

HJR

46

FISCAL NOTE

STATE OF ALASKA
2002 LEGISLATIVE SESSION

Fiscal Note Number: 1
 Bill Version: CSHJR 46(FSH)
 (H) Publish Date: 3/19/02

Revision Date/Time (Note if correction): _____ Dept. Affected: None
 Title BC Moratorium on Fish Farming BRU _____
 Component _____
 Sponsor Special Committee on Fisheries
 Requester Special Committee on Fisheries Component No. _____

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

| OPERATING EXPENDITURES | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 |
|------------------------|------------|------------|------------|------------|------------|------------|
| Personal Services | | | | | | |
| Travel | | | | | | |
| Contractual | | | | | | |
| Supplies | | | | | | |
| Equipment | | | | | | |
| Land & Structures | | | | | | |
| Grants & Claims | | | | | | |
| Miscellaneous | | | | | | |
| TOTAL OPERATING | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| | | | | | | |
|-----------------------------|--|--|--|--|--|--|
| CAPITAL EXPENDITURES | | | | | | |
|-----------------------------|--|--|--|--|--|--|

| | | | | | | |
|-------------------------------|--|--|--|--|--|--|
| CHANGE IN REVENUES () | | | | | | |
|-------------------------------|--|--|--|--|--|--|

FUND SOURCE (Thousands of Dollars)

| | | | | | | |
|---|------------|------------|------------|------------|------------|------------|
| 1002 Federal Receipts | | | | | | |
| 1003 GF Match | | | | | | |
| 1004 GF | | | | | | |
| 1005 GF/Program Receipts | | | | | | |
| 1037 GF/Mental Health | | | | | | |
| Other (Specify Type--Do not abbreviate) | | | | | | |
| TOTAL | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Estimate of any current year (FY2002) cost: 0.0

Check this box (X) if funding for this bill is included in the Governor's FY 2003 budget proposal:

POSITIONS

| | | | | | | |
|-----------|--|--|--|--|--|--|
| Full-time | | | | | | |
| Part-time | | | | | | |
| Temporary | | | | | | |

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Special Committee on Fisheries Phone 465-4925
 Division Rep. Stevens, Committee Co-Chair Date/Time 3/19/02 10:24 AM
 Approved by: _____ Date 3/19/02
 Agency _____

Alaska State Legislature

Representative Gary Stevens - Co-Chair
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Juneau, Alaska 99801-1182
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House Special Committee on Fisheries

CSHJR 46 "Relating to the moratorium on fish farming in British Columbia"

Sponsor: House Special Committee on Fisheries

Sponsor Statement

On January 31, 2002, the Government of British Columbia announced that the provincial moratorium on fish farming would be lifted. This decision could have a substantial effect on the Alaskan economy and environment, both directly and indirectly.

This resolution strongly encourages the Government of British Columbia to reinstate the moratorium on fish farming.

In 2001 there were 29,000 accidental releases of farmed salmon from British Columbia salmon farms. Escaped farmed Atlantic salmon have been caught in Alaska commercial fisheries as far west as the Bering Sea. The escaped Atlantic salmon pose a threat to Alaska's marine environment and the ecology of Pacific Salmon.

Escaped Atlantic salmon from salmon farms in British Columbia are now found in approximately 80 streams on the west coast. These escaped salmon compete with wild Alaskan salmon for food and there is a continuing concern with possible disease transfers.

Seafood is Alaska's number one international export and the commercial fishing industry is Alaska's largest private sector employer.

Therefore the Fisheries Committee strongly encourages the Alaska State Legislature to support the reinstatement of the British Columbia moratorium on fish farming.

Reported Escapes¹ and recoveries of Atlantic salmon in Washington State, British Columbia, and Alaska, 1987-2001².

| Year | ATLANTIC SALMON ESCAPES | | | | | ATLANTIC SALMON RECOVERIES | | | | | | NUMBER OF SYSTEMS WITH RECOVERIES | | |
|--------------|-------------------------|-------------------------------|----------------------------|-------------------------|--------------------|----------------------------|----------------|------------------|----------------|------------------|------------------|-----------------------------------|-------------|---------------|
| | Washington ³ | British Columbia ⁴ | | | | Freshwater | | | Marine | | | B.C. Juveniles | B.C. Adults | Alaska Adults |
| | Adults in Marine Waters | Juveniles in Freshwater | Juveniles in Marine Waters | Adults in Marine Waters | Total B.C. Escapes | Juveniles in B.C. | Adults in B.C. | Adults in Alaska | Adults in B.C. | Adults in Alaska | Total Recoveries | | | |
| 1987 | | | | | | | 1 | | 1 | | 2 | | | 1 |
| 1988 | | | | | | | | | 106 | | 106 | | | 0 |
| 1989 | | | | | | | | | 8 | | 8 | | | 0 |
| 1990 | | | | | | | 3 | | 2 | 1 | 6 | | | 1 |
| 1991 | | | | 6,651 | 6,651 | | 8 | | 31 | 7 | 46 | | | 5 |
| 1992 | | | 5,000 | 4,544 | 9,544 | | 48 | | 349 | 2 | 399 | | | 9 |
| 1993 | | | | 10,000 | 10,000 | | 23 | | 4,543 | 27 | 4,593 | | | 12 |
| 1994 | | 7,000 | 24,262 | 39,547 | 70,809 | | 50 | | 1,037 | 25 | 1,112 | | | 12 |
| 1995 | | 941 | | 51,883 | 52,824 | | 57 | | 678 | 23 | 758 | | | 19 |
| 1996 | 110,000 | 40,000 | | 13,104 | 53,104 | 54 | 211 | | 673 | 138 | 1,076 | 2 | | 30 |
| 1997 | 370,000 | 10,464 | | 7,650 | 18,114 | 26 | 129 | | 2,664 | 75 | 2,894 | 4 | | 37 |
| 1998 | 115,000 | 300 | 45,306 | 43,208 | 88,814 | 114 | 90 | 1 | 136 | 161 | 502 | 4 | | 28 |
| 1999 | | | 482 | 35,248 | 35,730 | 150 | 184 | | 190 | 19 | 543 | 5 | | 15 |
| 2000 | | | 1,000 | 36,462 | 37,462 | 12 | 131 | 1 | 7,833 | 80 | 8,057 | 3 | | 18 |
| 2001 | | | | 13,500 | 13,500 | 3 | 11 | 1 | | 27 | 42 | 1 | | 2 |
| Total | 595,000 | 58,705 | 76,050 | 261,797 | 396,552 | 359 | 946 | 3 | 18,251 | 585 | 20,144 | | | |

¹ Unreported escapes include "leakage", the loss of small fish that swim free when small-mesh net pens are replaced by large-mesh net pens. The salmon farming industry estimates this leakage at 3%-5%; this could total several hundred thousand unreported fish escaping every year.

² Information for 2001 is preliminary.

³ Reporting of escapes or recoveries of Atlantic salmon in Washington State is not required or documented. Those listed here were large enough to make the news.

⁴ Known escapes in British Columbia are required to be reported to the Canada's Department of Fisheries and Oceans, Atlantic Salmon Watch program⁵. The extent of compliance with reporting requirements is suspect, a small number of farms have never reported an escape, nor is "leakage" reported.

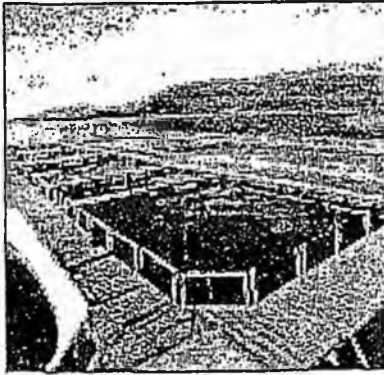
⁵ Canada's Atlantic Salmon Watch Program's with extensive data can be accessed on the internet at: <http://www.pac.dfo-mpo.gc.ca/sci/aqua/pages/atlsalm.htm>

For further information on Alaska recoveries contact Glen Oliver at 907-465-4229 or glen_oliver@fishgame.state.ak.us

CLEAR CHOICES, CLEAN WATERS

THE LEGGATT INQUIRY
INTO SALMON FARMING
IN BRITISH COLUMBIA

Report Summary



Salmon farm net-cages on B.C.'s coast are a source of pollution, disease transfer and escapes of farm fish

The Leggatt Inquiry Terms of Reference

Recent reviews of the salmon farming industry by the Auditor General and the Canadian Senate raised concerns that the industry is being inadequately managed and passes on risks and costs to the general public. A citizen's inquiry will ask for community and public input on the salmon farming industry in order to formulate recommendations and pass them on to the Prime Minister of Canada, the Premier of B.C. and the general public.

Summary statement

It's time to get on with the job: cleaning up the environmental degradation left behind by the salmon farming industry; preventing further damage and involving residents in this process and the future direction of the industry.

Background

The Leggatt Inquiry into Salmon Farming in British Columbia was established September 6, 2001 to gather public input on the salmon farming industry and formulate recommendations. Stuart Leggatt, a retired B.C. Supreme Court judge, was appointed inquiry commissioner. The David Suzuki Foundation established the inquiry in response to calls for public review from the federal Auditor General and the Senate. The inquiry set its own terms of reference and operated independently.

The inquiry held public hearings in Tofino, Port Hardy, Alert Bay, Campbell River and Vancouver from October 1 to 12. There were 109 witnesses and 63 written submissions.

The following are major issues addressed by the inquiry:

- First Nations and salmon farming: rights, risks, responsibilities
- Economic benefits of the salmon farming industry
- Escapes of Atlantic farm salmon and colonization of Pacific salmon habitat
- Disease and parasite transfer from farm salmon to wild Pacific salmon
- Environmental effects of waste and other substances released from salmon farm net cages
- Removal, storage and disposal of dead farm salmon
- Predation by farm salmon of juvenile wild salmon and other species
- The cumulative effects of salmon farming on the health of wild salmon and other species
- The role of government in regulation of salmon farming, the salmon fishery and wild stocks
- The destruction of marine mammals and other wildlife at salmon farm sites
- Conflicts with other industries such as commercial fishing and eco-tourism
- Cross-border conflicts between British Columbia and Alaska
- Farm salmon and human health issues

Recommendations

1. **Remove all net-cage salmon farms from the marine environment by January 1, 2005**
 Removing salmon farm net cages from B.C. waters and replacing them with closed-loop containment systems prevents waste from being discharged and resolves most environmental issues. All salmon farms should be converted within three years, with farms in wild salmon migration routes or other sensitive areas an immediate priority.
2. **Remove responsibility for promotion of aquaculture from the Department of Fisheries and Oceans; increase monitoring and regulation of salmon farming by government regulators**
 The department's support and promotion of aquaculture is in conflict with its responsibility to protect wild salmon stocks. DFO must place a priority on wild salmon without this conflicting responsibility. Regulators should effectively monitor the industry and enforce the laws designed to protect our resources and environment.
3. **Increase involvement of communities, especially First Nations, in consultation, partnership and ownership of salmon farming operations**
 Joint-venturing with First Nations and other communities, based on higher environmental standards and recognition of aboriginal rights and local values, would reduce or eliminate conflicts. Local communities should be involved in meaningful consultation to avoid conflict and build support.
4. **Maintain the moratorium on new farm sites with no further expansion at existing sites; complete and update the Salmon Aquaculture Review**
 Maintain the B.C. moratorium and prohibit any further expansion until significant progress is made on environmental issues at existing farm sites. Resolving these issues requires updating and completion of the Salmon Aquaculture Review.
5. **Apply the precautionary principle to regulation of the salmon farming industry**
 Regulators should err on the side of caution to protect environmental values and human health. The importance of the values and the resources at stake requires that the precautionary approach be applied.
6. **Require labeling and identification of farm salmon at the consumer level**
 Farm salmon should be identified distinctly from wild salmon in retail outlets and restaurants so consumers can make informed choices. Farm salmon is often labeled "fresh" or "Atlantic." For many consumers, the relevant distinction is "farm" or "wild."



The Broughton Archipelago, between northern Vancouver Island and the mainland, where many of B.C.'s salmon farms are located.

"We were struck by the courtesy, sincerity and goodwill of witnesses from all walks of life and on all sides of the issue. We were reminded once again that the people of British Columbia, regardless of the passion and commitment they bring to an issue, are almost invariably public-spirited, fair-minded and closely connected to the communities, lands and waterways they call home. These qualities, we feel certain, can resolve the conflicts and contradictions that revolve around this industry."

www.leggartinquiry.com

News Release

Government of British Columbia

Government of
British Columbia

Agriculture, Food and Fisheries
#02-01
January 31, 2002

New standards to be set for sustainable aquaculture

VICTORIA - New, comprehensive environmental standards and practices will allow for the managed expansion of the salmon aquaculture industry in British Columbia beginning April 30, 2002, the B.C. government announced today.

"The high operating standards proposed by government, along with improved practices, will protect the environment and allow the industry to expand in a sustainable and responsible manner," said John van Dongen, minister of agriculture, food and fisheries. "For more than four years, government has exhaustively reviewed the scientific work done on the salmon aquaculture issue."

In 1995, the previous government placed a moratorium on new marine salmon farm tenures. An Environmental Assessment Office scientific review, completed in 1997, was the most rigorous and costly in the history of the province. It concluded that, as practised, the risks of salmon aquaculture to the environment were low. The review made 49 recommendations that would further reduce risks of salmon aquaculture, all of which were accepted in full by government and industry.

Since October 1999, the government has worked toward implementing policies that will result in the most comprehensive regime of any jurisdiction in the world for managing the salmon aquaculture industry.

"Our government understands that British Columbians expect our environment to be protected and industry to be in full compliance with strict standards," said Joyce Murray, minister of water, land and air protection. "This industry will be managed in a responsible manner."

"This decision will provide the opportunity for careful and sustainable growth of aquaculture in our hard-hit coastal communities," said Stan Hagen, minister of sustainable resource management.

Improved and new policies for fish escapes, fish health, siting and relocations, fish waste and research and development have been developed and will be finalized by April 30, 2002.

Applications for new aquaculture sites will be accepted after April 30, 2002, and are expected to take up to a year to process. Since aquaculture has a long production cycle, businesses need to make decisions now for production to begin by 2003.



ALASKA IN THE NEWS

January 31, 2002

Release 02021

ALASKA ADVERSELY IMPACTED BY BC DECISION TO LIFT MORATORIUM ON SALMON FARMS*Knowles Urges Reconsideration to Protect Alaska Fisheries and Marine Life*

Saying today's decision to lift the moratorium on new salmon farms in British Columbia (BC) will have adverse impacts on Alaska fisheries and fishing communities, Gov. Tony Knowles urged the BC government to reconsider its decision and accept the recommendations of the independent Leggatt Inquiry into salmon farming.

"I find it troubling that when others are questioning the safety and wisdom of salmon farming and raising serious concerns about problems such as contamination, disease, and the escapes of non native species of fish, that our neighbors in British Columbia are moving forward with expansion of this industry," Knowles said.

"Already this year we have seen the release of 8,000 to 10,000 Atlantic salmon from BC salmon farms," Knowles added. "Along with the 29,000 accidental releases last year, these fish have been documented in Alaska waters and raise the serious threat of the creation of spawning populations of this invasive species."

Knowles said the State of Alaska backs the recommendations of the Leggatt Inquiry into the salmon farming issue in its report, "Clear Choices, Clear Waters." Led by former BC Supreme Court Justice Stuart Leggatt, the inquiry recommended keeping the moratorium against new salmon farm sites and called for the removal of all net cage salmon farms from the BC marine environment by 2005. The State of Alaska testified in favor of such steps in its testimony before the Leggatt Inquiry last year.

"Salmon farms are a threat to our ocean environment and the ecology of Pacific salmon," Knowles said. "The State of Maine recently destroyed some 700,000 pen-raised salmon because of because of widespread infectious disease. Now Maine has quarantined certain areas from fish farming and is considering a moratorium of its own."

"Alaska wisely took action to ban this practice a decade ago, along with steps to protect and grow our populations of wild salmon for commercial, sport, and subsistence uses," Knowles said. "I now strongly urge our neighbors in British Columbia to reconsider the positive recommendations of the Leggatt Inquiry and this decision to allow unchecked expansion of the farmed salmon industry immediately adjacent to Alaska waters."

##

Contact:**Bob King, Press Secretary at (907) 465-3995**

[Press Releases](#) | [Press Office Contacts](#) | [Contact the Governor](#) | [Webmaster](#) | [State of Alaska](#)

-- www.gov.state.ak.us --

ATLANTIC SALMON

A White Paper

Alaska Department of Fish and Game – Southeast Region
February 24, 1999

I. Danger Signals

Historically the enormous number and scope of the wild salmon runs played an important role in defining the Pacific Northwest's unique character. Many of the formerly great runs of Pacific salmon, particularly in southern portions of their range, are now depressed well below historical levels because of the effects of dams, urbanization, and deforestation. In the northern portions of their range most runs of wild salmon remain abundant and a key component of both ocean and coastal ecosystems. These surviving runs represent a renewable resource worth millions of dollars and support rural communities that are dependent on fishing for their cash economies.

Now a new threat to the survival and abundance of wild Pacific salmon appears. In the late 1980's salmon "farms" began to import Atlantic salmon from eastern Canada and Europe. These salmon are raised to maturity in floating saltwater net pens which, damaged by storms and accidents, have released tens of thousands of captive Atlantic salmon.

The annual release of tens of thousands of mature Atlantic salmon into the already challenged Pacific Coast ecosystem amounts to "biological pollution" of the ocean and represents an enormous potential threat to wild Pacific salmon. Introductions of non-native species have frequently resulted in unexpected and often disastrous consequences resulting from competition, predation, crossbreeding, or the introduction of non-native diseases or parasites. Escaped Atlantic salmon are now commonly found in both fresh and saltwater throughout the region. The Canadian press recently reported that Atlantic salmon were spawning successfully in British Columbia's Tsitika River. Sexually mature Atlantic salmon have now been found in streams in Southeast Alaska.

In 1990 Alaska banned salmon farms to protect wild Pacific salmon from potential disease, competition, and other threats. Now, actions by jurisdiction south of Alaska - including the potential expansion of salmon farming by British Columbia threatens Alaska's conservation action. Instead of expanding salmon farm operations, Alaska believes: 1) that there should be a coastwide moratorium on new salmon farms, 2) that Atlantic salmon production in existing farms be immediately capped at current levels, and phased out within a specified timeframe, 3) that farm processes be modified as necessary to eliminate ongoing accidental releases and the chance of disease transmission, and 4) that further imports of fish or fish-products from the Atlantic cease.

Cordova District Fishermen United

Celebrating 65 Years of Service to Commercial Fishermen in Cordova, Alaska
P.O. Box 939 Cordova, Alaska 99574 / phone (907) 424-3447 / fax (907) 424-3430 /
e-mail cdfu@ptialaska.net

March 2, 2002

House Fisheries Committee
Alaska State Legislature
State Capitol (MS 3101)
Juneau, AK 99801-1182

SENT VIA FACSIMILE TO 907.465.3517

RE: HJR 46 - Relating to the Moratorium on Fish Farming in British Columbia

Dear Members,

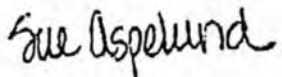
Cordova District Fishermen United represents the commercial fishing fleets of Area E--the Copper River and Prince William Sound.

We recommend your support for HJR 46 recommending reinstatement of the moratorium on fish farms in British Columbia and raising related issues in Pacific Salmon Treaty negotiations. The risks posed to Alaska's wild salmon stocks by B.C. Atlantic salmon escapees and disease transfers is unacceptably high.

We urge the governments of Alaska and of the United States to engage the governments of British Columbia and Canada in discussions and negotiations on these issues.

Alaska's wild salmon runs and fisheries are too important to risk!

Sincerely,



Sue Aspelund
Executive Director

cc: Representative Beth Kerttula

Southeast Alaska Fishermen's Alliance

9369 North Douglas Highway
Juneau, AK 99801



Phone 907-586-6652

Fax 907-586-5648

E-mail: seafa@gci.net

March 4, 2002

Representative Gary Stevens, Co-Chair
Representative Peggy Wilson, Co-Chair
Special House Committee on Fisheries
Alaska State Legislature
State Capitol, Room 124
Juneau, AK 99801

RE: HJR 46 Support

The Southeast Alaska Fishermen's Alliance (SEAFA) appreciates Representative Kerttula and Representative Dyson bringing forward a resolution regarding the lifting of the moratorium on new fish farms in British Columbia and the fish committee for sponsoring the resolution. We fully support a resolution on this issue.

We would like to suggest the following change to the resolution to provide more accuracy.

- Page 2 line 7&8 take out the words native Alaska. At this time there is not any documented disease transfer to Alaska wild salmon but has occurred in places such as Maine, Norway, and Scotland.

As commercial salmon fishermen in Southeast Alaska we are extremely concerned about new fish farms right below the border. We consider the raising of Atlantic salmon on the Pacific Coast to result in the introduction of an exotic species. We currently catch Atlantic salmon escapees from Canada and the Pacific Northwest fish farms while we gillnet in Southeast Alaska. To put the farms just over the border as the expansion of new farms is mostly expected to occur around Prince Rupert is of extreme concern.

We urge the Fish committee to pass this resolution out of committee as additional support for Senator Frank Murkowski and the letter he has written to Honorable Colin Powell, Secretary of State.

Sincerely,

A handwritten signature in black ink that reads "Kathy Hansen".

Kathy Hansen
Executive Director

Petersburg Vessel Owners Association

P.O. Box 232
Petersburg, Alaska 99833
Phone (907) 772-9323 Fax (907) 772-4495

March 1, 2002

Representative Peggy Wilson
Representative Gary Stevens
Co-Chairs
House Special Committee on Fisheries
Alaska State Legislature
State Capitol (MS 3100)
Juneau, AK 99801-1182

Re: HJR No. 46; Relating to the Moratorium on Fish Farming in British Columbia

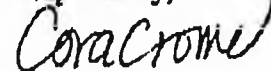
Petersburg Vessel Owners Association is a group of commercial fishermen who participate in many fisheries statewide. Many of our members rely on salmon for a substantial portion of their annual income. In addition, income generated by salmon is very important to our community and to other coastal communities. We would like to thank the Special Committee on Fisheries for introducing this resolution. We are in full support of this resolution relating to the moratorium on fish farming in British Columbia.

We feel that the expansion of British Columbia's fish farming industry poses a major threat to the health of our wild salmon resources. The existing fish farms in British Columbia have already accidentally released a large number of farmed Atlantic salmon that are swimming and reproducing in our streams. In addition to the threat interbreeding poses to our wild stocks, farmed fish are competing with wild Alaskan salmon for food. Disease transfers have been documented from farmed salmon to wild Alaskan salmon.

The full environmental effects of fish farms are yet to be determined. An independent scientific inquiry determined that British Columbia should not lift the moratorium on fish farming. However, the moratorium was lifted on January 31, 2002. We feel that the decision to lift the moratorium and the plans to aggressively expand the number of fish farms in British Columbia will have significant adverse impacts on the health of wild Alaskan salmon and on the Alaskans who rely on them.

We appreciate your support in passing this resolution and your consideration of these comments. If we can provide more information, please feel free to contact us.

Respectfully,



Cora Crome
Director

ATLANTIC SALMON

A White Paper

Alaska Department of Fish and Game – Southeast Region
February 24, 1999

I. Danger Signals

Historically the enormous number and scope of the wild salmon runs played an important role in defining the Pacific Northwest's unique character. Many of the formerly great runs of Pacific salmon, particularly in southern portions of their range, are now depressed well below historical levels because of the effects of dams, urbanization, and deforestation. In the northern portions of their range most runs of wild salmon remain abundant and a key component of both ocean and coastal ecosystems. These surviving runs represent a renewable resource worth millions of dollars and support rural communities that are dependent on fishing for their cash economies.

Now a new threat to the survival and abundance of wild Pacific salmon appears. In the late 1980's salmon "farms" began to import Atlantic salmon from eastern Canada and Europe. These salmon are raised to maturity in floating saltwater net pens which, damaged by storms and accidents, have released tens of thousands of captive Atlantic salmon.

The annual release of tens of thousands of mature Atlantic salmon into the already challenged Pacific Coast ecosystem amounts to "biological pollution" of the ocean and represents an enormous potential threat to wild Pacific salmon. Introductions of non-native species have frequently resulted in unexpected and often disastrous consequences resulting from competition, predation, crossbreeding, or the introduction of non-native diseases or parasites. Escaped Atlantic salmon are now commonly found in both fresh and saltwater throughout the region. The Canadian press recently reported that Atlantic salmon were spawning successfully in British Columbia's Tsitika River. Sexually mature Atlantic salmon have now been found in streams in Southeast Alaska.

In 1990 Alaska banned salmon farms to protect wild Pacific salmon from potential disease, competition, and other threats. Now, actions by jurisdiction south of Alaska - including the potential expansion of salmon farming by British Columbia threatens Alaska's conservation action. Instead of expanding salmon farm operations, Alaska believes: 1) that there should be a coastwide moratorium on new salmon farms, 2) that Atlantic salmon production in existing farms be immediately capped at current levels, and phased out within a specified timeframe, 3) that farm processes be modified as necessary to eliminate ongoing accidental releases and the chance of disease transmission, and 4) that further imports of fish or fish-products from the Atlantic cease.

Alaska Trollers Association City of Cordova
Kodiak Regional Aquaculture Association
Senator Dick Eliason Southeast Alaska Conservation Council
Southeast Conference Taku Smokeries

For Immediate Release
December 3, 2001

British Columbia Fish Farm Inquiry Recommends Ban on Net-Cage Salmon Farms
Proposal Wins Support Across Alaska

Testimony and findings from the October 2001 Leggatt Inquiry independent investigation into British Columbia salmon farms confirmed what Alaskans already know; net-cage salmon farms in B.C. are bad for the environment and bad for Alaskan fishermen and communities.

The Leggatt Inquiry recently released its findings, *Clear Choices, Clean Waters*, reporting that net-cage salmon farms are the cause of major environmental damage to the coastal environment and pose a significant threat to wild fish stocks. The report lists six recommendations for mitigating damage, including removing all net-cage salmon farms by 2005.

Groups across Alaska are pleased that the Leggatt Inquiry recognizes the environmental and social problems posed by salmon farms.

"Alaskan's worst fears about the ecological, human health, labor relations problems and other dangers of fish farming are coming true. Nearly every day, new information surfaces from points across the globe on troubles and conflicts stemming from salmon farming. As the report says, these problems are serious. We don't want them in Alaska," said Dale Kelley, Executive Director of the Alaska Trollers Association.

"Wild salmon are a mainstay of families in Alaska's communities and the heart of Southeast Alaska's rainforest—they're vital to commercial, sport and subsistence fishermen. We simply can't let farmed salmon damage our healthy wild watersheds and coastal resources," said Aurah Landau, Grassroots Organizer at Southeast Alaska Conservation Council.

The Leggatt Inquiry report cites hard evidence that farm fish carry diseases and transfer parasites to wild fish. Fish farms have concentrated amounts of waste and sewage, and waters around fish farms can be fouled by massive die-offs, with vast numbers of salmon rotting in pens.

"Fortunately, Alaska has a moratorium on all fish farms, and so hasn't experienced B.C.'s salmon farm-related disease, parasite, or pollution problems," noted Landau.

Alaskan fishermen and biologists have, however, found escaped farm fish in marine and fresh waters as far north as the Bering Sea. Escaped Atlantic salmon have successfully reproduced in Canadian streams. This non-indigenous species will invade wild fish habitat, spread disease, prey on, and take food from wild fish. B.C. also raises chinook and coho salmon. Escapes of those species may genetically weaken local Pacific salmon stocks.

Oliver Holm, lifelong commercial fisherman and President of the Kodiak Regional Aquaculture Association Board of Directors, worries that the fish farming industry isn't held to genetics policies strong enough to protect wild fish. "Here in Alaska, we don't introduce Atlantic salmon, change the genetic make-up of the fish we raise, or release fish where they will interfere with local stocks and displace our vital local runs. Canadian fish farming practices do all this, even if inadvertently. If continued, they can really harm wild Alaskan salmon runs," said Holm.

- more -

"These fish have no idea if they're wrapped in Maple Leaves or Old Glory - we are finding them in Alaskan waters and are deeply concerned," commented Kelley. She cites Canada and Alaska's obligation to protect both fish and fishermen under the Pacific Salmon Treaty, saying that, "Leggatt's recommendations to prevent escapement and reduce environmental problems should be acted on immediately. They are right in line with the overarching principles of the Treaty."

As the largest private industry in Alaska, commercial fishing and seafood processing sustain thousands of families and communities throughout the state.

Southeast Conference Executive Director Loren Gerhard said, "Salmon are clearly one of the most important contributors to our local economy and social well-being. Anglers, subsistence users, and the seafood and guided sportfishing industries all rely on the pursuit of wild salmon. We Alaskans are very interested in maintaining the health of that resource."

Alaskan and Canadian coastal economies are interconnected and reliant on one another. The affect of the current glut of farmed salmon on the market has been devastating as salmon prices plummet worldwide and small businesses struggle to keep afloat.

Sandro Lane owner of Juneau based processing plant, Taku Smokeries, noted that, "Family businesses and viable townships -- in both countries-- are being put out of business as deep pocketed firms flood the market with cheap fish."

The Leggatt Inquiry testimony and findings also raised questions about the wholesomeness of farmed salmon. The report includes a recommendation to label farmed salmon to distinguish it from wild.

Cordova Mayor Margy Johnson expressed concern that fishermen in her town are not given a level playing field when competing with heavily subsidized farmed fish in the marketplace. She added, "As a long-time restaurateur, I find consumers are becoming increasingly conscious of what they eat. Given a choice, most people tend to chose wild salmon over farmed."

Alaskans across the state hail the Leggatt Report's practical overview of the problems with salmon net-pen farming, and its meaningful recommendations.

"Removing net cages by 2005 is a solid first step towards reducing the impact of farmed salmon on our precious wild salmon runs. We are encouraged by the report and hope officials in British Columbia move quickly to implement Leggatt's recommendations," said Kelley.

"Alaskans should urge both British Columbia and Alaska to maintain their moratoriums on new or expanding fish farms," continued Landau.

Twenty-two year veteran Senator Dick Eliason led the late 1980s charge to deny fish farming in Alaska. Eliason told Leggatt that since that time, "I have received many letters, newspaper articles and scientific reports supporting our position and affirming our concerns as valid." He added that he feels good about the choice Alaskan's made on this issue, "From the perspective of safeguarding our resources and local economy, fish farming is clearly not the way to go."

Canada's federal Auditor General and the Senate ordered the Leggatt Inquiry of fish farm policy for public consultation and review. At the Leggatt Inquiry into British Columbia's salmon net-pen industry, Southeast Alaskan citizens and organizations requested the Canadian government to ban new salmon farms and cap growth on existing salmon farms in British Columbia. Canadian and Pacific Northwest colleagues testified with similar requests. The Honorable Stuart Leggatt, retired parliamentarian and B.C. Supreme Court Judge presided as Inquiry commissioner.

- more -

The Leggatt Report advises the Canadian government to:

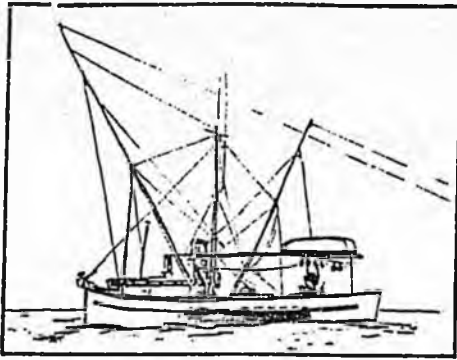
1. Remove all net-cage salmon farms from the marine environment by January 1, 2005.
2. Remove responsibility for promotion of aquaculture from the Department of Fisheries and Oceans; increase monitoring and regulation of salmon farming by government regulators.
3. Increase involvement of communities, especially First Nations, in consultation, partnership and ownership of salmon farming operations.
4. Maintain the moratorium on new farm sites with no further expansion at existing sites; complete and update the Salmon Aquaculture Review.
5. Apply the precautionary principle to regulation of the salmon farming industry.
6. Require labeling and identification of farm salmon at the consumer level.

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Contacts

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|---------------|---------------------------------------|---------------------------|
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| Anrah Landau | Southeast Alaska Conservation Council | (907) 586-6942 |
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For a copy of the Leggatt Inquiry report, see <http://www.leggattinquiry.com/Report/InquiryReport.asp>



Alaska Trollers Association

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March 25, 2002

Representative Beverly Masek, Co-Chair
Representative Drew Scalzi, Co-Chair
House Resources
Alaska State Legislature
Juneau, Alaska 99811

Dear Representatives Masek & Scalzi:

The Alaska Trollers Association supports HJR 46, which opposes the recent decision by British Columbia's government to lift its moratorium on new finfish farm sites.

Attached please find testimony that I presented last fall to the Leggatt Inquiry in Vancouver, BC, which outlines some of our concerns about fish farming. The state of Alaska also testified at this hearing in opposition to B.C.'s proposed lift of the 7-year moratorium.

ATA is extremely concerned about finfish farming, particularly in waters where our shared fisheries resources mingle. We believe the threat of disease, parasites, competition for food and invasion of spawning habitat are too great a risk to bring to bear on salmon, trout, halibut and blackcod stocks upon which Alaskans depend.

Since the moratorium was implemented in B.C. waters, production at existing farmed sites has tripled. Many farm sites are not yet in service, meaning expansion can and likely will occur.

Feral (wild) populations of Atlantic salmon have now been documented in B.C. and it's not unlikely they also exist in Alaska. This is of significant concern, as it suggests the environment may be ripe for successful expansion of this non-indigenous species. For years fish farm advocates explained that Atlantic salmon could never reproduce in our coast. A quick search of information on invasive species issues in this country shows that it is not unusual for a species to be present at low levels in an environment and then take off when something in the ecosystem changes. For instance, Zebra mussels were in the Great Lakes for 120 years before becoming the nuisance species they are today.

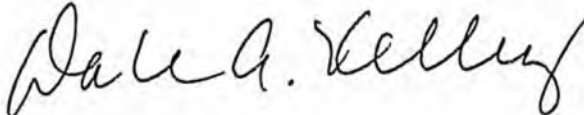
Atlantic salmon are actually a trout and spawn multiple times. They are territorial and are more aggressive feeders than Pacific salmon, they also may grow faster and over time these characteristics could be devastating for Alaska's wild salmon stocks.

Disease has proven a significant issue around the world, on the east coast and, over the last month, in B.C. as well. February 14 brought word from B.C. of an outbreak of the disease IHN, which forced one farm to destroy 1.6 million fish. Two injunctions and many questions about where to dispose of those fish brought to light many of the problems we face trying to safeguarding wild fish from farmed. Since then, 8 farms owned by 4 companies have been identified as having the same disease in the pens. The specific details are difficult to come by, and Canadian citizens have told me that some government officials claim the information is "confidential".

Fish farming brings with it numerous issues to sort through, from environmental impacts to the near shore areas to questions of protecting resident species, food safety and impacts on local economies. Fortunately, Alaska was forward thinking enough to avoid the situation first hand. However, it's obvious fish farming is taking its toll on our industry and communities, and looks to be poised to encroach on our wild salmon's turf.

We encourage you to support HJR 46 and join with industry in opposition to expanded ocean finfish farming.

Cordially,



Dale Kelley
Executive Director

Press Release

February 14, 2002

Marine Harvest Canada and Kitasoo Aquafarms Ltd.

In late January Marine Harvest and Kitasoo Aquafarms Ltd. reported an outbreak of Infectious Hemopoetic Necrosis (IHN) in one of the 7 pens at a salmon farm in Klemtu on the north coast of British Columbia. "Marine Harvest moved quickly to minimize the impact of this outbreak. Risk management was adopted to protect the remaining farm stock. This disease outbreak as managed on this farm site did not pose a risk to wild stock", says Marine Harvest Canada Veterinarian, Dr. Diane Morrison.

Although reporting of this disease is not mandatory, DFO and Ministry Agriculture, Food & Fisheries were notified immediately upon confirmation of IHN. This timely communication demonstrates an ongoing commitment by Marine Harvest Canada to work cooperatively with all levels of government.

IHN is a naturally occurring, endemic disease routinely found in British Columbian Pacific salmon.

The Kitasoo Fisheries Management Department operated by the Kitasoo Indian Band in Klemtu has sampled and monitored IHN levels for several sockeye stocks in the area, over the past 10 years. "IHN is known to occur naturally in varying levels in most wild sockeye stocks in the Klemtu area. Unfortunately, Atlantic salmon have little resistance to this disease", says Kitasoo Fisheries advisor, Larry Greba. "We will be carefully monitoring the outbreak to ensure the most responsible actions are taken by Marine Harvest Canada."

The fish were removed within 24 hours of suspecting the presence of IHN. These fish were removed January 23rd and all fish were placed in sealed metal containers and transported to a licensed composting site as per Best Practices in the BC Salmon Farmers Code of Practice. "IHN does not affect fish quality and poses no human health risk", says Linda Sams, Senior Biologist, Marine Harvest Canada.

IHN was first detected in B.C. during the 1950s, in wild salmon. It is known that IHN is an endemic disease of several species of west coast salmon, including sockeye, Chinook, chum, and other wild fish including herring. The pen in question was stocked with smolts October through November, 2001. Prior to transport to salt water the fish were tested and found to be free of all viruses as per DFO transfer permit regulations. For more information about IHN visit the MAFF web-site at, www.agf.gov.bc.ca/fisheries/health/IHN.htm

Contact Person: Mr. Ron Kilmury, 604-267-7098 or cellular 604-240-0219

Salmon Roulette:

Are we risking our Pacific salmon heritage for Atlantic salmon aquaculture?

The Ring (The University of Victoria's Community Newspaper)

OCTOBER 1, 1999 page 5 (<http://web.uvic.ca/ucom/Ring/99oct01/viewpoint.html>)

By John Volpe

Not since the days of Juan de Fuca and Cook has the thought of invasion weighed so heavily on the collective conscience of people on our coast. These current invasions are not ones of foreign cultures - but of foreign plants and animals.

There is almost daily media coverage of the latest species to land upon B.C. shores. If it's not mussel-devouring green crabs then it's the Asian longhorn beetle, or the honey bee-destroying varroa mite, or bullfrogs with a taste for ducklings.

Movement of species beyond their natural borders has invariably resulted in negative consequences for native species in the target region. This is why the United Nations has declared the introduction of exotic species as the second greatest threat to global biodiversity after habitat destruction.

The latest invasion story to grab front page ink in B.C. is that of Atlantic salmon. More than 32,700 ready-for-market adults escaped two weeks ago at a Vancouver Island fish farm. The depressed state of our native salmon populations and the commercial and sports fisheries that depend on them make this potential invasion particularly worrisome. In the public's eye this is one invasion story that should have and could have been avoided. Are we risking our native salmon heritage for Atlantic salmon aquaculture?

Answers are not so straightforward. Salmon aquaculture is big money in B.C., and with it comes persuasive lobbying power. On the surface it's an easy sell: stitch some nets together, fill your pens with young salmon, feed them to maturity, and harvest for a handsome profit. You provide employment for beleaguered coastal communities and reduce harvest pressure on over-exploited Pacific salmon stocks. The program sells itself.

However, the reality is not quite so cheery. To satisfy the need for fish meal, vast quantities of fish are being removed from southern oceans. Three kilograms of wild fish (plus an unknown quantity of bycatch) are required to produce one kilogram of salmon. This is not a sustainable enterprise.

Most fish farms are owned by offshore multinational companies and are high-tech facilities geared towards minimizing on-site personnel. As technologies mature, the industry will no longer be a significant coastal employer.

Further, to be profitable, fish farms are run feedlot-style and like similar land-based operations, rely on drugs to maintain a healthy population. The inadvertent breeding of "superbugs" or drug-resistant bacteria is promoted in this way, and the potentially devastating long-term ramifications of such practices are only now becoming fully appreciated.

And the notion that salmon farming reduces harvest pressures on wild salmon is a fallacy. For years, there's been an oversupply of salmon on the world market due to aquaculture overproduction, and salmon prices have remained correspondingly low. As prices dropped, commercial fishermen have had to increase their harvests just to maintain their earning power.

The most immediate concern is the large number of fish being released from fish farms. In B.C., more than 80 per cent of production is of Atlantic salmon, which, as its name plainly states, is not native to the Pacific. An estimated 60,000 to 100,000 Atlantic salmon escape into B.C. coastal waters annually (in reality no one really knows how many escape). When escapes occur, the big question on everyone's mind is: What effect are the escapees going to have on our native stocks?

Unfortunately for the uninformed, there is a variety of answers being offered. Most are products of media-savvy organizations that have only thinly veiled their particular slant on the issue. Last summer, I confirmed the first natural spawning of escaped Atlantic salmon in a B.C. stream. The response from the B.C. Fish Farmers Association was that this discovery meant nothing. A few fish here and there does not make an invasion, it claimed. Meanwhile, the federal Department of Fisheries and Oceans ignored its primary mandate of conservation and parroted the words of industry without a moment's hesitation, and provincial authorities cautiously sat on the fence.

The most recent escape at Port McNeill has again provided fodder for the spin machines, resulting in a dog's breakfast of presentations to the public. What does it really mean though?

The short answer is we don't know. Industry continues to hold up the 1997 provincial salmon aquaculture review as evidence of the benign nature of fish farms. The outcome of the review was a set of volumes larger than the Toronto phone book and a vague "cautious yellow light" for industry expansion.

Unfortunately, the review was just that - a review. Data from the North Atlantic and local historical anecdotes were seamlessly applied to present-day B.C. without anyone questioning the soundness of the underlying logic. To think that the current escapees will share the same fate as those a continent away is hopelessly simplistic.

For similar reasons, because Atlantic salmon failed to colonize 70 years ago bears no relevance to today. Lake Ontario was exposed to zebra mussels for a century before they "stuck" in the mid-1980s. Ten years of consistent releases were required to establish European starlings (in New York City's Central Park) in the early days of this century. The natural world is a dynamic place and in a constant state of flux. If a species is introduced often enough, chances are that conditions will eventually swing in its favour.

What may seem like subtle changes to our eyes may result in significant biological effects. For instance, many Pacific salmonid populations are augmented with hatchery fish. Yet it's now well documented that hatchery fish can be deficient in a number of traits necessary for survival. Is it possible that in our zeal to artificially augment wild stocks we've created populations lacking the competitive ability to retard invaders such as Atlantic salmon? Only time will tell.

Atlantic salmon have been reared in B.C. for nearly two decades, yet no one has wondered what might happen if some escaped. The assumption of the public is that someone, sometime must have addressed the ecological issues prior to the importation of Atlantic salmon to B.C. But this is not the case. With the exception of my work, there are no scientific investigations whatsoever, past or present.

We urgently need more science to address these issues before it's too late. My work has shown that escaped Atlantic salmon are capable of surviving in the Pacific, do successfully spawn, and produce young that appear to be every bit as capable of surviving as their native cousins.

A few fish here or there may not be a problem, who knows? But ask yourself this: If an eight kilogram female Atlantic salmon can deposit 15,000 eggs, how many spawners do you need in a river before you have a "problem"?

John Volpe is a PhD candidate in UVic's biology department. His work focuses on the ecology of invading organisms, particularly Atlantic salmon.

**Testimony of
Dale Kelley On Behalf of
United Fishermen of Alaska and Alaska Trollers Association
Leggatt Inquiry
Vancouver, British Columbia
October 11, 2001**

Good morning. My name is Dale Kelley and my testimony will reflect the positions of both United Fishermen of Alaska and the Alaska Trollers Association. Both UFA and ATA are located in Juneau, Alaska.

I appreciate the opportunity to comment for UFA and ATA on the proposed lifting of the current moratorium on new salmon farm sites in British Columbia, a move that both organizations oppose.

My primary job is executive director of the Alaska Trollers Association, but I am also recent past president of United Fishermen of Alaska, where I serve on the executive board and chair the National Issues committee. Over the years I have represented the commercial fishing industry in a wide variety of forums and am currently a Commissioner on the Pacific States Marine Fisheries Commission and president of Fish Habitat Alaska, Salmon for Alaska's Future, and the Alaska Salmon Coalition. In past years, I have served on such bodies as the US Northern Panel of the Pacific Salmon Commission, which is the implementing body of the Pacific Salmon Treaty, and chaired the Alaska's Citizen's Advisory Committee on Federal Reauthorizations and Allied Fishermen of Southeast Alaska, as well as participated in several Gubernatorial and Congressional advisory panels. Part of my academic training focused on fisheries science, the rest in pharmacy and paramedicine. I've worked as a fish culturist in Prince William Sound and Southeast Alaska, and as a deckhand in troll and seine fisheries. In short, fish, fishermen, the seafood industry and the issues surrounding them are all familiar territory to me.

United Fishermen of Alaska is a statewide organization representing commercial fishermen on issues of common concern. Presently, 26 fishing groups and a large number of individual fishermen, processors and businesses make up UFA's membership. Alaska's commercial fishing fleet is 100% US owned and about 80% Alaska resident. The seafood industry is the largest private sector employer and second only to oil in terms of the revenue it generates for the state and its residents. Salmon makes up the lions share of the state's commercial fisheries production.

Alaska Trollers Association represents hook and line salmon fishermen who operate exclusively in Southeast Alaska. The Southeast troll fishery is one of the largest salmon fleets in the state and is 86% resident, with over 40% of the permit holders living in rural communities. Roughly one of every 30 people living in our region works on a troll boat – and this figure does not include the processing and support sector that rely on our fleet. When you add in the rest of

the commercial salmon fleets, the guided sportfishing industry, resident anglers, and subsistence users, the pursuit of wild salmon is clearly one of the most important contributors to our local economy and social well-being.

So... why am I here? Why would a fishing representative from Alaska come to Vancouver to testify on this issue? Why do I think the people of Canada should care what me, or others in Alaska, think about economic decisions made by your country? Why should Canadian's listen to us, and perhaps even deny additional growth in the farmed industry as we suggest, as opposed to applying a boot to my uppity behind and pointing me towards the border?

I am here because we Alaskan's are watching – we are concerned – and we are affected by the decisions you make about your salmon resource. Most importantly to you, Canada will be deeply affected by the decisions you make, and Canada will be affected if Alaska is harmed.

There is a simple truth about the commercial fishing industry – our US and Canadian coastal economies, particularly in North Central BC and Alaska, are inter-connected and reliant on one another. I have Canadian fishermen in my organization. Alaskans buy gear from Canadians. Canadian processors own packers and processing plants in Alaska. Some of the fish we harvest in Alaska is processed by plants here in B.C. Would it surprise you to know that there have been years when over 80% of the sockeye processed in Canada were harvested mostly by Alaska's Bristol Bay fishermen?

Canada and Alaska share a salmon resource – these fish have no idea if they are wrapped in Maple Leaves or Old Glory. We have a combined obligation under the Pacific Salmon Treaty to protect BOTH fish and fishermen. In Alaska, we believe we do our part – sometimes at great expense to fleets like mine. We make decisions with regard to resource development that are sometimes counter-intuitive to corporate CEOs, but make absolute sense to a fishing economy. We safeguard our natural resources and those who rely on them. We honor management agreements made with others for conservation and allocation.

Given the acrimony we experienced live and in the press just a few years ago, and the hits we took in the Treaty, it has been nothing short of amazing to we Alaskans to watch the Canadian government continue to tear up its habitat and dismantle its coastal fishing industry, only to replace it with operations that appear far less durable over time. Fish farming is a prime example – it's not sustainable now and might never truly be. Note that everywhere this industry exists in the marine environment, something else seems to suffer – typically local fish populations, the environment, artesiansal fishermen and their communities.

Canada looks to be trading off homegrown coastal economies primarily for multinational corporations based in distant lands. Family businesses and viable townships – in your country and mine -- are being put out of business as deep pocket firms flood the market with cheap fish... and wait. Widgets...semi-

conductors...fish, it's all the same. Capture the market share and topple the competition – out last them. Do these corporations care about you? Us? The long-term future of our region? Looks to me like they're just filling the voids which they create as they shove existing industries aside.

Do the benefits of these large-scale, often subsidized, 'aqua-business' ventures really pencil out for a region like ours? It's not difficult to see that fish farms often mean the trade-off of higher paying seafood jobs and independent businesses for a smaller set of unskilled low wage jobs.

Fish farmers don't appear to internalize their costs like fishermen do – we have to pay for ourselves, and we ALL seem to pay for the farms one way or another. Take for instance a recent year disease problem on the east coast, which was likely caused by farming, directly or indirectly. The problem was made worse by some fish farmers' refusal to kill fish suspected of harboring the disease. When the disease spread over a wide area, the farmers finally admitted that to stop the disease they'd have to eliminate the fish in their pens. Of course they insisted the federal government come to their aide to the tune of \$10 million. In contrast, when a problem erupts in commercial fisheries, we sit on the beach and draw down our savings accounts. Pure and simple. Whether it's to protect the resource, or move fish to other users, fishermen usually absorb the costs of doing business.

On the other hand, fish farmers have been allowed to externalize their costs. Who pays to clean up the toxic sludge under those net pens? Not the farmers, by what I can tell. Apparently dilution is seen as their solution to pollution - they aren't being held accountable for the impacts of their trade. But pity the person with the allergy who pays the price by bringing up the animal, that eats the waste under the net pen, that's full of the antibiotics, which makes them suddenly feel ill, yet they don't know why. Or the resource that pays via the many crustaceans killed inadvertently when doused by the drugs used to kill their cousins the sea lice; or, the sea lions killed after being chummed in by the fish hung in front of their noses? And what about the oyster farmer who relies on a pristine water source to rear his product to market size? The pollution near those net pens takes it's pound of flesh out of that person as well. Yep, someone or something pays, yet often it's not the ones who do the damage.

Given the spate of new information coming to light, along with criticism being leveled from high within your government's ranks, what will happen when Canada decides to truly regulate these firms and make them liable? And, what about when the price gets too steep to protect the resource AND maintain their margins? Can salmon farmers really compete without subsidies and liberal regulations? Or will they drag up and head to a developing country with more lax rules and restrictions? History suggests that could happen. And what with Japan and Russia recently cutting a deal on fish farming, China searching out new mariculture opportunity and the Chilean's stated intent to leave their doors wide open to expansion, well, it just makes you wonder.

Alaskans are committed to sustainable resource development and cared enough to build that philosophy right into our Constitution. In fact, if not for the quest to save our salmon from extinction from the brazen, short sighted activities of a few, I wonder whether we'd even be a state today. By law, every decision we make about fish and wildlife mandates that the health of the resource comes first. Have we made mistakes? Certainly, but the state and user groups strive to correct problems as they surface. The process involves the public, is dynamic and the results have been rewarding – in Alaska we have both salmon and working salmon fishermen.

Our state has thus far denied fish farming in its waters. I was one of many people around the state who fought for these provisions. The effort to ban fish farming was led by Senator Dick Eliason, who's testimony I will add to the record today. When we argued against fish farming there was a large number of suppositions and fears, but very little real evidence of the associated problems. Of the verifiable problems, advocates told us most could be controlled. They were wrong. How do we know? Because, the problems have only gotten worse. We don't even allow fish farming, yet your Atlantic salmon are now found in our rivers, and we catch them in our fisheries. Farmed salmon are spawning in Canada, and most likely in Alaska, too.

The dam has burst on the silence surrounding the dangers of fish farming. All the things Alaskans feared, and more, have come true somewhere. Nearly every day there are articles from points across the world regarding the troubles and conflicts stemming from salmon farming. From ecology and water quality, to public policy regarding land and water use, to transmission of disease, to development of feral populations, to human health matters and labor relations. It's all out there. If I can ask your patience, I'd like to share just a small sampling of information I've gathered from a number of different countries and sources.

This one was a little predictive and actually includes quotes from one of your own, Brian Riddell of DFO, "Salmon Farm Problems Mount in both Norway and B.C." It talks about disease and parasite issues in 1990.

Here's one from 1999, "Disease Found in Fife Sound Fish Escapees". Nothing to worry about there.

"Stellar Sea Lions Beleaguered by Salmon Farmers." This one's in B.C., but it's happening all over Chile and anywhere else they have critters in the water. We're managed under the Marine Mammal Protection Act. We are stringently regulated all over the State of Alaska, and some fisheries right now are suffering deep restrictions to preserve marine mammals. These are integrated, interrelated coastal populations. There's hundreds of these mammals being killed each year. I believe without an enforcement and reporting process you don't even know how many.

Here is "Salmon Virus Found in Three Maine Fish Farms." So we have troubles in the U.S., too.

Then we have Tasmania totally up in arms and alarmed about importing Canadian fish into their country because of disease issues. They have

fish farms in Tasmania. They don't want to transmit those diseases down to their farms.

Scotland, very concerned...lots of stuff out of Scotland these days, "Fish Farms Spawn Trouble for Salmon Anglers," has to do with integration of their wild and farm stocks and reduced production in their streams. They've got sea lice problems everywhere, and disease; it's a mess.

Here's the Scottish Environmental Protection Agency, "Pollution from Fish Farms Seen as Bad Sewage." The Scottish shellfish farmers are ticked off and they don't want the Shetland Islands to remove the moratorium on salmon farming. Why? Because all that salmon farming is affecting their water purity, it's transmitting chemicals into the water that's harming their resource. So they're bummed out, and they're actually farmers.

We've got "Officers Threatened." Now, I'm Irish so I can joke about this one. Violence was threatened in Northern Ireland over fish farm releases there. They've got fish farmers that are --

JUDGE LEGGATT: As if they didn't have enough trouble in Ireland.

KELLEY: Yeah. Yeah, in County Antrim no less. Right before a trip of mine a couple of weeks ago to talk about fish farming in DC, they had a huge escape of farmed fish. The anglers don't want those fish in the rivers. Can you imagine? So they're snagging them. Of course, they're selling them and that's a little tacky, but their main point seemed to be that they didn't want them in the rivers, so they're pretty riled up.

Here's NASCO. You know them, they're charged with looking after fish. They're pretty concerned about interactions between wild and Atlantic salmon stocks. Canada does have a farm industry on the opposite coast, as do we, and we have Atlantic salmon listed under the Endangered Species Act. So, how much sense does that make? They're killing those fish in pens because of disease. The fish are escaping due to storms. It's ridiculous.

Here's Chile accused of dumping farmed fish. That's affecting your fishermen here in this state as much as yours. Our price is in the toilet. They're kicking our ass. Can I say that in Canada?

JUDGE LEGGATT: Yeah, that's okay.

KELLEY: I write to a salmon farmer in Chile actually, and you know, the fish farm issues break down into the big boys and the little guys, too. And this guy is very concerned. He writes me all the time about his concerns. Labour concerns are a big issue, and others, but here's one really charming, "large amounts of open mortality pits on private and fiscal land that when discovered are sealed off by a thin layer of sand and soil that after a few days sinks into the rotting mess that stinks for miles and attracts rodents, flies, et cetera." You know, I've cultured fish. Fish die in pens. You've got to do something with them. And, especially if they're diseased, you don't want them in the water. So, just what are the fish farmers doing with their mortalities?

And finally there's a lot of discussion about what goes into these fish - we always hear that those chemicals are perfectly harmless. Well,

here's the European Commission. Their Scientific Committee for Food has written an opinion that they're very concerned about the colouring agents fed to these fish. We've all been told that that's the most natural thing going into farmed fish. Well, apparently it's causing crystallization on people's retinas and other charming things...liver toxicity and other matters. So what is going into these fish and what's the risk of what's on these dinner plates?

Fish farming is proving a poor substitute for Mother Nature. For thousands of years we've relied on nature to raise the fish we catch and eat. With careful management programs, salmon return wild and pure and healthy, they eat what salmon are supposed to eat - it's an efficient system that's produced lovely colored, firm fleshed, disease free fish to feed people and our economies. Contrast that with the self-appointed new age salmon producers who use copious amounts of space and precious natural resources to grow out fish. We're talking about the ones who use about 1300 litres of diesel fuel per metric ton of feed delivered to the Campbell River area and feed grotesque amounts of perfectly good food fish to salmon in pens - like, 100,000 metric tons of those other food fish to make only 40,000 metric tons of farmed Atlantic salmon. Apparently, it takes even more resources to produce farmed chinook salmon.

Farmed salmon are laced with growth hormones, anti-virals, antibiotics, coloring agents, and chemicals to rid the critters of parasites. The poor things are bathed in this cosmic-stew until they're the appropriate size and shape to be pushed to a consumer, who often has no idea how many resources and chemicals went into the manufacture of his or her 'middle of the plate protein'. Will the consumer even be informed when that fish on the plate has been genetically modified? I'm not talking about line-breeding to highlight the natural strengths of a particular stock - I'm talking about crossing salmon species...or worse. How about mixing a fish and a cow for faster growth rates? Does this sound like a bad sci-fi flick? Am I a total paranoid? Well, just look at what's happened to corn and soybeans.

According to a New York Times report last June, nearly all the available seed - worldwide - is genetically modified. One morning we woke up and they spilled the soybeans, as it were, AFTER there was virtually nothing to be done about it. By the way, flounders (the fish) can provide a pretty good gene for cold weather tolerance in those plants. And, how about the pesticides that they've built right in - no muss, no fuss, no harm, no foul...we hope. Did anyone ask YOU if they could experiment in this way with your food? Well, they didn't ask me, and I doubt the fish farming industry intends to ask if you'll accept a genetically modified salmon, yet they've already asked the US Food and Drug Administration to allow them to be exported into our country.

Whether or not genetically modified salmon is a health risk for humans isn't so much my point in this context as the fact that an influx of genetically modified fish into our rivers could definitely harm the salmon we all depend on. However, this type of food safety question is worthy of public debate before such altered products wind up on someone's dinner plate. But most of the regions fish farmers didn't even give the people at this inquiry the respect to show up and hear their concerns, much less discuss those concerns and share their industry

perspective about expanding its turf. You think they're going to waste time with us on something like food safety or safeguarding the genetic integrity of wild salmon? What happens to Canadian and Alaskan markets when the consumer gets confused about which salmon is "safe" to buy, so turns away from salmon altogether? Even worse, what happens when those genetically modified fish pair up with wild salmon or trout in the streams? Just think about what it could mean to salmon stocks that have already been listed under the Endangered Species Act. We're told that's just not gonna happen, but farmed fish weren't going to escape in any large number, and those that did weren't expected to survive, much less spawn. So, forgive us if we remain skeptical.

Fishermen and communities in Alaska do not support salmon farming. The short-term benefit for a few does not appear to outweigh the long term risks to our natural resources or our shared coastal economy. Today, Senator Eliason still says no to fish farming and believes he made the right decision on behalf of the people of Alaska. He is supported in that belief by the Southeast Conference, which represents the communities of Southeast Alaska, and by many others throughout the state. I am certain that had this hearing not occurred in the final days of our fishing season, you would have seen even more Alaskan comments in support of not only sustaining Canada's current moratorium, but also for reducing the size and scale of the existing industry and requests that your government deny expansion into other species, in order to help ensure both the integrity of the coastwide fishery resource and the vitality of our communities.

Alaska fishermen recognize this as an issue of mutual concern between our regions and stand willing to assist in the efforts to preserve the existing moratorium on new salmon farm permits.

Thank you again for the opportunity to comment on this important topic.

Oh, just one last thing...

I'd like to respond publicly to a recent editorial in a Canadian paper that referred to this hearing as a gathering of so the called 'eco-elite', and went so far as to compare this inquiry to a Taliban undertaking. Shame on them!

Maybe it's because I happened to be at the US Capitol Building on September 11th. Perhaps it's because I was simultaneously evacuated from two different buildings within an hour, felt the moment of impact when the Pentagon was hit and saw the twin towers crumble LIVE on the TV screen. It might be because I experienced first hand WA DC's short loss of contact with the outside and witnessed its transition to a police state - with its associated military presence - F16's and helicopters over head day and night, streets cordoned off, ID's checked at every turn and people's nervous musings about what and who was next, all blended with the incessant blaring of sirens. Or, it could be the fact that I was stuck there for nearly an extra week, then had to drive to Chicago to fly home from the busiest airport in the nation, which had all the ambience of some eerie ghost town. That said, I also witnessed the best of what America, and

people in general, have to offer – an out pouring of love, good will and a rousing, hopeful spirit that can't help but provide comfort in the midst of chaos.

Whatever the reason, I consider the editor's comments an insult of the highest level and in very poor taste. I deeply resent such a comparison of myself, or others involved in this inquiry, to such evil - even in jest. This is no joking matter for me – is it for any of us?

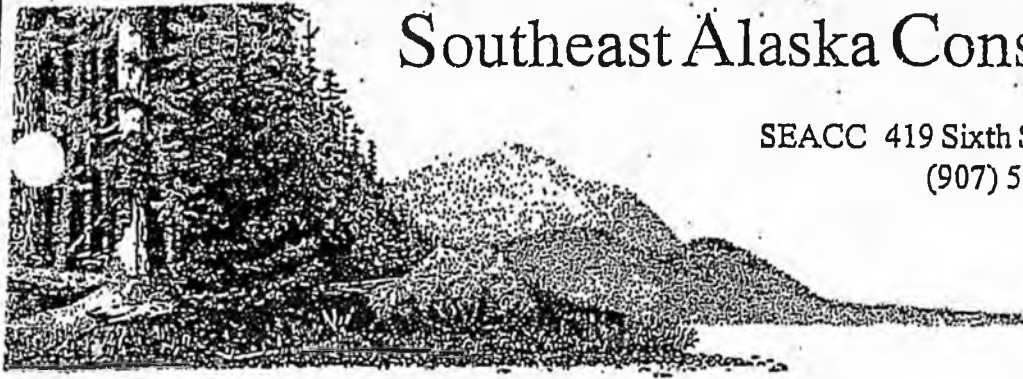
On behalf of Alaska fishermen, I wish to remember the 9-11 victims on this one month anniversary, and to extend to the families of this tragedy, both in our nation and throughout the world, our heartfelt sympathy. My hope for us all is for a lasting resolution to the horrors we currently face.

Here's to peace in our time.

Contact Information

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<http://www.ufa-fish.org>



Southeast Alaska Conservation Council

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(907) 586-6942 phone (907) 463-3312 fax
info@seacc.org

A Resolution Supporting a Ban on Pacific Coast Marine-Based Salmon Farming

Whereas commercial fishing and seafood processing comprise Southeast Alaska's largest private industry;

Whereas more than 80% of Southeast Alaska's rural households rely on subsistence hunting, fishing, and gathering and one out of four households harvest more than 250 pounds of wild food per year;

Whereas Tongass streams and lakes spawn and rear 80% of the wild salmon in Southeast Alaska, and wild salmon populations are dependant on wild watersheds;

Whereas Southeast Alaska salmon populations are robust, and not endangered, and can be maintained that way through reasonable effort;

Whereas farmed salmon potentially threaten to contaminate Southeast Alaskan salmon runs through risk of exotic disease transfer, habitat encroachment, competition for prey fish, and genetic weakening;

Whereas salmon farms threaten coastal resources with concentrated amounts of biowaste;

Whereas farmed salmon often contain antibiotics, pesticides, herbicides and dyes;

Whereas farmed salmon are not an environmentally sound, healthy alternative to wild salmon;

Whereas wild Alaskan salmon consume a natural diet, and are prized for their purity and wild origins;

Whereas wild Alaskan salmon set the standard for a wholesome and nutritious commodity, and are managed utilizing sustainable harvesting practices;

Therefore be it resolved that the Southeast Alaska Conservation Council supports Alaska's existing moratorium on salmon farms, and strongly urges the State of Alaska to renew the moratorium when it comes up for review;

Therefore be it resolved that the Southeast Alaska Conservation Council opposes any move towards marine-based salmon farming in the State of Alaska;

Therefore be it resolved that the Southeast Alaska Conservation Council encourages British Columbia to uphold the moratorium on new marine-based salmon farms;

Therefore be it resolved that the Southeast Alaska Conservation Council encourages British Columbia to establish stringent facility maintenance and oversight standards on existing marine-based salmon farms to prevent further escapement;

Southeast Alaska Conservation Council Board of Directors
Resolution 010902-2

Page 1 of 2

Therefore be it resolved that the Southeast Alaska Conservation Council opposes siting new salmon farms in the ocean; and

Therefore be it resolved that the Southeast Alaska Conservation Council opposes marine-based salmon farms because of the risks they pose to healthy populations of wild Alaskan salmon and intact Southeast Alaskan coastal resources.

ADOPTED this 2nd day of September 2001 by the Board of Directors of the Southeast Alaska Conservation Council by a vote of 12 ayes, 2 nays, and 0 abstentions from all present voting members of the Board of Directors.

CERTIFY

Wayne Wulung
Board of Directors President

ATTEST

Susan E. Schneider

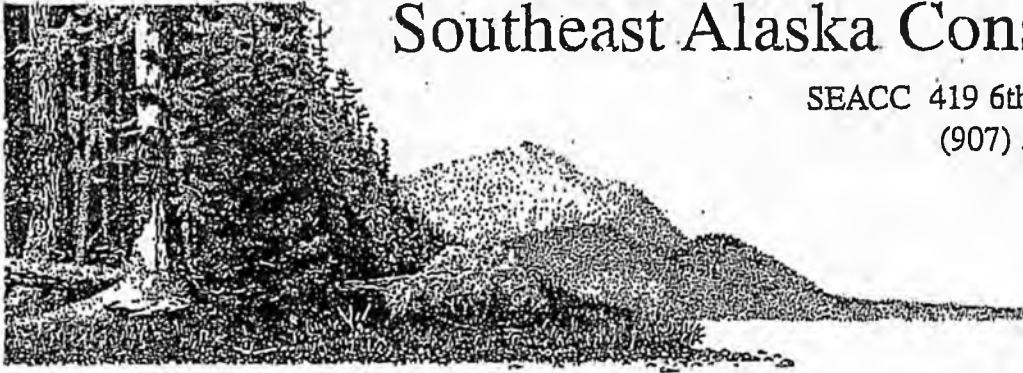
Board of Directors Secretary

SEACC is a coalition of eighteen volunteer conservation groups in fourteen far-flung communities across Southeast Alaska, from Ketchikan to Yakutat. SEACC's individual members include commercial and sport fishermen, Alaska Natives, subsistence users, hunters and guides, tourism and recreation business owners, small timber operators and high value-added wood product manufacturers, as well as concerned citizens from all walks of life. SEACC is dedicated to safeguarding the integrity of Southeast Alaska's unsurpassed natural environment while providing for balanced, sustainable use of our region's resources.

Copies sent to:

Alaska Department of Fish and Game
Alaska Department of Fish and Game Advisory
Committees
Alaska Independent Fishermen's Marketing
Association
Alaska Longline Fishermen's Association
Alaska Marine Conservation Council
Alaska Seafood Marketing Institute
Alaska Trollers Association
Alaska Board of Fisheries
Fishermen Involved in Saving Habitat
Governor Tony Knowles
Oceans Blue Foundation

Petersburg Vessel Owners Association
Regional Subsistence Advisory Councils
Sierra Club, Alaska
Sierra Club, B.C
Sierra Club, Washington
Southeast Alaska Fishermen's Alliance
Southeast Alaska Seiners Association
Southern S.E. Regional Aquaculture Association
Transboundary Watershed Alliance
United Fishermen of Alaska
United Southeast Alaska Gillnetters
United States Forest Service

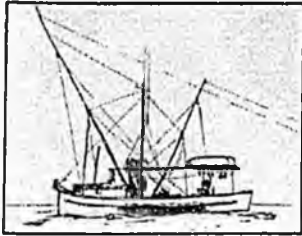


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Testimony of Aurah Landau before the House Special Committee on Fisheries on HJR 46 "Relating to the moratorium of fish farming in British Columbia" 03/18/02

- ❑ Salmon farms in British Columbia (BC) are bad for the environment and bad for Alaskan fishermen and communities.
- ❑ As the largest private industry in Alaska, commercial fishing and seafood processing sustain thousands of families and communities throughout the state. Wild salmon are a mainstay of families in Alaska's communities and the heart of the rainforest that stretches across the BC and Alaskan coastline. We need intact high-producing watersheds and wild salmon runs to sustain subsistence, sport and commercial fisheries opportunities on both sides of the border.
- ❑ The BC government lifted its moratorium on new fish farms, ignoring the scientists, government officials, and representatives from fishing, Native, conservation and citizen organizations who testified at the recent Leggatt Inquiry that fish farms cause environmental, social and economic harm.
- ❑ Alaskan and Canadian coastal economies are interconnected and reliant on one another. The effect of the current glut of farmed salmon on the market has been devastating as salmon prices plummet worldwide and small businesses struggle to keep afloat.
- ❑ There is hard evidence that farm fish carry diseases and transfer parasites to wild fish. Fish farms have concentrated amounts of waste and sewage, and waters around fish farms can be fouled by massive die-offs, with vast numbers of salmon rotting in pens. Fortunately, Alaska has a moratorium on all fish farms, and so hasn't experienced BC's direct salmon farm-related disease, parasite, or pollution problems.
- ❑ Alaskan fishermen and biologists are, however, finding escaped farm fish in marine and fresh waters as far north as the Bering Sea. Escaped Atlantic salmon are successfully reproducing in Canadian streams. This non-indigenous species may invade wild fish habitat, spread disease, take food from and prey on wild fish. B.C. also raises chinook and coho salmon. Escapes of those species may genetically weaken local Pacific salmon stocks.
- ❑ Sustainability is the real issue here. Maine recently destroyed many of their farmed fish because of widespread disease. Fish farming in Norway, Scotland and Ireland has contributed to the collapse of wild fish stocks in those countries. Norway found that fish farms expose wild fish to high concentrations of pathogens and parasites. When the BC government promotes fish farms, how long do we have until wild salmon fisheries collapse on either side of the border? It's bad economics and irresponsible to threaten our shared marine systems with even more fish farms.
- ❑ I thank the House Fisheries Committee for their wisdom and responsibility in supporting Alaska's fishing communities by strongly encouraging the BC government to reinstate the moratorium on new fish farms. BC must be a good neighbor and reinstate the moratorium to prevent damage to intact wild salmon runs and marine resources in both countries.



Alaska Trollers Association

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April 22, 2002

Senator John Torgerson, Chair
Senate Resources Committee
Alaska State Legislature
Juneau, AK 99811

Dear Senator Torgerson and Committee Members:

The Alaska Trollers Association supports HJR 46, which asks the government of British Columbia to maintain its moratorium on new finfish farm sites until they can assure Alaska that *all possible steps have been taken to preclude further escapes of farmed fish*. This seems like a reasonable request for our state to make, given the potential risk to Alaska's fisheries resource from farmed fish. It is important that Alaska's voice be heard soon, as the moratorium is slated to be lifted April 30th.

Canada is currently raising in ocean net cages Pacific salmon, trout, halibut and Blackcod, as well as non-indigenous Atlantic salmon. I will attach for your review an overview of the BC fish farm industry and a copy of testimony in opposition to the moratorium lift, which I presented last fall at the Leggatt Inquiry in Vancouver. The state of Alaska also testified at the hearing in opposition.

The Leggatt Inquiry was established when the Canadian government refused to involve the public in its decision-making on farmed fish policy. The Canadian government and most of the mariculture industry refused to participate in the inquiry, even though time was set aside for them each day. Hearings were conducted in eight communities - four full days in Vancouver alone. The most significant conclusion reached by the Honorable Judge Stuart Leggatt in his independent review, was that net-pens should be removed from the ocean by January 2005, due to high-level risk and deleterious impacts on wild fish stocks and the environment. The other recommendations can be found at: <http://www.leggattinquiry.com>.

Two separate entities within the Canadian government have called for such things as better methodology to address negative impacts caused by fish farming; improved accountability; and, a process for public involvement. Despite the fact that specific recommendations have been made but have yet to be implemented, the BC government still intends to lift the moratorium. This seems unconscionable, particularly when you consider that wild populations of Atlantic salmon have been found in BC streams, large scale disease outbreaks have erupted in most BC fish farm areas, and the neighboring country and states are finding Atlantic salmon in their streams and in fisheries as far west as the Bering Sea.

To date, no public process has been established to assess impacts or the willingness of US and Canadian citizens to harbor large scale fish farm operations in public waters. This is no 'Ma and Pa' locally based industry. The key players are multi-national corporations, predominantly from Norway and Holland. Only five firms own 85% of the farmed fish being produced in British Columbia - of those, only one is a Canadian company with subsidiaries in Canada, the United States and Chile.

As you are voting on this resolution today, I am working to galvanize the efforts of a coalition of over 50 commercial, sport, environmental and native organizations and communities, from California to Alaska - US and Canadian – who are deeply concerned about this issue. It is the hope of ATA, and many other interests, that the Alaska Legislature and Governor move HJR 46 quickly through the process and send the clear statement that, once again, the State of Alaska cares to show its commitment to the health of its fisheries resources and fishing dependent communities.

Thanks in advance for your consideration of ATA's point of view.

Respectfully,

Dale Kelley
Executive Director

Overview of Current British Columbia Salmon Farm Issues

Industry Snapshot (Source: MAFF)

- First salmon farm in 1971
- BC is the 4th largest producer of farmed salmon
- 65% of Canadian farmed product comes from British Columbia
- Atlantic and chinook are primary farmed species
- North Vancouver Island, Clayoquot Sound and Campbell River primary areas
- 100 tons produced in 1980
- 49,400 tons in 2000 worth \$282 million to the farms and \$320 million wholesale
- 121 salmon farms owned by 12 companies in 2000 (35 farms / 50 companies in 1989)
- Farms appear to be 74% foreign owned and 26% Canadian
- Farm owners: 72 Norwegian, 17 Dutch, 15 Canadian corporate, up to 17 Canadian private
- Top 5 companies (over 70% foreign) produce nearly 83% of the salmon
- 77% of product exported in 1999 – 90% of that to the US
- Farmed salmon, shellfish and trout were 29% (\$166mil) of the value of BC seafood in 1996
- Farmed salmon output has tripled since 1995 moratorium went into effect (per Suzuki staff)

Ownership (Source: MAFF+)

Farm Tenures / Owner

| | |
|----|--|
| 24 | Pan Fish (Omega Salmon Group) - Norway |
| 27 | Stolt Sea Farms – Norway, parent company Stolt-Nielsen |
| 18 | Cermaq – Norway (possibly state-owned; was Statkorn; merged again March '02) |
| 17 | Marine Harvest -linked with Moore-Clark, Canada - parent co. Nutreco (Netherlands) |
| 15 | Heritage Aquaculture/Salmon – George Weston, Canada |
| 8 | Target Marine Products - Canada |
| 6 | Creative Salmon - seems to be Canadian owned |
| 3 | Greig Seafood – Norway |
| 1 | Totem Oysters – Canada (one of the last family operations – also some blackcod) |
| 1 | Saltstream Engineering - ? |
| 1 | Yellow Island Aquaculture - ? |

Managing Agencies

Federal Department of Fisheries and Oceans (DFO)

DFO Commissioner for Aquaculture Development (2001 Comm. Yves Bastien / Jack Taylor, ED)

Provincial Minister of Agriculture, Food and Fisheries (MAFF)

Provincial Minister of Environment, Land and Parks

Moratorium and Related Chronology

1995 Provincial and Federal governments place moratorium on fish farm expansion and said lifting the moratorium would rely on development of a regulatory framework for managing the industry; review of industry compliance and technology; and, consultation with coastal communities.

1997 Environmental Assessment Office, through its Salmon Aquaculture Review Report, makes 49 recommendations to reduce risk of aquaculture – government and industry accept all

1997 Newly elected Liberal government announces support for expanding finfish mariculture

1999 Government announces new salmon aquaculture policy framework

2000 June interim report issued by Parliament's Standing Senate Committee on Fisheries urges cautious approach to fish farming and expansion – final report has not yet been published.

2000 report by Canada's Auditor General found that DFO had inadequate research, monitoring and risk management framework to adequately protect wild salmon and habitat under the Fisheries Act.

2002 January 31 BC announces moratorium will be lifted April 30 and new standards implemented

Escapes

Escaped farmed Atlantic salmon have been found:

- In ocean fisheries as far west as the Bering Sea
- In 4 Alaska streams: Ward Creek, Doame, Situk and Martin Rivers
- In 78 Canadian streams – and some are successfully reproducing

There is no information regarding the number of farmed chinook and coho present in Alaska waters. Escapes are likely under-reported and under-estimated.

Disease

In mid-February it was announced that Heritage Salmon was transporting for disposal 1.6 million salmon infected with the IHN virus. These fish were on their way to Bella Coola Fisheries a processing plant on the Fraser River, where inadequate means exist to safeguard in-river populations of salmon. The Musqueam Band and the David Suzuki Foundation obtained a restraining order blocking delivery. The fish were then taken to French Creek for disposal, but another restraining order kept them from being offloaded, because the licensed composting facility was full to capacity. Ultimately, the fish were accepted at a composting facility at Courtenay.

Since the first news of IHN outbreak at Heritage Aquaculture, seven other farms, owned by three companies (Heritage Aquaculture, Omega and Marine Harvest), have been confirmed by the Canadian government to have IHN outbreaks in progress. 90,000 fish are believed to have been killed at one site, but little is known about where they were taken or what is happening at the other farms. Canadian citizens and organizations have been told by a government veterinarian that this information is confidential.

Sea Lice

This is a significant issue in other fish farming countries, where regulations are set regarding the number of lice allowed per farmed animal in the pen during migration and outmigration of local salmon populations. The use of pesticides is regulated elsewhere, and recently a number of farms in the UK were heavily penalized for using a substance banned in Europe by treaty.

While sea lice has been raised as a significant issue by independent scientists surveying fish farm areas, who claim increased levels of sea lice are negatively impacting juvenile wild salmon, it is unclear to us what Canada's policy is on sea lice or what method is being utilized by the farmers to eradicate them in the net pens.

Genetic Modification

Aqua Bounty Farms has applied to the US Food and Drug Administration (FDA) for permission to import its engineered salmon into the US. The fish contain foreign genes that stimulate the fish to grow to market size in about half the time it takes normal salmon. Researchers accomplished this by inserting two genes into the fertilized eggs of the fish. The first gene, which produces growth hormones, is taken from a chinook salmon. The second gene, from the ocean pout, is a "promoter" that activates the first gene. The pout promoter gene was used because this fish produces growth hormones year round, unlike salmon, which produce growth hormones only during the warmer, summer months.

Scientists at Purdue University warn that under certain circumstances genetically engineered fish could wipe out wild salmon populations. Other scientists believe the genetically altered fish pose little risk of reproducing or otherwise impacting wild fish, since they are thought to have inferior survival capabilities. Aqua Bounty Farms thinks the FDA will demand it raise only sterile females.

The Center for Food Safety, among others, is running a write-in campaign in opposition.

Other Concerns

Wholesomeness of farmed product due to antibiotics, pesticides and other substances

Fish food – what's in it and how many forage fish are harvested to produce it?

Siting of fish farms

Water quality / ocean habitat

Predator control at farms

NEW! ADFG Webpage: http://www.state.ak.us/adfg/aeninfo/special/AS/AS_home.htm

What can YOU do?

Write AK, US and Canadian officials about your concerns on fish farming and related issues

Sign, circulate and mail petitions against the lift on Canada's moratorium on fish farm expansion

Assist with postcard campaign against genetically modified salmon

Get information and share with others

Join and work with your local gear group or association – coalesce with other groups

**Testimony of
Dale Kelley On Behalf of
United Fishermen of Alaska and Alaska Trollers Association
Leggatt Inquiry
Vancouver, British Columbia
October 11, 2001**

Good morning. My name is Dale Kelley and my testimony will reflect the positions of both United Fishermen of Alaska and the Alaska Trollers Association. Both UFA and ATA are located in Juneau, Alaska.

I appreciate the opportunity to comment for UFA and ATA on the proposed lifting of the current moratorium on new salmon farm sites in British Columbia, a move that both organizations oppose.

My primary job is executive director of the Alaska Trollers Association, but I am also recent past president of United Fishermen of Alaska, where I serve on the executive board and chair the National Issues committee. Over the years I have represented the commercial fishing industry in a wide variety of forums and am currently a Commissioner on the Pacific States Marine Fisheries Commission and president of Fish Habitat Alaska, Salmon for Alaska's Future, and the Alaska Salmon Coalition. In past years, I have served on such bodies as the US Northern Panel of the Pacific Salmon Commission, which is the implementing body of the Pacific Salmon Treaty, and chaired the Alaska's Citizen's Advisory Committee on Federal Reauthorizations and Allied Fishermen of Southeast Alaska, as well as participated in several Gubernatorial and Congressional advisory panels. Part of my academic training focused on fisheries science, the rest in pharmacy and paramedicine. I've worked as a fish culturist in Prince William Sound and Southeast Alaska, and as a deckhand in troll and seine fisheries. In short, fish, fishermen, the seafood industry and the issues surrounding them are all familiar territory to me.

United Fishermen of Alaska is a statewide organization representing commercial fishermen on issues of common concern. Presently, 26 fishing groups and a large number of individual fishermen, processors and businesses make up UFA's membership. Alaska's commercial fishing fleet is 100% US owned and about 80% Alaska resident. The seafood industry is the largest private sector employer and second only to oil in terms of the revenue it generates for the state and its residents. Salmon makes up the lions share of the state's commercial fisheries production.

Alaska Trollers Association represents hook and line salmon fishermen who operate exclusively in Southeast Alaska. The Southeast troll fishery is one of the largest salmon fleets in the state and is 86% resident, with over 40% of the permit holders living in rural communities. Roughly one of every 30 people living in our region works on a troll boat – and this figure does not include the processing and support sector that rely on our fleet. When you add in the rest of

the commercial salmon fleets, the guided sportfishing industry, resident anglers, and subsistence users, the pursuit of wild salmon is clearly one of the most important contributors to our local economy and social well-being.

So... why am I here? Why would a fishing representative from Alaska come to Vancouver to testify on this issue? Why do I think the people of Canada should care what me, or others in Alaska, think about economic decisions made by your country? Why should Canadian's listen to us, and perhaps even deny additional growth in the farmed industry as we suggest, as opposed to applying a boot to my uppity behind and pointing me towards the border?

I am here because we Alaskan's are watching – we are concerned – and we are affected by the decisions you make about your salmon resource. Most importantly to you, Canada will be deeply affected by the decisions you make, and Canada will be affected if Alaska is harmed.

There is a simple truth about the commercial fishing industry – our US and Canadian coastal economies, particularly in North Central BC and Alaska, are inter-connected and reliant on one another. I have Canadian fishermen in my organization. Alaskans buy gear from Canadians. Canadian processors own packers and processing plants in Alaska. Some of the fish we harvest in Alaska is processed by plants here in B.C. Would it surprise you to know that there have been years when over 80% of the sockeye processed in Canada were harvested mostly by Alaska's Bristol Bay fishermen?

Canada and Alaska share a salmon resource – these fish have no idea if they are wrapped in Maple Leaves or Old Glory. We have a combined obligation under the Pacific Salmon Treaty to protect BOTH fish and fishermen. In Alaska, we believe we do our part – sometimes at great expense to fleets like mine. We make decisions with regard to resource development that are sometimes counter-intuitive to corporate CEOs, but make absolute sense to a fishing economy. We safeguard our natural resources and those who rely on them. We honor management agreements made with others for conservation and allocation.

Given the acrimony we experienced live and in the press just a few years ago, and the hits we took in the Treaty, it has been nothing short of amazing to we Alaskans to watch the Canadian government continue to tear up its habitat and dismantle its coastal fishing industry, only to replace it with operations that appear far less durable over time. Fish farming is a prime example – it's not sustainable now and might never truly be. Note that everywhere this industry exists in the marine environment, something else seems to suffer – typically local fish populations, the environment, artesianal fishermen and their communities.

Canada looks to be trading off homegrown coastal economies primarily for multi-national corporations based in distant lands. Family businesses and viable townships – in your country and mine -- are being put out of business as deep pocket firms flood the market with cheap fish... and wait. Widgets...semi-

conductors...fish, it's all the same. Capture the market share and topple the competition – out last them. Do these corporations care about you? Us? The long-term future of our region? Looks to me like they're just filling the voids which they create as they shove existing industries aside.

Do the benefits of these large-scale, often subsidized, 'aqua-business' ventures really pencil out for a region like ours? It's not difficult to see that fish farms often mean the trade-off of higher paying seafood jobs and independent businesses for a smaller set of unskilled low wage jobs.

Fish farmers don't appear to internalize their costs like fishermen do – we have to pay for ourselves, and we ALL seem to pay for the farms one way or another. Take for instance a recent year disease problem on the east coast, which was likely caused by farming, directly or indirectly. The problem was made worse by some fish farmers' refusal to kill fish suspected of harboring the disease. When the disease spread over a wide area, the farmers finally admitted that to stop the disease they'd have to eliminate the fish in their pens. Of course they insisted the federal government come to their aide to the tune of \$10 million. In contrast, when a problem erupts in commercial fisheries, we sit on the beach and draw down our savings accounts. Pure and simple. Whether it's to protect the resource, or move fish to other users, fishermen usually absorb the costs of doing business.

On the other hand, fish farmers have been allowed to externalize their costs. Who pays to clean up the toxic sludge under those net pens? Not the farmers, by what I can tell. Apparently dilution is seen as their solution to pollution - they aren't being held accountable for the impacts of their trade. But pity the person with the allergy who pays the price by bringing up the animal, that eats the waste under the net pen, that's full of the antibiotics, which makes them suddenly feel ill, yet they don't know why. Or the resource that pays via the many crustaceans killed inadvertently when doused by the drugs used to kill their cousins the sea lice; or, the sea lions killed after being chummed in by the fish hung in front of their noses? And what about the oyster farmer who relies on a pristine water source to rear his product to market size? The pollution near those net pens takes it's pound of flesh out of that person as well. Yep, someone or something pays, yet often it's not the ones who do the damage.

Given the spate of new information coming to light, along with criticism being leveled from high within your government's ranks, what will happen when Canada decides to truly regulate these firms and make them liable? And, what about when the price gets too steep to protect the resource AND maintain their margins? Can salmon farmers really compete without subsidies and liberal regulations? Or will they drag up and head to a developing country with more lax rules and restrictions? History suggests that could happen. And what with Japan and Russia recently cutting a deal on fish farming, China searching out new mariculture opportunity and the Chilean's stated intent to leave their doors wide open to expansion, well, it just makes you wonder.

Alaskans are committed to sustainable resource development and cared enough to build that philosophy right into our Constitution. In fact, if not for the quest to save our salmon from extinction from the brazen, short sighted activities of a few, I wonder whether we'd even be a state today. By law, every decision we make about fish and wildlife mandates that the health of the resource comes first. Have we made mistakes? Certainly, but the state and user groups strive to correct problems as they surface. The process involves the public, is dynamic and the results have been rewarding – in Alaska we have both salmon and working salmon fishermen.

Our state has thus far denied fish farming in its waters. I was one of many people around the state who fought for these provisions. The effort to ban fish farming was led by Senator Dick Eliason, who's testimony I will add to the record today. When we argued against fish farming there was a large number of suppositions and fears, but very little real evidence of the associated problems. Of the verifiable problems, advocates told us most could be controlled. They were wrong. How do we know? Because, the problems have only gotten worse. We don't even allow fish farming, yet your Atlantic salmon are now found in our rivers, and we catch them in our fisheries. Farmed salmon are spawning in Canada, and most likely in Alaska, too.

The dam has burst on the silence surrounding the dangers of fish farming. All the things Alaskans feared, and more, have come true somewhere. Nearly every day there are articles from points across the world regarding the troubles and conflicts stemming from salmon farming. From ecology and water quality, to public policy regarding land and water use, to transmission of disease, to development of feral populations, to human health matters and labor relations. It's all out there. If I can ask your patience, I'd like to share just a small sampling of information I've gathered from a number of different countries and sources.

This one was a little predictive and actually includes quotes from one of your own, Brian Riddell of DFO, "Salmon Farm Problems Mount in both Norway and B.C." It talks about disease and parasite issues in 1990.

Here's one from 1999, "Disease Found in Fife Sound Fish Escapees". Nothing to worry about there.

"Stellar Sea Lions Beleaguered by Salmon Farmers." This one's in B.C., but it's happening all over Chile and anywhere else they have critters in the water. We're managed under the Marine Mammal Protection Act. We are stringently regulated all over the State of Alaska, and some fisheries right now are suffering deep restrictions to preserve marine mammals. These are integrated, interrelated coastal populations. There's hundreds of these mammals being killed each year. I believe without an enforcement and reporting process you don't even know how many.

Here is "Salmon Virus Found in Three Maine Fish Farms." So we have troubles in the U.S., too.

Then we have Tasmania totally up in arms and alarmed about importing Canadian fish into their country because of disease issues. They have fish farms in Tasmania. They don't want to transmit those diseases down to their farms.

Scotland, very concerned...lots of stuff out of Scotland these days, "Fish Farms Spawn Trouble for Salmon Anglers," has to do with integration of their wild and farm stocks and reduced production in their streams. They've got sea lice problems everywhere, and disease; it's a mess.

Here's the Scottish Environmental Protection Agency, "Pollution from Fish Farms Seen as Bad Sewage." The Scottish shellfish farmers are ticked off and they don't want the Shetland Islands to remove the moratorium on salmon farming. Why? Because all that salmon farming is affecting their water purity, it's transmitting chemicals into the water that's harming their resource. So they're bummed out, and they're actually farmers.

We've got "Officers Threatened." Now, I'm Irish so I can joke about this one. Violence was threatened in Northern Ireland over fish farm releases there. They've got fish farmers that are --

JUDGE LEGGATT: As if they didn't have enough trouble in Ireland.

KELLEY: Yeah. Yeah, in County Antrim no less. Right before a trip of mine a couple of weeks ago to talk about fish farming in DC, they had a huge escape of farmed fish. The anglers don't want those fish in the rivers. Can you imagine? So they're snagging them. Of course, they're selling them and that's a little tacky, but their main point seemed to be that they didn't want them in the rivers, so they're pretty riled up.

Here's NASCO. You know them, they're charged with looking after fish. They're pretty concerned about interactions between wild and Atlantic salmon stocks. Canada does have a farm industry on the opposite coast, as do we, and we have Atlantic salmon listed under the Endangered Species Act. So, how much sense does that make? They're killing those fish in pens because of disease. The fish are escaping due to storms. It's ridiculous.

Here's Chile accused of dumping farmed fish. That's affecting your fishermen here in this state as much as yours. Our price is in the toilet. They're kicking our ass. Can I say that in Canada?

JUDGE LEGGATT: Yeah, that's okay.

KELLEY: I write to a salmon farmer in Chile actually, and you know, the fish farm issues break down into the big boys and the little guys, too. And this guy is very concerned. He writes me all the time about his concerns. Labour concerns are a big issue, and others, but here's one really charming, "large amounts of open mortality pits on private and fiscal land that when discovered are sealed off by a thin layer of sand and soil that after a few days sinks into the rotting mess that stinks for miles and attracts rodents, flies, et cetera." You know, I've cultured fish. Fish die in pens. You've got to do something with them. And, especially if they're diseased, you don't want them in the water. So, just what are the fish farmers doing with their mortalities?

And finally there's a lot of discussion about what goes into these fish - we always hear that those chemicals are perfectly harmless. Well, here's the European Commission. Their Scientific Committee for Food has written an opinion that they're very concerned about the colouring agents fed to these fish. We've all been told that that's the most natural thing going into farmed fish. Well, apparently it's causing crystallization on people's retinas and other charming things...liver toxicity and other matters. So what is going into these fish and what's the risk of what's on these dinner plates?

Fish farming is proving a poor substitute for Mother Nature. For thousands of years we've relied on nature to raise the fish we catch and eat. With careful

management programs, salmon return wild and pure and healthy, they eat what salmon are supposed to eat - it's an efficient system that's produced lovely colored, firm fleshed, disease free fish to feed people and our economies. Contrast that with the self-appointed new age salmon producers who use copious amounts of space and precious natural resources to grow out fish. We're talking about the ones who use about 1300 litres of diesel fuel per metric ton of feed delivered to the Campbell River area and feed grotesque amounts of perfectly good food fish to salmon in pens - like, 100,000 metric tons of those other food fish to make only 40,000 metric tons of farmed Atlantic salmon. Apparently, it takes even more resources to produce farmed chinook salmon.

Farmed salmon are laced with growth hormones, anti-virals, antibiotics, coloring agents, and chemicals to rid the critters of parasites. The poor things are bathed in this cosmic-stew until they're the appropriate size and shape to be pushed to a consumer, who often has no idea how many resources and chemicals went into the manufacture of his or her 'middle of the plate protein'. Will the consumer even be informed when that fish on the plate has been genetically modified? I'm not talking about line-breeding to highlight the natural strengths of a particular stock - I'm talking about crossing salmon species...or worse. How about mixing a fish and a cow for faster growth rates? Does this sound like a bad sci-fi flick? Am I a total paranoid? Well, just look at what's happened to corn and soybeans.

According to a New York Times report last June, nearly all the available seed - worldwide - is genetically modified. One morning we woke up and they spilled the soybeans, as it were, AFTER there was virtually nothing to be done about it. By the way, flounders (the fish) can provide a pretty good gene for cold weather tolerance in those plants. And, how about the pesticides that they've built right in - no muss, no fuss, no harm, no foul...we hope. Did anyone ask YOU if they could experiment in this way with your food? Well, they didn't ask me, and I doubt the fish farming industry intends to ask if you'll accept a genetically modified salmon, yet they've already asked the US Food and Drug Administration to allow them to be exported into our country.

Whether or not genetically modified salmon is a health risk for humans isn't so much my point in this context as the fact that an influx of genetically modified fish into our rivers could definitely harm the salmon we all depend on. However, this type of food safety question is worthy of public debate before such altered products wind up on someone's dinner plate. But most of the regions fish farmers didn't even give the people at this inquiry the respect to show up and hear their concerns, much less discuss those concerns and share their industry perspective about expanding its turf. You think they're going to waste time with us on something like food safety or safeguarding the genetic integrity of wild salmon? What happens to Canadian and Alaskan markets when the consumer gets confused about which salmon is "safe" to buy, so turns away from salmon altogether? Even worse, what happens when those genetically modified fish pair up with wild salmon or trout in the streams? Just think about what it could mean to salmon stocks that have already been listed under the Endangered Species Act. We're told that's just not gonna happen, but farmed fish weren't going to

escape in any large number, and those that did weren't expected to survive, much less spawn. So, forgive us if we remain skeptical.

Fishermen and communities in Alaska do not support salmon farming. The short-term benefit for a few does not appear to outweigh the long term risks to our natural resources or our shared coastal economy. Today, Senator Eliason still says no to fish farming and believes he made the right decision on behalf of the people of Alaska. He is supported in that belief by the Southeast Conference, which represents the communities of Southeast Alaska, and by many others throughout the state. I am certain that had this hearing not occurred in the final days of our fishing season, you would have seen even more Alaskan comments in support of not only sustaining Canada's current moratorium, but also for reducing the size and scale of the existing industry and requests that your government deny expansion into other species, in order to help ensure both the integrity of the coastwide fishery resource and the vitality of our communities.

Alaska fishermen recognize this as an issue of mutual concern between our regions and stand willing to assist in the efforts to preserve the existing moratorium on new salmon farm permits.

Thank you again for the opportunity to comment on this important topic.

Oh, just one last thing...

I'd like to respond publicly to a recent editorial in a Canadian paper that referred to this hearing as a gathering of so the called 'eco-elite', and went so far as to compare this inquiry to a Taliban undertaking. Shame on them!

Maybe it's because I happened to be at the US Capitol Building on September 11th. Perhaps it's because I was simultaneously evacuated from two different buildings within an hour, felt the moment of impact when the Pentagon was hit and saw the twin towers crumble LIVE on the TV screen. It might be because I experienced first hand WA DC's short loss of contact with the outside and witnessed its transition to a police state - with its associated military presence - F16's and helicopters over head day and night, streets cordoned off, ID's checked at every turn and people's nervous musings about what and who was next, all blended with the incessant blaring of sirens. Or, it could be the fact that I was stuck there for nearly an extra week, then had to drive to Chicago to fly home from the busiest airport in the nation, which had all the ambience of some eerie ghost town. That said, I also witnessed the best of what America, and people in general, have to offer - an out pouring of love, good will and a rousing, hopeful spirit that can't help but provide comfort in the midst of chaos.

Whatever the reason, I consider the editor's comments an insult of the highest level and in very poor taste. I deeply resent such a comparison of myself, or others involved in this inquiry, to such evil - even in jest. This is no joking matter for me - is it for any of us?

On behalf of Alaska fishermen, I wish to remember the 9-11 victims on this one month anniversary, and to extend to the families of this tragedy, both in our nation and throughout the world, our heartfelt sympathy. My hope for us all is for a lasting resolution to the horrors we currently face.

Here's to peace in our time.

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