B.C. Whaling
(Back when they were just big fish)

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Abstract

Given the incredible density of whales we currently enjoy in the Kitimat Fjord System, it is easy to forget the systematic eradication these giants sustained in the last century. To puzzle properly over the trends we see today, we must nest them in the context of the events of the past. In that vain, Fisheries and Oceans’ Historical Whaling Database is an invaluable window into the history and influence 20th century commercial whaling had upon British Columbia and its whales. The catch data demonstrate that whaling efforts waxed and waned in response to socioeconomic events, fluctuating market forces and the dynamics of the populations being hunted. The data also reveal that the targeted populations changed dramatically in response to commercial whaling, in more subtle and complicated ways than depleted numbers.

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1 Bangarang Backgrounders are imperfect but rigorous reviews – written in haste, not peer-reviewed – in an effort to organize and memorize the key information for every aspect of the project. They will be updated regularly as new learnin’ is incorporated.
Introduction

The Cetacean Research Program at Canada's Department of Fisheries and Oceans has compiled and maintained a world-class database on the catches from 20th century commercial whaling operations in British Columbia. Their Historic Whaling Database\(^2\) compiles all available catch data from five whaling stations that operated between the years 1905 and 1967\(^3\). This period can be split into two “eras” of modern whaling in BC, divided by the second World War. The first era (1905 – 1943) consisted of operations from four stations, two on Vancouver Island and two on Haida Gwaii, that focused on humpback, blue and fin whales. The second era (1948 – 1967) was carried out by a single station on northern Vancouver Island, Coal Harbour, that focused its efforts on sperm, fin and sei whales\(^4\).

The catch data housed in this database are even more valuable when considered within the historical context of the whaling industry. Whaling has been a facet of human societies for millennia, and its cultural significance has always been more than economic – even in the modern era of commercial whaling. Due to those whaling efforts, the rises and falls (and geography and size) of the world's largest animals have been tied inextricably to those of its most enterprising as well as.

This Backgrounder reviews the history of commercial whaling in British Columbia. It then takes a brief look at the patterns and trends revealed by the catch data with particular focus on humpback whales, the most common whale in the Bangarang study area. The whaling history of fin whales, the focal whale of the project, is covered in a separate Backgrounder dedicated to that species’ natural history (“Fin Whales!”).

History

Pre-Modern Era 2000 BCE – 1900 CE

Humans have inhabited the continent of North America for at least 10,000 years. On its west coast, the use of whale bone or beached animals was occurring by 4,000 years Before Present (BP)\(^5\). The Nuu-Cha-Nulth First Nation, located throughout the west coast of Vancouver Island, began actively hunting whales by 2500 BP\(^6\). Humpback whales were the preferred species, but gray, right and even killer whales (which were pursued by young men possibly as proof of hunting prowess) were also taken\(^7\). Whales were an integral part of the Nuu-Cha-Nulth culture for thousands of years\(^8\).

White whalers from the United States and the Hawaiian Islands first hunted BC waters in the 1800s equipped with sailing ships and handheld harpoons\(^9\). With such technology they were only able to target sperm and right whales. But as the right whale neared extinction whaler effort drifted north into the range of the bowhead whale. This and the lucrative seal hunt afforded the BC whales a temporary respite.\(^10\)

Commercial whaling for humpback whales was occurring in the Strait of Georgia and Queen Charlotte Strait as early at 1866\(^11\). Between 1866 and 1873, at least 95 humpbacks were killed in those waters and hauled to shore-based try-works at coastal towns such as Whaling Station Bay (Hornby Island), Blubber Bay (Texada Island), and Whaletown (Cortes Island)\(^12\). Whaling in BC waters waned after the province of British Columbia

\(^2\) Nichol et al. 2002.  
\(^3\) Flinn et al. 2002  
\(^4\) Gregr et al. 2000  
\(^5\) Monks et al. 2001.  
\(^6\) Monks et al. 2001.  
\(^7\) Monks et al. 2001.  
\(^8\) Monks et al. 2001.  
\(^9\) Nichol et al. 2002.  
\(^10\) Nichol et al. 2002  
\(^11\) Nichol et al. 2002  
\(^12\) Merilees 1985
joined the newly minted Dominion of Canada (established in 1867 through the British North America Act), which had already adopted some stringent whaling regulations.  

**First Modern Era 1905 – 1943**

By the turn of the century, the innovations of steam power that could outpace the largest whales and explosive harpoons that could kill them (developed by Norwegian Sven Voyn) revolutionized the whaling industry. Reduction techniques developed in 1900 allowed entire whales to be processed rather than just their blubber\(^\text{14}\). These developments made whalers excellent at their trade, and some stations like those in Newfoundland extirpated all the whale species within their reach. Alarmed by this, the Canadian government in 2004 imposed a 50-mile minimum distance between shore stations (increased to 100 miles in 1906\(^\text{15}\)) and allowed only one catcher boat per station on the west coast (this was repealed in 2010)\(^\text{16, 17}\). In a 1906 law intended to prevent wasted kills (bonuses were given out according to the number caught), whalers were required to process carcasses within 24 hours of capture\(^\text{18}\).

In this burgeoning era of industrial whaling, Captains Sprott Balcom and William Grant, former sealers, came to Victoria, British Columbia, in 1905 and established the Pacific Whaling Company (PWC, which would later be renamed the Canadian North Pacific Fisheries)\(^\text{19}\).

Within months, a station was established at Sechart in Barkley Sound, Vancouver Island, home to a year-long resident population of humpback whales\(^\text{20}\). Two years later, a second station opened at Kyuquot on the northwest coast of Vancouver Island. That same year a third operation was launched in Page’s Lagoon, which specialized on humpbacks that wintered in the Strait of Georgia\(^\text{21}\), but only remained open for 2 years.\(^\text{22}\) In 1908, the PWC acquired permission from the federal government to build two remote stations, one at Rose Harbor on Kunghit Island (Haida Gwaii) and one on Dundas Island (which was never built). Rose Harbor station was opened in 1910. In 1911, a fifth station was opened at Naden Harbor on Haida Gwaii\(^\text{23, 24}\).

Rose and Naden Harbour stations were administered by whites, but skilled Norwegians did the harpooning\(^\text{25}\), skilled Japanese workers did the flensing and Chinese workers operated the rendering tanks\(^\text{26, 27}\). The whaling season typically went from April to September or October; effort varied substantially between years and chaser ships were moved among stations often\(^\text{28}\).

The PWC landed huge numbers of whales in its first few years, but a marked decline in the following years forced the Pacific Whaling Company into receivership. In 1915, the company was bought by an American whaling tycoon, William P. Schupp, who owned whaling stations in southeast Alaska and Washington. Schupp named his northwest empire the Consolidate Whaling Corporations Ltd\(^\text{29}\). Despite the new ownership, Sechart Station closed in 1917. Now only three were operating on the BC coast.

In 1912, refinement of the hydrogenation process removed odor from whale oil and demand skyrocketed\(^\text{30}\). World War I created additional worldwide demand for whale products, causing prices to climb further\(^\text{31}\) and

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14 Gregr et al. 2000
15 Nichol et al. 2002
16 Gregr et al. 2000
17 Nichol et al. 2002
18 Nichol et al. 2002
19 Nichol et al. 2002
21 Merilees 1985
22 Nichol et al. 2002
23 Nichol et al. 2002
25 Goddard J. 1997
26 Nichol et al. 2002
28 Nichol et al. 2002
29 Nichol et al. 2002
30 Gregr et al. 2000
31 Webb 1988
business boom to boom. The introduction of telegraphy in 1920 and spotting planes from Haida Gwaii stations in 1919 made the hunt even more efficient.\textsuperscript{32, 33}

The world market was soon saturated with whale oil. This over-supply and the early 1920's recession together forced three BC whaling stations to close in 1921. Naden Harbour and Rose Harbour re-opened in 1922 and 1923, respectively, but Kuyquot closed permanently in 1925 after attempting to re-open in 1922.\textsuperscript{34} Now only two were operational.

In 1925, the innovation of the stern slipway (also pioneered by the Norwegians) allowed whalers to haul carcasses aboard and process them while at sea.\textsuperscript{35} Ships were no longer bound to land-based flensing stations; they could roam the high seas, far from government oversight and regulation.\textsuperscript{36, 37} Unfortunately, the Depression hit and both Rose and Naden Harbor had to close temporarily. They were reopened but workers faced massive wage cuts and were given no funds for maintaining equipment or safety standards. Throughout the 1930s one or both of the stations were intermittently closed.

The first International Whaling Convention, which was signed and drafted at the League of Nations in 1931, required all whaling nations to provide standardized data on their catch and the products that came from them to the Norway-based Bureau of International Whaling Statistics.\textsuperscript{39} If BC kept any such records, they have since been lost. This convention also outlawed the giving of bonuses to whalers based on the number of whales killed. In response, Canada offered bonuses based on the length of the whales caught. The convention also gave full protection to the right whale in 1933.\textsuperscript{40}

In 1937, the International Agreement for the Regulation of Whaling imposed stricter rules on whaling operations including specific geographic hunting areas and protection for thoroughly depleted species like gray whales (also females of most species if seen with calves).\textsuperscript{41}

Then World War II hit. Marine radios became illegal for civilian use and the Japanese flensing crews were carried off to wartime internment camps. Naden Harbour closed permanently in 1941. Rose Harbor closed at the end of the 1943 station. The catcher ships were hocked and the whalers went home.\textsuperscript{42} For the time being, whaling in BC was over.

In 1946, the International Convention for the Regulation of Whaling was held in Washington, D.C., and led to the establishment of the International Whaling Commission (IWC). “The IWC would designate protected areas, set dates for whaling seasons, close certain waters to commercial whaling, limit total catch, and define standard of measurement (IWC 1950).”\textsuperscript{43}

**Second Modern Era 1948 – 1967**

Four years of no kills passed before hunting resumed in 1948. The newly incorporated Western Whaling Company (later named BC Packers, Ltd) opened a station near the northern tip of Vancouver Island at the former Coal Harbour air force base.

With better equipment, longer seasons and larger vessel ranges, Coal Harbour operations were much more intense and enterprising than former BC whaling efforts. The development of radar in 1950 improved positional

\textsuperscript{32} Tonnessen and Johnsen 1982
\textsuperscript{33} Gregr et al. 2000
\textsuperscript{34} Nichol et al. 2002
\textsuperscript{35} Goddard 1997.
\textsuperscript{36} Nichol et al. 2002
\textsuperscript{37} Morgan 1978.
\textsuperscript{38} Gregr et al. 2000
\textsuperscript{39} Nichol et al. 2002
\textsuperscript{40} Nichol et al. 2002
\textsuperscript{41} Nichol et al. 2002
\textsuperscript{42} Nichol et al. 2002
\textsuperscript{43} Nichol et al. 2002
\textsuperscript{44} Flinn et al. 2002
The managers took advantage of a changing workforce and more aggressive marketing strategies, and technological advances in whale processing increased profitability.

The IWC required that a biologist be assigned to the whaling station to collect biological data on killed whales. Gordon Pike was hired as the whaling biologist at Coal Harbour. In addition to keeping basic catch statistics, Pike conducted numerous studies that resulted in a series of illuminating and important publications (Pike 1956, Pike 1958, Pike 1965a, Pike 1966b).

Coal Harbour operated every year between 1948 to 1967, with the exception of 1960-1, until the depletion of animals and competition from vegetable oils ended commercial whaling in BC in 1967.

Figure 1 from Gregr et al. (2000): Locations of coastal whaling stations (1905-1967) in northeastern Pacific Ocean. Stations included in this study shown in black. Stations not analyzed shown in white.

45 Gregr et al. 2000
46 Gregr et al. 2000
47 Gregr et al. 2000
48 Gregr et al. 2000
49 IWC 1950
50 Flinn et al. 2002
51 Nichol et al. 2002
52 Gregr et al. 2000
Table 1 from Gregr et al. (2000): Summary of whaling regulations and international agreements affecting BC land stations.

<table>
<thead>
<tr>
<th>Year</th>
<th>Agency</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1905</td>
<td>Government of Canada</td>
<td>24-h processing of catch required.</td>
</tr>
<tr>
<td>1925</td>
<td>Government of Norway</td>
<td>Each station limited to 1 chaser boat (rescinded in 1910).</td>
</tr>
<tr>
<td>1931</td>
<td>League of Nations</td>
<td>Committee for Whaling Statistics established in Oslo, Norway, and systematic data collection begins.</td>
</tr>
<tr>
<td>1946</td>
<td>Whaling Nations</td>
<td>Minimum length limits imposed for blue (70 feet), fin (55 feet), humpback (35 feet), and sperm (35 feet) whales. Gray whale protected.</td>
</tr>
<tr>
<td>1949</td>
<td>First report of the IWC</td>
<td>International Convention for the Regulation of whaling signed. Previous restrictions restated and sei whale restriction added (40 feet).</td>
</tr>
<tr>
<td>1982</td>
<td>IWC</td>
<td>Blue whales protected in North Pacific.</td>
</tr>
</tbody>
</table>


Catches

Introduction

From 1908 to 1967, 24,427\(^{52}\)– 24,862\(^{53}\) whales were taken in the BC whale fishery. This catch consisted mostly of humpback, blue, fin, sperm and sei whales, though other species were caught too including gray whales, Baird’s beaked whales, and right whales (six right whales were caught between 1908 and 1933 and another in 1955)\(^{54}\). During the first era of modern whaling (1905-1943) effort was focused on humpbacks, blue and fin whales\(^{55}\). The second era (conducted out of Coal Harbour only) focused on fin, sperm, and sei whales\(^{56}\).

During the first whaling era catch data are available from the company archives only\(^{57}\). At Coal Harbour, however, more stringent record-keeping and the diligence of Coal Harbor station biologist Gordon Pike produced much better (often geo-referenced) catch statistics.

Humpback Whales

In the first era of whaling, a total of 4,814 humpback whales were killed. At Coal Harbour, 805 more were killed for a total of 5,619. The majority of humpback catches were taken by Sechart and Kyuquot stations between 1905 and 1913\(^{58}\), after which catches for that species dropped precipitously and by 1915 were a negligible contribution to annual catch statistics\(^{59}\). Humpback catches were 70-90% of the catch from 1908 to 1910\(^{60}\). This intense bout of whaling extirpated the wintering populations of humpbacks in the Strait of Georgia and Barkley Sound; these populations have not returned\(^{61}\).

Humpback whales are the most coastal of the BC whales and were the easiest targets for coastal whalers\(^{62}\). The species was therefore among the first exploited throughout the North Pacific in the 20th century, but the BC humpbacks were extirpated much earlier than those in California and Alaska\(^{63}\). This implies that the BC population is isolated from populations to the north and south\(^{64}\), a hypothesis that has been supported by recent molecular work\(^{65}\).

\(^{52}\) Nichol et al. 2002
\(^{53}\) Gregr et al. 2000
\(^{54}\) Nichol et al. 2002
\(^{55}\) Gregr et al. 2000
\(^{56}\) Gregr et al. 2000
\(^{57}\) Gregr et al. 2000
\(^{58}\) Gregr et al. 2000
\(^{59}\) Gregr et al. 2000
\(^{60}\) Gregr et al. 2000
\(^{61}\) Gregr et al. 2000
\(^{62}\) Gregr et al. 2000
\(^{63}\) Pike 1968, Clapham et al. 1997; the sequence typically went: humpback, blue, fin, sei – this does not count the right, sperm and gray whales that were depleted in the 19th century
\(^{64}\) Gregr et al. 2000
\(^{65}\) Baker et al. 2013
The decades of catch data reveal trends that speak to both the natural history of the northeast Pacific humpback whale and their population-level response to whaling. There were no significant trends in the mean annual lengths of humpback whales over the history of BC whaling\(^{66}\). The average length of captured humpbacks was 39.1' for males and 40.4' for females. The maximum reported length was 51' and 56', respectively\(^{67}\). Lengths were consistently well-above the estimated length of sexual maturity for the species, suggesting that mature whales were regularly within reach of the whalers. This explains why the minimum length rule of 35' did not decrease the average length of the captured humpback population over the course of BC whaling\(^{68}\).

The annual proportion of males in the humpback catch was close to 50% for all years and in all seasons that sex data were collected\(^{69}\). Killed male humpback whales showed a significant increase in length over the course of a season, suggesting an age-structured migration\(^{70}\).

At the end of most whaling seasons (September), humpback fetuses were approximately half the birth length\(^{71}\), which coincides with the year-long gestation period attributed to the species.

The distance of humpback catches from shore increased over the course of BC whaling history\(^{72}\), which may be a result of their extirpation from coastal waters. On a monthly basis, distance from shore decreased significantly for male humpback whales (not for females) over the course of the whaling season\(^{73}\), which to this author is suggestive of an landward migration over the course of the foraging season.

**Fin Whales**

Fin whale catches and catch patterns are covered in the species’ dedicated Backgrounder.

**Figures**

The data used to create these figures were transcribed from Nichol et al. (2002).

**Below**: the total number of documented kills for each species from 1905 to 1967.

**Next pages**: the contribution of each station to the kills for each species. Note that the vertical scale changes in each pane.

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\(^{66}\) Gregr et al. 2000
\(^{67}\) Gregr et al. 2000
\(^{68}\) Gregr et al. 2000
\(^{69}\) Gregr et al. 2000
\(^{70}\) Gregr et al. 2000
\(^{71}\) Gregr et al. 2000
\(^{72}\) Gregr et al. 2000
\(^{73}\) Gregr et al. 2000
Literature Cited


