



A Think Tank on Transferable Shares in the Salmon Fishery

A SPECIAL SEMINAR OF THE SPEAKING FOR THE SALMON SERIES

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Conveners' Report

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PREFACE

This invitational think tank was held on May 23, 2008 at the Simon Fraser University Vancouver Campus. The purpose of the meeting was to discuss issues surrounding transferable shares in the British Columbia salmon fishery. Invited experts presented an overview of some of the salient information and shared their perspective to launch the discussion. Participants, representing various sectors of the salmon fishery, identified key concerns and suggested potential solutions. Several recent and relevant reports were distributed to participants in advance of the meeting to help prepare for the dialogue (see background material listed below). What follows is an edited transcript of the presentations and summary of the major points addressed in the dialogue. The program and this report are available at www.sfu.ca/cstudies/science/.

BACKGROUND MATERIALS

Glavin, T. 2007. *Transferable Shares in British Columbia's Commercial Salmon Fishing Industry*.

Lane, D. 2007. *Pacific Salmon Sharing: Some Thoughts*.

Commercial Salmon Advisory Board Report on Score Process.

Sustaining America's Fisheries and Fishing Communities: An Evaluation of Incentive-Based Fisheries Management. Environmental Defense, 2007. New York.

ACKNOWLEDGEMENTS

We gratefully acknowledge the support of the sponsors, Watershed Watch Salmon Society and the Linking Science with Local Knowledge Working Group of the Ocean Management Research Network (OMRN) for making this meeting and report possible.

We also thank Craig Orr, Executive Director of Watershed Watch Salmon Society who facilitated the dialogue process.

Lastly, we thank the presenters for their thought-provoking presentations, and all the participants who generously shared ideas and contributed to the dialogue.



CONTENTS

INTRODUCTION

Craig Orr, Executive Director, Watershed Watch Salmon Society	1
---	---

PRESENTATIONS

Terry Glavin, Author and Consultant	1
--	---

Clarifying Questions:

Would transferable shares as discussed in this report change from year to year?	3
---	---

Is there a difference between quota assignment and allocation?	3
--	---

Dan Lane, Telfer School of Management, University of Ottawa	4
--	---

Clarifying Questions:

How could we react to market changes and not just be a price taker?	6
---	---

Would the percentage in the reserve be set by the government or would it be market based?	6
---	---

Who are the ‘public’ and what would they do with 35% of the allocation?	6
---	---

What would the issues be with respect to access and allocation?	6
---	---

What is the difference between the “all in” approach compared with a more incremental, stepwise approach?	7
--	---

Are First Nations’ food and ceremonial fisheries part of the pie? and Is there room for proven negative impacts on salmon to buy quota?	7
--	---

How does this tie in with Treaty issues?	7
--	---

Who would we buy the quota from?	7
--	---

Joseph (Jay) Taylor, former fisherman; Canada Research Chair in History and Geography, Simon Fraser University	7
---	---

Clarifying Question

Is moving to ITQs a threat?	12
-----------------------------------	----

Grand Chief Doug Kelly, Chair of First Nations Fisheries Council	13
---	----

Rob Morley, Canadian Fishing Company	14
---	----

DIALOGUE	14
-----------------------	----

The Politics of Scarcity	14
--------------------------------	----

Collaboration is Key	14
----------------------------	----

The concept of “all in”	14
-------------------------------	----

What Type of Salmon Fishery Do We Want?	15
---	----

The responsibilities of the harvesters	15
--	----

ITQs without TAC	15
------------------------	----

The Need for a New System	15
---------------------------------	----

How would it work and how would it be managed on the Fraser?	15
--	----

Conservation and First Nations perspectives	16
---	----

Moving the Wild Salmon Policy forward	16
---	----

Conservation and Food Fish Need to Come First	16
---	----

The state of the salmon stocks	16
--------------------------------------	----

Is common property for the recreational fisher incompatible with an ITQ system for the commercial sector?	16
--	----

Are ITQs bad for commercial fishers?	16
--	----

Recognition of Social and Economic Impact of the Recreational Sector	17
--	----

Timeline for Implementation	17
-----------------------------------	----

Can DFO Implement a Shares System?	18
--	----

CONCLUDING STATEMENTS BY THE PRESENTERS AND PARTICIPANTS	18
---	----

Terry Glavin	18
--------------------	----

Jay Taylor	19
------------------	----

Dan Lane	19
----------------	----

NGO representative	19
--------------------------	----

Sport fishery representative	19
------------------------------------	----

Fisheries and Oceans representative	19
---	----

NGO representative	19
--------------------------	----

INTRODUCTION

Craig Orr, Executive Director, Watershed Watch Salmon Society



Participants were thanked for taking time away from their busy schedules to be at the meeting and for contributing their knowledge, experience, and perspectives on the timely and important subject of transferable

shares in the salmon fishery.

No matter what they are called—Shares, Quotas, ITQs, IVQs—they are topical in the discussions of the Pacific Integrated Commercial Fisheries Initiative (PICFI), the Commercial Salmon Advisory Board (CSAB), the Skeena Science Panel report, academic and NGO research, and a diversity of interests portrayed in the background materials for this meeting (see p. i).

Each participant has a particular view on what shares might mean to their ‘sector.’ We face challenges as we ponder on how it all fits together—that is, the why, the how, and the who of the actual transferring—as well as the incentives and disincentives. We need innovative thinking and management flexibility, especially in the face of diminishing salmon returns.

The *Speaking for the Salmon* workshop series has for over a decade served as a neutral forum to stimulate productive dialogue and action on difficult but timely issues involving British Columbia salmon. A diversity of ‘sectors’ and informed individuals were invited to participate in the current think tank workshop in order to get the most robust output possible for the day. Participants were asked to participate freely while respecting the right of each person to freely express his or her views and opinions.

PRESENTATIONS

Terry Glavin, Author and Consultant



The magnitude of the collective learned and experiential knowledge in this room is substantial. I am humbled to be in

such august company, especially to be leading the conversation. It does make some sense, however, since I can lead-off the discussion from the general and we can move to the more specific as the day proceeds.

My initial work with ITQs began after I was approached by the Sierra Club a few years ago to outline the major policy challenges facing marine systems. Research revealed that marine biomass equal to the weight of the human population of BC was being removed every year and that two thirds of the biomass fell within the arbitrary “groundfish” category. This did not comply with the minimum expectations of the United Nations' Food and Agriculture Organization.

As my work continued, I found myself often doing much of my writing in the morning and would then take advantage of living in the Gulf Islands and fish in the afternoon. I experienced a counterintuitive moment with the realization that I was participating in the serial depletion of inshore rockfish, just by fishing a few every day. I realized that the “big bad” trawlers were actually working on the issue and had made significant progress, and some of the best results were obtained because of forward thinking. Many of the most outrageous practices of the large fishers had been brought to heel. Now it was the small boats that were doing some of the worst damage because the federal government was telling them that they were sustainable. Through the adoption of

individual quotas, the large-scale fishery found solutions to some of the problems of overfishing. Individual quotas also helped increase safety by removing many of the competitive aspects that made the halibut fishery so dangerous.

I wrote the report, *The Conservation of Marine Biological Diversity and Species Abundance on Canada's West Coast: Institutional Impediments - Groundfish: A Case Study* and made the case that the entire groundfish fishery should be transformed to model the reformed halibut fishery. Around that time, the Commercial Groundfish Industry Advisory Committee (CGIAC) was formed. Also at this time, conservationists were emerging as stakeholders. Unfortunately, this process put the cart before the horse because of the lack of an articulated conservation framework to work within.

The advantage with salmon is that this basic conservation framework is already present. The time has come to introduce quotas to BC's salmon fisheries: The past several years have presented many challenges for salmon fisheries; new leadership is emerging in aboriginal communities and in the commercial sector; Fisheries and Oceans Canada has begun to show some progressive leadership at both regional and national levels; Minister Loyola Hearn appears to be dedicated to conservation; the Pacific Integrated Commercial Fisheries Initiative; conservation organizations are (supposed to be) participating as full-status stakeholders; Canada has signed the United Nations FAO Code of Conduct for Responsible Fisheries and the CBD (Convention on Biological Diversity); the Wild Salmon Policy (WSP) is in place; and perhaps one of the most telling signs is that this is one of the first years in the history of BC that we won't be looking at anything that resembles a commercial fishery on the coast.

Public values have also changed. There is only so much that the public is going to take, only so much the taxpayer can give, that the

commercial fisherman can stand, and the aboriginal communities can put up with. There have been half a billion dollars spent in buy-back programs. We have to move forward—another buy-back is not appropriate.

One of the key challenges is that the fishery itself is stuck in 19th century gear-type restrictions. Something major has to give—managing to protect the industrial architecture is not effective. There cannot be a major paradigm shift with such a clunky and inflexible fishery and management regime.

The work done by Environmental Defence in the US indicates that quota-based fisheries have produced the greatest progress in sustainability, and are likely to be the most sustainable and ecologically viable. There are a number of reasons that transferable shares work:

- Compliance with catch limits
- Better science monitoring
- Reduce bycatch
- Limit habitat impacts
- Fishing safety
- Eco-labelling processes are seven times more likely to label a fishery as well managed.

This is also true for the West Coast of BC and the salmon fishery is the last major fishery on the coast—if not the country—that hasn't gone to quota.

The large amount of mistrust among fishing sectors and conservation organizations presents challenges. Conservation organizations feel a solemn obligation to participate and arrive at solutions. We do not want to see fisheries close. As stakeholders, conservation groups are now trying to collaborate with industry for the common objective of sustainability. There is also a presumed hidden agenda that these necessary reforms are a cover to move a lot of fish upriver for aboriginal people, or take them out of the ocean interception fisheries. This is not the case. Mixed-stock fisheries are a problem, but it does not mean they

always will be. Transferable shares does not necessarily mean an end to mixed-stock fisheries, and in fact, they may be the only way that mixed-stock fisheries can persist in the marine environment.

The federal government is committed to moving towards some form of integrated fishery. Salmon could be the *best* transferable fishery. Other challenges posed by social equity problems (e.g. armchair fishers) have several potential solutions under a transferable shares system.

The report *Our Place at the Table* concludes that 50% of the Total Allowable Catch (TAC) should go to First Nations before proceeding to any property right infringements. I don't know if we should be thinking about property rights in the fishery. We have to be careful about how we use this language, legally.

In conclusion, we are in the midst of horrible times—I don't think we have ever seen anything quite this bad. The irony is that I was against limited entry in the Mifflin Plan because I could not bear to see fishermen say, "it is too hard" and leave the fishery. I am very interested to hear how the conversation unfolds among fishermen themselves. It is important to have an economically viable fishery as well as one that is ecologically viable—we can't have one without the other. The evidence is overwhelming that transferable shares are the way to go. When we're talking about what it is we are going to share, it has to start with the harvestable surplus of each conservation unit (CU)—it has to get down to that level. It will be complicated, but that's life. We want a regime that is not afraid to embrace that complexity. There is an opportunity here to reconnect fishermen to specific runs of salmon—as it always has been with aboriginal fishing communities.

We can do this.

Clarifying Questions:

Would transferable shares as discussed in this report change from year to year?

(representative of the sport fishing sector)

Terry Glavin: I assume, starting from a baseline, that would not change but that the exact amount would be based on the TAC and would therefore change from one year to the next. I don't see the virtue of maintaining baselines from year to year—I prefer the fluidity of the approach.

The questioner commented that he felt that the way in which halibut was 'gifted' to a group of people was similar to privatizing the resource and this is morally and ethically wrong.

A representative from the same sector emphasized the need for all sectors of the fishery to work well together with the introduction of a new regime. In the case of halibut, the recreational fishery, through the Sport Fishing Advisory Board (SFAB), was not consulted by government or anyone else with respect to how the fishery would be affected. He noted, "the commercial fishery doesn't take place in isolation."

Terry responded that he agrees. The hardest part is figuring out how to fully integrate the recreational fishery into a system like this. We cannot expect every individual fisher to buy quota in the fishery. It needs to be a common fishery rather than a commercial one.

Is there a difference between quota assignment and allocation?

(representative of the sport fishing sector)

Terry Glavin: I see an initial quota assignment (the baseline mentioned above), but the allocation would change from year to year depending on the abundance of the resource and the market. Once the initial assignment is made, how the quota moves around among the sectors will be decided by them.

**Dan Lane, Telfer School of Management,
University of Ottawa**



The following presentation is an opinion piece. My feeling is that—by virtue of these “Speaking for the Salmon” discussions—we are already in Stage 2 in moving toward

transferable shares. It is no longer a question of whether or not I should take the ferry, it is now a question of what deck should I be on? We now have to answer: Where do we go from here? The general approach and value of shares systems have been demonstrated and the circumstances for change in the salmon fishery may be appropriate. We now need to figure out the next steps and how to operationalize them.

There is an opportunity to do things differently to ensure resource sustainability. The following are some general principles and guidelines that may help:

- All sectors must have both feet “all in” and be fully engaged and committed to the new system and to achieving resource sustainability.
- We must recognize that there is a problem with viewing our fisheries as common property because once they are sought, caught, and out of the water, they have a real ‘value’ and are no longer ‘common’ property.
- There must be adequate output control and a commitment to monitoring what is coming out of the water to ensure compliance and that what is being reported is accurate. This needs to include fish that do not come out of the water but are killed (i.e., unreported fisheries).
- Transferability can work at a number of different levels—sectorally or—across sectors—but there must be established limits.

- All groups have to work towards integrated management together. For example, we cannot have industry sustainability without resource sustainability. Similar to the Linking Science with Local Knowledge Working Group of the OMRN—we cannot do good social science if there isn’t resource sustainability.
- There needs to be a focus on value-added fisheries and a realization of the oceans-to-plate (OTP) perspective. Traditionally, there has been low-value in Canadian fisheries—and an unfortunate legacy in quantity, not quality, where volume-based harvesting has led to poor product fisheries. I would like to see government get more involved in promoting what happens in the marketplace, to the benefit of high-valued industry products—at arm’s length.
- The Fisheries Act of 1868 states that the Fisheries Minister still today has all the authority. This means that consultation with industry and communities is nice, but not binding—this has to change as we welcome groups into real decision-making devolved from the Minister via changes to the law.

The players in a salmon transferable shares system would include:

- First Nations food fishery
- Recreational fisheries
- Commercial fisheries—gear segments: seine, gillnet, trollers
- ENGOS
- Communities
- General public
- Governments (looking for arm’s length government involvement).

The top three players would form the Core group.

The sharing process would have to be flexible enough to respond to abundance reality and the market.

The general sharing process would include stock assessment and negotiated shares at the start of a fishery opening. At the opening, fishing and monitoring would determine the actual shares. At the end of the opening, a response period of reconciliation and adjustment would determine which groups need to pay back in the next period for taking more than their share, or alternatively, bank amounts that they could potentially take in the next period because they took less than their share.

The process would be managed by a Management Board made up of representatives from all groups. The Management Board would be responsible for decisions on access, allocation, trade limits, dispute resolution, monitoring and surveillance (with the assistance of governments), sanctions, and controlling the bank.

The allocation system would be attributable to both Core and Reserve groups. The initial allocation could be based on history and base-years of commercial fisheries, recreational fisheries and First Nations with approximately 80% of the total annual allocation going to Core sectors and the remaining 20% for the Reserve group allocation.

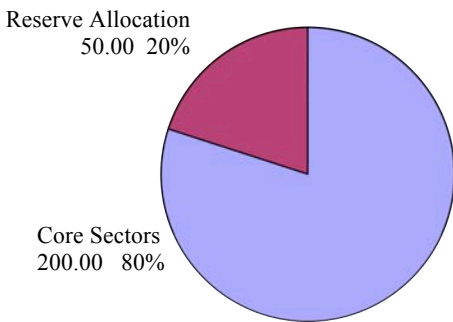


Figure 1. Total Annual Allocation: Core and Reserve (thousands of pieces).

The Core allocation (80%) would not be fixed—it would be negotiable and flexible within the total. Each Core player would need a dedicated share with a suggested starting point of, for example, 50% for the commercial fishery, 25% for First Nations

and 25% for the recreational fishery (as in Figure 2).

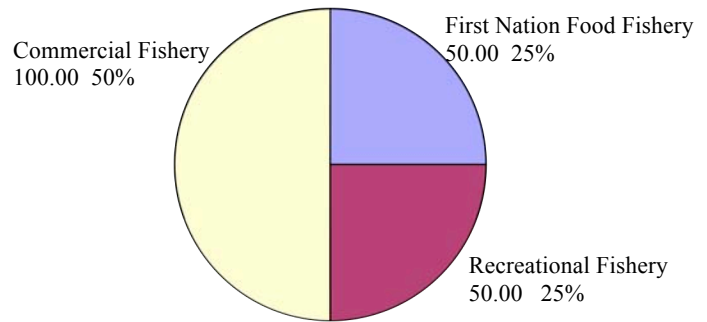


Figure 2. Core Sector Annual Suballocation (thousands of pieces).

The Reserve allocation (remainder of 20%) could be open to public tender (open or closed bid) including Core members. The allocation of bids would be decided by the Board (who might decide to not allocate beyond the Core; that is, set the reserve size). The reserve might be broken down with 10% for the First Nations fishery, 10% recreational, 10% commercial, 15% ENGOs, 20% government and 35% public. Government and/or ENGOs could buy shares and opt to keep them in reserve rather than fish.

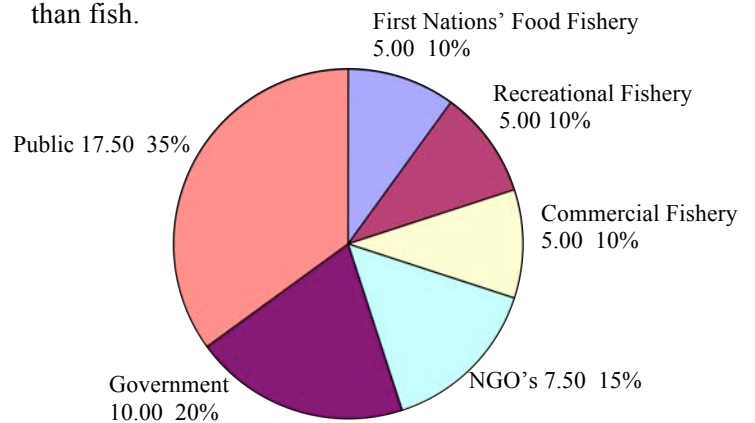


Figure 3. Annual Reserve Allocation (thousands of pieces).

The “bank” would consist of all parts of the reserve that do not get fished. The reconciliation and adjustment period would consist of “If I fish more, then I have to pay back—if I take less, I can bank it now and earn the right to have more later.” The flexibility and negotiability of the shares would mean that there would be changes from year to year.

The following figure looks at what would happen to the system under different scenarios (markets up, stock down, stable, and vice versa), where the above dynamic is in place and there is a fishery opening. Ideally, openings would be species specific in an attempt to avoid mixed-stock fishery problems.

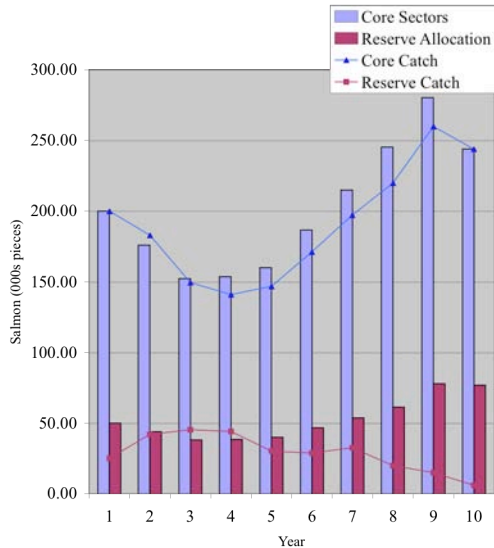


Figure 4. Year-over-year Dynamics: Case 2 (Total Annual Allocations and Catches by Core Sector and Reserve).

The worst case scenario would be with market up and resource down and therefore the bank would go down. We need to determine how to negotiate under these conditions, including having government intervene by buying fish, and keeping it in the bank and removing it from exploitation and the market. (This is much the same way that governments, e.g., the federal reserve banks, intervene in adjusting the money supply and modifying interest rates by buying and selling currencies.) If the market goes down and the stock goes up, the bank also goes up and exploitation is reduced and ‘saved’ for future periods when the stock is present and the marketplace has improved. With flexible management and ‘value added’ fisheries, shares and catches would be adjusted to the marketplace demand.

Clarifying Questions:

We are a small subsection of the Cascadia market and therefore market conditions are

largely outside of our control—especially considering farmed fish. **How could we react to market changes and not just be a price taker?** (representative from the Skeena region)

Dan Lane: In other areas, OTP (Ocean-to-Plate) in the form of vertical integration (where there is a very tight relationship with clients, processors, etc.) has been successful and has similar potential here as well. There are integrated operations in the Atlantic groundfish fishery (haddock), for example, where the fishing operation has the ability to manage their quota and seasonal catches in order to match the demand for higher value restaurant haddock through the close connection between harvesting on the water and getting the fresh product to the customer.

Would the percentage in the reserve be set by the government or would it be market based? Who are the ‘public’ and what would they do with 35% of the allocation? (representative of the gillnet sector)

Dan Lane: Government would decide on the amount in the pot and the Management Board would decide how to divide it up based on who and how much other players would be willing to pay. The size of the initial allocations would need to be determined by consensus of all groups.

Public components are not recreational, First Nations, etc. There is another component made up of community or artisanal fisheries that needs to have a place. They would have to muster the capital to get involved, including being supported by government for this involvement.

What would the issues be with respect to access and allocation?

(representative of the recreational fishing sector)

Dan Lane: In some ways right now there are no ‘issues’ with access and allocation since the Minister is responsible for all decisions surrounding these issues and he and he alone makes these decisions. It would be quite different if the Minister was no longer

responsible. What would be needed in this case would be the evolving of sole Ministerial responsibility into a system where the Minister steps back and access and allocations decisions could be made by the Management Board. The flexibility comes with opportunities to manage these issues through the marketplace and the 'groups' willingness to buy and sell their share portions.

What is the difference between the “all in” approach compared with a more incremental, stepwise approach?

(federal government representative)

Dan Lane: “All in” refers to the need to have all players willing to take responsibility to make this work. It includes the recreational fishery having a recognized share—it cannot be floating and it cannot operate outside of, or not be part of, the system. The SCORE report identifies one of the issues being that the recreational fishery must have a permanent share. Negotiate it among the players and then move on.

Are First Nations’ food and ceremonial fisheries part of the pie? and Is there room for proven negative impacts on salmon to buy quota?

(representative of First Nations organization)

Dan Lane: First Nations’ food and ceremonial fisheries are included, but the amount would fluctuate based on market and stock and the willingness of First Nations to use their shares to their best advantage, including selling off shares to others if they deem it worthwhile, or banking shares for future use.

How does this tie in with Treaty issues?

Treaty issues need to come first, along with First Nations’ food fisheries. (First Nations representative)

Dan Lane: This system does not negate the treaty issue because the amount is flexible and can fluctuate.

Who would we buy the quota from?

(representative of recreational fishing sector)

Dan Lane: The role of the Management Board is to manage the bank of shares and scientifically assessed annual operating quotas, including banked shares, trades, and buying and selling of accumulated quota. The free trading and execution of fishing of these amounts would need to be monitored closely - as always.

Joseph (Jay) Taylor, former fisherman; Canada Research Chair in History and Geography, Simon Fraser University



I had a bit of a schizophrenic upbringing, but the part of my childhood relevant to this setting stems from the time I spent as a kid in a small town on the coast. For me, Pacific City was peopled with the sons and daughters of loggers, farmers, and fishers, and by our mid-teens many of us had jumped on trollers to earn money. By 1978 I had graduated to my own boat. My timing was impeccably bad. The state of Oregon had just imposed an entrance moratorium, and the ‘Pacific Decadal Oscillation’ had just shifted, leading to the wonderful situation in which licenses cost more, prices fell because of a glut of Alaska and BC fish, and there were fewer and fewer fish off our own portion of the coast. By the mid-1980s I found myself fishing less, driving a truck more, and thinking obsessively about what had gone wrong. My first book, *Making Salmon*, was the result.

What I take from that time, beyond that poverty sucks and that fish poisoning is better treated with antibiotics than by your buddy’s “secret cure,” is this: If we want to understand the salmon fisheries, we must think in five dimensions. What I mean is that we need to keep in mind not only the three dimensions of space but also that time

divides into two distinctly relevant dimensions of past and future.

Salmon migrations produce complex and dynamic physical and social geographies that include not only everything from gravel to the North Pacific but also social spaces that range from the local to the transnational. This inclusive perspective forces us to focus on context and contingencies because across this entire geography the only constant is change, and that applies as much to the aboriginal as to the industrial fisheries. In other words, the salmon crisis is an inherently spatial and historical problem, yet because every question we ask about the past has to do with what comes next, we must also become more adept at thinking futuristically.

By this I don't mean we should become better fortune tellers, but that we need to be much smarter about the limits of what we can know. If there is one thing I know as a historian it is that the past is not predictive. The contexts that shape our lives are deeply historical, but we cannot simply read their trends into the future. In fact, the more I study the past, the harder it is to know with certainty what, exactly, happened because it was the contingencies, the things people could not predict, that often became the hinge upon which events turned. The only comfort I take from my growing ignorance at predicting the past is that we all are even worse at predicting the future.

We are here to talk about transferable shares, or to place today historically, we have returned to the issue of allocation and the contest over apportioning the salmon fisheries. Humans have played this game for a very long time. First Nations and Indian fishers used a variety of ways to claim and control access to salmon. Some, such as the Tlingits and Nuuchahnulth, claimed weir sites and falls as tribal, village, or clan resources; others such as Yuroks on the lower Klamath, Wishrams on the Columbia, and St'at'imc in the Fraser Canyon, recognized individual claims to

freshets and fishing stances. In practice, however, the legitimacy of claims rested on the expectation that fish would be shared.

Individualism and capitalism introduced different relations to property in the modern era. Things can be alienated and reduced to market values—everything has a price—yet in practice capitalism's reorganization of the salmon fisheries revealed important similarities to aboriginal practices. It has not quite been a free-for-all. Canneries and consortiums tried to shape laws so they could control access to fisheries through the strategic location of traps, weirs, wheels, and seines. Net fishers organized themselves racially and ethnically to claim specific drifts and to bar outsiders. Anglers rewrote the laws so they could evict commercial fishers from streams and thus claim fish for themselves. Divvying up salmon is not new.

That said, what we are here to discuss today is not just more of the same. Individual transferable quotas represent the apotheosis of free market ideology, and whether we call them ITQs or some of the other terms bandied in the literature, including "Limited Access Privilege Programs," "Individual Fishing Quotas," or "Community Fishing Quotas," in practical terms this is a move toward the permanent alienation of natural resources. On this I am an agnostic to a certain extent. I have already tipped my hand a bit by pointing out that salmon fishers have long tried to control access to fishing, so dividing the pie to foster stability is not something I find particularly novel or problematic in principle. In practice, however, many things give me pause. It is telling that even the literature distributed for this think tank—all of which endorses quota systems—spends considerable ink on the social costs that have accompanied privatization. Terry Glavin's report, for example, devotes three pages to the Barkley Sound pilot project and then six pages to the "Concerns and Controversies" that emanated from that project.¹

What Glavin saw in Barkley Sound we see in many recent fishery reforms around the Pacific. Both quota systems and marine reserves have altered the structure of local economies. They displace people, and the result usually has been fewer total jobs, fewer entrepreneurs, and proportionally more wage labourers. As one fisher said in the Environmental Defense document, “It’s great for the fish; it’s great for the management; it’s great for the economy. It’s horrible for fishermen.” This has been as true of the cited examples of success in the North Pacific as it has been of New Zealand’s Quota Management System and California’s marine reserves.²

Consider also that most success stories involve fisheries that are structurally different. Unlike Pacific salmon, halibut, pollock, and black cod are less migratory species, and whiting is not as genetically diverse as salmon; thus all are easier to manage by districting ocean harvest. Regulating salmon harvest is much more difficult because even when we cordon ocean fishers, the salmon themselves traverse many regulatory spaces. And unlike salmon harvests, fishing for pollock, hake, and whiting is far more capital intensive and thus these fisheries had far fewer participants when reorganized as quota systems. The marginal exception is the Pacific halibut fisheries, but again the comparisons stumble because the primary benefit of ITQs was not so much the conservation of halibut—which was already a success story—than the conservation of fishermen’s lives by ending the derby system. Thus at the very least we should be careful when drawing analogies between existing quota regimes and the salmon fisheries.

And that is all I have to say about transferable quotas because, while it is an important subject, it is also incomplete. There is another issue intrinsic to this discussion that I have eluded to so far and that the documents completely dodge. As Diamond Management Consulting noted, a

crucial question pertaining to an ITQ system, and one not pursued in any of the literature on ITQs and Pacific salmon, “is whether, ultimately, there would be different fleets among which shares could be transferred.” Imbedded implicitly in that statement is the looming problem of geography. For over a century the ocean fisheries have been a mess because no government has effectively regulated harvest space. Instead, we have allowed amorphous packs of fishers to hammer stocks sequentially without sufficient clue of what people were catching or the relative abundance of those stocks until after the fact. Moreover, overall management is still shaped by the ideal of national parity—of maintaining a balance of Canadian and American “shares” of salmon—that blur the biological specificity of the runs and races that just about everyone acknowledges should be the basic units of sound management.

That has been a recipe for disaster, and I am not persuaded that a discussion of ITQs will necessarily rectify any of these problems. We can divide the spoils any way we want, we can even tether fishers to very specific plots of the briny blue, but unless we address the geographical dysfunctions of current harvest and regulation, we will eventually find ourselves repeating an observation made by Puget Sound Indians in the 1970s. When the tribes tried to get U.S. courts to agree that a treaty right to fish implied an ecological right as well, several witnesses pointedly remarked that 1 percent, or 10 percent, or 50 percent of nothing is still nothing. No quota system by itself will alter that math.³

Thus, the rest of this talk will illustrate what I mean by thinking about salmon in five dimensions. History and geography have many lessons to teach us about the problems we face, and one of the most important is that our best hope may not be the UBC Fisheries Centre slogan of “Back to the Future” but rather “Forward to the Past,” because it is in the past that we find our best

models for resolving the ecological and social dysfunctions that have plagued the industrial salmon fisheries for more than a century.

Before we depart for that past, however, we should keep in mind, as one scholar put it, that the past is a foreign country. Pouring over historical documents is an unsettling experience; it is like journeying to a strange land where people think and act in ways that seem nothing short of weird, but for this very reason we should all take the journey. Sometimes we need to be jarred from our comfortable patterns of thought, and salmon is a subject in dire need of such a shakeup. For me, there is nothing so maddening as listening to well-meaning scientists, managers, and fishermen discuss the ocean fisheries as though they were timeless, as though the way they are conducted is a natural, logical, and inevitable order.

In reality, we are struggling with an accidental fishery which came into being despite very concerted efforts to prevent it and the problems we now face. No one—*no one*—thought that chasing salmon around the ocean was a better idea. Aboriginal fishers figured this out 9000 years ago, and industrial fishers knew it as well. It makes zero sense to pursue salmon when we know where and when they will return. I do not want to romanticize the past. There were many problems with the net fisheries in rivers, yet in hindsight those fisheries, as messed up as they were, remained far more ecologically coherent than anything that has occurred since the dawn of what we confidently call scientific management. Thus even though managers lacked the data to prove home stream rule, river fishers preyed on discrete stocks in a way that made it possible to match harvest to environment. That link was severed when salmon fishers went to sea.

The reasons the fisheries migrated westward were complex, and a quick recounting helps illustrate why this was an accidental fishery. It began when individuals blocked from

gillnetting in already fully-claimed rivers ventured across the bar because they literally had nowhere else to go. As internal combustion engines grew more reliable, ocean trolling and purse seining became safer and more effective. Ocean-caught fish also proved more desirable in fresh fish markets. The exodus accelerated after 1910 as sportsmen's groups used their political muscle to outlaw net fishing. Then in the 1920s trolling and purse seining gained official support when BC's Chief Inspector of Fisheries realized that West Coast trollers caught Columbia River chinooks. J. A. Motherwell endorsed ocean fishing because it gave him political leverage in negotiations over Fraser River sockeye. Alaska and Washington quickly sanctioned ocean harvests in self defense against Canadian trollers and purse seiners. The ocean salmon fisheries became an extension of the international tug-of-war over salmon, and the 1937 Pacific Salmon Treaty codified those ecological and social relations even though, from a managerial perspective, they represented a metastasizing nightmare.

What we need to keep in mind is that none of this was planned. At every step cannery owners, fishermen's unions, biologists, and fishery managers argued, pleaded, and begged to stem the tide. The troll and purse seine fisheries for Pacific salmon were historical accidents. The result was an illogical and increasingly counter-productive fishery that we merely tweak at the margins. Hook and mesh restrictions, license moratoriums, and ITQs circle at the edges of the problem, refining the thing economists care about—efficiencies—but do nothing to repair the ecological and social disconnects. Ocean harvesting decoupled habitat and stocks from fishing, and transferable quotas do nothing to resolve that problem. Thus I want to humbly suggest that the UBC biologist Peter Larkin pulled a punch in his 1979 article, "Maybe You Can't Get There From Here." Unless and until we address the three-dimensional problems of geography and two-dimensional problems of time, we cannot get there from here.

We have to pay constant attention to the contexts and contingencies—to the things that could not be predicted, such as Major Motherwell and the ever shifting balance of power in the Pacific salmon treaty—or this problem is quickly reduced to a just-so story about the tragedy of the commons. This is how well-meaning people begin to put inordinate hope in pet market, scientific, technological, or protectionist solutions. This is how ITQs, “better science and monitoring,” hatcheries, and ecological reserves get traction in the minds of people who care but have no patience for the historical and geographical complexities of the Pacific salmon fisheries. For most people, if the problem is constant then the solution can be simple and unerring, but if, as I argue, the only constant is change, then all we are doing is treating symptoms. It is like getting the plague and debating whether Nyquil or Robitussin is the better remedy, or believing that my buddy’s medieval solution of lancing a wound and applying baking soda was “just as good” as antibiotics. It took some painful lessons for me to learn that embracing complexity pays off. I wonder how painful it has to get before salmon fishers learn the same lessons.

We already know it is painful, but while the problems I have discussed apply to all purse seiners and trollers, not everyone has been affected the same way. There has been a northward bias in the structure of the ocean salmon fisheries and fisheries management because of the routes juvenile salmon take once they reach the Pacific. This has benefited, in descending order, fishers off of Alaska, British Columbia, Washington, and Oregon; or, to reverse the equation, Californians and Oregonians have always been most screwed by the modern salmon fisheries. For a long time the grumbling was restricted to docks, coffee shops, union halls, and sub-committees, and fishers along the coast of southeast Alaska and the West Coast of Vancouver Island remained smug. I am not sure how much longer that can last.

For the first time we are seeing continental consequences to this long pattern of apathy toward the fate of others. From Yakutat Bay to Morro Bay, more fishers will sit on the bank this summer than ever before. We are witnessing an unprecedented shutdown of the Pacific salmon fisheries, but I want to take care here. The problem is unprecedented in scope, but not in kind. In the recent past we have seen similar but smaller crises on the Fraser, Columbia, Klamath, and Sacramento. Runs hiccup all the time for all sorts of reasons, but treaties and the US Endangered Species Act are extending the social impact of local population crashes over an ever expanding swath of ocean. That will continue when the new Pacific Salmon Treaty, with its growing reliance on transfer payments, comes into effect.

There are several truly sad implications to this. First, one consequence of the current geography of harvest is that restricting ocean fisheries to protect poor stocks leaves many healthy stocks untouched and untouchable. Second, and corollary to the first, decoupling harvest from habitat means that good stewardship is not necessarily rewarded nor bad stewardship necessarily punished. Third, this predicament was totally predictable. I know, because I did. In 1984, I, and several friends, watched the Oregon troll fishery dip to a twelve-day season. After it was over, I waged a bet that we would see a worse scenario along the entire coast within in our lifetimes. Four weeks ago I collected on that bet. I do not feel smug; I feel intense frustration, and not just because it is affecting my home town.

My buddy has been fishing since he was eleven; he’s run his own boat since he was thirteen. The town looked the other way when he illegally drove his rig to the beach because we all knew his family needed the money. Sadly, that problem persists. Two weeks ago he buried his mother and then rushed his father to the hospital for an emergency bypass. He had to take precious time from work for these events, and he

footed the bill for the memorial service because his siblings have no resources because there hasn't been a decent job in town for thirty years. Nevertheless, I also know many of my friends back home have done very well some years by catching salmon that spawn in places where local fishers increasingly cannot put to sea because local runs have declined to the point of commercial extinction. Now a man I love as a brother is going to feel some of the inequity that has plagued fishers elsewhere. There is no poetic justice in this, just suffering. He and many others will be individually and collectively impoverished, and it is not clear that any good will come from their suffering.

What remains unwritten is what happens next, and that is very much up to you. Before I end, I want to pass along some advice. One thing I have learned from trying to predict the past is that context and contingencies are crucial to understanding events. Often it has been the things no one could foresee that proved most influential. We need to apply that same lesson to how we think about the future. In 1980 no one foresaw the implications of El Niño; in 2000, 911 was an emergency phone number. None of us yet know the future significance of climate change, ocean dead zones, petroleum prices, salmon anemia, sea lice, or the many other factors we cannot even imagine. I do know this, though: How you and others respond to this moment will become a contingency that people in the future must reckon with in their own quest to protect salmon and salmon fishers.

The fates of nature and people really do rest in your hands and minds, so think about this. The past is not predictive, but it does set the context for the present and future; thus you should understand the full complexity of the events that have shaped your realities. Power is spatial, but geography is not natural; it has always been socially constructed, so keep in mind the social implications of how you re-imagine harvest geography. The documents we have read

hail the importance of consensus, but, historically speaking, consensus has been rather fluid. Nineteenth century administrators built white consensus by barring aboriginal and Asian fishers. Twentieth century anglers found urban consensus in barring rural netters. And twenty-first century multi-national environmental groups and multi-national lumber corporations reached consensus on the Great Bear Rainforest by ignoring local communities and First Nations. Consensus is what you make of it, but the people who get screwed have long memories.

Finally, this really is about the future. This really does matter. And I really do mean it when I say good luck.

¹Terry Glavin, *Transferable Shares in British Columbia's Commercial Salmon Fishery* (Watershed Watch Salmon Society, 2007), 14-21.

²For "horrible" see Environmental Defense, *Sustaining America's Fisheries and Fishing Communities*, 21, <http://www.sustainingfisheries.com/>. Tracy Yandle and Christopher M. Dewees, "Consolidation in an Individual Transferable Quota Regime: Lessons from New Zealand, 1986-1999," *Environmental Management* (in press, 2008); C. J. Klein, A. Chan, L. Kircher, A. J. Cundiff, N. Gardner, Y. Hrovat, A. Scholz, B. E. Kendall, S. Aïramé, "Striking a Balance between Biodiversity Conservation and Socioeconomic Viability in the Design of Marine Protected Areas," *Conservation Biology* (2008, in press); Mike Ellerbrock, Jessica Bayer, Rose Bradshaw, "Sustaining the Commons: The Tragedy Works Both Ways," *Bulletin of Science, Technology & Society* 28 (June 2008), 256-59.

³For "question" see Diamond Management Consulting, Inc., *Salmon Management Reform*, 40.

Clarifying Questions:

Is moving to ITQs a threat?

(posed by Terry Glavin)

Jay Taylor: ITQs are the consequence of free market ideology. Vested interest makes people noble and the invisible hand will steer people in the right direction. I call this privatisation—effectively continuing the trend where you continually further restrict

access to these resources and the people that can benefit.

Terry Glavin: Resources have been “owned” from the beginning of time—since the emergence of salmon on this coast there have been coastal communities harvesting them and people using the resources.

Jay Taylor clarified that that is not an ITQ since it was sites that were claimed, not fish. The claim itself is not something that can be sold and traded.

Two participants requested in advance the opportunity to make short prepared statements prior to the dialogue session:

Grand Chief Doug Kelly, Chair of First Nations Fisheries Council



My comments relate to the current environment both politically and socially. There has been a lot of discussion on First Nation rights, etc., but it

is just talk. In order for this to succeed, we need to have a change of heart, not just a change of mind.

First Nations are concerned about Bill C-32, since currently First Nations have the only rights-based fishery. They see Bill C-32 as a move to turn two privilege-based fisheries (recreational and commercial) into rights-based fisheries. Also, Bill C-32 does not recognize First Nations’ inherent right of self-government.

We need to come to some understanding of what public ownership of the resource means. The problem with the notion of private ownership is the fact that we all come from communities. First Nations want the ability to sustain their communities. Many First Nations practices are based on

the resources. Salmon are an integral part of who we are, where we have been and who we want to be in the future. We want the ability to maintain our cultural and spiritual activities. Our ancestral teachings tell us that if we take something from Mother Earth, we need to put something back. If we are going to talk about moving towards a rights-based fishery, we need to discuss the roles and responsibilities involved in preserving the resource and habitat and the restoration of damage and depleted stocks. I don’t see this in the model. First Nations have a right and duty that goes beyond harvest rights; they need to take the responsibility that goes with these rights.

Currently DFO can only deliver about 80% of target, in a good year, for food and ceremony. I don’t see anything presented or written about ITQs that addresses this issue. We are trying to right the historical wrongs, but the challenge that we face today is that many of the resources have been fished out. Some of this goes back to Europeans “discovering” an occupied land. Many reserves are based on the reliance on salmon. Some reserves are so small they are just the rocks we fish from. Valuable land was taken because it was seen to be okay if we could keep fishing. Now we’re facing a year where the fish are not going to be there. Many communities are now reliant on fishing other people’s fish because their own are gone.

There are also contradictions coming from the Department of Fisheries and Oceans Canada (DFO). How can we talk about the Wild Salmon Policy when we are promoting aquaculture that is impacting the long-term survival of salmon populations? These contradictions have to be addressed and resolved.

The work of Dan Edwards and the Nuu-chah-nulth Tribal Council around the time of the Mifflin Plan strived to ensure a management authority to ensure the protection of habitat and opportunities for future generations. This is the same

objective that we have today—keep the community healthy.

Thank you for this opportunity to share some of the perspectives and concerns of First Nations.

Rob Morley, Canadian Fishing Company

In the existing system we have to try to beg, borrow or steal someone else's share. We need to have a system where everyone has a



defined secure share that cannot be taken arbitrarily. If we do not get to this place, we will not be able to move forward to putting energy into making the

pie bigger rather than just trying to divide it up. This is the main reason why moving to an ITQ system is the best possible approach for salmon fisheries in BC in the future.

DIALOGUE

The Politics of Scarcity

A representative from the Skeena Fisheries Commission noted that traditional law dictates what they do on the Skeena. ITQs can be just another way of counting fish, but the concept of ITQs is not something that has been found in aboriginal systems. There is a commonality of traditional law and how you access the resource—there is an aboriginal right to the resource.

We are now dealing with the 'politics of scarcity'; people are defining their share in the face of scarcity. We are trying to define how to find peace in the land, where small communities can continue to sustain themselves. As we make gains, everyone looks at the aboriginal agenda. More than 90% of the protein consumed in Skeena communities comes from the salmon and we want to preserve this legacy. The common property discussion causes conflicts. As

Doug Kelly mentioned earlier, collaborative management across sectors requires an open heart. The origin of the roots of aboriginal interest is irrelevant.

There have been several iterations of alternative management structures on the Skeena. The last time we had the Skeena Watershed Committee—people that used to represent other sectors are now all conservationists.

There is now a conservation crisis. In order to move this conversation forward, we need to drop the other baggage. ITQs are just another way to count fish.

Collaboration is Key

A representative from Fisheries and Oceans Canada agreed that the language and ideology of common property does get in the way. Sustainability of the resource is the ultimate objective and this will only be achieved if there is collaboration. We not only need to deal with the politics of scarcity, but also the politics of abundance. There needs to be good science, good information, and good ways of counting fish (predictable fisheries) as well as ways of management to support counting fish in addition to sustainable fisheries (not just sustainability of the resource), and government presiding over, but not getting in the way of, a collaborative management regime

The concept of "all in"

The Fisheries and Oceans representative also expressed his interest in the idea of a management board (see Dan Lane's presentation page 4) and stated that we may have to get creative with how we can get the Minister/y to let go or step back. The legislation needs to change. Whether the Minister has the legislative authority or not, however, there is the issue of the will of the people. Decisions that are not broadly supported are not going to be politically viable. The demands of the public are for good resources management.

It will be a challenge to develop and implement shares-based management. The “all in” aspect discussed this morning is essential—the idea of shares is not something the government can develop and impose. We need to recognize common purpose and common interest in protecting this resource and then get on with developing the approaches and planning. He expressed his appreciation for this forum providing the opportunity to discuss this issue.

What Type of Salmon Fishery Do We Want?

A Fraser troller with 22 years of experience as a commercial fisherman suggested that we need to ask a few more questions before jumping into ITQs:

- Do we still want a fishery as it is set up today with respect to gear types, seiners, trollers, gillnets, and recreational fishermen? If so, that will drive the allocation process.
- or, Do we turn it into a terminal fishery instead? If so, then we need to get on with helping the people that would be hurt by this transformation.

He emphasized the need for accurate forecasts and counts of harvest. ITQs will force accurate counting, so if the forecasts have been done right then there is an opportunity to arrive at the goal. ITQs also put an end to conflicts with each other for shares. In his opinion, defining shares is the most important step we can take if we want to stay with this fishery structure. We tend to spend a lot of our time worrying about how to get more of the shares, rather than in defining shares.

The responsibilities of the harvesters

There also needs to be greater responsibility for the health of the resource placed on the harvesters. ITQs alone will not solve conservation problems. There also needs to be shared responsibility for conservation and all user groups must take equal responsibility in restoring the stock.

ITQs without TAC

The issue of ITQs gets more complicated where there is no TAC. This requires a radical change in the way we think about fishing and much more cooperation is needed to change from abundance-based fisheries to an ITQ system. Instant public access to information on how many fish are being caught and where they are being caught would be helpful.

In general, if we want the same user groups, ITQs are a good structure.

The Need for a New System

A commercial fisher emphasized the need for a tool for the industry to become economically viable. He commented that it doesn't matter how good a fisherman he is, he will not be good enough to make money in the current regime. Having the fleet in poverty is a bad thing and the current system is forcing cheating and stealing. Fishers need new tools and/or systems to get together in different ways to work collaboratively and be able to fish. He expressed interest in the idea of pooling together with three or four others to make money for all.

How would it work and how would it be managed on the Fraser?

A gillnetter with over 40 years of experience stated that if ITQs had been in place, then the gillnet fleet would have embraced the policy this year. In his opinion the opposition to quotas by the Fraser River gillnetters is because they feel wronged and betrayed, and they do not trust DFO. They think that ITQs are just a way to shift fish upriver. DFO needs to be able to say that they could run a quota fishery as well as or better than they run the fishery today. They have to be able to convince participants that the system will not be abused. Fishers need concrete proposals on how it would work and how it would be managed. “How would this work on the Fraser given the nature of the river and the fisheries?” “The Fraser River is a short opening—how would you run it?” Fishers do not like someone else

getting more than them; there would need to be a mechanism to address this.

Conservation and First Nations perspectives

Moving the Wild Salmon Policy forward

A First Nations representative emphasized that First Nations' interests are not just in fishing, but also conservation and moving the Wild Salmon Policy forward. First Nations live right on the streams and depend on those systems. He wonders how the shares-based approach creates certainty for First Nations and those systems. In small systems, for example, the returns are very inconsistent from year to year. He hopes to see consistent returns to these systems. The questions are:

- How does DFO plan to manage to such a discreet level?
- Do they have the capacity to do so? and,
- How will they move to a shares policy and still meet the objectives of the WSP?

In his opinion, if people can prove their fishery would meet the objectives of the WSP then there would be more interest.

Conservation and Food Fish Need to Come First

Another representative disagreed with the pie system of dividing up shares. He emphasized that conservation needs to come first, then First Nations. He pointed out that Natives aren't able to fish when they want, where they want and how they want, until conservation units are defined properly.

The state of the salmon stocks

Another representative emphasized that without a concurrent discussion on the state of the salmon stocks—with a recovery plan, habitat available, number of fish—then this type of ITQ discussion is “fiddling while Rome is burning”. The idea of developing a shares-based system when fish aren't there for spawning purposes doesn't make sense. He highlighted the fact that First Nations have a right to food fish, not just sockeye. If First Nations are not getting their sockeye

food fish, they will still be expecting food fish and this will affect all salmon catches.

Concern was expressed that whenever we talk about fisheries management it is a question of how many more fish can we squeeze out of the system. There is little talk of how the fish will be protected, especially in-season. There is a large amount of uncertainty and DFO does not have good information. There should be a reserve that changes based on how good your estimate of the run size is.

Further discussion clarified the difference between First Nations' inherent and treaty rights; that is, First Nations' inherent rights are associated with Section 35 food fish and have a higher priority than treaty rights to fish.

Is common property for the recreational fisher incompatible with an ITQ system for the commercial sector?

In the opinion of one recreational fisher ITQs are synonymous with privatisation of the resource and it is morally and ethically wrong to assign a resource to a group in perpetuity. He suggested that a potential solution would be for DFO to lease the quota annually from the crown but keep the fish in the public domain.

A commercial fisher responded that any lease payments in addition to their current expenses would prevent the commercial sector from being able to make a living. He commented that if there had been a way for commercial fisheries to transfer a bit of their share to recreational fisheries, it might have stopped some of the past conflict.

Are ITQs bad for commercial fishers?

In response to the question posed by Terry Glavin - Are ITQs bad for commercial fishers? - he highlighted why quotas used in Barkley Sound did not work well: they removed the fishers' ability to do what they wanted to do and instead they had to go into a working group where people were forced

into the situation of having to catch someone else's fish.

He suggested that a better plan might be to allow the individual fishers to work it out for themselves. He pointed out that better relationships exist among sectors where there are defined shares for everyone. "When you are involved in the competitive side of fishing and are next to someone who cheats, there is a lot of pressure to start bending the rules". In his opinion, it can't continue this way. There is a need to move to more discreet levels where fishers can access smaller bites; for example, they could target a fishery for 10,000 -20,000 rather than waiting for the 300,000 threshold. He stressed that we need to refine the fishery and fishing more discretely. Further, in his opinion, common property for the recreational sector is not incompatible with a shares system for the commercial sector. Constant erosion without compensation is what does NOT work.

Recognition of Social and Economic Impact of the Recreational Sector

Several representatives of the sports fishing sector stressed that there must be recognition of the social and economic importance of the recreational sector. They noted the role that recreational fishing businesses (lodges, etc.) have played in the economic viability of many small communities on the BC coast. Many of these businesses have not experienced the same economic downturn of the commercial fishing sector, because the profits of recreational fishing businesses are linked to the experience, rather than the volume, of fish caught. This group of businesses cannot be left out of the debate.

Another participant noted the conservation measures taken by the recreational sector in the Queen Charlottes and other areas, pointing out that the allocation policy has to an extent been a success, for the individuals and communities.

One participant stressed the need to revisit the allocation regime. For example, since

guides and lodges provide a service only, they should not need to have a quota. In his opinion, the public access recreational fishery has to be saved harmless from restriction of access due to implementation of shares. He noted that 95% of sockeye/pink/chum go to the commercial sector. Pointing to what happened in the halibut fishery, he does not support individual interest in the recreational sector. He highlighted the Visions document developed by a collaborative working group and signed off by the Sports Fishing Advisory Board. It has gone out for public discussion and contains a road map for where the recreational fishery will go in the future.

In the opinion of another recreational fisher the current allocation policy on the salmon species is a collaborative, consensus process, and it is working. He pointed to the examples of the Cowichan and Alberni Round Table processes where recreational fishers and First Nations are working together on determining what is a sustainable harvest. He also highlighted the operational policy framework (2001). He stressed again that recreational fishing is a socially and economically viable, legitimate use of the fishery. He also emphasized that lodges and guides are not commercial fishers since they only provide a platform on which to catch fish and do not catch fish themselves.

In terms of the models presented by Dan Lane, (see presentation page 4) he posed the question: How do you bank fish, given the change in abundance from year to year and geographic location?

Timeline for Implementation

A First Nations representative asked if there is a timeline to getting to share-based management. "What are the next steps and how will First Nations be consulted on the process? There were pilots and community dialogues, but where are the results?"

A government representative responded that public meetings are currently ongoing for PICFI. In his opinion, there are advantages here for First Nations and he believes that shares and enhanced monitoring discussions need to go hand-in-hand. The notion of moving fish inland requires some form of shares system, although he recognized that first there still needs to be a good TAC before there can be any division via a shares system. In-season adjustments will hopefully lead to opportunities for First Nations. He noted that we need to build on what has been done before this and noted that they are working with the Fisheries Council.

Can DFO Implement a Shares System?

A government representative provided an overview of areas and demonstration fisheries in BC that have previously worked with quotas. For example, although Area F had some problems with reporting and staying within limits, there were valuable lessons learned and overall quotas worked quite well there. The Area H inside trollers demonstration fishery was the first Fraser sockeye experiment and it showed that having two fleets complicates things. There is a vote out in Area A and a few other Areas to see what may work. There have also been opportunities that have been missed. Unless all parties are involved and there is clarity on the shares, there will continue to be conflict. The overall goals are to ensure resource sustainability and allow enough fish for First Nations and other clients.

Another government representative addressed the earlier question of whether or not Fisheries and Oceans Canada will be able to implement a shares system. He emphasized the need to work with fishers and incorporate their creativity and suggestions to start setting outcomes and develop plans to harvest surplus. This involves a lot of learning by doing—such as with the demonstration fisheries described above. He posed the question: Is it was

possible to implement the Wild Salmon Policy without a shared-based approach?

In addressing an earlier question about what could be done this year in the commercial fishery one participant noted that Fisheries and Oceans is more challenged this year to look for demonstration fisheries with First Nations fisheries (particularly on the Fraser and Skeena). One of the tools used in previous years was an experimental license, but this was difficult to manage with two fleets in one area. The Larocque Review restricted experimental licensing of First Nations experimental fisheries and therefore only commercial groups could participate. Success will depend on the level of support in the fleet. A proposal has been put forward for Skeena sockeye and pink fisheries for the 2008 season; however, it is different in the south with regard to both support for transferring shares within the fleet as well as between fleets, and in addition there are all the overarching constraints for conservation. Clearly, there are ways to move forward, but we shouldn't underestimate the challenges.

CONCLUDING STATEMENTS BY THE PRESENTERS AND PARTICIPANTS

Terry Glavin

We are approaching a moment in our social and public history where the public does not want a fishery to proceed without some basic assurances: they want to know what percentage of the stock is being harvested and what will be the impact of that percentage of harvest on that stock. We have come to prosecute salmon fisheries on this coast for a number of reasons (not to blame the fishermen). When the nets go in the water, there is still a lot of uncertainty as to how many fish are being harvested. For example, in 1996, native and non-native people came together (Area 29 gillnet fleet) and asked DFO to calculate the amount of fish they would be entitled to if they were going to catch coho and steelhead without conservation concerns and then promised to not catch any (they would do live-catch

beach seines). They asked for fish in a pro-rated allocation, yet there was no mechanism for this to proceed. This is the type of innovation that is needed for this fishery to succeed under the current circumstances. ITQs could free up the adaptive and creative potential of fishermen, using innovative, adaptive and intelligent decisions.

Jay Taylor

There is a great need to weave together the change of mind and change of heart mentioned by Grand Chief Doug Kelly earlier. From today's discussion, it is clear that people are searching for new mechanisms to allow *status quo*—yet in his opinion *status quo* is 'toast'. He noted that the situation with the Sacramento River salmon this year is telling. In this case—it was not a problem with habitat but rather an ocean driven problem. There are major stressors: dead zones, like arctic melting, are happening on a geometric scale. Fuel costs are also a major factor. There are many variables in play right now that are spelling the end of ocean fishing as we know it. We will likely need to go back to management on a watershed by watershed basis which is a fundamental mechanism that will work. He emphasized the need for the 'state' as a monitor and that the idea of "both feet in" needs to apply to the state as well—not just the fishers. With respect to the time line for these changes, he cautioned people from thinking that history began 20 years ago when in fact the social systems that we're dealing with go back much, much further—over 100 years at least and for some First Nations more than 500 years. He concluded by stating that if we want a share-based solution, then the more that government and politicians are removed, the better. However, we need a mechanism for monitoring and enforcement and have to have a co-management system that includes the state and federal governments.

Dan Lane

DFO is further along than he had originally thought (for example, with demonstration

fisheries). Referring to the earlier comment that more needs to be done to give responsibility for the resource back to the fishers, he pointed out that if you have a licence then you have to also take the responsibility; that is, to make the salmon fishery part of what you own and what you are responsible for. Unfortunately, the Minister currently has the responsibility. There is a need to examine ways to get the Minister to give up power. There is also a need to determine how to deal with complexity. One solution may be to not take all the TAC—to keep some in reserve for when time are tough.

NGO representative

Salmon are unique and getting quotas and shares right is going to be difficult. The way that TAC is set will be extremely important—and DFO will have to get this right. His view was that shared objectives are the strongest way to get people together. The more we have these shared objectives defined, the more effective this process will be.

Sport fishery representative

A sportfisher emphasized that he did not want everyone walking out of the room feeling that fishers don't have responsibility. Many feel that they have an individual stewardship responsibility to the resource—not just as a condition of licence.

Fisheries and Oceans representative

A representative from Fisheries and Oceans Canada stated that in the meantime there are opportunities and activities going on even given the limitations of current policies. This is not just government motivated. "Let's work together".

NGO representative

It is very positive that everyone came together for this meeting. Salmon continue to show their resilience and adaptability. This is a big opportunity to move in a better direction.



The Speaking for the Salmon series examines issues impacting the survival of wild salmon in British Columbia. Projects in the series include workshops, think tanks, proceedings and video presentations.

Past topics include:

- Haig-Brown Symposium on Sustaining Wild Salmon: Moving from Words to Action, August 2008
- A Think Tank on Transferable Shares in the Salmon Fishery, May 2008
- Encouraging Innovative Solutions for Salmon Aquaculture, November 2007
- Fraser Sockeye Salmon: Moving from Talk to Action, June 2007
- Groundwater and Salmon, March 2007
- Summit of Scientists on Aquaculture and the Protection of Wild Salmon, January 2007
- Getting the Missing Story Straight: Part II A Ten Year Retrospective on Fraser Sockeye Salmon, November 2005
- Scientists' Roundtable on Sea Lice and Salmon in the Broughton Archipelago Area of British Columbia, November 2004
- A Community Workshop to Review Preliminary Results of 2003 Studies on Sea Lice and Salmon in the Broughton Archipelago Area of British Columbia, January 2004
- World Summit on Salmon, June 2003
- Summit of Scientists: Nutrients & Salmon Production, November 2002
- Summit of Scientists: Sea Lice, July 2002
- Aquaculture and the Protection of Wild Salmon Follow-up to March 2000, October 2001
- Hatcheries and the Protection of Wild Salmon, June 2001
- Rivers Inlet: An Eco-System in Crisis, November 2000
- Summit of Scientists: A review of the DFO Wild Salmon Policy, May 2000
- Aquaculture and the Protection of Wild Salmon, March 2000
- Pacific Coast Salmon: Status of Stocks and Habitat, June 1999
- Thompson Steelhead: A resource in crisis? October 1998
- Summit of Scientists on the Scientific Underpinning of the 1998 Management Decisions for Pacific Coho Salmon—Consensus report, June 1998
- Stock Selective Salmon Harvesting, May 1998
- Speaking for the Salmon Inaugural meeting, January 1998

For information about other Speaking for the Salmon initiatives visit our website at www.sfu.ca/cstudies/science/salmon.htm

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