

## FEATURE

A persistent ex-fish farmer discovers that if you want to **understand what's really going on** in the war against salmon farming, you've got to...

# Follow the Money

BY KT PIRQUET

Many industries have faced a rough ride from environmentalists, sometimes for good reason. But of all the potential targets, it is salmon farming North of 49° that has been drawing sustained fire.... Who's buying the ammunition?

The scene is the grand ballroom of the Hotel Vancouver during the late autumn of 2006. Vivian Krause (BSc, MSc in Nutrition) has been making a presentation to the British Columbia government's Special Committee on Sustainable Aquaculture. First she speaks of recent research about public perceptions and communication of risk. Then she drops a bombshell: the environment and food safety may be the battleground in the fish farm controversy, she says, but it's likely being driven by something else entirely.

## Bad advice triggers investigation

Vivian Krause is very interested in health and nutrition. She worked for a decade in maternal and child health in Guatemala and Indonesia. During 2002 and 2003, she was employed in the salmon farming industry. She also completed a couple of short-term consultancies for aquaculture firms, but has not worked for the industry at all since 2007.

Krause became concerned that an industry which produces high-quality protein and works hard to be efficient and truly sustainable was being vilified. The messages were eerily uniform and sometimes untrue.

Through volunteer work as a board member of the Adoptive Families Association of BC, she happened to read a media release that warned pregnant women not to eat farmed salmon. The content of the message made her rethink the salmon farming controversy from a perspective she missed when she was in the industry. That perspective was marketing. Why were people, especially pregnant women, being told to fear and avoid wholesome, affordable, accessible food with important, demonstrated health benefits?

## Behold, the elephant

Nine days before she was to speak to the Committee, Krause stumbled across something in a presentation by Dr. Gunnar Knapp, a well known Alaskan economist. In a Power Point presentation given in Juneau, Dr. Knapp asked



Vancouver researcher Vivian Krause has painstakingly analyzed nearly 6,000 pages of US tax returns to figure out who's paid who -- and most importantly, why.

how much of the 2002-2006 increase in Alaskan salmon prices had been driven by Alaska's positive salmon marketing and how much by environmentalists' anti-farmed salmon campaigns. Suddenly Krause realized the connection between the fish farm wars and salmon marketing.

There it was: "The elephant in the room," she says.

Krause continued looking for answers. Shortly after her presentation to the Special Committee, Krause discovered that the Gordon and Betty Moore Foundation, a wealthy American non-profit based in Palo Alto, California, had reportedly paid another American organization called SeaWeb over half a million dollars to co-ordinate an "antifarming campaign" involving "science messages" and "earned media." ("Earned media" is the term for favorable publicity gained through promotional efforts other than advertising, which is paid media.)

According to US tax returns for 2004 and 2005, the purpose of this campaign was "to shift consumer and retailer demand away from farmed salmon."

"It was like finding the lid to a 10,000 piece jigsaw puzzle that I had tried to put together when I was in the industry, and couldn't because I didn't have the picture on the box," says Krause.

Since then, at her own expense, Krause has painstakingly analyzed nearly 6,000 pages of US tax returns to figure out who's paid who -- and most importantly, why. She has found some very busy money indeed.

According to Krause, four huge American foundations have funneled at least \$126 million to some 56 Canadian Environmental Non-Government Organizations (ENGOS), mainly located on the West Coast, and all of which are not favorable to salmon farming. American non-profit foundations, she says, have also been funding Canadian ENGOS that vigorously publicize anti-aquaculture scientific studies and to put it bluntly, generate as much bad press as they can.

## Demarketing Defined

**Demarketing:** *The attempt to discourage demand for a product or service.*

In addition, the US foundations have granted a lot of money that is earmarked for hiring consultants whose mission is to organize, coordinate and train ENGO personnel to conduct public relations campaigns intended to influence public opinion, consumer behaviour, seafood retailers and even government policy. According to Krause's calculations, since 2006 the California-based David and Lucile Packard Foundation alone has spent more than \$3 million on consulting firms to support the so-called "sustainable seafood movement".

## The Alaskan connection

"All 56 of those ENGO grantees appear to me to act in concert to build the Alaskan Wild Salmon brand and de-market farmed salmon," says Krause three years later, having spent thousands of hours and thousands of her own dollars trying to understand what's driving the war on salmon farming.

She has discovered that some groups explicitly promote Alaskan salmon, some discredit farmed salmon, some provide technical assistance to these groups while others such as Tides Canada Foundation and the Marine Conservation Biology Institute, re-grant funds from the US foundations to the Canadian ENGOS. "Since most organizations implement only a small part of the overall strategy, it's not evident unless the environmentalists' work is looked at as a whole, and in the context of the fiercely competitive global salmon market."

She points out that significant grants given to anti-farmed salmon programs began around the year 2000, but it wasn't until the BC Government lifted its moratorium on salmon farming in 2002 that it really started ramping up. "It was like declaring open season on the salmon farmers," she says.

## FEATURE



Salmon farms like the one pictured above in British Columbia's Broughton Archipelago have been the focus of NGO attention, but the bad press had muddied the reputation of aquaculture in other jurisdictions as well.

Grants from the David and Lucille Packard Foundation to Promote MSC-Certified Wild and Ranched-Caught Fish While "Reforming" Aquaculture and Demarketing Farmed Fish (2000 - 2009)			
<b>Promoting MSC-certified Wild and Ranched-Caught Fish</b>	Certification by the Marine Stewardship Council (MSC)	\$ 25,327,924	<b>\$57,131,582</b>
	The Major Buyer Initiative (Wal-Mart, etc.)	\$ 12,705,725	
	Seafood Choices	\$ 9,086,960	
	Promoting "Sustainable Seafood"	\$ 10,010,973	
<b>Related projects</b>		<b>\$ 2,087,500</b>	
<b>"Reforming" Aquaculture &amp; Demarketing Farmed Fish</b>	Setting "High Standards" and Certification	\$ 7,130,182	<b>\$ 16,059,044</b>
	Policy Research, Strategy & Communication	\$ 6,082,412	
	The Coastal Alliance for Aquaculture Reform and The Farmed and Dangerous campaign	\$ 1,596,500	
	The Pure Salmon campaign	\$ 1,250,000	
<b>Total:</b>			<b>\$ 75,278,176</b>

**"According to Krause's analysis, since 2000 the Packard Foundation has granted about \$57 million to support the MSC and to promote "sustainable seafood" and MSC-certified products through Seafood Choices and the so-called "sustainable seafood movement." Overwhelmingly, the majority of MSC-certified seafood is "wild-caught" by Alaska's fishing industry."**

### A new market strategy

During the previous decade, the value of Alaska's fisheries revenues had entered a steep decline owing to overfishing, poor prices and poor product quality. The value of the salmon harvest plunged, from an average of about \$740 million a year through the '80s and '90s, to just \$125 million in 2002. The Alaskan industry was definitely hurting from the inroads made by increasing movement of fresh farmed salmon into the Japanese and US markets. In 2003, former Alaskan Governor Frank Murkowski announced a \$50 Million Salmon Revitalization Strategy and "a new way of marketing."

Murkowski's announcement was welcome news in Alaska. The new strategy would capitalize on product differentiation, that is, messages that would define Alaska's fish as substantially different from (and better than) "farmed" fish. Although Alaska's salmon industry has been significantly dependent on a type of aquaculture known as ocean ranching since the early 1970s, they would continue to brand it as "wild". All efforts of the Alaska Fisheries Marketing Institute would emphasize the desirable attributes of "wild" salmon. With luck, and continued help from "environmentalists", the BC competition might be prevented from becoming a serious player in the world market.

### Who? And how much?

According to Vivian Krause's calculations based on US tax returns and on-line databases, since 2000 four American foundations have granted significant funding to ENGOs operating in British Columbia. These foundations are:

- The William & Flora Hewlett Foundation, based in Menlo Park, CA (\$6.7 billion in assets).
- The David & Lucile Packard Foundation, based in Los Altos, CA (\$4.5 billion in assets).
- The Gordon & Betty Moore Foundation, based in Palo Alto, CA (over \$4 billion in assets)
- The Pew Charitable Trusts, based in Philadelphia, PA (\$5.9 billion in assets).

Her calculations suggest that between 2000 and 2009, the Packard Foundation granted approximately \$788 million to organizations with at least some interest in the anti-farming controversy.

She points out that salmon is a primary focus for only a few of the grantees, such as the Coastal Alliance for Aquaculture Reform and the Pure Salmon campaign, Ecotrust, Watershed Watch Salmon Society and the Wild Salmon Center. For most of them, programs related to salmon are a small part of what they do, so it would be a mistake to assume that a large part of the \$788 million was spent to sway the global salmon market.

In numerous instances, however, the value of just a single grant from the Packard Foundation exceeds the entire annual budget of salmon farming industry groups, she observes. Furthermore, non-profit dollars go farther because they are tax free.

Since 2000, the Packard Foundation has granted about \$75 million *specifically* for projects that seek to influence seafood retailers, de-market aquaculture products, and sway global consumer demand. Its "Major Buyer Initiative", for instance, pressures big retailers and restaurants to buy "sustainable" seafood (much of which is Alaskan pollock and salmon).

According to Krause's analysis, the Gordon and Betty Moore Foundation has granted at least \$US 46 million to organizations in British Columbia, including funds to "immobilize" salmon farming. The Moore foundation also granted about \$1.8 million to support the efforts of the Coastal Alliance for Aquaculture Reform "to achieve formal commitments from the BC government and the BC aquaculture industry to halt the expansion of open net cage salmon farming and make the transition to closed containment systems." Krause feels that this raises a fair question: Is this really a grass-roots, made-in-B.C. campaign or is this campaign bought-and-paid-for by outside interests?

The Packard Foundation has granted at least \$14 million to Tides Canada, which launched the Coastal Alliance for Aquaculture Reform with support from a "dedicated funder." Krause has asked Tides Canada repeatedly to identify the "dedicated funder," but hasn't been told.

continued on page 18

## Foundations in a nutshell

**The Hewlett foundation and the Packard foundation were started by the founders of Hewlett-Packard. Gordon Moore is recognized as the inventor of the semi-conductor and co-founder of Intel. He is also an avid Alaskan wild salmon fisherman. The Pew Charitable Trusts was founded from the wealth of the founders of Sun Oil Co. These four foundations had \$US 21 Billion in assets as of 2007, and give away approximately \$1 billion dollars every year.**

## FEATURE

## Marine Stewardship Council

A key player in the re-branding of Alaskan fisheries as eco-acceptable has been the Marine Stewardship Council (MSC). The UK-based Council has gained impressive momentum worldwide with its MSC-certification branding program for a variety of seafood products. According to Krause's analysis and calculations, since 2000 the Packard Foundation has granted about \$57 million to support the MSC and to promote "sustainable seafood" and MSC-certified products through Seafood Choices and the so-called "sustainable seafood movement." Overwhelmingly, the majority of MSC-certified seafood is "wild-caught" by Alaska's fishing industry.

## David Suzuki Foundation

In BC, the Vancouver-based David Suzuki Foundation has, according to Krause, received funding from some 14 American foundations. It totals about \$10 million. In addition, three of these same American foundations have granted \$US43.7 million to Tides Canada Foundation which re-grants to the David Suzuki Foundation and other organizations. Krause notes that according to the David Suzuki Foundation itself, DSF got its start with a fund-raising trip to Alaska. In the London *Times*, the David Suzuki Foundation has been described as "a Canadian environmental organization which campaigns on behalf of Alaskan wild salmon fishing." Several Alaskan fishing companies have used David Suzuki Foundation's materials, such as the brochure, "Why You Shouldn't Eat Farmed Salmon," in their on-line marketing.

## Anti-farm fight 'confusing'

Seafood broker Don Whillans, President of Aquagold Seafood Co. LLC in Miami, Florida, finds the NGOs' anti-farm obsession perplexing. Whillans handles some \$US50 - \$100 million worth of fresh salmon a year, mostly from his firm's Chilean farming operations. As an ex-pat Canadian with a biology degree from the University of Guelph, Whillans has viewed the seafood industry from every angle, starting in the late '70s.

"It's an ongoing battle, this anti-farming thing," he says with a sigh. "It's just confusing buyers and consumers alike. What about the carbon footprint of shipping fish all over the planet, when you could be growing it close to home? This is the opposite of what they preach."

Whillans says that in the East, most of his customers want only farmed salmon. He can sell all he can find. The ISA epidemic and the earthquake in Chile have impacted his major sources somewhat, shifting up to a third of his purchasing to Norway, Scotland and Canada, "...at least until October," he says.

"There is more and more demand for farmed salmon in Europe, Whillans observes. "Europe is not listening [to the NGOs], or they are just more educated over there." Whillans says the anti-farming campaigns are really just a problem in the USA and Canada. "You see the same propaganda in every public aquarium; I am amazed how effective it's been."

"At the end of the day, we need more farmed fish," he says, "We need good quality aquaculture. We need to think of it as related to other farming; we all need to eat."



*"The Alaskan's success may go down in the textbooks as one of the strategic marketing coups of the Century. And it seems they got a lot of help."*

## Raincoast Research Society

Alexandra Morton is an ex-pat American who has made a career of environmental activism in Canada. She has also co-authored several controversial research papers on sea lice that have been heavily promoted to support anti-salmon farming campaigns since about 2005. According to its website, Alexandra Morton's BC-based ENGO, the Raincoast Research Society, received about 31% of its funding from American sources between 2000 and 2008. The website does not make it clear whether the 31% includes funds re-granted from US sources through Canadian ENGOs, although re-granting is acknowledged for several of the society's Canadian sources.

Over the last decade, Morton has become a prominent "folk heroine" figure, with spectacular media exposure and high public credibility. Publication in the scientific literature has also given her an aura of "authority," despite ongoing controversy over her research and its interpretation.

## Wal-Mart or bust

The Major Buyer Initiative, funded by the David and Lucile Packard Foundation involves ENGOs and various communications/ marketing firms working directly with Wal-Mart and other large-volume seafood vendors. Indeed, Packard's support has accelerated sharply, from \$50,000 in 2002 to just over \$US 5.2 million in 2008. According to Krause's calculations, the Packard foundation has spent at least \$US 12.7 million on various projects to get environmental organizations to work with "major buyers." And that's not including the \$1.5 million that Packard granted to initiate the Coastal Alliance for Aquaculture Reform and fund their "Farmed and Dangerous" campaign.

While a "non-profit foundation" that has given away more than \$3 billion since 2000 can easily spend \$12.7 million on this sort of initiative, Krause asks "is it reasonable to expect that the salmon farming industry can do the same?" Krause doesn't think so. "This is why, more than any other part of this issue, the Major Buyer's Initiative shows the unfairness of the campaign to "reform" salmon farming and the extent to which the aquaculture industry is out-funded."

"If they decide to crush an industry, they probably can," she says.

## One for the textbooks

So it appears that Canadian ENGOs have been accepting a lot of American cash, while at the same time helping to establish negative public perceptions about farmed salmon.

*"In numerous instances the value of just a single grant from the Packard Foundation exceeds the entire annual budget of salmon farming industry groups, she observes."*

Meanwhile, the Alaska Seafood Marketing Institute - by its own admission - has left it to third parties to dish out the dirt, and has been making hay on the "farmed vs wild" product differentiation. This year ASMI is celebrating "30 years of successful partnership between the State of Alaska and the Alaska seafood industry."

Vivian Krause observes that the Alaskans have also been remarkably successful in avoiding scrutiny of their own operations. Hardly a truly wild fishery, the Alaska industry employs an extensive system of hatchery-based aquaculture operations to produce some 1.5 billion juvenile hatchery fish every year. Roughly 34%, and in some regions 90%, of the state's overall salmon harvest is hatchery-born and bred then released into the state's lucrative ocean-ranching program. The return rates range from 2-5%. Potential issues around government subsidy, energy use, processing waste disposal, carbon footprint, competition and interbreeding with wild stocks, by-catch, carrying capacity of the system and overfishing, among others, are conspicuously absent from publications or comments by grantee environmental groups.

The Alaskans' success may go down in the textbooks as one of the strategic marketing coups of the century, and it seems they got a lot of help.

The non-profits' programs have kept specific issues in the limelight. They have sponsored scientific research and heavily promoted favourable results. They have capitalized on the emergence of several high-profile, "authoritative" spokespersons and they have provided the media and the public with abundant, accessible p.r. materials.

And no one noticed, before Vivian Krause, the critical role played by a small handful of wealthy American foundations.

## Did they get their money's worth?

The short answer would be yes. Since 2002, the ex-vessel value of Alaskan salmon has more than tripled. During the 2009 commercial fishery, an estimated 162 million salmon were caught, with an ex-vessel value of \$US 370 million.

Most of the global MSC-certified seafood volume is still Alaskan fisheries products.

In BC, the government's latest moratorium on fish farm development drags on. Expansion has come to a standstill.

However, in April, Krause spoke to City Council in Campbell River, ground zero for the salmon farming controversy in British Columbia. The local newspaper reported her presentation on the front page. Her message: she urged the council to step in and try to bring the CEOs of the big salmon farming companies, and the CEOs of the four big US foundations, into a direct dialogue. "Until that happens," she warned, "the 'reformers' will do what they're paid to do, aquaculture will be thwarted, and Canadian communities will lose out on tax revenues and jobs that are badly needed."

The David Suzuki Foundation has completely re-designed and re-written its website, and now says very little about farmed salmon. In January, David Suzuki's Canada-wide TV program "The Nature of Things" featured Suzuki and his daughter enjoying a tour of Cooke Aquaculture's salmon/shellfish/seaweed demo farm in Atlantic Canada. Ironically, they didn't even mention University of Victoria professor Dr. Steve Cross. His multi-species aquaculture facility in Kyuquot Sound on Vancouver Island won him a BC Innovation Award in 2008. However, Suzuki did have mostly nice things to say about the "new" developments in open-pen fish farming. On TV, in front of everybody.

*Vivian Krause's blog (www.fair-questions.com) details her findings about American funding of Canadian ENGOs, and poses some important questions about non-profits, government policy, science ethics and other related issues. She provides links to relevant scientific papers, letters, tables and original documents, fully-footnoted and referenced. It's a must-read.*

## FEATURE

# Conspiracy Theory?

## Common interests; power politics



**“I don’t see evidence of any kind of formal coordination, say, with the Alaska Seafood Marketing Institute. It’s more about common interests among the players.”**

~ Patrick Moore

Conspiracy? Probably not, says Dr. Patrick Moore. A lifelong environmentalist and co-founder of Greenpeace, he is currently Chairman and Chief Scientist of the Vancouver environmental communications firm GreenSpirit Strategies, Ltd.

“I don’t see evidence of any kind of formal coordination, say, with the Alaska Seafood Marketing Institute. It’s more about common interests among the players,” Moore surmises. “You have government and politicians, the media, scientists, businesses and activists, all with common interests around seafood.” He sees the anti-farm issue as more of an emergent property around common goals – a kind of “perfect storm”.

There are connections, though. “The not-for-profits give their money and expect performance,” explains GreenSpirit CEO and President Tom Tevlin. He says that agencies such as the Environmental Grant Makers’ Association, a nexus of big US foundations, drive ENGOs hard to deliver outcomes, noting that successful ENGO staffers and campaign veterans often “graduate” to charitable foundations as program directors.

Dr. Brad Hicks isn’t too sure it’s all just a coincidence. He is a former BC Provincial Fish Veterinarian, an industry veteran, and currently Vice-President of Taplow Feeds in Chilliwack, BC.

“These ENGOs are a bit like mercenaries,” says Hicks. “They’re paid to do a job.” He likens their methods to quasi-military propaganda tactics: misinformation, a sense of urgency, danger and panic, extrapolation from “legitimate” information to support selected messages, saturation. “These are extremely sophisticated strategies,” he says.

*“It is unnerving that it’s so easy for a foreign agency to use massive financial clout to influence public opinion and sway public policy of another sovereign jurisdiction.” - Brad Hicks*

Hicks believes that a lot of the efforts of ENGOs to push more government restrictions, “closed containment” systems and moratoriums are really about driving up the cost of farmed salmon to meet the inefficiencies of the wild harvest, an industry that is already heavily subsidized in Alaska. But his most acute concern is about foreign interference with Canadian government policy.

“It is unnerving that it’s so easy for a foreign agency to use massive financial clout to influence public opinion and sway public policy of another sovereign jurisdiction,” he says. “Rich US charitable foundations with an agenda can use huge resources and the power of public opinion to influence policy in small jurisdictions like BC. It’s a shame that our politicians allow this -- and even go along with it.”

Hicks points out that the salmon farming industry has come a long way over the last 25 years. It should be acknowledged for its significant progress, he says. Instead of more negativism and controversy, Hicks would like to see philanthropic funds go toward development of more practical, truly sustainable technologies.

Term	Amount	Date Approved
24 mo.	\$560,000	Apr. 2004

**SeaWeb**  
Wild Salmon, Consumers, and Conservation Project \$560,000 Apr. 2004

**Purpose**  
This grant helps SeaWeb provide a toolkit and coordination for salmon aquaculture campaigns. Outcomes for this grant include identification of antifarming audience and issues, integration of aquaculture science messages into antifarming campaign, standardization of antifarming messaging tool-kit, creation of an earned-media campaign, and coordination of media for antifarming ENGOs.

**Grantee Websites**  
SeaWeb ↗

Grant statement taken from the Gordon and Betty Moore Foundation website showing support for coordination of anti-salmon farming ENGO programs as early as 2004. Last year the Moore Foundation re-wrote the titles and stated purposes of the \$560,000 grant to SeaWeb and at least three other grants to environmental organizations that campaign to “reform” salmon farming. The title of a \$453,000 grant to the Coastal Alliance for Aquaculture Reform” was changed from “Farmed and Dangerous Campaign” to “Aquaculture Education Campaign.”

All three men seem to agree that BC has been a “crucible” of environmental politics for at least three decades, fuelled by lots of money. Tevlin and Moore suggest that it’s probably got more to do with powerful motivators like protectionism, nationalism and other ideologies than with formal business ties to the Alaska fishing industry. “It’s a natural outgrowth of the social history of fishing unions, early Western environmentalism and power politics,” concludes Moore.

### About that elephant...

Vivian Krause sees it in more complex terms. She points out that a true conspiracy requires both coordination **and** secrecy. “In my view, actually there *is* a quite a bit of evidence that there is a well-co-ordinated effort that has not been completely out in the open. In my view, the Major Buyers Initiative is significant - how the Packard foundation has granted more than \$12 million to get NGOs to “encourage” firms like Wal-Mart to preferentially source MSC-certified fish, and made other grants to consulting firms like FSG, Inc. to develop a learning and evaluation model for “more than 20 NGOs” involved in the Major Buyer Initiative.”

She notes that the Packard Foundation has paid more

than \$US 3 million to communications firms (Bridgespan, FSG Inc., TCI, Spitfire LLC, Grove Consultants LLC, the Headwater Group, etc) to “guide grantees.” And the Moore Foundation has paid SeaWeb for “standardization of anti-farming messages” and “co-ordination of media for anti-farming ENGOs.”

“In view of the above, I believe that it would be hard to argue that there isn’t co-ordination among ENGOs and the various “strategic communications” firms that provide [ENGOs] with support for co-ordinated media relations. Consider also that the consistency in messaging among ENGOs is clear; they all raise the same issues,” she says. “Benjamin Franklin once said, “When everybody is thinking the same, no one is thinking.”

As for secrecy... Krause notes that “The Packard Foundation’s strategy for “Market Intervention Tools to Conserve Marine Fisheries” has been around for 10 years and publicly available on-line for many if not all of those years. While the funding and the “co-ordinated ‘Ask’” haven’t exactly been out in the open, they haven’t exactly been kept secret either. So in my view,” she explains, “the sustainable seafood movement has one element of a conspiracy, but not both. This is why I have never said that this is a conspiracy. On the contrary, I go out of my way to explain that it ISN’T.”

“What is it?” she asks. “It’s the elephant in the room that the salmon farming industry simply missed. In British Columbia, the salmon farming industry failed to “think outside of the province” and analyze the controversy within the context of the fiercely competitive global salmon market. And, I hasten to add... when I was in the industry, I did too.”

She concludes: “I believe that talking about “conspiracy” really misses the point. It is about a marketing perspective, or -- the *de-marketing* -- that just got missed.”

Well, whatever the case, Vivian Krause has gone and turned the spotlight on the elephant.

- K. T. Pirquet

## AquaSonar® Fish Sizing Sonar

www.astl.ca



- Simple, automatic & compact: easy to install & use with no post-processing or special training
- Fast: Samples up to 2,000 fish per hour automatically: farmers can sample many cages daily
- Accurate: Samples a high percentage of the fish population in a short time
- Fish do not avoid sensor: sonar samples fish even with low density in large cages
- Calibrated for Atlantic salmon, trout & Atlantic cod, other species in progress
- Size range: 100 grams to over 8 kilograms
- Includes software for storage, display & analysis of sampling statistics
- Portable, rugged and proven technology

**Aquatic Sensing Technologies Limited** Newfoundland and Labrador, Canada  
Email: tmckeeper@astl.ca Tel: +001 (709) 693-2549 www.astl.ca