



Issues in Aquaculture
The Second in a Series of Reports

**Diminishing
Common Sense**

*The Activist Campaign Against Salmon Farming Based
on Misinformation, Scare Tactics and Sensationalism*

JANUARY 26, 2005 – DRAFT REPORT

Introduction

They're at it again. The anti-aquaculture activists, flush with millions of dollars in US foundation money, are making loud noises, attempting to incite fear in the minds of the public and the media.

After all, they need to spend the millions the foundations are giving them, or they won't get any more.

And so their misinformation-machine is running at full tilt: salmon farming is bad, they say. It's really, really bad.

Except this time, nobody seems to be buying it.

Over the course of 2004, the activists released a slew of negative reports detailing the BC salmon farming industry's apparent sins.

But these reports, costing thousands of dollars, were so superficial, so misinformed and so full of baseless accusations that even the controversy-starved media decided they were less than newsworthy.

The latest and perhaps most superficial of these was released in December, 2004 by the Raincoast Conservation Society. Financed by a US\$15,000 grant from the US-based Lazar Foundation and entitled "Diminishing Returns: An Investigation into the Five Multinational Corporations that Control British Columbia's Salmon Farming Industry," the report was written by activist writer Sarah Cox.

Cox is hardly an objective voice, having written numerous pieces in support of activist groups and causes. Her pieces, with titles like "*Behind the Swoosh: Facts About Nike*" and "*Barbie's Trip Around the World: Globalization in the Toy Industry*," are replete with the assumptions and political ideology common to the anti-corporate, anti-globalization movement.

While "Diminishing Returns" purports to be an investigation of the facts, it is anything BUT an investigation.

Instead of fact-finding, the report simply rehashes tired accusations under the guise of new "research." The report makes so many sweeping generalizations – from accusations about sea lice to the industry's public relations efforts – it ends up saying nothing of import at all.

In fact, it is surprising how little substance there is in the 105-page "Diminishing Returns" report.

To disguise this lack of substance, the report attempts to create controversy where none exists. Unfortunately for writer Cox, the attempt fails miserably and the result is not controversy but anti-climax.

Take, for example, this Raincoast observation on page 33 of the report in which it is pointed out that aquaculture employees make much less than do their CEOs. In that respect, we would point out the obvious: aquaculture is the same as any other modern enterprise – including US foundations and environmental activist groups.

“Diminishing Returns” is replete with these kinds of “investigative” facts. At US\$15,000, the Lazar Foundation should be asking for its money back.

How interesting that Raincoast is suddenly committed to disclosing the wage gap between CEOs and their employees. Raincoast has never before expressed concern for the thousands of aquaculture jobs they endanger everyday through their misinformation campaigns.

And if the salaries of senior management are a major concern, perhaps Raincoast should be investigating the salaries of board directors at the many US foundations that provide the grant money.

It would be funny if it didn’t have such a direct bearing on people and their livelihoods.

The anti-aquaculture activists have so little substance and science with which to attack the salmon farming industry that they have resorted to manufacturing controversy where none exists.

This, of course, is not a new strategy. But “Diminishing Returns” takes the strategy to new heights -- or rather, new lows.

This report is designed to detail some of the many falsehoods and baseless accusations made in “Diminishing Returns.”

We hope the Lazar Foundation and other financial sponsors of activist campaigns will read this report carefully. Ultimately, it may serve as the best evidence yet of how activists squander money instead of using that money to solve real environmental problems.

Antibiotics use exaggerated

In “Diminishing Returns,” activist writer Sarah Cox, using language designed to elicit great fear in the reader, alleges that BC salmon farms are using large quantities of antibiotics and that these amounts are increasing.

Yet the reality is that antibiotics are used far less intensively in aquaculture than in land-based meat producing industries. The World Health Organization estimates that in

Europe an average amount of 100 milligrams of antimicrobials is used in land animals for the production of one kilogram of meat for human consumption. This compares to roughly 0.3 milligrams per kilo of BC farmed salmon.

In addition, the 25,000 kilograms Cox claims is the amount of antibiotics being used by BC salmon farmers is exaggerated and theoretical because the number does not account for fish losses that incur before the fish are ready for market.

The statistics Cox uses also fail to account for the varied amounts of antibiotics used for different species of salmon. Farmed Atlantic salmon require little to no antibiotic treatments compared to farmed Chinook, for example. Cox has used amalgamated figures to make it appear – wrongly – as if BC salmon farmers are using massive amounts of medicated feed.

Nor does Cox reference the use of antibiotics used in fish enhancement programs for wild salmon.

Contrary to Cox's statements in "Diminishing Returns," the use of medicine in animal husbandry is a standard part of modern veterinary practice. To suggest that there is something wrong with treating livestock is as ludicrous as suggesting that humans should give up modern medicine.

What activists like Cox characterize as the "frequent" use of antibiotics is in fact a specialized, controlled and limited program of use that has led to a significant decline in the amount of antibiotics used in aquaculture.

Currently, only 2.5 per cent of feed provided to farmed salmon is medicated – hardly a "frequent" occurrence. This trend toward the reduced use of antibiotics is attributable to:

- Better husbandry techniques (more space, better nutrition);
- The use of more effective, targeted antibiotics that require less drug per treatment; and
- The development and increased availability of fish vaccines that make the fish immune to particular diseases.

The BC salmon farming industry is heavily regulated by government agencies, including the Canadian Food Inspection Agency. The fish produced by the industry are approved as safe for human consumption only after rigorous government testing and analysis.

If fish are subject to targeted and limited antibiotic treatments, they can only be harvested after regulated "clearance periods" that ensure the treatments are cleared from the animal's system before it is delivered to market.

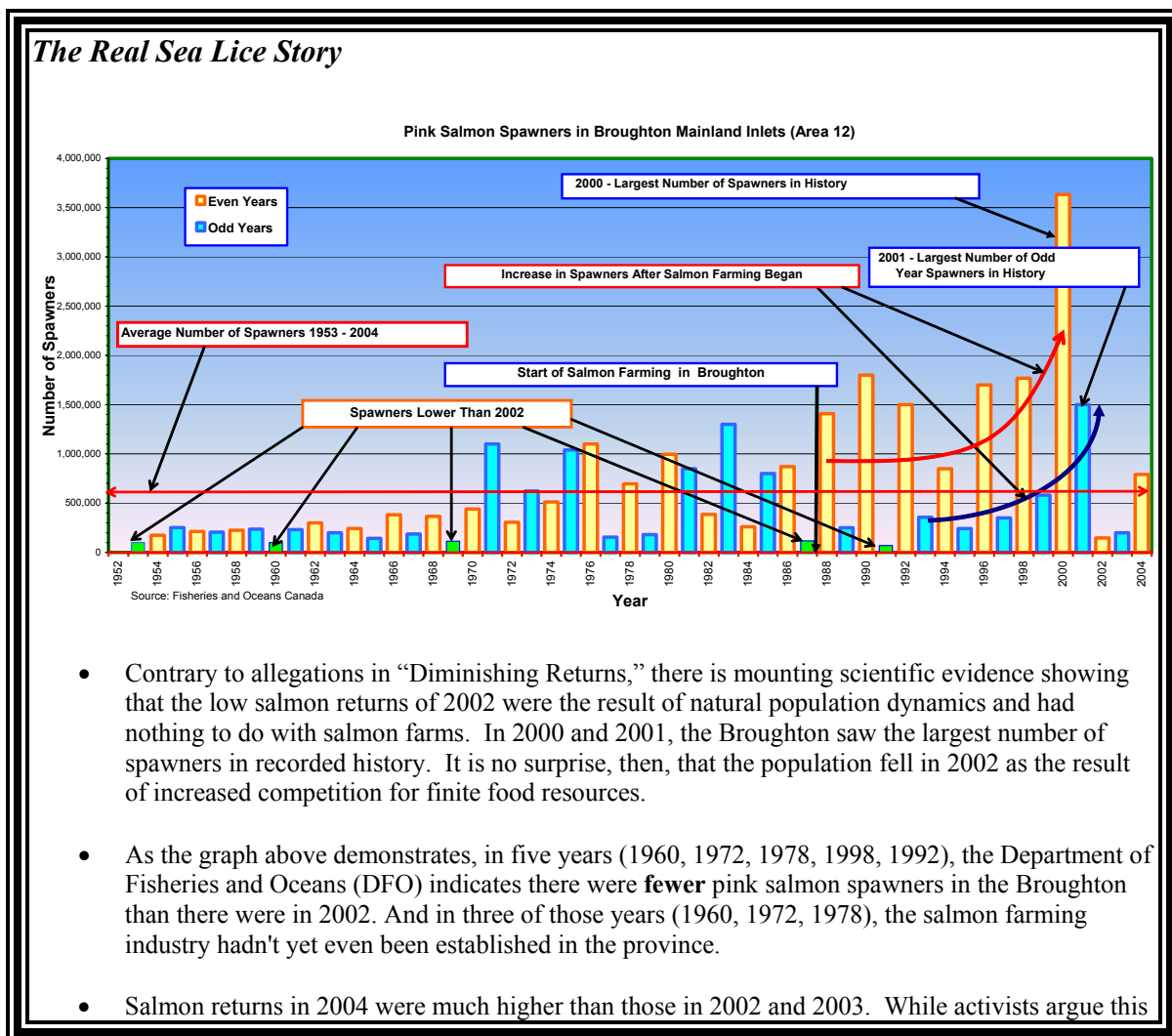
SLICE-ing at the truth

“Diminishing Returns” criticism of SLICE – a sea lice drug treatment – is a classic case of activists attacking both a perceived problem and a practical solution to that problem.

First, the report repeats tired and false allegations that wild salmon runs are being decimated by sea lice from salmon farms (see *The Real Sea Lice Story*), and accuses the industry of doing nothing to curtail sea lice. Then, contradicting itself, the report condemns the use of SLICE as a means of eliminating sea lice on farmed fish.

The activists’ strategy is to place industry between a ‘rock and a hard place’: condemn the industry for something it probably didn’t do and then condemn a practical solution to the alleged problem.

The strategy clearly demonstrates how little activists care about undertaking a serious, scientific analysis of the sea lice issue. Instead, their primary agenda is to smear the industry using scare tactics.



was because some salmon farms were fallowed, DFO, in the most extensive study ever undertaken in the area, states clearly that salmon were found throughout the Broughton and Knight Inlet. This directly contradicts the activists' assertion that fallowing a main migration corridor allows juvenile salmon to move uninfected from fresh water to the ocean.

Let the fear-mongering begin

BC salmon farmers are engaged in the "widespread use" of SLICE, says "Diminishing Returns" – yet nothing could be further from the truth. Again, alarmist language is used to incite fear in the reader while a description of the regulatory controls surrounding its usage is simply left out.

Using SLICE – which is a medicine – as a treatment for sea lice is part of a well-documented, strictly controlled animal husbandry regime.

In order to use SLICE, the salmon farmer requires a written prescription from a licensed veterinarian. All drugs prescribed by a veterinarian have a withdrawal time – a period of time that must pass after treatment ceases – before the fish is considered drug-free. Fish cannot be harvested for food until after the withdrawal period.

Contrary to claims in "Diminishing Returns" about the lack of scientific information on SLICE, there is a vast amount of data on the drug because it has been used for decades in land-based farming and in aquaculture.

This scientific data points to the drug having no negative impacts on marine organisms, the aquatic environment, or human beings.

In Canada alone, the manufacturer of SLICE has provided the Veterinary Drugs Directorate (VDD) – a branch of Health Canada which strictly regulates the use of SLICE – with detailed scientific information regarding the safety of SLICE.

This data includes an analysis of impacts not only on fish but also on non-target species including crustaceans (e.g., prawns and crabs), mollusks, mammals, and birds. The submission also includes research on the fate of the emamectin that may settle in the sediment below net cages.

The company has also funded additional research in BC examining the safety of SLICE with regard to two commercial species of crustaceans: the Spot prawn and Dungeness crab. Results from these trials indicated there was no toxicity observed in these species.

A disingenuous concern

All of a sudden activists appear concerned about the salmon farming industry's profitability and its ability to create jobs. Pardon us for being slightly suspicious.

In "Diminishing Returns," Cox asks – rhetorically, because she has already developed a negative answer – "Is salmon farming a profitable business?" and "[h]ave companies created the number of jobs they promised?"

Considering activists have done everything in their power not just to cripple the BC aquaculture industry, but to completely destroy it, asking these questions seems more than a little disingenuous.

And yet in spite of activist attempts to ruin the sector, salmon farming companies continue to invest heavily in British Columbia. They do so because they recognize the great promise of BC aquaculture for coastal communities, for First Nations and, indeed, for the companies themselves.

BC's salmon farming industry has been responsible for creating new jobs in hatcheries, on farms, and in fish processing plants. Salmon farming is the single largest employer in the northern Vancouver Island community of Port Hardy and in the Central Coast First Nations community of Klemtu.

And salmon aquaculture employs other members of First Nations in communities such as Campbell River, Alert Bay, Fort Rupert, Port Edward, Kitkatla, Tofino and surrounding villages in Clayoquot Sound.

Contrary to the negative portrayal in "Diminishing Returns," aquaculture remains one of the most promising sectors for BC coastal communities. It is BC's largest agricultural export item, accounting for 15 per cent of BC's total agricultural production and contributing over \$600 million to the BC economy.

BC aquaculture has created over 4,000 jobs in the province and many more could be created if the industry were permitted to grow in a rational fashion. In Chile, some 28,500 jobs rely directly on the salmon farming industry. These jobs pay on average some 22 percent better than other jobs available in the region.

So concerned is the Raincoast Conservation Society about creating jobs in aquaculture that recommendation five of "Diminishing Returns" asks to "reinstate the moratorium on all new salmon farms in British Columbia. Halt the planned expansion of farms on the north and central coasts."

It strikes us as hypocritical for anti-aquaculture activists to decry the lack of growth and profitability in aquaculture when that growth and the development of new fish farm sites are being stymied by their own disinformation campaigns.

The truth about lawsuits

Cox alleges that the BC salmon farming industry is the target of a number of lawsuits. She fails to note, however, that many of these suits are spurious and without legal merit.

The report devotes little space to actually describing the legal and situational contexts of these cases. Instead, Cox takes every opportunity to describe the plaintiffs' anti-aquaculture arguments.

Take, for example, the case of Pan Fish Canada's (previously known as Omega) plans to build a \$15 million salmon hatchery in Ocean Falls, BC.

Cox fails to note that this state-of-the-art hatchery is built on the site of a former pulp mill which had seen some 80 years of heavy industrial activity. Instead of disturbing a virgin site, Pan Fish decided to remediate an existing industrial site, including removing some 700 tons of garbage.

The site will use renewable hydroelectric energy and provide much needed employment for local communities and First Nations.

Before building on the site, the company conducted lengthy public consultations with surrounding communities and First Nations. Despite these consultations, Pan Fish was taken to court by the local Heiltsuk First Nation for what it claimed was a lack of consultation. As devoted to the anti-aquaculture cause as Cox is, even she has difficulty spinning the resulting BC Supreme Court decision. The decision stated very clearly that Pan Fish had met its obligations to consult with the Heiltsuk First Nation.

Pan Fish is continuing the process of consultation with the Heiltsuk and has, in fact, like many BC salmon farming companies, established numerous memoranda of understanding with various First Nations, ensuring these communities share in and have access to the long-term benefits of this sustainable industry.

As is to be expected, Cox fails to mention any of these agreements with First Nations and their resulting successes (see *The Kitasoo Success Story*).

The Kitasoo Success Story

During the mid-1980s, the Kitasoo First Nation, based on Swindle Island on the central coast of BC, recognized they needed to diversify their economy because of the downturn in the wild salmon fishing industry.

After extensive community discussions and analysis, the Kitasoo decided to pursue salmon farming. By 1997, given a rapidly changing industry, the Kitasoo realized they needed access to much larger financial and technical resources in order to remain competitive.

The Kitasoo began negotiations with Marine Harvest Canada and reached an agreement with the company that included maintaining strict monitoring and sustainability requirements. The result was Kitasoo Aquafarms Ltd.

Today, the Kitasoo are reaping the rewards of that strategic partnership.

More than 100 people, or 50 per cent of the Kitasoo workforce is now employed full-time in the community. This figure meets the Kitasoo's short-term goal of having one full-time job per household.

Marine Harvest, the Kitasoo and an academic institution provided an accredited six-month aquaculture training program for the community. The program allowed Kitasoo band members to graduate with specialized, technical, in-demand skills. Graduates were then hired to work on the local salmon farms, and many have risen to acquire management positions.

As Kitasoo Chief Percy Starr points out, "We're strong supporters of BC's salmon farming industry because we know it's an industry that's providing important, long-term opportunities for our people."

Disease: What the activists didn't tell you

"Diminishing Returns" author Sarah Cox engages in what can only be described as shameless fear-mongering when she attempts to compare avian flu to the fish disease IHNV (Infectious Hematopoietic Necrosis virus). Cox writes in alarmist language that belies her agenda: "Just as avian flu is deadly for industrial chicken farms, IHNV can quickly reach epidemic proportions in the seawater equivalent of factory farming."

Aside from her desire to wrongfully characterize a highly sustainable, state-of-the-art industry as "factory farming," Cox's comparison of avian flu to IHNV is simply invalid. Avian flu is a serious disease primarily because it can spread, by mutation, to humans and

consequently endanger human health. IHNV, by comparison, can not spread to humans nor endanger human health in any way. Cox's comparison is wrong.

Furthermore, in describing IHNV and its impacts on BC salmon farms, Cox fails to mention that IHNV is a disease native to BC waters, that it has historically affected BC's population of wild sockeye salmon, and that it is *almost certain that infected wild sockeye passed the disease along to farmed Atlantics*, which lack a natural immunity to it.

Is it possible that Cox purposefully leaves these facts out in order to provide the reader with the false impression that salmon farms are somehow manufacturing diseases out of thin air and that the only way to prevent such diseases is to get rid of the farms? We trust not.

Yet all diseases attributable to farmed salmon originate with wild stocks. Contrary to the impression left by Cox, salmon farms do not produce their own exotic diseases.

And BC salmon farming companies are taking extensive measures to eliminate IHNV and other diseases, including:

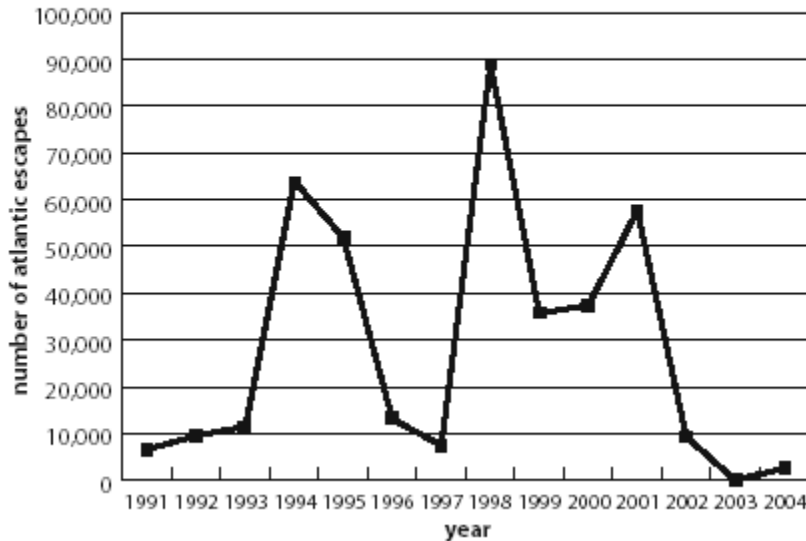
- Using containment procedures to eliminate outbreaks
- Initiating proactive health management strategies to reduce the loss of fish to disease
- Screening broodstock for disease
- Providing good water quality and nutritious feeds
- Providing vaccinations to juvenile fish to stimulate their natural immune systems
- Monitoring by specialized aquaculture veterinarians and technicians of juvenile salmon as they grow
- In the case of IHNV, conducting extensive research (with the assistance of the new BC Centre for Aquatic Health Sciences) to develop effective vaccines

Dramatic reduction in escapes

In the litany of activist charges against the salmon farming industry, the issue of escapes has often been used by activists to incite fear in the public mind. In this regard, “Diminishing Returns” does not disappoint.

And yet despite the attempts by Cox to present a portrait of rampant and dangerous escapes of farmed salmon, the truth is very much the opposite. Interestingly, even the graph on page 55 of “Diminishing Returns” (reproduced below) contradicts Cox’s suggestions of a crisis of escapes.

Reported Atlantic salmon escapes from B.C. salmon farms from 1991 - November 2004



As the graph shows, escapes of farmed salmon have been dramatically reduced over the past decade through the use of state-of-the-art netcages and other specialized equipment.

These reductions have been confirmed by independent, third-party assessments.

For example, in 2001, 55 different river systems were surveyed by trained First Nations crews, looking for Atlantic salmon. 280 kilometers (about 166 miles) of streams were examined, and over 389,000 salmon were found – none of them was an offspring of spawning Atlantic salmon. Two fish of the 389,000 found were adult Atlantic salmon.

Researchers point out that, contrary to Cox’s claims, attempts at establishing sea-going populations of Atlantic salmon outside its native range can be traced back to the mid-19th century (Tasmania, 1864). Since then, many attempts have been made to establish naturalized sea-run and land-locked populations in South Africa, India, Australia, New Zealand, Argentina, Chile, Ecuador, Columbia, India, Indonesia, Japan and Western North America. All have ended in failure.

From 1905 to 1935, some 8.5 million Atlantic salmon were deliberately placed into 60 different lakes and rivers in BC in an intentional effort to establish Atlantic salmon in the BC wild. These transplants occurred primarily on Vancouver Island, as well as in the Alberni District, the lower Fraser River and Skeena River drainages, and in some interior lakes and streams.

Today they and their offspring are nowhere to be found; the attempt at establishing a run was futile. Judging from this and many other failed attempts to transplant Atlantic salmon in other parts of the world it is highly unlikely that they will ever become established in the wild.

The fact is some species are easy to transplant and others are difficult if not impossible. For example, rainbow trout from BC have been successfully transplanted to lakes and rivers around the world. Chinook and coho salmon from BC have been transplanted to the Great Lakes, much to the pleasure of anglers and seafood lovers there. But it would appear that Atlantic salmon will never become adapted to the wild in BC.

Public relations: Industry seriously outgunned by activists

Cox presents a picture of BC salmon farming companies as having limitless funds to spend on public relations – this after suggesting these same companies are unprofitable.

The truth is that the sector is heavily outweighed financially by the millions of dollars activist groups receive from billion dollar US foundations. We have compiled records showing BC anti-aquaculture activists have received more than US\$28 million dollars in grants from 12 US-based foundations.

Our foundations finder web tool (www.farmfreshsalmon.org) presents a detailed picture of these grants.

The BC salmon farming industry's efforts to communicate the sustainability of the sector simply pales in comparison to the activists' \$US28 million in available funds – largely directed at inciting fear in the public and promoting the complete elimination of the industry.

Of course, the activists' massive financial clout is never mentioned in "Diminishing Returns." But let there be no mistake: when it comes to financial resources for communications programs, the BC salmon farming sector is seriously outgunned.

We are the grassroots!

It comes as a shock that Cox, in "Diminishing Returns," accuses Positive Aquaculture Awareness (PAA) of lacking grassroots support. Indeed, it is only *because of* grassroots support that PAA has been able to successfully correct the record of misinformation being spread by activists groups.

It is only *because of* dedicated volunteers who truly believe in the sustainability and promise of BC salmon farming that PAA has been able to counter negative activist campaigns. Unlike the activists, who rely on dozens of paid staff and affiliated resources, PAA must rely on the dedication of its members to get results.

As PAA President Laurie Jensen put it, “the report’s absurd allegation that we are not a grassroots group is an insult to the thousands of hard working community members and First Nations who strongly believe in the sustainability of this industry.”

Government support for a sustainable industry

In “Diminishing Returns” Cox attempts to create controversy by suggesting – either implicitly or explicitly – that the provincial and federal governments are supporting aquaculture not because they believe it is a valuable sector contributing to the economic, social and environmental well-being of the country, but rather because they are receiving some form of financial gain from salmon farming companies.

The allegation could not be more contrived. A recent statement by Jay Ritchlin of the David Suzuki Foundation best demonstrates this. After a routine filing by BC Premier Gordon Campbell showed he owned shares in George Weston Ltd. – a blue chip company owned by many Canadians through their mutual funds or pension plans – Ritchlin and his associates at Suzuki did not hesitate to cry wolf.

Ritchlin stated, in a manner not dissimilar from Cox’s own accusations, “it’s unfortunate that Campbell is potentially profiting from a company whose activities are harming B.C.’s wild salmon.”

This ludicrous accusation was repudiated in a *Province* editorial that scolded the Suzuki Foundation:

Because Victoria lifted a five-year freeze on new fish farms in 2002, the inference in Ritchlin's remarks is that a Campbell government policy is putting money in the premier's pocket.

That, of course, is nonsense.

In 2003, Weston's entire fish-farming division accounted for just \$190 million of its total revenue of \$29 billion. Further, the division suffered a \$20-million operating loss, compared to an overall corporate operating profit of \$2.4 billion.

The point is that anyone who owns mutual funds or is in a company pension plan likely owns a few shares of a company as large as Weston.

We agree that elected officials' personal investments should be closely watched.

However, common sense should also prevail in singling them out for blame.

The same can be said for the similarly baseless accusations Cox makes in “Diminishing Returns.” She and her sponsors at the Raincoast Conservation Society should be equally ashamed of themselves.

As hard as it may be for anti-aquaculture activists to accept, governments support aquaculture not because their political masters profit from it, but because it makes good economic, social and environmental sense.

Conclusion

This analysis demonstrates the extent to which anti-aquaculture activists will go to attack BC’s sustainable salmon farming sector. Whether it is skewing the science, misrepresenting the facts, or playing on people’s fears, no method is off limits to the activists.

“Diminishing Returns” is not an “investigation” into the wrongs of the aquaculture industry. Rather, it is a compilation of the many falsehoods, exaggerations and unsubstantiated allegations that make up the heart of the anti-aquaculture movement’s argument.

As we demonstrate, in “Diminishing Returns,” the activists have, in fact, sunk to new lows. Our hope is that the US foundations who are pouring millions of dollars into supporting the anti-aquaculture campaigns of the Raincoast Conservation Society, the David Suzuki Foundation and other groups affiliated with the Coastal Alliance for Aquaculture Reform will begin to reconsider their investments.

How ironic – and beneficial to all British Columbians – it would be if “Diminishing Returns” acted as a catalyst for US foundations to finally see how activist groups themselves are providing greatly diminished returns – on US foundation investments.