Salmon in the Fraser and Columbia Rivers."

Thomas Jones.<sup>497</sup> This can be used to help further understand the modern issues of fisheries management and indigenous peoples' rights. The goal would be to determine what specific qualities are needed for a specific group of indigenous people and how to advance their economic and cultural prospects in fisheries management.

There are other questions that need to be answered, regardless of whether they relate to salmon fisheries management. Originally, this thesis also included whaling for subsistence purposes. However, this topic proved to be too large to include. The same concepts from this thesis can be applied to how both federal and international policies have affected the indigenous cultural practices.

## **Conclusion**

In short, "the cultural protection of indigenous peoples involves providing environmental guarantees that allow them to maintain the harmonious relationship with the earth that is central to their cultural survival."<sup>498</sup> Even though the United States and Canadian federal governments defined the rights of their respective indigenous peoples in regards to salmon fisheries, their subsequent policies may not have fully satisfied the needs of indigenous peoples and may have threatened their cultural integrity as understood by the concept of indigeneity. Whether in the U.S. or Canada, continued progressive strides in accommodating individual Native American/First Nations tribes' respective cultural right to fish for salmon is essential in order to balance fisheries management with indigenous peoples' way of life.

The objective of this thesis was to provide a unique way to illuminate the implications of federal salmon fisheries policy to policy makers and other interest groups and illustrate how poli-

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<sup>497</sup> Jones, "'We Looked after All the Salmon Streams": Traditional Heiltsuk Cultural Stewardship of Salmon and Salmon Streams. A Preliminary Assessment."

<sup>498</sup> Heinämäki, "Protecting the Rights of Indigenous Peoples – Promoting the Sustainability of the Global Environment?," p. 14.

cy decisions throughout history have affected the current policy climate of fisheries management and indigenous people's interests. It is the hope that by going through this process, one is able to understand what kinds of policy decisions are best to accommodate the interests of indigenous peoples and at the same time conserve salmon populations. Qualities such as self-determination, federal intervention, and co-management are the most effective because they emphasize the importance of a well-balanced sustainable environmental resource scheme.

The research presented in this thesis is important because it is essential to remember how important the indigenous peoples' interests and knowledge are to contemporary society: "The diversity of cultures and institutions, the diversity of values and goals, and the complexity of physical and social infrastructures in the region all contribute to the salmon problem."<sup>499</sup> Some of the modern-day fishing and conservation innovations were inspired by the indigenous peoples of the Pacific Northwest. Emphasizing policy decisions that include every stakeholder, especially the indigeneity/cultural integrity of indigenous peoples will help shape modern decision-making in natural resource management.

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<sup>499</sup>National Research Council Staff, *Upstream: Salmon and Society in the Pacific Northwest*, p. 23.





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