

Fishing benefits coastal communities & contributes to sense of place; are these benefits at risk?

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What's happening?

In 2016, British Columbia's seafood sector contributed \$415 million to B.C.'s gross domestic product and provided over 10,000 jobs (see our articles on Seafood Production in the Seafood Theme and Employment in the Livelihoods Theme). However, fisheries contribute much more than the economics and jobs imply, especially in coastal communities. For example, in a 2012 assessment of the North and Central Coast's social, economic and cultural sectors, the level of economic and cultural interest that coastal communities showed in commercial fisheries stumped analysts.¹ The magnitude of in-



Photo: Jenn Burt

terest in commercial fisheries dwarfed that for other economic sectors and inspired socio-economists to further investigate community ties to the seafood industry.

The resulting in-depth study, focused in the Pacific North Coast Integrated Management Area (PNCIMA, Figure 1), revealed that commercial fisheries not only support regional economies, but they also increase the social capital – social networks and community integrity – of coastal communities. Culture, intergenerational values, gift and trade, and lifestyle were the top

values that fishermen² associated with their profession (Figure 2).³ For example, in this study 20 fishermen reported gifting or trading seafood⁴ to over 2,000 people annually, an act that increased the sense of fellowship amongst fishermen, non-fishermen, and friends and families within the PNCIMA communities.⁵ Further, commercial fishermen value their occupation beyond the money-making capacity, more as a way of life linked to ecosystem and a strong sense of place. Recent trends have put these benefits and this way of life at risk.

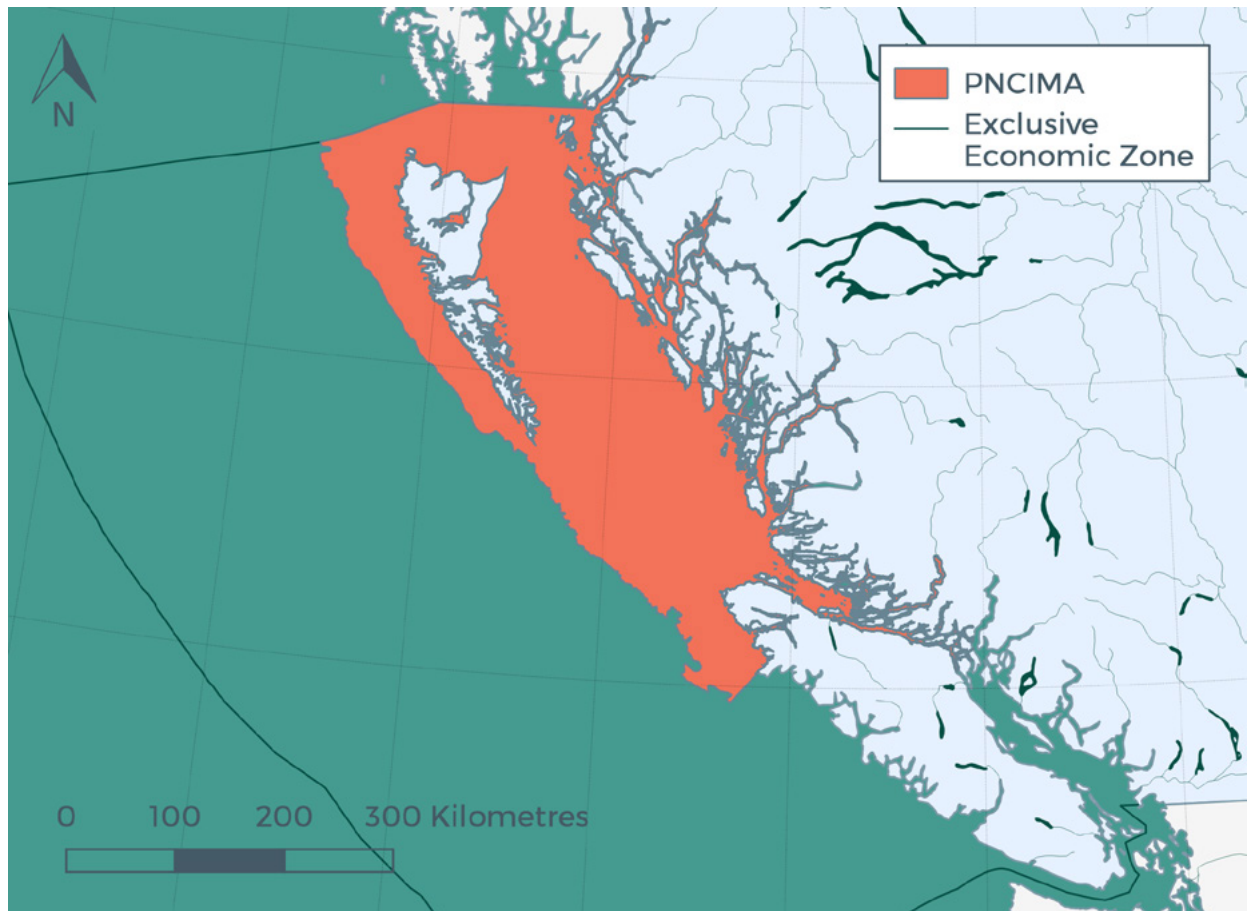


Figure 1. The Pacific North Coast Integrated Management Area (PNCIMA) and Canada's Pacific Exclusive Economic Zone.

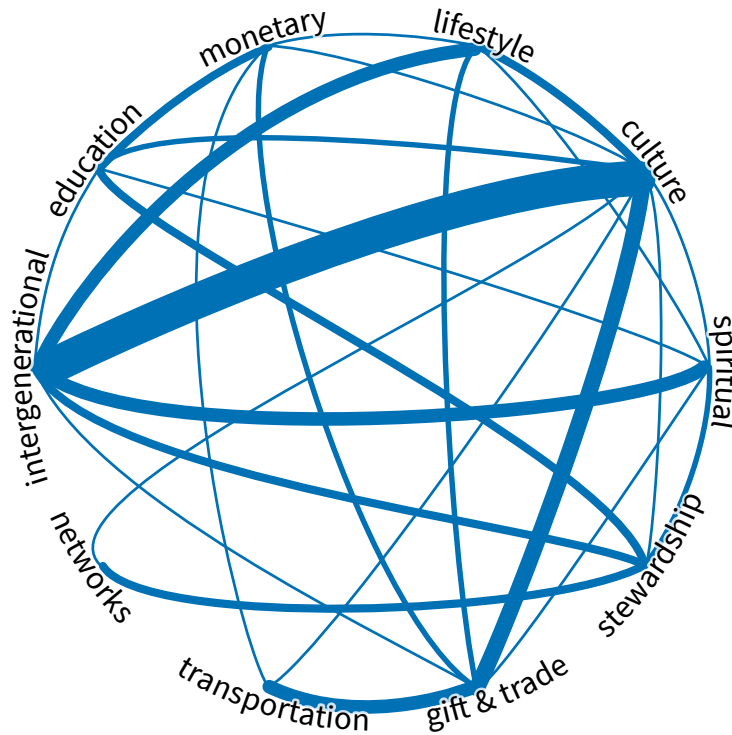


Figure 2: “Intangible” values associated with commercial fisheries in PNCIMA based on interviews with 23 local fishermen. The line width depicts the number of times a link between two values was mentioned, with the most frequently referenced values being identified as culture, intergenerational exchange, gift and trade, and lifestyle. All values remained connected to other value categories, signifying the complex nature of connections that communities have with commercial fisheries. Source: O'Donnell et al 2013.

Why is it important?

Regions with higher social capital, such as coastal communities that sustainably manage wild fisheries, are associated with improved social wellbeing, deeper community trust, long-term obligations between community members, and a higher investment in collective activities.⁶ This can lead to a stronger sense of resource management and stewardship, better-informed fisheries management decisions, and more community investment in integrated marine planning.

These community benefits, if not managed for, are at risk. As a result of efforts to improve resource sustainability and net economic benefits, commercial fisheries have contracted over the last three decades. The management tools associated with these efforts, such as private quota trading systems, have had unintended consequences, such as reducing the proportion of benefits returning to coastal communities and to small boat owner-operators.⁷

Is there a particular importance or connection to First Nations?

In B.C., six percent of the population identifies as Aboriginal, but in coastal census subdivisions with populations under 1,000 (i.e., 73 smaller coastal subdivisions), 58 percent of the population identifies as Aboriginal.⁸ Stories and legends of B.C.'s coastal First Nations people often encapsulate the pervasive and strong sense of place embedded in their culture. They speak of being part of this coastal ecosystem since time immemorial, as gathering and using marine resources has always been a part of the coastal cultures.

B.C.'s First Nations are spokespeople for fisheries and resource management as it relates to Aboriginal rights and titles.⁹ Shellfish harvesting, for example, is a lifestyle and means of subsistence that First Nations groups have employed throughout their history and harvesters often work independently on traditional territories to harvest wild shellfish. However, access to shellfish habitat is being jeopardized as the shellfish aquaculture industry grows and privatization of marine space through tenures increases.¹⁰ The number of clam and oyster tenures granted in B.C. doubled between 1999 and 2005, and again between 2005 and

2015.¹¹ Many First Nations see the increasing number of private aquaculture tenures as a threat to traditional unrestricted access to natural resources. Marine resource privatization has critical implications for First Nations' traditions, cultural identity, and local values associated with wild fisheries.



Razor clams, North Beach Naikoon, Haida Gwaii (Photo: Sally Taylor, Flickr [CC BY NC 2](#))

What is the current status?

The past three decades have seen significant changes in the management and structure of the commercial fishing industry. A shrinking commercial fishing fleet is one outcome of this restructuring. The total number of registered fishing vessels in the fleet dropped by 64 percent between 1985 and 2015 (Figure 3). The contraction in fleet size occurred almost entirely in the small boat fleet, which has been reduced by 4,144 vessels (Figure 4). With an average crew of 2.5 workers per small boat, a loss of 4,144 registered small fishing vessels means a loss of over 10,000 jobs. Even if only half of those jobs were based in coastal communities, the loss is significant.

Unfortunately, the fleet data from Fisheries and Oceans Canada (DFO) does not include information about where vessels and their owners reside,¹² but most small boat harbours in fishing communities have infrastructure for vessels up to 65 feet.

In addition to downsizing of the fisheries fleet and loss of thousands of harvesting jobs,^{13,14} processing plants and canneries have shut down coast wide,¹⁵ access rights to fisheries resources have changed due to private quota trading systems,¹⁶ and aquaculture leases,¹⁷ and many aboriginal and rural fishing communities have become increasingly marginalized.^{18,19,20}

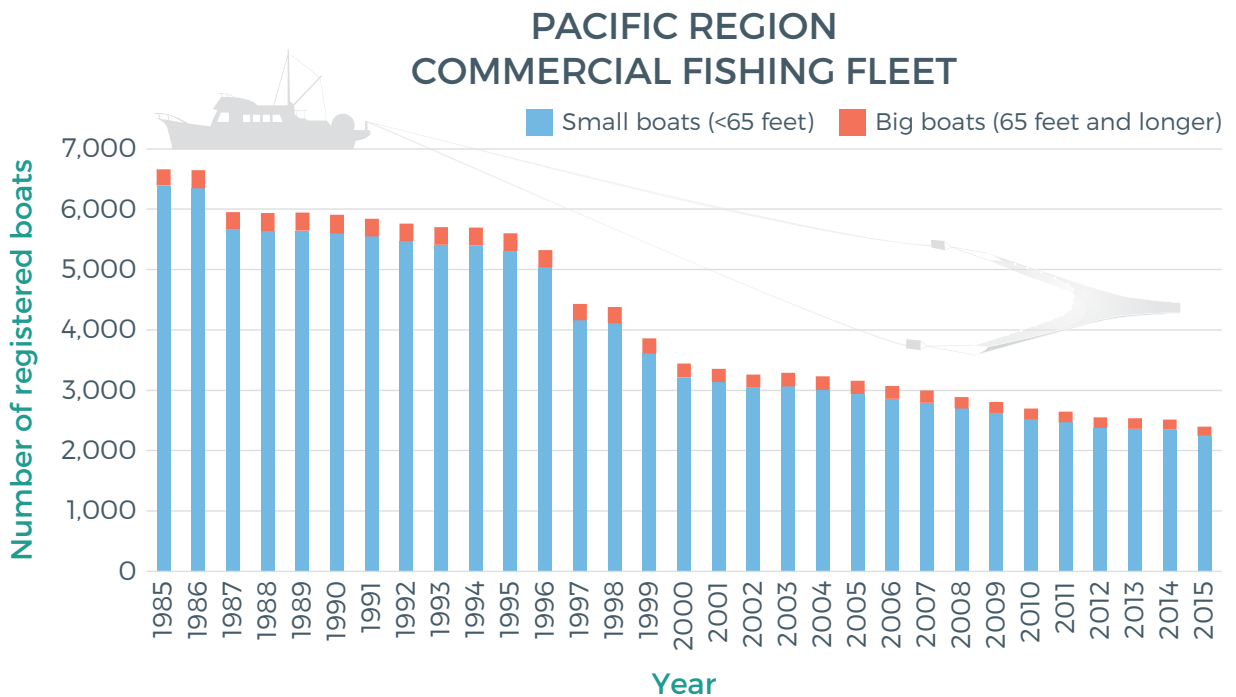


Figure 3. The number of registered vessels in the Pacific Region commercial fishing fleet. Small boats are less than 65 feet, and big are 65 feet in length and larger. Data Source: Fisheries and Oceans Canada, Pacific Region Operations Branch

A recent study claims that the way that fishing quotas have been implemented in Canada’s Pacific Region is putting an end to small boat fishermen operating out of coastal communities.²¹ The halibut fishery is one example of this. The fishery is characterized by a limited entry licensing regime (meaning each vessel needs to own a license to fish halibut and number of licenses available are limited), a total allowable catch set annually (in the case of halibut this catch limit is set by the International Pacific Halibut Commission through an international treaty between Canada and the United States), and individual transferable quotas (ITQs introduced in 1993 are traded in a private mar-

ket). Catch shares or quotas are intended to secure access for fishermen, prevent over-competitive races for fish, and bring an element of measurable individual accountability to fishing.²² All fishermen landing halibut need to own or lease halibut quota. However, market value of halibut quota per pound more than tripled between 1998 and 2015 (Figure 5),²³ essentially putting it out of reach for new entrants to the fishery. In 2017, the going rate was \$125 per pound²⁴ and, as of early 2018, the price has reportedly risen to \$135.²⁵ Owners of quota are not required to be active fishermen – they can lease their quota. Lease prices for halibut quota have increased over the same period,

COMMERCIAL FISHERIES PACIFIC FLEET REDUCTION 1985-2015

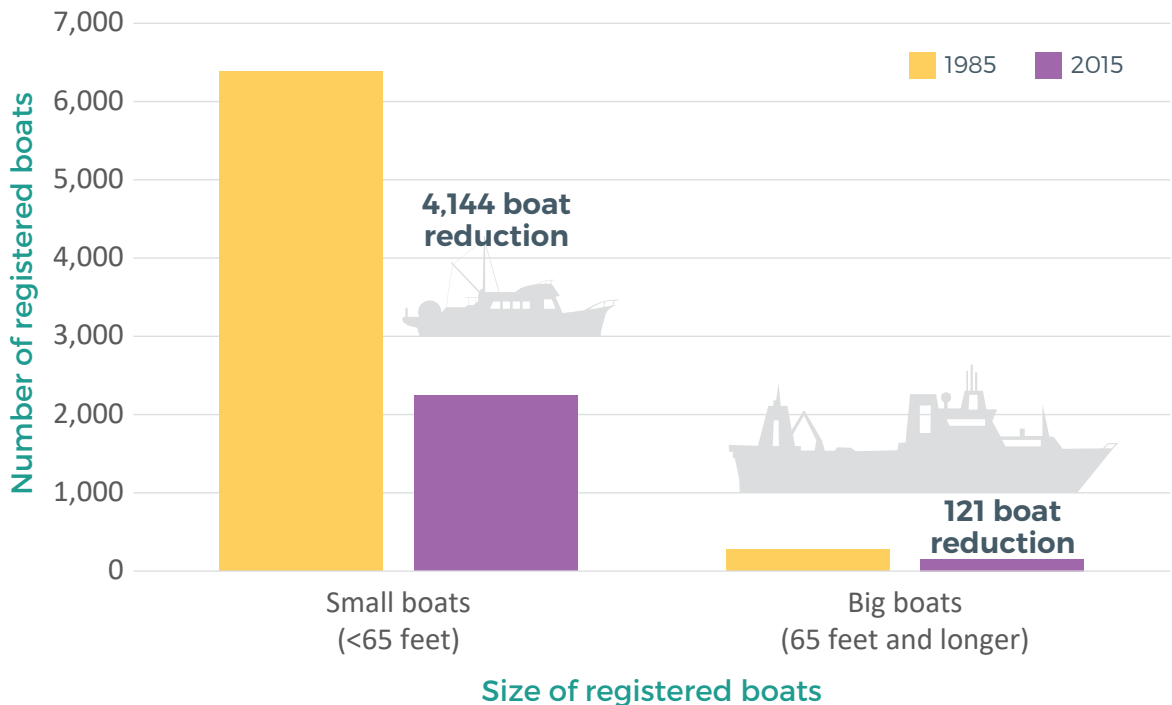


Figure 4. Small boat versus big boat fleet reduction in the Pacific Region between 1985 and 2015. Data Source: Fisheries and Oceans Canada, Pacific Region Operations Branch

but not quite at the same rate.²⁶ Quota pricing, one small piece of a very complex system, seems to point to unintended social and economic consequences of this quota management regime.

Overall, competition for access to halibut harvest is high among all those involved including between Canada and the United States,²⁷ and within Canada among First Nations, commercial fisheries, and sport fisheries. This competition will continue to drive the value of halibut quota up, perhaps even more so if total available quota decreases. In light of the competition and market pressures, concerns for the sustainability of halibut fishermen and fisheries are understandable. In September 2009, Canada’s Pacific halibut fishery

earned Marine Stewardship Council certification for being a sustainable and well-managed fishery. This certification is scheduled to expire in 2020.²⁸

The many changes to management and structure of commercial fisheries since the 1980s were driven primarily by economic rationale, with conservation as an afterthought – at least according to the summary, “A Brief History of Fleet Reduction in BC,” authored by Dennis Brown.²⁹ The authors of the Caught up in Catch Shares report argue that catch shares in B.C.’s ITQ system were implemented without clear social objectives, have essentially privatized a public resource, and have reduced the ability of smaller boats and coastal communities to benefit from the industry.³⁰

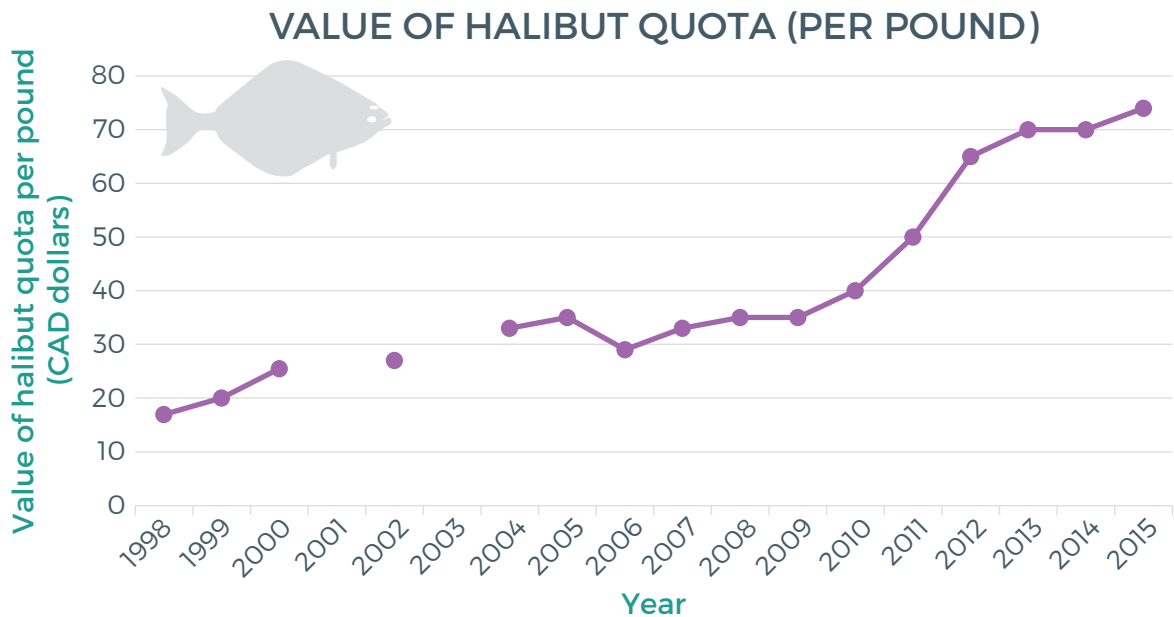


Figure 5. The market value of halibut quota (per pound) from 1998 to 2015 (not adjusted for inflation). Data Source: Analyses of Commercial Fishing Licence, Quota, and Vessel Values, prepared annually for Fisheries and Oceans Canada, Pacific Region.

What is being done?

In B.C., adaptation strategies to the structural changes along the coast use both top-down and bottom-up approaches. One approach that uses both of these strategies is the North Pacific Coast's Marine Plan Partnership (MaPP), which is a marine planning initiative led by 17 First Nations groups and the B.C. Provincial government. This partnership's focus is on sustainable economic development that supports coastal communities, protects the marine environment, and follows an ecosystem-based management framework.³¹

Several initiatives are investigating the impacts of B.C.'s fisheries system and how policies could enable benefits to flow from the resource to fishermen and their communities. In February 2018, Ecotrust Canada hosted a Fisheries for Community gathering to bring together individuals, communities, organizations, harvesters, and First Nations whose livelihoods, economies, food access, cultures, and wellbeing are tied to local fisheries, and who want to work together to ensure fisheries can continue to support them and their communities now, and for future generations. This may be the catalyst to align forces and turn the tide raising common socio-economic objectives for fishermen, coastal communities, and First Nations as

a priority for senior governments. A summary of this forum will be available on the Ecotrust Canada website.

The Canadian Council of Professional Fish Harvesters (CCPFH) is completing phase one of a Fisheries Labour Market Information Study nationwide.³² Based on tax filer data from Statistics Canada, they have found significant nationwide declines in the number of fish processing workers, self-employed fish harvesters, and fish harvesters that earn wages since 2000. They presented information focused on the Pacific Region to the Ecotrust Canada forum mentioned above and will be reporting out more publically.³³

As part of a much larger project, the Canadian Fisheries Research Network has built a comprehensive fisheries evaluation framework.³⁴ This multipurpose framework identifies indicators across four broad dimensions – governance, economic, social and ecological – that can be tailored to evaluate specific fisheries. This tool allows managers to openly evaluate trade-offs between competing fisheries objectives across these four dimensions – something not transparent today. Results of this work are in press and expected to be published in 2018.

What can you do?



Individual and Organization Actions:

- Know your fisherman: choose seafood options that support local fishermen and sustainable harvesting.
- Support B.C.'s buy local program: <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/market-development-programs/bc-buy-local-program>
- Purchase and eat sustainable seafood. Learn more at:
 - Ocean Wise Seafood Program: <http://seafood.ocean.org/>
 - Seafood Watch: <http://www.seafoodwatch.org/seafood-recommendations/consumer-guides>
 - Marine Stewardship Council: <https://www.msc.org/track-a-fishery/fisheries-in-the-program/certified/pacific>
- Demand improvements to seafood labelling and traceability requirements: [SeaChoice](#), [ThisFish](#)
- Participate in citizen science efforts that support oceanic monitoring (e.g., Pacific Salmon Foundation's Salish Sea Marine Survival Project Citizen Science Program³⁵ and while on the ocean use the OceanSmart app to report interesting ecosystem events).



Government Actions and Policy:

- Undertake an independent review of fisheries licensing policies as they affect harvesters, First Nations and coastal communities in B.C.
- Support integrated ocean management by providing resources and engaging coastal communities, First Nations and stakeholders in decision-making.
- Support investment in research for fisheries, sustainable aquaculture techniques and institutions.
- Support comprehensive ocean socio-ecosystem monitoring, including environmental conditions to facilitate HAB detection and response.

Resources

Fisheries and Ocean Canada, Pacific Halibut
<http://www.dfo-mpo.gc.ca/fm-gp/sustainable-durable/fisheries-peches/halibut-fletan-eng.htm>

A History of Pacific Fisheries Policy [pre-confederation to 1993] by Douglas M. Swenerton
<http://www.dfo-mpo.gc.ca/Library/165966.pdf>

Footnotes

- ¹ Robinson Consulting and Associates Ltd. 2012. Socio-economic and cultural overview and assessment report for the Pacific North Coast Integrated Management Area. Submitted to Fisheries and Oceans Canada. Available at <http://www.pncima.org/media/documents/secoa/secoa-final-edit-oct-29-13.pdf> See also Pacific North Coast Integrated Management Area Initiative: Sub-Regional Advisory Forums Summary Report. 2011. Accessed March 13, 2018. Available at <http://www.pncima.org/media/documents/pncima-publications/sraf-spring-2011-summary-report-reformatted.pdf>
- ² “Fishermen” is the term voted on in 1996 by the women (the men abstained) in the United Fishermen and Allied Workers Union (UFAWU). They decided that this term would encompass both men and women working in the fishing industry.
- ³ O'Donnell, K., Hesselgrave, T., Mackdonald, E., McIsaac, J., Nobles, D., Sutcliffe, T., Fernandes, D., and B. Reid-Kuecks. 2013. Understanding values in Canada's north Pacific: capturing values from commercial fisheries. T Buck Suzuki Environmental Foundation and Ecotrust Canada.
- ⁴ The study asked only about seafood caught with the appropriate licence.
- ⁵ O'Donnell et al. 2013.
- ⁶ O'Donnell et al. 2013
- ⁷ Robertson, A., Sutcliffe, T., Fernandes, D., Reid-Kuecks, B., McIsaac, J., Nobles, D., and Moriel, L. 2015. Caught up in catch shares. Report published by Ecotrust Canada and the T. Buck Suzuki Environmental Foundation. 6pp. Accessed February 20, 2018. http://ecotrust.ca/wp-content/uploads/2015/05/EcotrustCanada_CaughtUpInCatchShares.pdf
- ⁸ Statistics Canada 2017. Aboriginal Peoples Highlight Tables, 2016 Census. Accessed February 20, 2018. <http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hltfst/abo-aut/Table.cfm?Lang=Eng&T=105&PR=59&S=86&O=A&RPP=25>
- ⁹ First Nations Fisheries Council. 2017. Fisheries Management. Retrieved from <http://www.fnfisheriescouncil.ca/initiatives/fisheries-management/about/>.
- ¹⁰ Joyce, A. L., Satterfield, T. A. 2010. Shellfish aquaculture and First Nations' sovereignty: the quest for sustainable development in contested sea space. *Natural Resources Forum*. 34: 106-123.
- ¹¹ Joyce and Satterfield 2010.
- ¹² Transport Canada Vessel Registration System does include this information. Accessing and analyzing these data was beyond the scope of this article.
- ¹³ Robertson et al. 2015.
- ¹⁴ Stocks 2016.
- ¹⁵ The Canfisco cannery in Prince Rupert stopped canning salmon as recently as 2015. <https://globalnews.ca/news/2336619/prince-ruperts-largest-cannery-closing-500-jobs-in-jeopardy/>
- ¹⁶ Pinkerton, E. 2012. Alternatives to ITQs in equity-efficiency-effectiveness trade-offs: How the lay-up system spread effort in the BC halibut fishery. *Marine Policy*, 42: 5-13.
- ¹⁷ Joyce and Satterfield 2010.
- ¹⁸ O'Donnell et al. 2013.
- ¹⁹ Robertson et al. 2015.
- ²⁰ Stocks, A. 2016. The state of coastal communities in British Columbia. T. Buck Suzuki Environmental Foundation. Accessed July 17, 2017. http://www.bucksuzuki.org/images/uploads/docs/StateofCoastalCommunities_WEB.pdf
- ²¹ Robertson et al. 2015.
- ²² Robertson et al. 2015.
- ²³ Nelson, S. 2004-2015. Analyses of Commercial Fishing Licence, Quota, and Vessel Values, prepared annually for Fisheries and Oceans Canada, Pacific Region. Accessed March 2, 2018. Available through the federal science library at <http://science-libraries.canada.ca/eng/home/>
- ²⁴ A March 2018 article in the Globe and Mail quotes 2018 halibut quota prices at \$125 per pound. Koreski, J. “Seeking an elusive, expensive catch: quotas” published March 2, 2018. The Globe and Mail. Accessed March 11, 2018. <https://www.theglobeandmail.com/news/british-columbia/seeking-an-elusive-expensive-catchquotas/article38196750/>
- ²⁵ McIsaac, J., Executive Director, T. Buck Suzuki Environmental Foundation. Personal communication via phone call, February 27, 2018.
- ²⁶ Nelson 2004-2015.
- ²⁷ <https://www.nationalfisherman.com/alaska/us-canada-disagree-distribution-declining-halibut-catch/>
- ²⁸ Marine Stewardship Council. 2018. Canada Pacific Halibut (British Columbia). Accessed March 2, 2018. <https://fisheries.msc.org/en/fisheries/canada-pacific-halibut-british-columbia/>
- ²⁹ Appendix 3, Robertson et al. 2015.
- ³⁰ Robertson et al. 2015.
- ³¹ Marine Plan Partnership (MaPP). 2017. Retrieved from <http://mappocean.org/>
- ³² <http://www.fishharvesterspecheurs.ca/programs-initiatives/labour-market-information-study-1>
- ³³ McIsaac, J., Executive Director, T. Buck Suzuki Environmental Foundation. Personal communication via phone call, February 27, 2018.
- ³⁴ Canadian Fisheries Research Network. 2014. Students collaborate in development of Comprehensive Fisheries Evaluation Framework. Accessed March 13, 2018. <http://www.cfrn-rcrp.ca/article183>
- ³⁵ Pacific Salmon Foundation. 2017. Salish Sea Marine Survival Project, Citizen Science Program. Retrieved from http://marinesurvivalproject.com/research_activity/list/citizen-science-program/.