

Assessing A Public Health Justification For Reducing Whale Consumption in Northern Canada

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Introduction

At the start of the 21st century, the relationship between humans and cetaceans (whales, dolphins, and porpoises) is uncomfortable at best, and, most likely, in an utter state of disrepair.¹ It has not always been this way. Whaling for both cultural and commercial purposes has an extensive history throughout the world. Since the *International Convention for the Regulation of Whaling* (ICRW)² was created in 1946 with the goal of “proper conservation of whale stocks...mak[ing] possible the orderly development of the whaling industry,”³ both the international community and individual nation states have struggled to achieve sustainability in their whaling practices. In 1986, the International Whaling Commission (IWC), created pursuant to the ICRW with a mandate to “keep under review and revise as necessary the measures laid down in the schedule to the Convention which governs the conduct of whaling throughout the world”), established a controversial moratorium on commercial whaling.⁴ By the time the IWC moratorium was introduced, Canada already had a domestic commercial moratorium in place but had previously withdrawn from the ICRW because of a dispute regarding Aboriginal bowhead whaling in the Arctic.⁵ The IWC recognizes two exceptions to the commercial moratorium: (1) the “Aboriginal Subsistence” exemption which enables indigenous peoples from member nations to hunt for food and fulfill cultural traditions; and (2)

the “Scientific Permit” exemption which allows member nations to grant whaling licenses to national research companies (Japan harvests approximately 1,000 whales annually in international waters under the guise of “Scientific Permit” whaling).⁶ However, the ICRW lacks jurisdiction to regulate nations who are not party to the convention (like Canada) and, despite purporting to have jurisdiction over all whale species in all whaling waters, custom indicates that the IWC only regulates “great” species (such as grey whales, humpbacks, and ‘right’ whales) and will not regulate within a nation state’s 200 nautical mile Exclusive Economic Zone (EEZ) as described in Part V of the *United Nations Convention on the Law of the Sea* (UNCLOS).⁷ Recent whaling commentary has focused on Japanese “Scientific Permit” whaling and in response this paper demonstrates that pressing whaling issues in Canada also demand academic and political attention and, perhaps, regulatory reform.

The following analysis investigates the public health component of the human-cetacean relationship; specifically, whether health concerns surrounding the consumption of contaminated cetacean products warrant international or domestic regulatory reform. Scientific analysis of whale meat for dangerous levels of mercury, persistent organic pollutants (POPs), and other toxins began as an attempt by environmental non-governmental organizations (ENGOS) to link human health and whaling as justification for a complete whaling



ban.⁸ This proposed link has recently been subjected to rigorous scientific testing in Canada, Japan, and Greenland, confirming cetacean product contamination and advancing the hypothesis that regular or prolonged consumption can be acutely and chronically harmful.⁹

Public health is the “process of mobilizing local, state [provincial and federal], and international resources to solve the major health problems affecting communities.”¹⁰ Public health concerns surrounding food and corresponding regulatory responses to safeguard populations from food-borne illness can be traced as far back as ancient Egyptian and Hebrew society.¹¹ Concerns regarding whale meat also engage the modern concept of “environmental health” which “comprises the aspects of human health, including quality of life, determined by interactions with physical, chemical, biologic and social factors in the environment,”¹² and whale conservation and human health are increasingly uttered in the same sentence. The tension explored in this paper differs from the Japanese experience where whale meat is considered a delicacy rather than a staple food, since consumption of beluga and narwhal whales forms a crucial element of the diet of many Aboriginal peoples (Inuit, Metis, and Indian).¹³ Commentators continue to struggle to balance the benefits and risks of a traditional northern diet against the risks associated with an imported diet.¹⁴ Additionally, whaling supporters often argue that “the right to decide what is acceptable as food has been captured by a small number of Western NGOs [non-governmental organizations] through an exercise of their political power” and that regulating food choice might offend our right to liberty as protected by s. 7 of the *Canadian Charter of Rights and Freedoms*.¹⁵ This analysis of the public health risk presented by cetacean product consumption in Arctic Canada concludes that both international and domestic regulatory reform is required to meaningfully reduce reliance on this food source and alleviate the threat it presents to Aboriginal communities. It is unfortunate that the traditional northern Canadian way of life has been jeopardized by the pollution from southern agricultural and industrial processes and the unsustainable whaling practices of European and Asian countries. The closely guarded equilibrium that has characterized the relationship between Aboriginals and cetaceans in the Arctic for millennia teeters precariously on the brink of ruin. It now falls to the legal, public health, and Aboriginal communities to craft an appropriate response to this environmental reality of the 21st century.

Part I: “Country Foods”, Contamination, and Risk-Assessment

The idea of “country foods” refers to the practice of harvesting “mammals, fish, plants, berries, and waterfowl/seabirds” from local surroundings¹⁶, whereas the theory of “community nutrition” describes the “variety of food and nutrition issues related to individuals, families, and special groups that have a common link such as place of residence, language, culture, or health issues.”¹⁷ “Country food” and “community nutrition” intersect, and impact human health, when environmental threats compromise traditional dietary components.¹⁸ Cetacean products qualify as “country foods” for many northern Canadian communities, and the harvest and consumption of cetacean products has exposed

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northern Aboriginal peoples to health risks associated with cetacean contamination.¹⁹ Northern Aboriginal people continue to hunt for beluga and narwhal from boats, canoes and kayaks²⁰ and at polynyas²¹, and of the 56,000 Aboriginal peoples in northern Canada, approximately 91% of households consume “country foods”.²² One factor that complicates whaling regulation in response to public health concerns is that whaling in the Arctic is connected to all aspects of life – “social, economic, cultural, and nutritional needs”.²³ The scientific community continues to investigate the disproportionately high rates of obesity and diabetes in Aboriginal communities, and test whether or not these afflictions are attributable to genetic and metabolic predispositions or are the result of socio-economic and lifestyle discrepancies.²⁴ Any regulatory body attempting to influence a traditional diet must be cognizant of the fact that “dietary change in situ...is a gamble with human health,” and must address the reality that imported



sugary and fatty alternatives to “country foods” may contribute to existing health concerns.²⁵ This interaction of nutrition, culture, tradition, and health concerns cannot be neglected, and I will return to these issues in contemplation of risk assessment and in the concluding remarks.

It is tempting to picture the Arctic as an undisturbed region of the world that has escaped the ravages of industrial and agricultural development because of its remoteness, sparse population, and formidable climate. This could not be farther from the truth. The Earth itself constitutes one system by virtue of the fact that “all of the oceans are connected, as is the atmosphere enveloping the Earth”; mercury from southern coal-fired electrical generation plants, POPs from agricultural pesticides, and nearly every recognized contaminant has made its way into the Arctic.²⁶ Pollutants that enter the complex Arctic food web exist at heightened concentrations at the top trophic level (which includes whales, seals, polar bears, and humans) as a result of bioaccumulation and bioamplification.²⁷ Whales, as long-lived species, gradually accumulate and sequester contaminants that cannot be readily excreted from mammalian bodies.²⁸ Contaminant sequestration disproportionately occurs in fatty deposits and organs like the kidney, liver, and skin and, ironically, these tissues are the primary cetaceans parts consumed in the Arctic because they also have significant nutritional benefits.²⁹

One indicia of an effective public health regime is the capacity to distinguish actual human health risks from risks that are simply theoretical in nature.³⁰ The traditional public health risk assessment technique is an “evidence based approach” that asks: “(1) [is there an] association between treatment/exposure and effect?, (2) can this association be due to error (either bias or chance)?, and (3) is there evidence to support a cause-effect relationship?”³¹ The precautionary approach to risk assessment, based on the “precautionary principle” from environmental law, is an alternative assessment tool that “...emphasizes the importance of acting proactively to manage risk, and essentially states that complete evidence of harm does not have to exist before governments should take actions to protect the public from the risks.”³² Future health risks in Canada will likely be assessed using a combination of both approaches.³³ If the only assessment of the harmful effects of whale meat consumption came from ENGOs who clearly have a conservationist bias it might be possible to

argue that the precautionary test, but not the evidence based test, was satisfied. In 2001, when most of the information available came from ENGOs, author Russel Barch concluded that a risk posed by marine mammal consumption in humans had not yet been proved.³⁴ Since 2001, considerable independent scientific research has investigated the effects of contaminants in northern diets. The last major Canadian study concluded that Inuit women do have a significantly higher level of mercury in their blood than other Canadian women³⁵, that infants in northern communities are at risk of delayed development, respiratory infections and decreased birth weights due to prenatal contaminant exposure³⁶, and that these findings can at least be partially attributed to dietary contamination (of which whale meat is an integral component).³⁷ The main source of exposure to contaminants is now recognized as the traditional diet.³⁸ A study of Faroese men released in March 2009 “support[s] the notion that increased MeHg [methylmercury] exposures [from the consumption of pilot whale meat] promotes the development of cardio vascular disease.”³⁹ Finally, a Greenland study concluded that a traditional diet without “fish liver, seal liver, seal kidney, seal blubber, whale liver, whale kidney, and whale blubber” would only reduce traditional food sources by 24-25% but bring *all* contaminant concentrations within a tolerable range for humans.⁴⁰ In addition to science, some traditional whaling communities are voluntarily ceasing whale meat consumption based on changes in smell and taste of the meat.⁴¹ These findings satisfy the precautionary test, may fulfill the traditional evidence based test, and go a long way towards establishing a bona fide risk. Additionally they indicate that meaningful regulatory reform could be introduced without compromising all aspects of traditional northern Canadian Aboriginal diets. With these findings in mind, it is appropriate to address the international and domestic regulatory reforms required to minimize this risk.

Part 2: International Regulatory Reforms

The ICRW and IWC constitute the main international whaling regulators. I have previously intimated that the influence of this regulator in Canada is limited because: (1) Canada officially withdrew from the ICRW in 1982; and (2) the ICRW only regulates “great” whale species outside of EEZs, and whaling in northern Canada mainly involves small cetaceans (narwhal and beluga) within Canada’s EEZ.⁴² Still, Canada’s whaling practices are influenced by the IWC as a “customary law



obligation to cooperate regarding whale conservation”, and possibly as a consequence of Canada having ratified other international treaties.⁴³ Not only has Canada sent representatives to the IWC since withdrawing, domestic practices have also been influenced by the findings of the IWC’s Scientific Committee.⁴⁴ In theory, Canada is obliged to follow the recommendations of the IWC because of our ratification of UNCLOS. Article 65 of UNCLOS indicates to member nations that: “States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate organizations for their conservation, management and study.” Canada does belong to both the Northwest Atlantic Fisheries Organization (NAFO)

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and The North Atlantic Marine Mammal Commission (NAMMCO), but such participation probably does not fulfill the requirement that signatories of UNCLOS participate with “appropriate” organizations directed specifically at the “conservation, management and study” of cetaceans since compared to the IWC, both organizations lack gravitas and credibility. As such, the following discussion contemplates that IWC initiatives aimed at reducing the risk that cetaceans present to public health would be considered seriously in Canada.

The IWC has been concerned with whale contamination since 1981.⁴⁵ Significant interest in the human consequences of consuming contaminated whale products first arose in 1998, when the IWC asked member nations to send reliable data relating to the effects that consumption had on humans to their Scientific Committee.⁴⁶ Since then, the IWC has actively addressed the concerns of whale meat contamination in both Resolution 2000-6 (*Resolution on Persistent Organic Pollutants (POPs) and Heavy Metals*) and Resolution 2001-

10 (*Resolution on the Stockholm Convention on Persistent Organic Pollutants*).⁴⁷ In Resolution 2000-6 the IWC stated that “organic contaminants and heavy metals are seriously polluting the environment and its living resources including whales, and may have significant negative health effects on consumers of marine mammal products.”⁴⁸ Both resolutions urged member nations to familiarize themselves with relevant international conventions, recognize their application to whaling, and suggested ratification.⁴⁹ In addition to these international mechanisms United Nations Environment Programme (UNEP), in cooperation with Inter-Organizational Programme for the Sound Management of Chemicals (IPMC), has concluded that mercury is responsible for “...a variety of documented, significant adverse impacts on human health and the environment throughout the world.”⁵⁰ Finally, the World Health Organization has issued guidelines warning that “[i]n response to the increasing chemical contamination of whales and other marine mammals...a 70 kg person [should] eat not more than 20 grams (four tablespoons) of dioxin-containing blubber per week – a level far below the normal consumption of many Native people, including Canada’s Inuit.”⁵¹

There is uncertainty regarding the future direction of the IWC, largely because a Revised Management Scheme and Revised Management Plan have been in production for over a decade.⁵² What is certain is that the IWC has the ability to introduce new guidelines or alter the Aboriginal Subsistence whaling or Scientific Permit whaling moratorium exceptions as a matter of public health. Despite the fact that Canada is not a signatory to the ICRW, the preceding analysis suggests that Canada may be persuaded to conform and limit domestic whaling as a matter of custom if the IWC reacts to this public health threat, or, alternatively, be obligated to act to meet obligations under other treaties (such as the Stockholm Convention or UNCLOS). Whether Canada waits to respond to the threat that contaminated whale meat poses to northern Aboriginal communities until an international response is formulated, or opts to independently act as a nation state, domestic regulation will ultimately be called upon as the tool of change.

Part 3: Domestic Regulatory Reforms

There are two ways in which the harmful consequences of consuming cetacean products can be regulated in Canada: (1) through the Department of Fisheries and



Oceans (DFO) reducing the permissible northern cetacean hunt; and (2) through intervention by Health Canada and the Public Health Agency of Canada.⁵³ Both options are complicated by jurisdictional issues associated with Aboriginal peoples.

DFO acknowledges that fishery management decisions pursuant to the *Fisheries Act* and Marine Mammal Regulation that impact Aboriginal peoples will be approached with the aim of “building and supporting strong, stable relationships; working in a way that upholds the honour of the Crown; and facilitating Aboriginal participation in fisheries and aquaculture and associated economic opportunities, and in the management of aquatic resources.”⁵⁴ For the purposes of this discussion, it is important to acknowledge that both beluga and narwhal whales qualify as “fish” within the *Fisheries Act*.⁵⁵ Fisheries regulation in Canada has been shaped by the landmark *R. v. Sparrow* Supreme Court of Canada decision of 1990, which established that where 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.⁵⁶ Since the *Sparrow* decision does not expressly address public health purposes, it is uncertain how a proven public health risk would affect the constitutionally protected right. What is certain since the decisions of *Haida Nation v. British Columbia (Minister of Forests)* and *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director)*, is that, in the absence of emergency conditions, the government must properly consult and accommodate Aboriginal communities’ right to whale rather than attempt unilateral regulation.⁵⁷ Arctic Aboriginal whaling is currently regulated by “co-management agreements” between DFO and Aboriginal communities as established by land claim agreements in which northern Aboriginal peoples surrendered land to the Government of Canada in return for constitutionally protected rights.⁵⁸ In theory, co-management refers to “systems of shared decision making between resource users and governments....often born in crisis because they are creative ways of solving difficult management problems.”⁵⁹ Generally, “resource management boards”⁶⁰ contemplated within land-claim agreements, composed of Aboriginal and government officials, craft harvest programs that address both conservation and Aboriginal subsistence needs within regulatory confines.⁶¹ It has been suggested that the Minister of Fisheries and Oceans must “accept and implement decisions [from resource management boards]...except when they conflict with

the principles of conservation, the harvesting rights of others, the purpose and policies of parks, sanctuaries and conservation areas or with *public health and safety*” [emphasis added].⁶² Since this comment was made contemporaneous with the *Sparrow* decision, there is uncertainty as to whether or not public health would still be an accepted reason to prohibit hunting, especially considering that many Aboriginal communities have asserted that they will continue to eat whale regardless of the health consequences.⁶³ Still, it is at least arguable that a public health platform adopted by the Minister of Fisheries and Oceans would trump co-management obligations and recommendations.

Another avenue of reform available to protect Aboriginal populations from whale contamination is action by Health Canada and the Public Health Agency of Canada. This option is complicated by the fact that the traditional public health techniques of product labeling and education are not easily adapted to the issue of locally harvested food that is informally divided amongst a community rather than packaged and sold in supermarkets.⁶⁴ Regulators must also be aware of cultural sensitivities when developing and implementing regulations since whale product consumption engages more than just a discussion of a food source, as highlighted in Part I of this paper. It would be improper to conclude that no domestic action has been taken thus far since the Northern Contaminants Program, active since 1991, has sought “to reduce and wherever possible eliminate contaminants in traditionally harvested foods, while providing information that assists informed decision-making by individuals and communities in their food uses,” and initiatives to control harmful pollutants have been explored pursuant to the Toxic Substances Management Policy and *Canadian Environmental Protection Act*.⁶⁵ The Northern Contaminants Program has produced a number of lengthy publications summarizing findings and suggesting future action, but these reports tend to offer open-ended conclusions and require updating.⁶⁶ Since the last comprehensive report released in 2003 and the summary of projects published in 2004-2005, a considerable body of scientific literature has been produced that strengthens the public health concern posed by cetacean consumption.⁶⁷ Also, while it is necessary to attempt to reduce the sources of pollution to prevent further contamination of northern foods, given the extent to which long-lived cetaceans are already contaminated it is necessary to focus on mitigating existing concerns that are unlikely to change



within this century. Perhaps the most realistic domestic reform is for Health Canada to simply revise *Eating Well with Canada's Food Guide: First Nations, Inuit and Metis* since this guide does not address cetacean products at all beyond recommended servings of "traditional meats and wild game" and "fish and shellfish"; nor does *Canada's Seafood Guide*.⁶⁸ In comparison, Denmark's guidelines for the Faroe Islands read as follows:

1. That adults at the maximum eat pilot whale blubber once or twice a month,
2. The best way to protect foetuses against the harmful effects of PCB is if girls and women do not eat blubber until they have given birth to their children,
3. That adults eat no more than one to two meals of pilot whale meat a month,
4. Women who plan to become pregnant within three months, pregnant women, and nursing women should abstain from eating pilot whale meat, and
5. That pilot whale liver and kidneys should not be eaten at all.⁶⁹

Not only do Denmark's guidelines conform to international recommendations, they also align with scientific literature that emphasizes reduced consumption and avoidance of certain highly contaminated whale parts.⁷⁰ In sum, it is this author's contention that meaningful domestic regulation addressing the public health concern associated with whale contamination will require simultaneous action by DFO, Health Canada, and Aboriginal communities, as this health issue must be met with both front-end hunt management and back-end community management recommendations and guideline reform. So long as the right to hunt and consume cetacean products remains unfettered, this health threat will persist.

Conclusion

Until environmental contamination by harmful chemicals, heavy metals, and POPs is drastically reduced, society (domestically and internationally) must confront public health consequences. The stark reality regarding the relationship between humans and cetaceans is that we have been forced into a position of damage control rather than prevention; there is no clear or easy solution. Canada's northern Aboriginal populations have valid

cultural and subsistence claims to hunt and consume whale meat. That being said, it is folly for Canadian regulators to persist in going it alone without formally partaking in the IWC and without reacting to this public health threat with meaningful domestic reform.

This paper has presented international and domestic reform mechanisms that ultimately seek to regulate, but not prohibit, Aboriginal subsistence whaling in Canada. The time to work with Aboriginal communities to limit hunt quotas, revise Aboriginal food guidelines, and become a world leader in whaling sustainability and meaningful regulation is now. Any such reform must be undertaken with eyes open to the fact that political forces must complement regulatory reforms with meaningful public health initiatives that seek to educate Aboriginal peoples about present health threats, supplement traditional northern community food choices with healthy alternatives that do not exacerbate other health concerns or societal socio-economic discrepancies, and is at all times mindful and respectful of cultural concerns.

What began as an attempt by ENGOs to appeal to the human impacts of whaling to justify banning all whaling has taken on a life of its own as a scientifically tested, internationally recognized public health concern. It is time to reexamine the relationship between humans and cetaceans, work with Aboriginal peoples to address concerns, acknowledge consequences in the form of food contamination and toxicity, and recognize that our impact on cetaceans encompasses much more than extirpation and commercial extinction. To fail to address this issue not only further jeopardizes the recovery of whale populations, it also needlessly jeopardizes human health. The time to act is now.

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