

## Press Update – 12 December 2012

“Feck Off to Fish Farms”/“GM Salmon May Sink”/“ISA Allegations”/“Seal-Shooting Salmon Farmers”/“Opposition Mounts” – [online here](#)

Please find enclosed a press update (articles in full [online here](#)) including:

“[Smoked Farm Salmon Boycott Launched](#)” (Wild Fish, 12 December)



Listen online to Ireland's RTE radio on the call for a boycott of Irish farmed salmon - via "[Row Over Salmon Farm in Galway](#)"

“[Petition on salmon farming gets 11,000 signatures](#)” (Radio New Zealand, 12 December)

“[Down our throats: Fed-up with salmon feedlots](#)” (Rabble, 11 December)

“[FishyLeaks: Lice-Infested Irish Salmon!](#)” (Green Around the Gills, 11 December)

“[Teen takes salmon farm petition to Beehive](#)” (Fairfax NZ News, 11 December)



KENT BLECHYNDEN/Fairfax NZ

INTENSIVE FARMING: Leona Plaisier fears that if King Salmon is granted approval, it would open the door for further marine farming.

“[Nova Scotia APES Smell Something Fishy in Open Pen Approval Process](#)” (Halifax Media Co-op, 11 December)

[“Fishers concerned with pesticide use”](#) (The Coaster, 11 December)

[“Fish farm statement ‘waffle’ ”](#) (The Press & Journal, 11 December)

[“Ban anglers from catching salmon in spring, urge fish farm experts”](#) (The Scotsman, 11 December)

[“Both sides in salmon row must work together”](#) (The Herald, 11 December)

[“Scottish wild salmon given protected status”](#) (The Herald, 11 December)

[“Salmon take centre stage in southern river study”](#) (ABC News, 11 December)

[“Mainstream Canada First two-star BAP Certified Salmon Farm in BC”](#) (The Fish Site, 11 December)

[“Galway protest planned”](#) (Fish News EU, 10 December)

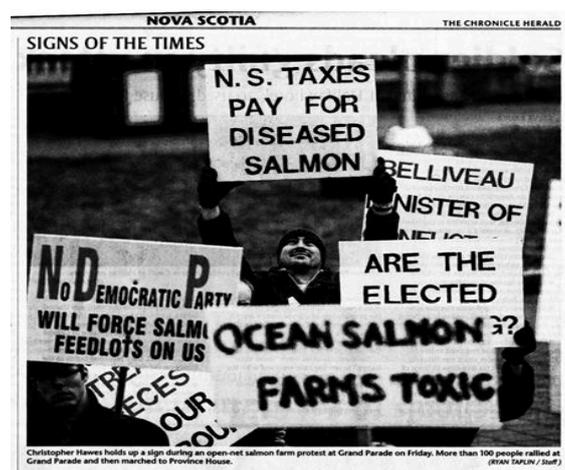
[“Ireland Says ‘Feck Off’ to Super-Size Salmon Farm in Galway Bay”](#) (Green Around the Gills, 10 December)

[“County mayor calls for suspension of licensing process for Inis Oirr fish farm”](#) (Galway Bay FM, 10 December)

[“Groups To Protest Marine Minister's Office Over Galway Bay Salmon Farm”](#) (Afloat, 10 December)

[“Opposition mounts to super-sized fish farm in Galway Bay”](#) (The Irish Times, 10 December)

[“Eastern Shore residents march on Legislature”](#) (South Coast Today, 10 December)



[“N. Ireland Anglers Want Filthy Fish Farms OUT!”](#) (First Post, 10 December)

[“NW anglers urged to oppose salmon farms that could ‘devastate’ wild fish”](#) (Londonderry Sentinel, 10 December)

[“Mega fish farm contrary to moratorium in national development plan”](#) (FIS, 10 December)

[“Density regulation is the result of consensus between industry and government, says SalmonChile”](#) (FIS, 10 December)

[“Salmon farming feels the squeeze”](#) (New Zealand Herald, 10 December)

[“Save our Sounds - no new salmon farms”](#) (Avaaz, 9 December)

[“Anglers fear salmon super farm will impact local wild stocks”](#) (Limerick Leader, 9 December)

[“Mega Fish Farm Contrary to Moratorium in National Development Plan”](#) (Friends of the Irish Environment, 9 December)

[“Association renews plea for land-based aquaculture”](#) (CBC News, 9 December)

[“Maker of genetically modified salmon may sink if FDA doesn't act soon”](#) (Denver Post, 9 December)

[“They Want Us to Eat What? Doubts About GM Salmon”](#) (OpEdNews, 8 December)

[““Feck off” to fish farms in Galway Bay”](#) (GAAIA, 8 December)

[“Culling seals to protect farmed salmon: what should we be allowed to know?”](#) (UK Human Rights Blog, 8 December)

[“Outbreak no surprise”](#) (The Chronicle Herald, 8 December)

[“The Right to Test for Pathogens in Farmed Salmon”](#) (Dissident Voice, 7 December)



[“Letter to Director General of OIE”](#) (Alexandra Morton, 7 December)

[“BIM farm would destroy Galway Bay’s salmon and sea trout in five years”](#) (Connacht Tribune, 7 December)

[“Roy Christie of N. Ireland speaks for the salmon”](#) (GAAIA, 7 December)

[“Farming densities to depend on environmental and health performance”](#) (FIS, 7 December)

[“Cohen report no surprise”](#) (Whistler Question, 6 December)

[“SPAWN Against use of Sea Lice Chemical”](#) (VOCM, 6 December)



[“Marine Harvest presents investment plans”](#) (Fish News EU, 6 December)

[“Investor Interest in Galway Bay Organic Salmon Farm Heightens”](#) (The Fish Site, 6 December)

[“Salmon firm hits back at protesters”](#) (The Press & Journal, 5 December)

[“Government steps in to dispel myths”](#) (Fish Farming Xpert, 5 December)

[“DFO Refuses to Admit ISA Virus is in BC Wild Salmon”](#) (Fish Farms News & Science, 5 December)

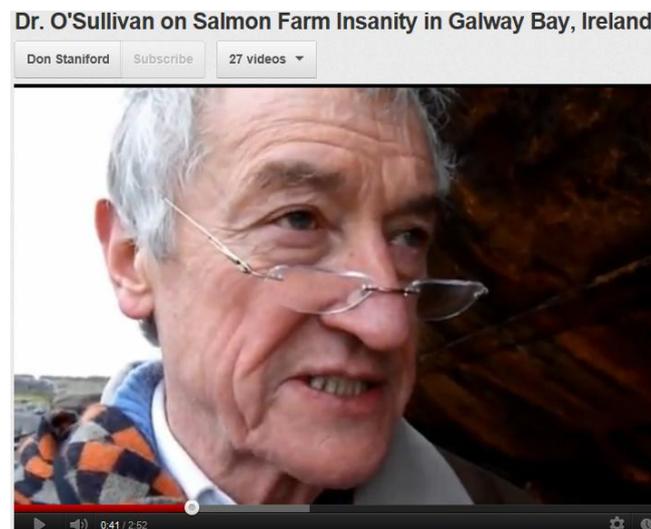
[“GM salmon producer headed for bankruptcy?”](#) (Seafood Source, 5 December)

[“DNA salmon: Perfect fish or chemically toxic food?”](#) (Hampton Roads, 5 December)



[“Headless sea lions remain a mystery”](#) (Times Colonist, 5 December)

[“Dr. O’Sullivan on Salmon Farm Insanity in Galway Bay, Ireland”](#) (GAAIA, 4 December)



[“Canada investigates ISA allegations”/“Suspected finding of ISA in COB”](#) (Seafood Source/The Coaster, 4 December)

[“Another Scare in Aquaculture Industry”](#) (VOCM, 4 December)

[“New east coast ISA outbreak? Cooke Aquaculture says 'false positive' possible”](#) (South Coast Today, 4 December)

[“No confirmed disease in B.C. salmon”](#) (Ottawa Citizen, 4 December)



[“Fast-growing fish may never wind up on your plate”](#) (Associated Press/Canadian Business, 4 December)

[“Land-based fish farms continue to gain popularity”](#) (FIS, 4 December)

[“Salmar’s new farm under threat – will environmental concerns scupper plans?”](#) (Intrafish, 4 December)

[“Deep-sea salmon farm to go for public tender”](#) (The Irish Times, 4 December)

[“Group to fight Galway fish farm”](#) (Galway Independent, 4 December)

[“Anti salmon farm protestors to hold demo at minister’s office”](#) (West Cork Times, 3 December)

[“Protest against Filthy Salmon Farms in Ireland”](#) (No Salmon Farms At Sea, 3 December)

[“International speakers slam Bantry fish farm plans”](#) (Save Bantry Bay/Southern Star, 3 December)

[“Land-based fish farms now part of aquaculture's future”](#) (The Irish Times, 3 December)

[“Fish farms that kill seals must be named, says Scots information czar”](#) (The Times, 3 December)

[“Scottish salmon farmers ordered to reveal seal-shooting salmon farmers”](#) (Intrafish, 3 December)



[“2012 Roger Award Finalists Named: King Salmon”](#) (Scoop, 3 December)

[“Ministers told to reveal where seals are shot”](#) (The Sunday Herald, Rob Edwards, 2 December)

[“Reports of deadly salmon virus in B.C. tied up federal resources for months”](#) (The Canadian Press/The Tyee, 2 December)

[“Food Safety Agency Should Protect Public, Not Cover up Virus for Salmon Farming Industry”](#) (The Common Sense Canadian, 1 December)

[“Big stink over fish plant”](#) (The Mercury, 1 December)

[“Salmond’s salmon: A boom in Scottish salmon is no occasion for nationalism”](#) (The Economist, 1 December)

[“Business trumps wildlife once again”](#) (Caledonian Mercury, 30 November)

[“Sea lice hitting Donegal farms hardest”](#) (Donegal News, 30 November)

## Sea lice hitting Donegal farms hardest

Problems in Lough Swilly and Mulroy Bay

BY CRONAN SQUINNON

THE highest recorded levels of sea lice on farmed fish in Ireland were found on two Donegal fish farms in recent months, it has emerged.

According to industry-circulated Marine Institute reports looked to the Donegal News, the worst affected fish farms were those in Lough Swilly and Mulroy Bay.

The reports were passed to us by an international anti-fish farming activist, Mr Don Stanfield, who visited Donegal this week.

Mr Stanfield said the figures proved the sites in Mulroy Bay and Lough Swilly recorded the highest sea lice levels during the months of August, September and October.

Sea lice from fish farms, he said, were destroying local, long-established wild Atlantic Salmon stocks.

Marine Harvest has said that it operates controls laid down by the Marine Institute which are of the highest international standard.

Mr Stanfield said: “Marine Harvest (stock) is disease-ridden with more than 70 lice recorded on some fish at their site in Lough Swilly in

CONTINUED ON PAGE 9

DERRY PEOPLE FRIDAY EDITION

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## Sea lice problems at fish farms

FROM PAGE ONE

September and as many as 50 per fish in Mulroy Bay during the same month. These figures come from official Marine Institute reports which have been leaked to me,” Mr Stanfield said.

“Sea lice is a result of the intensification of fish farming and lethal chemicals are being used to kill them.

“This is having a devastating effect on wild Atlantic salmon, the environment and traditional fishermen,” he added.

The figures quoted by Mr Stanfield were confirmed by copies of the same reports which were released to us by the Marine Institute.

A spokesperson for the institute said these reports are circulated to stakeholders, including Island Fisheries Ireland and Salmon Watch Ireland, on a monthly basis.

“You will note that each report con-

tains a statement that they should not be filed or passed on without prior permission of the Marine Institute. They are intended for information only. The full set of inspection results together with a detailed commentary is published annually and posted on the Marine Institute website,” the spokesperson said.

A spokesperson for Marine Harvest said it is untrue to say that they have exceeded sea lice limits every month of this year to date.

“Marine Harvest Ireland would also like to point out the control protocols in respect of sea lice are operated by the Marine Institute on behalf of the State and are more advanced than those operated in other jurisdictions,” the spokesperson said.

“This is because the regime is totally independent of the industry, data obtained as a result of their inspections are published and treatment

trigger levels are set at a low level.

“These controls are widely accepted as representing best practice internationally.”

Mr Stanfield also claimed that Marine Harvest will be forced to close sites in Mulroy Bay as a result of an outbreak of the deadly Amoebic Gill Disease (AGD).

The naturally occurring disease affects farmed salmon and is attributed to an increase in water temperatures.

The spokesperson for the company said it been inspected by AGD this year but denied this will lead to the closure of any of their sites.

“Mulroy Bay will be followed following Christmas 2013 and will be operational again in the future. This is in accordance with good farming practices. Similarly, Lough Swilly will be followed early next year,” the spokesperson said.

Meanwhile, Mr Stanfield heavily

criticised government plans to develop a “super site” fish farm off the coast of Donegal near Gola Island.

Mr Stanfield was in Donegal as part of a tour of the west coast of Ireland where he outlined the damaging effects that common fish-farming practices which he described as “fundamentally flawed”.

“It has become clear that factory farming in Ireland causes mass diseases and the public has a right to know what diseases and treatments affect farm salmon,” he said.

Mr Stanfield referred to the first study on salmon farming in Ireland in 1980 which said the use of hydrogen peroxide to combat sea lice heightens dangers for wild stocks.

He also quoted a recent report by Ireland’s Inland Fisheries that close to 30 per cent of the wild salmon that would normally return to their rivers are being killed by sea lice.

[“Farmed and dangerous: the dish about fish”](#) (Napa Valley Register, 30 November)

[“Biomar readies salmon farmers for new reality in fish feed production – feed producer considers putting poultry in fish feed as fishmeal and oil supplies get scarce”](#) (Intrafish, 30 November)

[“Scottish Salmon profits are hit by disease outbreak”](#) (The Herald, 30 November)

[“Salmon drama raises questions about government’s role”](#) (Ottawa Citizen, 29 November)

[“PEI college could lose prestigious designation after having ISA results disputed”](#) (FIS, 29 November)

[“Pesticide approved for sea lice control”](#) (CBC News, 29 November)

[“Stronger management and more transparency calls for Scottish fish farms”](#) (Fish Update, 28 November)

[“Bennett proposes all land-based aquaculture - Time for new vision in aquaculture?”](#) (The Coaster, 27 November)

[“Farmed fish feed high on food chain”](#) (Times Colonist, 27 November)

[“Govt agencies face off on proposed salmon farm: A proposed deep sea salmon farm off the west coast has two government agencies battling”](#) (FIS, 27 November)

[“Concerns over size of proposed new salmon farm in Galway Bay”](#) (The Irish Times, 26 November)

[“Details of fish farm chemicals sought”](#) (The Irish Times, 26 November)

[“Outspoken opponent of fish-farming rallies support”](#) (Irish Examiner, 26 November)

[“Show of force from Bantry fish farm protestors”](#) (West Cork Times, 26 November)

[“Ireland’s proposed salmon farm slammed”](#) (Intrafish, 26 November)

[“Inland Fisheries wants freeze on new salmon farms”](#) (Donegal Democrat, 25 November)

[“Future of Donegal fish farms in doubt after agency’s tough statement”](#) (Donegal Daily, 25 November)

[“Friends of the Earth calls for investigation into silencing of Canadian salmon scientist”](#) (Vancouver Observer, 25 November)

[“Salmon farming: The risks outweigh the benefits”](#) (Telegraph-Journal, 23 November)

[“Lamont: Fish farm facts don’t float: Businessman disputes claims of low impact on lobster stocks”](#) (Chronicle Herald, 19 November)

Including from the [Limerick Leader](#) (9 December) on opposition in Ireland:

“Brendan Danaher of the Brosna-Mountcollins Anglers said that the farm could lead to “an explosion” of parasitic sea lice which would prey on wild inland salmon making their way to Greenland to feed. “We could be looking at a huge battle over this. I was at an anglers’ meeting last week, and there’s more coming up next week. If this thing gets built, there’ll be an explosion of sea lice attracted to the cages. They’ll treat the cages with chemicals, but the lice will still do serious damage to wild smolts.”

Watch video report via [““Feck off” to fish farms in Galway Bay”](#)



["Feck off!" to Fish Farms in Galway Bay](#)

From Dr. Roderick O’Sullivan writing in [The Connacht Tribune](#) (7 December):

## Dr. O'Sullivan on Salmon Farm Insanity in Galway Bay, Ireland

Don Staniford

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Watch video report via "[Dr. O'Sullivan on Salmon Farm Insanity in Galway Bay, Ireland](#)"

From [The Irish Times](#) (10 December):

“World champion salmon fly tyer Declan Tuffy from Galway, said BIM’s plans to increase its salmon fish farming production by a staggering 100 per cent will be nothing short of an environmental disaster. “We have a duty as Irish citizens to protect our rare natural resource,” he said.

“BIM gave us a ‘golden egg story’ of how salmon farms will provide hundreds of jobs to coastal communities. The impact of fish farms on local economies is far more damaging to communities, the environment and businesses dependant on angling tourism with job losses way out-stripping job creation,” Tuffy said.

From the [Galway Independent](#) (3 December):

“Galway anglers came together at a meeting last Monday night in Claregalway to form Galway Against Fish Farms (GAF), which will fight the massive new salmon farm being proposed by Bord Iascaigh Mhara for Galway Bay. GAF said that the proposed farm has the potential to cause massive pollution to the bay and to wipe out salmon and sea trout stocks in local rivers.

The group also condemned the way in which this project is being promoted by BIM, accusing them of trying to “push through an application for a farm which would, in one fell swoop, double the entire country’s production of farmed salmon”. “This would then be franchised to a private operator, most likely Marine Harvest, a Norwegian company, and all the profits will be diverted abroad, while Galway Bay and its residents take all the environmental risk,” said a spokesperson.”

More details on the proposal including information on how to file an objection (deadline is Wednesday 12 December) – [online here](#)



Read more via “[Ireland Says ‘Feck Off’ to Super-Size Salmon Farm in Galway Bay](#)”

From [No Salmon Farms At Sea](#) (3 December):

“On the 15th December NSFAS (No Salmon Farms At Sea), FISSTA, Save Bantry Bay, Save Galway Bay and Friends of the Irish Environment, along with other local and national organisations, will be holding a protest march in Carrigaline against the proposals for the further development of salmon farms around our coast.”

From [South Coast Today](#) (10 December) on a protest in Nova Scotia, Canada:

“The Environmental Assessments carried out for the industry are so full of inaccurate information that they are a joke!” said Bill Williams, a life-long angler and hunter from the area.”

From [Leona Plaisier](#) in New Zealand who is fighting salmon farming expansion in the Marlborough Sounds:

“We need to hurry! Add your names! The petition is due to be delivered and closed on the 11th of December. We will be presenting it to MP Steffan Browning from the Green party in front of parliament in Wellington between 1:00 - 1:30pm. It will be the final breath of this petition and hopefully our voices will be heard and noticed.”

Sign her petition [online here](#)

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[START A PETITION](#)

## Save our Sounds - no new salmon farms

Created by  
**Leona P.**  
New Zealand

To be delivered to:  
**Chairman of the Board of  
Inquiry, Environment Court  
Judge Gordon Whiting**



20,000

10,813

10,813 signers. Let's reach 20,000

### SIGN THIS PETITION

“ The Marlborough Sounds is a beautiful place and there are many parts of it that remain unspoilt. The Maori and Pakeha heritage goes way back, and today thousands of visitors come to this area to experience the beauty and endemic wildlife. King Salmon's application is proposing to build nine new salmon farms, on top of their existing eight farms. Eight of their proposed farms would be inside the Marine Farm Prohibited Zone. All the while King Salmon still can't explain why thousands of salmon died this year and had to be trucked away on a barge. This is the 'clean-green' country we love and are willing to fight for - say NO to further salmon farms. Join the fight!

ALREADY AN AVAAZ MEMBER?  
Enter your email address and hit "Sign".

Email

[SIGN](#)

From [Fairfax NZ News](#) (11 December):

“Leona Plaisier handed the petition to Green MP Steffan Browning at Parliament today after she was turned down by Conservation Minister Amy Adams, Prime Minister and Tourism Minister John Key, Primary Industries Minister David Carter and Kaikoura MP Colin King, who said they wanted to remain "neutral" in the debate.”

From Elizabeth Payne writing in [The Ottawa Citizen](#) (30 November):

“If there were persistent reports of mad cow disease in Canadian beef, say, or hoof-and-mouth disease, you would expect the federal government to act quickly to get to the bottom of the issue. Which makes the government's reaction to the threat of a potentially devastating salmon virus on the West Coast confounding.”

““This is a classic campaign of denial, much like the tobacco industry,” said Rick Routledge, a professor at Simon Fraser University who discovered the virus in two of 48 sockeye smolts he collected as part of his research and, he says, was discredited by government officials as a result. The virus in the fish he collected was diagnosed at an independent Prince Edward Island lab, now threatened with being stripped of its international accreditation. The lab's

head, Dr. Fred Kibenge, has said he believes he is being punished by the federal government for testifying about his findings at a federal inquiry into declining sockeye salmon stocks.”



From Damien Gillis writing in [The Common Sense Canadian](#) (1 December):

“The federal agency embroiled in the recent [XL Meats tainted beef scandal](#) is at it again - this time leading efforts to cover up a potentially catastrophic farmed salmon flu-like viral outbreak on BC's coast. Charged with ensuring your food is safe to eat, the [Canadian Food Inspection Agency \(CFIA\)](#) increasingly appears to be acting as a political arm of the Harper Government and an inept custodian of Canadian trade which will do our export business far more harm than good in the long run.”

“While the CFIA appears to think it is acting in the interest of Canadian exports by protecting the salmon farming industry from these damaging revelations, it is in fact undermining our nation's credibility on the international stage and doing long-term damage to our cross-border trade - all to protect a largely Norwegian-owned industry that contributes marginal economic value to the province of British Columbia. Prime Minister Stephen Harper must reign in CFIA now and start paying serious attention to this important salmon virus research.”

From Alexandra Morton in a [letter](#) (7 December) to the Director General of the OIE:

“ISA virus is an incalculable threat to the eastern North Pacific. As per my interpretation of your revised, September 2012 OIE Chapter on ISA virus, and given the level of ISA virus detection in many of the labs, it is my view that British Columbia is ISA virus positive.”

From Inka Milewski writing in the [Telegraph-Journal](#) (23 November):

“The future of aquaculture is not in displacing wild fisheries with industrial feedlots that foul coastal ecosystems.”

From Geoff Swan writing in [The Whistler Question](#) (6 December):

“Well there you have it — the Bruce Cohen Report on the ongoing annihilation of salmon in our province. Eleven hundred pages, 18 months of hearings and \$26 million later we have uncovered the same main reasons that wild salmon are extinct in Ireland, Norway etc. For a 26-cent text message to the department of fisheries in Ireland we could have saved some

funds. "Hello ... How come your salmon over there are no more? What's that you say? Diseases, viruses, sea lice from salmon farms and over fishing with methods that are unsustainable."

Please support the global campaign against salmon farming – donate online via <http://www.gofundme.com/donstaniford>



Best fishes,

Don

Remember: Global News Updates are now archived and available in full [online here](#) (scroll down to the end for a Global News Archive)!

Watch video reports from Scotland and Ireland [online here!](#)

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Wild Fish, 12 December 2012



SMOKED FARM SALMON BOYCOTT LAUNCHED

A national boycott of farmed smoked salmon for Christmas has been launched as part of the protest against the expansion of salmon farming along the Irish coast.

The Minister for Agriculture Simon Coveney has funded BIM to apply for a licence to double Ireland's farmed salmon output in one super farm in Galway Bay. Further expansion is also planned by Marine Harvest, the Norwegian owned leading Irish farmed salmon producer in Bantry Bay.

The initiative contradicts the moratorium on fish farms agreed under the National Development Plan's Irish Seafood National Program 2007 – 2013 published in July 2010. This ruled that no increase in production would take place until the sea lice issue had been addressed. A recent report from Inland Fisheries Ireland showed that in fact mortalities from wild salmon from farmed salmon sea lice have now reached 39% of the returning wild salmon.

These developments led to a national meeting of groups and individuals opposing open net salmon farms in Bantry last month addressed by international anti fish farm campaigners. The Boycott campaign was agreed at that meeting and is supported by 10 different organisations including angling and environmental groups.

'The public does not realise that countless scientific papers have shown without a doubt that salmon farming in the current locations in Ireland will decimate our own wild fish stocks and pollute our bays. Battery operations like this on land would have their waste strictly controlled, not released into the open. Salmon farming must be done in contained units that protect the environment and create a barrier to infections and parasites.'

The campaign website provides stickers for supporters to use to spread the message. Supporters can download a template for standard labels address sheets which local printers and office suppliers have in stock. Using the provided art work on the template, single A4 colour printed sheets cost less than a euro and provide 18 stickers.

'The point of this campaign is to bring the public's attention to what is happening in the bays along the west coast because of the location of the open net pen farmed salmon cages near our rivers. Visiting our simple website will leave no doubt in anyone's mind that expansion of open net pen salmon farming in our bays must stop.'

The campaign has as its slogan 'Boycott farmed smoked salmon this Christmas and give a gift to the environment.'

'We are asking people to forgo one of their favourite Christmas fare to support the call to protect our wild salmon and its waters.'

The website [www.wildfish.ie](http://www.wildfish.ie) gives the details of the impacts as well as providing stickers and posters.

The website has gone live today as the public consultation period for the Galway Bay fish farm ends.

EDITORS NOTES:

**LICE from farmed fish KILL wild SALMON:**

'Recent peer reviewed international scientific literature on the impacts of sea lice on salmonids show them to have devastating effects on wild salmon, accounting for up to 39% of salmon mortalities.' [Inland Fisheries Ireland]

**ESCAPES from fish farms alter wild salmon GENETICS:**

'Interaction of farm with wild salmon results in lowered fitness, with repeated escapes causing cumulative fitness depression and potentially an extinction vortex in vulnerable populations.' [Proceedings of the Royal Society B]

**HEALTH WARNING:** For farmed salmon from northern Europe, consumption should be limited to no more than one meal every 5 months in order to not exceed an elevated risk of cancer of more than 1 in 100,000. [USA EPA]

**TOURISM:** One salmon caught in an Irish river is worth €423 to the local economy. Angling is worth €230m annually to the national economy. [Hotel Federation of Ireland/Inland Fisheries Ireland]

**UNDER ORGANIC STANDARDS,** the following chemicals and medicines may be used on caged salmon and so this product may contain traces of: Alphaject 3000, Norvax Compact 4 and Compact PD, Cypermethrine, Emaamectin benzoate, Deltamethrine, Tricane meselate, Oxytetracyclin, Bronopol, formaldehyde, and chloramine, the artificial anti oxidant ethoxyquin [EQ], and has been shown to have absorbed from the environment dioxins, PCBs, polybrominated diphenyl ethers, and pesticides, including toxaphene and dieldrin.

The BOYCOTT FARMED SALMON THIS CHRISTMAS campaign idea came from a meeting in Bantry last month and all the design work and site maintenance has been done by volunteers. Each supporting group speaks for itself and their numbers are listed here.

An Taisce  
[www.antaisce.org](http://www.antaisce.org)  
087 2411995

Coastwatch  
<http://www.coastwatch.org/Coastwatch.org/Home.html>  
086 8111684

Friends of the Earth  
<http://www.foe.ie/>  
01-6394652

Friends of the Irish Environment  
<http://www.friendsoftheirishenvironment.net/>  
087 2176316

Forest Friends  
<http://www.forestfriends.ie/>  
087 619 8265

Irish Seal Sanctuary  
<http://www.irishsealsanctuary.ie/>  
01 8354370

No Salmon Farms at Sea  
<http://www.nosalmonfarmsatsea.com/>  
087 7673157

Save Bantry Bay  
<http://www.savebantrybay.com/>  
087 7949 227

The Organic Centre  
[www.theorganiccentre.ie](http://www.theorganiccentre.ie)  
071 9854338

Salmon Watch Ireland  
<http://www.salmon.ie/>  
086 826 9222

<http://www.wildfish.ie/>

Radio New Zealand, 12 December 2012

Petition on salmon farming gets 11,000 signatures

A Marlborough Sounds teenager opposed to the expansion of salmon farming in the Sounds has presented an 11,000-signature petition to Parliament.

Leona Plaisier is campaigning against New Zealand King Salmon's proposal to build nine new salmon farms in different parts of the Sounds - eight in areas where marine farming is currently prohibited.

An Environmental Protection Authority Board of Inquiry is considering the company's application and is expected to release a decision soon.

Ms Plaisier, who was named DoC's Conservation Champion, says she started the petition so people could have a say without having to struggle with the lengthy application and hearing process.

She says it's basically intensive farming so the waste and the feed that settles underneath the farms accumulates over time and it also gets pushed through in the currents.

Ms Plaisier presented her petition to Green Party MP Steffan Browning, who's also been outspoken about the salmon farming expansion.

Mr Browning says the Marlborough community realises it already has a huge amount of aquaculture and that there needs to be some areas protected from further marine farming.

He says salmon farming is not sustainable and is always polluting which is hard to mitigate.

<http://www.radionz.co.nz/news/rural/123235/petition-on-salmon-farming-gets-11,000-signatures>

Rabble, 11 December 2012

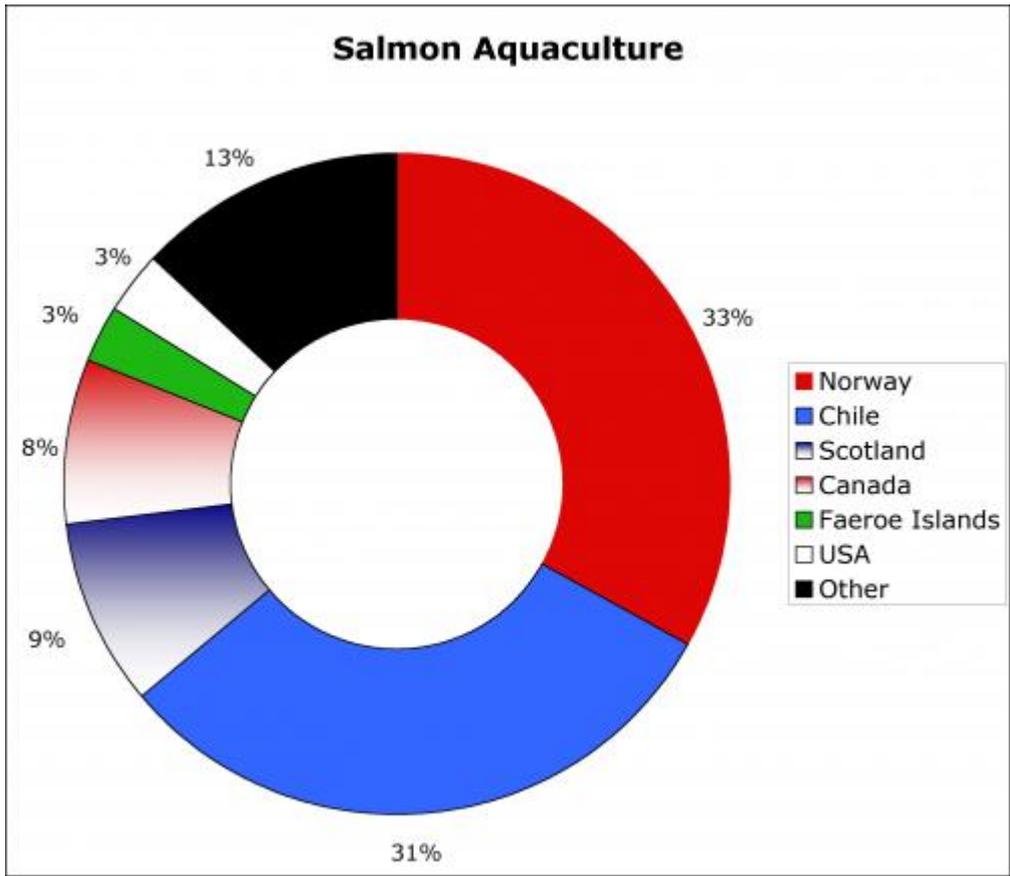
Down our throats: Fed-up with salmon feedlots

BY CHRISTOPHER MAJKA



The issue is as tangled as cage netting washed ashore after winter storms. Forty years ago it was seen as a burgeoning industry, a salvation for fisherman, and a pathway towards a sustainable fishery that would protect wild stocks. Salmon, once a rare treat for anglers and a staple for many coastal native groups, was commodified into a mainstream supermarket fish.

In the late 1960's, faced with declining wild stocks, Norwegian fishers began "farming" Atlantic Salmon (*Salmo salar*) in open pens on the coastline. It was a huge commercial success and this form of aquaculture soon spread to Scotland, Canada, Chile and elsewhere. Over the years it has grown to become a colossal global industry worth on the order of \$10.7 billion annually. Norway produces 33 per cent of farmed salmon followed by Chile (31 per cent), Scotland (9 per cent), Canada (8 per cent), Faeroe Island (3 per cent), and the USA (3 per cent) with producers in other countries accounting for the remaining 13 per cent. Over time, however, flies began to appear in the ointment.



### Aquaculture or Salmon feedlots?

Over time and unanticipated, a suite of problems began to attach themselves to the salmon aquaculture industry, fouling the once clear waters and sucking blood, and money, from the enterprise.

### Excrement



Salmon excrete. Wild salmon swim in small schools ranging over large areas of the ocean and this droppings vanish into the water column, often consumed by small invertebrates, or else is otherwise dissipated. Salmon in open pens are kept in close confinement in enormous numbers. Large sea cages can house up to 90,000 fish, and one farm now planned for St. Mary's Bay in Nova Scotia is licensed for 1.4 million fish. Such quantities of fish produce colossal amounts of waste that sinks to the bottom (along

with uneaten food and dead fish) destroying life below the cages and in their immediate vicinity. A black, anoxic sludge covered by white bacterial mats results.

Since open pens are sited in sheltered bays to protect them from storms, currents are typically insufficient to dissipate these putrefying sediments, or else limited water circulation simply succeeds in spreading the mess more widely, destroying even larger areas of the sea bottom. Given that many coastal sites are also home to other forms of aquaculture (oysters, mussels, etc.) or existing shellfish, lobster, or fin-fish fisheries, such a spreading toxic sewage deposit is of understandable concern to both fisher folk and marine ecologists.

### Heavy metal pollution

A significant problem in open net cages is "fouling" in other words the growth of marine algae, hydroids, tunicates, barnacles, mussels, and other marine organisms all over the cages themselves. This not only restricts the circulation of water through the cages but also complicates all kinds of work that needs to be done. Consequently, various anti-fouling (i.e., toxic) substances such as copper-based paints are often applied to equipment. Furthermore, zinc is added to the feed of salmon as a nutritional supplement. Both of these heavy metals end up in the waste and excrement sludge below the enclosures, and they can subsequently leach into surrounding waters. Both can be toxic of other marine animals such as lobsters.

### Parasites



Sea lice are small copepods in the family Caligidae.

They are ectoparasites that feed on the mucus, skin, and blood of host fish, to which they attach themselves. Some sea lice (notably *Lepeophtheirus salmonis* and several species of *Caligus*) are parasites of salmon. Under normal circumstances, these parasites are of minor concern with respect to wild salmon, since a whole host of biological conditions (the biology of host and parasite, the timing of salmon breeding and subsequent migration of smolt to the sea, the relatively dispersed schools of wild fish, etc.) keep parasite numbers to a minimum.

However, as biologist Alexandra Morton and others have demonstrated on the Canadian Pacific coast, in salmon farms, the density of fish, and the fact that they stay in one location for their entire lives, creates a hothouse environment for sea lice in which they can increase

their populations geometrically, and move readily from fish to fish. Sea lice can weaken, injure, disfigure, and kill fish and so a whole cornucopia of treatment options -- organophosphates, pyrethroids, avermectins, topical treatments with hydrogen peroxide, growth regulators, etc. -- have been developed in response. One problem is that these chemicals can then enter the environment, affecting various non-target organisms, such as lobsters and crabs, which are also crustaceans.

Of equal concern is the fact that these open pen salmon feedlots can become parasite-generating factories spewing vast quantities of larval sea lice into the surrounding waters where they can readily affect wild salmon populations, particularly the juvenile smolt salmon that are unequipped to fend off such attacks. Alexandra Morton and her colleagues on the west coast have identified this as a major contributing factor to the decline of wild salmon populations, and there are similar concerns with salmon farms on the Atlantic coast where Atlantic Salmon populations are only slowly recovering.

## Disease



Ditto. In the same way that open-pen salmon feedlots can become parasite-generating factories, they can also become disease generating centers. Diseases such as Salmon Leukemia Virus (SLV), Piscine Rheovirus (PRV), and Infectious Salmon Anemia (ISA) are serious notifiable diseases of salmonid (salmon, trout, char) fishes. The latter was first detected in Norway in 1984 and has subsequently spread to New Brunswick (1996), Scotland (1998), Chile (1990's), British Columbia (2011), and Newfoundland and Labrador (2012). An outbreak in Chile in 2007 caused \$2 billion of damage to the salmon farming industry. Beyond the economic impact of such diseases to aquaculture concerns, is the fact that the farms become epicenters for viral production -- in

the case of one British Columbia salmon farm, producing on the order of 650 billion viral particles per hour -- that can then infect native populations of wild salmon.

### **Genetic Pollution**

There are inevitably escapes of farmed salmon into the wild. The impact of these can be varied. Atlantic Salmon are, as their name suggests, native to the north Atlantic. They are now being farmed extensively in British Columbia and Chile in the Pacific Ocean. What happens when such fish escape? Can they establish themselves? Will they compete with native salmon species? Hybridize with them? Will they have other ecological impacts?

And in the Atlantic Ocean, such escaped fish can and do hybridize with native wild Atlantic Salmon, leading to concerns that genetic diversity, disease resistance, behavioral adaptability, and biological fitness may be reduced. At one time in the Faeroe Islands, some 20-40% of all supposedly "wild" salmon being caught by fishers were, in fact, escaped farmed salmon.

Furthermore, companies such as the Prince Edward Island-based [Aqua Bounty Farms](#) have developed a genetically modified Atlantic Salmon that grows faster, is more disease resistant, and more cold tolerant. It was created using a Chinook salmon (*Oncorhynchus tshawytscha*) gene sequence and promotor sequence from an ocean pout (*Zoarces americanus*), the former in a different genus from Atlantic Salmon, the latter in a different family. What might happen if such genetically modified fish were to escape and interbreed with native salmon? It's a complex issue, but one that should not be avoided. What are our responsibilities to ensure that the genetic makeup of wild animals and plants is not forever adulterated?



In the case of losses of salmon to disease (when they are detected in farmed salmon the destruction of all the infected stock is generally required in order to halt the disease) this can then trigger compensation processes. As Silver Donald Cameron reported in his superb documentary, [Salmon Wars](#), in New Brunswick federal and provincial governments have paid in excess of \$75 million in compensation to salmon aquaculture companies for losses due to ISA infection.

### **Fish Farming and Food Chains**

Atlantic Salmon are carnivores. To raise them in captivity they require diets that are high in animal protein, and much of what they are fed is fishmeal, in other words pellets composed of processed fish. In 1986 only 8 per cent of the world's fishmeal production was going to

aquaculture production; by 2005 it was 42 per cent with over 50 per cent of the world's fish oil production going to feed salmonids. This extensive harvesting of fish only to feed other fish is of great concern from the standpoint of ocean ecology and conservation, and it highlights the enormous dependence of the farmed salmon industry on the exploitation of other fish stocks. The energetic efficiency of farmed salmon ranges between 20 and 40 percent i.e., it takes between two and four kilograms of fishmeal to produce one kilogram of salmon. Critics have pointed out that in terms of creating a sustainable aquaculture fishery that does not drain other ocean resources, and which can create food to feed a growing world population, we should be concentrating our efforts on farming herbivorous fish such as tilapia that feed on algae. Being lower on the food chain as herbivores, allows for a much greater conversion of energy into protein than is the case with predaceous fish. As such, farming salmon may be a luxury that the world call ill afford in the future.

### Not swallowing the bait



Given the above, people are unhappy. Citizens of coastal communities and those concerned with ocean conservation have been growing increasingly alarmed at the threats that open-pen salmon aquaculture poses. For the last twenty years in British Columbia, biologist and activist [Alexandra Morton](#) has spearheaded research into the impacts of open-pen salmon farming. She has joined with many environmentalists in a series of campaigns to draw attention to the problems, and to encourage federal and provincial governments to take appropriate action. Speaking at this year's [Ransom A. Myers Lecture in Science and Society](#) at Dalhousie University, Morton said:

*"The problem is that salmon farms break natural laws. That instead of allowing salmon to move, (they) hold them stationary. In the wild, salmon move into the rivers and the sea lice die in the fresh water. The juveniles come out in the spring and there are no adult fish to speak of in the area, they go to sea and grow, and by the time they meet other adult fish they are robust and clad in armored scales and they can take a few lice. But in the situation with the salmon farms, the wild fish come in, they affect the farms, the wild fish go into the rivers, and they die, but the lice breed on the farms."*



In the past two years in Nova Scotia there has been considerable concern by groups such as the Association for the Preservation of the Eastern Shore (APES), Atlantic Coalition for Aquaculture Reform, Mayday Shelburne County, St. Mary's Bay Coastal Alliance, and Friends of Port Mouton Bay to applications by the New Brunswick-based [Cook Aquaculture](#) for permits to operate open-net salmon farms in Port Mouton, Shelburne, Jordan Bay, and St. Mary's Bay, and [Snow Island Salmon](#) a New Brunswick-based group (majority owned by the Scottish [Loch Duart](#)) that has proposed sites in Spry Harbour and Shoal Bay on the Eastern Shore. Many of the members of these groups are concerned about the impact of salmon feedlots on the existing lobster fishery in these areas, as well as on wild salmon populations. A [recent study](#) by Gardner Pinfold Economic Consultants valued the wild salmon industry of Eastern Canada at \$255 million a year, and found it supported 3,872 full-time equivalent jobs in the region. In terms of the lobster fishery, in 2009 the value of exports alone from the region was \$805 million, and the fishery employs over 10,000 fishers. Consequently, perceived threats to either fishery are of great concern, particularly in rural communities in Atlantic Canada that are very dependent on resource industries.



The groups are calling for a moratorium on all new open-net salmon feedlot licenses, "until community-based inquiries can determine that no harm will come to our environment, quality of life, and existing industries such as the lobster

fishery and tourism." They are also calling for a more robust level of Environmental Assessment that would require an independent inquiry. The dispute has been documented by writer [Silver Donald Cameron](#) in his powerful and hard-hitting documentary, [Salmon Wars](#). Says Cameron:

*"The net cage salmon farming industry ... is seen as grasping, reckless, sly, and sometimes criminal. How has this salmon expansion gone so incredibly wrong? The underlying failure, as with so many environmental issues, is a failure of counting and of critical thinking. Governments assume that any increase in GDP is growing the economy, and that is a good thing. But GDP is a bankrupt indicator. What isn't counted, doesn't count. And what isn't counted is most of what makes life worthwhile. Like clean air and water. A healthy population in a healthy environment. None of this shows up in GDP."*

### Seeking solutions

Are there solutions for the problems outlined above? Most certainly. The most obvious one that eliminates almost all the problems of open-net fin-fish aquaculture, are closed-containment systems, sited either on land or on the water. Farming salmon in closed tanks eliminates issues of parasites, disease, and genetic pollution since farmed fish have no contact with the marine environment or with native wild fish. Anti-fouling measures are not needed and filtration systems remove excrement, and typically in excess of 97 per cent of the water is recycled. Presto, problems solved!



Proponents of open-net fin-fish aquaculture argue that the additional costs make the closed-containment approach uneconomical; however, these are belied by enterprises that are actually operating -- economically. In British Columbia a closed containment salmon farm, the [Middle Bay Project](#), is operating in Campbell River, a

collaborative project between the Middle Bay Sustainable Aquaculture Institute and [Agrimarine Inc.](#) In Nova Scotia [Sustainable Blue](#) is farming European sea bream and sea bass and managing a facility that farms arctic char in closed containment enclosures on land. It may well be the case that the containment and filtration systems required in a closed containment system do add to the cost of production, but we should view the necessity of conducting aquaculture in this way as we do the importance of installing sewage treatment systems for human waste. It's true we can dump it into rivers or the ocean for free, but the consequent environmental costs are considerable. Furthermore, is this the kind of stewardship of the environment that we want to exemplify?

In Scotland, a company called [Loch Duart](#) has developed what it believes is a lesser impact approach to farming salmon that involves a three- or four-year "crop rotation" model where aquaculture sites are left "fallow" (i.e., un-stocked) for periods of one to one and a half years to allow natural processes of cleansing and regeneration to help restore the sea bottom. The approach also involves significantly lower stocking densities (no more than 500,000 fish per farm), a minimum distance between sites and production classes, and a more natural feeding regimen to reduce waste. They use no growth promoters, antibiotics, or anti-fouling agents. This is the system that has been proposed for the Snow Island project in Nova Scotia with sites in Spry Harbour and Shoal Bay. Not everyone agrees that this is a better approach. The Association for the Preservation of the Eastern Shore (APES) [claims](#) "... that Loch Duart is in no way better than any other salmon farms although they always claim to be." However, on the face of it, this approach would mitigate (although not eliminate) many of the problems discussed earlier. In the context of AEP's call for a moratorium on the granting of open-pen salmon farming licenses, such a move would allow for the pros and cons of the Loch Duart approach to be evaluated more fully.

### **Wider political perspectives**



Technical issues aside, there are larger political questions that need adjudication. For example, the significant compensation payments noted above result in what amounts to significant taxpayer subsidy to private industry. This has then to be factored into the larger economic "worth" of enterprises like open-pen salmon farms to society. Ecological concerns aside, is the value of the industry in terms of jobs, taxation, lease payments, etc. significantly greater than its public subsidy? If not, why not? And if not, why then is the public purse involved?

One also needs to take into account contending uses. If other fisheries or aquaculture activities are impacted, if tourism is affected or diminished, is the loss on the one hand worth the gain on the other? As Silver Donald Cameron says, "(GDP) only counts what may be generated, not existing jobs that may be lost. Meanwhile, the public pays the cost of corporate failure, while the environment pays the long-term non-cash costs.



In her twenty-year campaign on behalf of wild salmon conservation, Alexandra Morton has documented some shocking conduct on the part of the Department of Fisheries and Oceans (DFO). "DFO is a criminal organization," Morton was told by the late [Ransom Myers](#) when he came to visit. Says Morton:

*"I learned a lot about why DFO was doing this (its policy on open-pen salmon farming). It came down to trade laws. Failure to provide permission (for a salmon farm) could trigger a challenge under World Trade Organization regulations. DFO has become irrelevant to the guardianship of salmon populations. Not perhaps the individuals within (DFO), but the institution itself. DFO is protecting trade, not wild fish. If we want wild fish, it's up to us."*

There is an intrinsic conflict of interest in DFO being, on the one hand, entrusted with conservation and management of fisheries, and on the other hand being promoters for its use by commercial interests. What Morton and others have found, is that the latter mandate is increasingly trumping the former, as DFO becomes ever more an unapologetic cheerleader for industrial exploitation of fisheries. Says Morton, whose non-profit [Raincoast Research Society](#) eschews all government and industry funding and survives by handouts, donations, and contributions, "If you want to fight something really big, you have to remain really small so that no one can find your power lines."

Even larger questions are touched on by Morton, ones that pertain to how corporations function in relation to the utilization of any natural resource. Says Morton:

*"On the last night that I was in Norway I was invited by a director of [Marine Harvest](#), one of the largest salmon aquaculture firms in the world, and she asked me, 'Morton, what do you want?' And I said, 'You've got to get (the open-net salmon farms) off the migration routes.' And she said, 'I can't do that. I have to make the share price of this company go up four times a year. I cannot control the price, but I can control the number of farms and the number of fish. And that's what I'm doing.' At that moment the thought came to me, this is like cancer."*

*They are going to grow, and grow, and grow, and they're never going to be content at any one size. And that is a dangerous thing. It's a phase mismatch with the biological world."*



For decades ecologists have drawn attention to the natural limits of growth, and to the finite capacity of natural resources. The productive capacity of oceans, vast as it may be, is not infinite and their exploitation cannot be endlessly ramped up. Attempts to do so will increasingly produce collateral ecological damage. Beyond a certain point they become an exercise in robbing Peter to pay Paul. There is ample evidence that we are reaching such a point, if we have not already passed it. Corporate models with their unceasing focus on growth, shareholder profit, and ballooning executive compensation are indeed in a phase mismatch with the realities of biological systems and ecological processes. Open-net fin-fish aquaculture is a prime illustration of the lack of full-cost ecological accounting, wherein real costs of the process (pollution, parasitism, disease) are dumped into the ocean and the remediation costs are borne by the environment and/or other stakeholders

As such, the resolution of the dilemmas posed by open-net salmon farming parallel the resolution of corporate exploitation of the environment, human and natural. We need to find models of economic activity that are not in phase mismatch with either the biological world or the human one. The failure to do so will have critical consequences for both.

*Christopher Majka is a biologist, environmentalist, policy analyst, and arts advocate. He conducts research on the ecology and biodiversity of beetles. He is a research associate of the Canadian Centre for Policy Alternatives-NS and a member of the [Project Democracy](#) team.*

<http://rabble.ca/blogs/bloggers/christophermajka/2012/12/down-our-throats-fed-salmon-feedlots>

Green Around the Gills, 11 December 2012

FishyLeaks: Lice-Infested Irish Salmon!

FishyLeaks today [published](#) leaked Government reports cataloguing sea lice infestation on Irish salmon farms. The damning data reveals that Marine Harvest's feedlot in Lough Swilly was infested with 54 sea lice per fish in [October 2012](#) – breaching the Irish Government's

protocol levels by almost five times along with Mannin Bay's 'organic' salmon feedlot at Corhounagh. In [September 2012](#), Marine Harvest's feedlot in Mulroy Bay was infested with 58 sea lice per farmed salmon with Lough Swilly infested with a staggering 71 sea lice per farmed salmon (both over five times the Government's sea lice protocol level)!

Read the leaked sea lice data online via [FishyLeaks](#) - including for [October 2012](#):

Aquaculture, MEFS, Marine Institute 

Sea Lice Report October 2012						
Bay	Company	Site	Stock	Date	Mean no.s of Ovipigerous <i>Lepeophtheirus salmonis</i> per fish	Mean no.s of <i>Lepeophtheirus salmonis</i> per fish
Mannin Bay	Mannin Bay Salmon Co. Ltd	Corhounagh	Atlantic salmon, 2011	24/10/12	9.36	26.59
Killary Harbour	Rosroe Salmon Ltd	Inishdeighil	Atlantic salmon, 2012	23/10/12	0.00	0.10
Clew Bay	Clare Island Seafarms Ltd	Portlea	Atlantic salmon, 2011	05/10/12	0.34	1.69
	Clare Island Seafarms Ltd	Seastream Inner	Atlantic salmon, 2011	10/10/12	0.00	0.66
Bealachragher Bay	Curraun Blue Ltd	Curraun	Rainbow Trout, 2011 (1)		Harvested Out	
			Rainbow Trout, 2012 (1)	18/10/12	0.06	0.52
Donegal Bay	Eany Fish Products Ltd	Inver Bay	Rainbow Trout, 2012 (1)	09/10/12	0.00	0.23
			Rainbow Trout, 2012 (2)	09/10/12	0.00	0.32
	Ocean Farm Ltd	Ocean Inver	Atlantic salmon, 2012	09/10/12	0.02	0.13
	Ocean Farm Ltd	Mc Swyne's	Atlantic salmon, 2011	09/10/12	3.49	16.72
Mulroy Bay	Marine Harvest IrL	Cranford A	Atlantic salmon, 2012 S½	24/10/12	0.94	6.03
	Marine Harvest IrL	Glinsk	Atlantic salmon, 2012	24/10/12	0.83	6.38
Lough Swilly	Marine Harvest IrL	Lough Swilly	Atlantic salmon, 2011	24/10/12	9.35	54.00

### Elevated Lice Levels

Elevated sea lice levels are levels which are in excess of treatment trigger levels set out in "Monitoring Protocol No. 3 for Offshore Finfish Farms-Sea Lice Monitoring and Control" (DMNR 2000) & "A strategy for improved pest control on Irish salmon farm" (DAFF 2008). A notice to carry out a sea lice treatment (NTT) is issued on the basis of elevated sea lice levels. Treatment triggers during the spring period (March, April, May,) are from 0.3 to 0.5 egg bearing female (ovigerous) sea lice per fish. Outside of the critical spring period, a level of 2.0 egg bearing female sea lice per fish acts as a trigger for a NTT.

Elevated sea lice levels were recorded at:

- Corhounagh, Mannin Bay, Mannin Bay Salmon Company Ltd.
- McSwynes, Donegal Bay, Ocean Farm Ltd
- Lough Swilly, Marine Harvest Ireland

And for [September 2012](#):

### Sea Lice Report September 2012

Bay	Company	Site	Stock	Date	Mean no.s of Ovigerous Lepeophtheirus salmonis per fish	Mean no.s of Lepeophtheirus salmonis per fish
Mulroy Bay	Marine Harvest Irl.	Cranford A	Atlantic salmon, 2012 S/s	21/09/12	10.79	58.06
	Marine Harvest Irl.	Glinsk	Atlantic salmon, 2012	21/09/12	0.41	2.35
Lough Swilly	Marine Harvest Irl.	Lough Swilly	Atlantic salmon, 2011	21/09/12	11.05	71.72

### Elevated Lice Levels

Elevated sea lice levels are levels which are in excess of treatment trigger levels set out in "Monitoring Protocol No. 3 for Offshore Finfish Farms-Sea Lice Monitoring and Control" (DMNR 2000) & "A strategy for improved pest control on Irish salmon farm" (DAFF 2008). A notice to carry out a sea lice treatment (NTT) is issued on the basis of elevated sea lice levels. Treatment triggers during the spring period (March, April, May,) are from 0.3 to 0.5 egg bearing female (ovigerous) sea lice per fish. Outside of the critical spring period, a level of 2.0 egg bearing female sea lice per fish acts as a trigger for a NTT.

Elevated sea lice levels were recorded at:

- Corhounagh, Mannin Bay, Mannin Bay Salmon Company Ltd.
- Cranford A, Mulroy Bay, Marine Harvest Ireland
- Lough Swilly, Marine Harvest Ireland

“The public has a right to know that the Irish salmon farming industry is already being plagued by severe sea lice infestation,” said Don Staniford of the Global Alliance Against Industrial Aquaculture (GAAIA). “It is a policy of reckless abandon for the Irish Government to be sponsoring a new 15,000 tonne feedlot in Galway Bay – the world’s largest salmon farm which would double salmon farming production in Ireland. Sea lice infested Irish farmed salmon – including so-called ‘organic’ salmon - should be avoided like the plague.”

Read in full via: <http://donstaniford.typepad.com/my-blog/2012/12/fishyleaks-lice-infested-irish-salmon.html>

Fairfax NZ News, 11 December 2012

Teen takes salmon farm petition to Beehive

[MICHELLE COOKE](#)



KENT BLECHYNDEN/Fairfax NZ

**INTENSIVE FARMING:** Leona Plaisier fears that if King Salmon is granted approval, it would open the door for further marine farming.

A Marlborough Sounds teenager has collected 11,000 signatures calling for an end to a proposal to extend salmon farming in her backyard.

Leona Plaisier handed the petition to Green MP Steffan Browning at Parliament today after she was turned down by Conservation Minister Amy Adams, Prime Minister and Tourism Minister John Key, Primary Industries Minister David Carter and Kaikoura MP Colin King, who said they wanted to remain "neutral" in the debate.

The petition was in response to King Salmon's application to extend its farming operation in the Marlborough Sounds, which the Environmental Protection Authority board of inquiry is due to release its draft decision on by the end of the year.

Plaisier grew up in the sounds, where her family restored the Tui Nature Reserve, 38 hectares of land which can only be accessed by boat.

Salmon farming is intensive farming, so waste and feed builds up on the ocean floor, Plaisier said.

She feared that if King Salmon was granted approval, it would also open the door for further marine farming.

<http://www.stuff.co.nz/business/farming/8065222/Teen-takes-salmon-farm-petition-to-Beehive>

Halifax Media Co-op, 11 December 2012

Nova Scotia APES Smell Something Fishy in Open Pen Approval Process

Association for the Preservation of the Eastern Shore heads to Halifax to protest open pen fin fish farming.

by Miles Howe



APES at Legislature House, Halifax. [Photo: Miles Howe]



Photo: Miles Howe



Photo: Miles Howe



Photo: Miles Howe



APES gathered at Grand Parade Square. [Photo: Miles Howe]



Marike Findley, president of APES, with petition. [Photo: Miles Howe]

K'jipuktuk (Halifax) – The ongoing battle between groups opposed to open pen fin fish aquaculture in Nova Scotia and the provincial New Democratic Party took another turn on Friday, Dec. 7, as a group known as APES descended upon the Legislature House in Halifax.

APES, the Association for the Preservation of the Eastern Shore, are one of 116 organizations that have called for a moratorium on new licencing for open pen fin fishing operations in Nova Scotia.

Of particular concern to the Eastern Shore are the proposed open pen sites in Shoal Bay and Spry Bay. Both of these proposed sites, as well as a third proposed site for Beaver Harbour, which was recently withdrawn, have been put forward by Snow Island Salmon, the Canadian subsidiary of Scottish aquaculture giant Loch Duart Ltd.

In the case of the Eastern Shore, where lobster fishing, environmental preservation and wild salmon sport fishing interests intersect, residents have raised concern over the potential of farmed salmon sea lice infestations spreading to wild salmon populations.

There is also worry that potential fish-related wastes from the proposed farm sites will destroy bays and coastlines that continue to support viable wild commercial fishing, notably lobster, and provide habitat for a number of endangered and at-risk species.

Loch Duart and Snow Island have presented their farming model, which involves proposed rotations and fallowing periods, as the low impact alternative to New Brunswick-based Cooke Aquaculture, where three CEOs remain up on numerous charges under the recently-gutted Fisheries Act.

Independent research, such as that undertaken by members of APES on a recent fact-finding mission to Scotland, presents a disturbingly different reality. Documents show that Loch Duart has experienced numerous, and ongoing, sea lice infestations, for which it has dumped a variety of chemicals into the Scottish coastline.

APES's vice president Bill Williams suggests that Snow Island's application process, in particular the baseline study that provides data on environmental conditions at the proposed

farm sites, is wrought with inconsistencies, fudged data and irrelevant site comparisons, and is indicative of the lack of actual third party analysis on open pen fin fish farming available in Nova Scotia.

“It's a joke,” Williams told the Halifax Media Co-op. “The data is wrong. There was erroneous data in it. Data is missing from it. Data is 20 years old. And that's been brought up to the Fisheries minister's attention. We brought it up in the office.”

The baseline study in question was undertaken by Sweeney International Marine Corporation (SIMCorp). Robert Sweeney, owner and founder of SIMCorp, happens to be the secretary/treasurer of the Atlantic Canada Fish Farmers Association, an umbrella group that counts among its goals to: “Ensure a secure business climate that provides the infrastructure necessary to support greater investment and profitability of the Atlantic Canadian farmed finfish sector.” This at least suggests some degree of conflict of interest.

The Sweeney study references wind and wave data from three sites: the LaHave Bank, a buoy in the gulf of Maine, and the Halifax Harbour, and from these readings makes the conclusion that the wind and wave conditions at the Shoal Bay and Spry Bay sites are acceptable for open pen sites.

This is problematic to Williams because the sites are all dozens — and in one case hundreds — of kilometres from Snow Island's proposed sites, and are located in significantly deeper water. To conclude that the Snow Island sites would be able to adequately flush out farm wastes based upon this data is erroneous, according to Williams. The data is also from 1991, which raises doubts as to whether it can even be safely extrapolated to 2012 weather conditions.

Also missing from the study are oxygen content, salinity and temperature of the water; three variables that, according to Williams, are integral to properly plotting fish growth.

The potential for Snow Island's sites to effect endangered species, especially birds overwintering or on migratory patterns, is also problematic for Williams, and is another area he doesn't see properly addressed in Sweeney's study.

“The bird study for the complete area, for the 25 miles of the shore that these three sites are on, they took it from DNR [Department of Natural Resources] research,” says Williams. “They did a bird count, once a year, between February and March, when there's [nothing] out there. We did our own. We have people down there that belong to the Bird Society, some of them belong to the Nature Trust, and they do their own counts. They know what's there. I hunt and fish. I'm on the water continually. I wrote a list of the birds that I saw, and it was ten times longer than theirs.”

As of press time, no one from SIMCorp had responded to a request for comment.

When asked about the potential of missing and irrelevant data in the Sweeney study, Marshall Giles, director of aquaculture for the Nova Scotia Department of Fisheries and Aquaculture, in an email to the HMC, noted that:

“Sweeney[']s ... baseline study is only one part of a rigorous review and the application process which can take up to three years to complete. We network with the following federal

agencies: Transport Canada (Navigable Waters Protection Program), Fisheries and Oceans Canada, Environment Canada, and Canadian Food Inspection Agency as part of the evaluation process for applications.”

New Democrat MLA Jim Boudreau, who many in attendance at the Dec. 7 rally perceived to be a Snow Island facilitator in this matter, rather than a representative his constituents' desires, was quick to dismiss the provincial government's role in the matter.

“The problem with a number of these people is that they create their own version of reality,” Boudreau told the HMC. “I'm very annoyed at the misrepresentations that some of these individuals make ... One of the things that quite frankly annoys me is that there seems to be all guns pointed towards the NDP government, whereas any approvals for any sites in the province of Nova Scotia are the responsibility of the federal government. This is not the NDP government. We do not approve these sites. We basically licence them after they are approved by the federal government. So there's no emphasis on the federal Tories. There's no talk about Peter MacKay. There's just talk about the NDP and Jim Boudreau. This is a process that's before the federal government. Jim Boudreau has no say over that.”

Williams recounts that Boudreau has approached many members of APES, encouraging them to ease off of Snow Island's Spry Bay and Shoal Bay sites, and that in return Snow Island would drop the Beaver Harbour site from its proposal. While Boudreau doesn't deny attempting to set up meetings between APES and Snow Island, he has a different take on his motivations for doing so.

“Basically as the MLA I've been trying to set up meetings between people, and I did do that, and some of the meetings were productive,” said Boudreau. “But for the most part meetings – even when they were requested and they were set up – there was an attempt, by a number of their leadership, to sort of bully some of the individuals to not attend the meetings.” Boudreau also believes that APES's concerns vis-a-vis aquaculture on the Eastern Shore are related to a fear of an antiquated “industrial” aquaculture model that is not at all similar to Snow Island's proposed farms.

“The model that's being proposed on the Eastern Shore is quite different from the model that the leadership is purporting it to be,” said Boudreau. “It's a totally different model with lower stocking densities, with greater distances between farms, no pesticides ... and a complete fallowing period, and a complete removal of the gear during the fallowing period. So the problem that's happening is basically that apples are being compared to oranges.”

Boudreau's constituents, however, appear to be speaking with a rather unified voice in opposition to open pen fin fishing. Marike Findley, president of APES, brought a petition to Legislature House signed by over 90 per cent of the residents of Murphy's Cove, Pleasant Harbour and Shoal Bay, in which the residents declare that they want Shoal Bay and its approaches to be a open pen fin fish farming-free zone. Boudreau noted in an interview that he had not yet seen the petition.

"When the industry drives by these bays, and sees that 90 per cent of people have signed a petition, and put up these signs that say 'Spry Bay bans open pen fin fishing in their bays. Shoal Bay bans open pen fin fishing in their bays.' The industry people driving around are going to say 'This is going to be awful hard to set up in here.'" says Findley.

<http://halifax.mediacoop.ca/story/nova-scotia-apes-smell-something-fishy-open-pen-ap/15016>

The Coaster, 11 December 2012

Fishers concerned with pesticide use

Clayton Hunt

Halse addresses some of the issues

Mildred Skinner, a FFAW/CAW representative in Harbour Breton, said that harvesters in the area are concerned about the amount and at least one type of pesticides being used by aquaculture farmers in the Coast of Bays area.

Health Canada has granted fish farms in Newfoundland and Labrador approval to use the pesticide Salmosan to help control sea lice.

The main fear of the harvesters is that Salmosan is a pesticide used to kill sea lice, which are crustaceans. If Salmosan can kill one crustacean it can possibly kill others such as lobster, shrimp, krill and crab.

Skinner said, "Our fishermen realize that if we have fish farms in the area they will be using pesticides. However, the bottom line is that we don't know enough about Salmosan and there's not enough transparency from the industry to give harvesters more information about the product.

"This development is right in our area where we're fishing, and it's expanding all the time.

"We are not saying we shouldn't have aquaculture as it means a great deal to the economy of this area. However, we need to slow down and take a serious look at some of these issues we're concerned about with the use of pesticides such as Salmosan.

"We are not privy to a lot of information about some of these pesticides and we feel this is wrong."

According to Skinner, the government of New Brunswick is proposing a system where aquaculture companies would have to submit a report each week showing whether a sea lice treatment is planned, where the site is located and what pesticide will be used.

She said that the Newfoundland government needs to develop a similar system in this province to keep traditional harvesters informed about pesticide use and their possible effects on other sea life.

The Salmon Preservation Association for the Waters of Newfoundland (SPAWN) is also expressing concern regarding the long-term effects of using Salmosan in the Bay d'Espoir area.

SPAWN, which is opposing all sea-based aquaculture of salmonid species in the province, is saying that Salmosan will kill all anthropods and copepods in the vicinity of the application, including lobster and shrimp.

Matt Abbott is the marine coordinator of the Conservation Council of New Brunswick and is the Fundy Bay Keeper.

Abbott said that Salmosan does show potential to harm lobster particularly in lab tests that demonstrate that repeated low dose exposure can impact molting in lobsters in the long-term.

He said, "If this does happen, then you might expect that if multiple cages on a farm are being treated over several days or weeks, that this use will have an impact on juvenile lobsters.

"There are a lot of lobsters in a lot of places producing a lot of larvae. Since these larvae move so far it's hard to see the impact of Salmosan from any particular region."

Abbott said that more research needs to be conducted into the long-term effects of pesticides by the aquaculture industry.

He said that the recent round of federal cuts to the Department of Fisheries and Oceans (DFO) science did not help with the future of research in this area.

According to Abbott, a DFO biological station in St. Andrew's, New Brunswick that was a world leader on the impacts of pesticides on the environment is now gone and that the entire research group is now working in other fields.

"Salmosan has been in use in New Brunswick for several years and there has not been significant lobster kills associated with the product. However, there's also an absence of research to see what's occurring at the local level."

Nell Halse agrees with Abbott that Salmosan could be harmful to lobsters.

She said, "This is why government does all the risk assessment work and why the Government of Canada, under Health Canada, would never approve the use of any pesticide without prescribing how much you can use, how long you can use it and how much you can use in any given period.

"Health Canada gave all industry players the right to use Salmosan under very strict controls.

"With Health Canada, provincial governments and veterinarians, we have a number of treatments approved so we rotate them. This makes each more effective and we end up using a lot less of the product.

"Salmosan is only used when government veterinarians prescribe it and its use is approved through the Pest Management Regulatory Agency which is under Health Canada.

"It is only used under a veterinarian's control within the proper guidelines set by government.

“From an animal welfare point of view, people would certainly want to know that we’re taking good care of our animals and not letting them suffer. We want to protect the health and well being of all of our fish.”

A spokesperson for Health Canada said that the Salmosan emergency registration granted to the province of Newfoundland for the control of sea lice in farmed salmon expires on December 31, 2012. Salmosan cannot be used after that date unless a new registration is granted by Health Canada.

According to the spokesperson, before a pesticide can be imported, sold or used in Canada, Health Canada conducts a scientific evaluation to determine that the risks to human health and the environment associated with the use of the product are acceptable and that it is effective for its intended use.

Health Canada’s conclusion following a thorough assessment of Salmosan is that its use does not pose unacceptable risks to human health or the environment if used according to label directions and the conditions of the emergency registration.

<http://www.thecoaster.ca/News/2012-12-11/article-3138028/Fishers-concerned-with-pesticide-use/1>

The Press & Journal, 11 December 2012

Fish farm statement ‘waffle’

By catriona macphee



TOURIST HEARTLAND: An artist’s impression of the new fish farm cages planned for Loch Slapin, Torrin, Isle of Skye

Protesters claim that an environmental statement supporting proposals for new fish farms on Skye is full of “irrelevant, obfuscatory waffle”.

The group, who are opposing a Marine Harvest planning application for additional cages in the tourist heartland of Loch Slapin, have submitted their own 10-page critique to Highland Council.

Marine Harvest reject the allegations and say they have complied with the requirements set down by the Scottish Environmental Protection Agency (Sepa).

For the full story, pick up a copy of today's Press and Journal or [read our digital edition now](#)



<http://www.pressandjournal.co.uk/Article.aspx/3043998>

The Scotsman, 11 December 2012

Ban anglers from catching salmon in spring, urge fish farm experts



Scott Lansburgh, Chief Executive of the Scottish Salmon Producers Organisation

ANGLERS should be banned from catching salmon in conservation areas during spring because authorities are breaching key legislation to protect the fish, Scottish experts have claimed.

Fisheries and salmon farming consultants Callander McDowell have submitted a complaint to the European Commission alleging that the Scottish Government and the fishery boards have failed to meet EU laws on preserving Atlantic salmon stocks.

More than 46,000 wild spring salmon have been caught and killed in the 11 rivers designated as Special Areas of Conservation since the EU Habitats Directive came into force in 1992.

Although the directive does not outlaw the sport, it states that such “exploitation” of stocks must be within conservation limits.

Dr Martin Jaffa, of Callander McDowell, said: “Threatened stocks of wild salmon are being slaughtered in the name of sport and this is happening in specified conservation areas.

“The Scottish Government has abrogated its conservation responsibilities by passing them on to the district salmon fishery boards, who have in turn abused them by not restricting catches of a vulnerable spring stock.”

The alleged breaches listed include failing to restrict the length of the angling season and not encouraging greater consumption of farmed salmon “to negate the need to kill wild fish”.

The Scottish Salmon Producers’ Organisation said the complaint echoed the views of other respected scientific experts.

Chief executive Scott Landsburgh said: “Dr Jaffa raises a number of important points regarding the range of impacts on wild salmon, the high levels of natural mortality at sea and the need for statutory conservation limits on vulnerable stocks.”

But anglers and authorities rejected the “extraordinary” criticisms which they claimed were motivated by the consultancy’s links with the salmon farming industry.

Hugh Campbell Adamson, chairman of the Salmon and Trout Association Scotland, said: “It is extraordinary that Callander McDowell, a cheerleader for the salmon farming industry, is now advocating that salmon angling should be curtailed. This complaint is no more than a smokescreen to divert attention away from the damage done to wild salmon stocks in the salmon farming areas of the west Highlands and Islands.”

Dr Alan Wells, policy and planning director for the Association of Salmon Fishery Boards, said authorities took conservation “very seriously”. He added: “Callander McDowell are consultants to the salmon aquaculture industry and we can only assume that this complaint and its timing [whilst the Aquaculture and Fisheries (Scotland) Bill is being considered by the Scottish Parliament] is part of a concerted effort to deflect criticism of salmon farming.”

<http://www.scotsman.com/news/environment/ban-anglers-from-catching-salmon-in-spring-urge-fish-farm-experts-1-2684923>

The Herald, 11 December 2012

Both sides in salmon row must work together



Herald View

Nature is infamously red in tooth and claw but the sustained battle between Scotland's salmon farmers and anglers who fish for the wild variety rivals any conflict in the natural world.

The conflict has resumed with a complaint to the European Commission that the district salmon fishery boards, which control fishing on Scottish rivers, and the Scottish Government are failing to comply with a European directive on conservation. The complaint by Dr Martin Jaffa, made through his fish-farming consultancy Callander McDowell, calls for an end to recreational angling of spring salmon to help preserve declining stocks.

The timing, as MSPs on the Rural Affairs Committee prepare to hear evidence on the Aquaculture and Fisheries Bill from freshwater fisheries, is a further ratcheting up of tension between the fish-farming interests and the angling lobby.

The purpose of the Bill, according to the Scottish Government, is to ensure farmed and wild fisheries – and their interactions with each other – continue to be managed effectively, maximising their combined contribution to supporting sustainable economic growth with due regard to the wider marine environment. Illustrating just how contentious this is, the

legislation has given new focus to the increasingly bitter dispute between the fish-farming industry and wild fisheries.

It is more complex than protection of the environment and conservation of species versus sustaining a significant contributor to the Scottish economy. The economic importance of the fish-farming industry's £540 million in exports is obvious. Farmed salmon is now Scotland's biggest food export, while salmon and sea trout angling contribute about £100m to the rural and tourism economy.

Dr Jaffa's complaint that district salmon fishery boards are failing in conservation responsibilities is a response to the angling lobby's accusation that the salmon farming industry takes a reckless attitude to the environment. Freshwater fisheries have blamed sea lice from fish farms for killing wild salmon and threatening to devastate fish stocks in Scottish rivers. Dr Jaffa says the boards should have restricted catches of spring salmon and calls for the angling season to be shortened and 100% catch-and-release to be imposed until stocks recover.

By using figures showing 46,000 spring salmon caught and killed from 11 conservation area rivers since 1992, he ignores the increase in catch-and-release in recent years. Last year, 70% of rod-caught salmon and grilse in Scotland were put back, including 91% of spring salmon, and the figures indicate stocks may be stabilising.

The Fisheries Bill has alarmed the fish-farming industry with proposals that would give officials greater powers of inspection on salmon farms and require them to comply with stricter codes of practice involving control of sea lice.

Neither side of Scotland's farming industry can claim to have followed best environmental practice. Instead of recrimination they should recognise that conservation and environmental responsibility are in the interests of both.

<http://www.heraldscotland.com/comment/herald-view/both-sides-in-salmon-row-must-work-together.19644817>

The Herald, 11 December 2012

Scottish wild salmon given protected status

Scottish wild salmon has joined champagne and parmesan cheese in becoming a protected product.



The status means salmon caught in other countries cannot be packaged, sold or advertised as Scottish wild salmon

The fish will soon be covered by a protected geographical indication (PGI), meaning it has a particular quality attributable to its region of origin.

It means salmon caught in other countries cannot be packaged, sold or advertised as Scottish wild salmon.

The ruling by the European Commission comes into effect in 20 days.

Food and drink such as gorgonzola, camembert, Melton Mowbray pork pies, Somerset cider brandy and champagne can only be labelled as such if they come from the designated region where they take their name.

To receive PGI status, an entire product must be traditionally and at least partially manufactured within the specific region to acquire its unique properties.

Scottish farmed salmon was awarded PGI status in 2004.

Scott Landsburgh, chief executive of the Scottish Salmon Producers' Organisation, said: "PGI status has helped to enhance the reputation of farmed salmon in major export markets.

"It is a good promotional tool and helps to protect against imitation. The benefits extend far beyond Europe as Scottish farmed salmon has now been included in the initial prestigious top 10 of quality food and drinks chosen from a list of over 3,000 European products in a pilot project between China and the European Commission.

"We hope the new award for Scottish wild salmon brings commercial success too."

Chiou mandarins from Greece, Trapani marine salt from Italy and Queso Camerano cheese from Spain also received PGIs, adding to a list of around 1,000 products which are protected by the legislation, including Scottish beef and lamb.

<http://www.heraldscotland.com/food-drink/latest/scottish-wild-salmon-given-protected-status.2012128273>

ABC News, 11 December 2012

Salmon take centre stage in southern river study

Tony Briscoe



Fish farms off Bruny island

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The salmon industry will be the centre piece of a new study which will assess impacts on river and estuarine systems in southern Tasmania.

The \$1 point 5 million study will focus on the Derwent and Huon rivers and the management of salmon farms off Bruny Island.

Researchers from the CSIRO and the Institute for Marine and Antarctic Studies will carry out the work and will present a final report in 2016.

Researcher Dr Scott Condie from the CSIRO says the study will involve members of the public and key stakeholder groups with an interest in protecting the river systems.

<http://www.abc.net.au/rural/tas/content/2012/12/s3652041.htm>

The Fish Site, 11 December 2012

Mainstream Canada First two-star BAP Certified Salmon Farm in BC

CANADA - Mainstream Canada is the first salmon farming company in BC to achieve two-star Best Aquaculture Practices certification this week, after its Tofino processing plant was certified.

Mainstream Canada has already achieved Best Aquaculture Practices (BAP) certification from the Global Aquaculture Alliance (GAA) for several farm sites. In 2011, Mainstream's Brent Island farm was the first salmon farm in the world to achieve BAP certification.

Achieving BAP certification for Mainstream's Pacific National Processing plant in Tofino means another first for Mainstream - with farm sites and now a processing plant certified, Mainstream is the first salmon farming company in BC to achieve two-star certification from GAA for farming and processing.

"We are very proud of this achievement. It shows our commitment to leading the way in sustainable aquaculture practices on our farms and in our processing facilities," said Fernando Villarroel, Mainstream Canada's managing director. "This new processing plant certification shows we are committed to the highest standards in producing salmon for our customers that is fresh, food safe and nutritious."

The Global Aquaculture Alliance's Best Aquaculture Practices standards are dedicated to advancing environmentally and socially responsible aquaculture. They are made to continuously improve over time and they are the result of an international science-based certification program. For more information on BAP, visit <http://www.gaalliance.org/bap/>.

Mainstream Canada is one of the largest salmon farming companies in British Columbia, Canada. The company currently operates three farms near Campbell River, eight farms near Port McNeill and 14 farms near Tofino in Ahousaht First Nation territory under a comprehensive protocol agreement. The company produces approximately 25,000 tonnes per year (live weight) of fresh, farmed Atlantic salmon.

<http://www.thefishsite.com/fishnews/18986/mainstream-canada-first-twostar-bap-certified-salmon-farm-in-bc>

Fish News EU, 10 December 2012

Galway protest planned

IRISH environmental campaigners have called for an anti-fish farm demonstration to take place at Simon Coveney's Constituency Office on December 15.

The call comes from No Salmon Farms At Sea (NSFAS), who claim that: "The battery farm proposed for Galway Bay will be the largest in Europe, if not the entire world, and will have the capacity to produce more than all the present farms around our coast combined.

"The highly inflated number of jobs, which BIM claim will be created, will be far outweighed by the number of jobs lost in areas where no other industry exists apart from that in tourism. Inland Fisheries Ireland have stated that angling is worth 143 million euros to our

economy and another 89 million euros from visiting anglers. We have a world class sport fishery here in Ireland and our outwardly projected clean environment is one of our greatest assets. However it is fragile and will be destroyed if the salmon farming industry is developed further. Anglers and Conservationists will do everything in their power to prevent any further destruction to our environment and already declining wild salmon and sea trout stocks.

“It is against this backdrop that, on December 15, Save Bantry Bay, Save Galway Bay, NSFAS, FISSTA, and Friends of the Irish Environment, along with other local and national organisations, will hold a protest march in Carrigaline, County Cork. We will congregate at Carrigaline Secondary School at 12.00pm and will march from there to Minister Simon Coveney's constituency office, where invited speakers will address those in attendance.

“Minister Coveney has been a strong supporter of the aquaculture industry and we intend to let him know that his support is misguided and will result in catastrophe not only for our stocks of wild Atlantic salmon and sea trout, but also for the communities and local businesses that depend on their very existence. An extensive social media and networking campaign has been conducted and large numbers of anglers, conservationists and concerned residents from all over the country have indicated that they will be present to voice their opposition to this proposed blight on our coastline.”

[http://www.fishnewseu.com/index.php?option=com\\_content&view=article&id=9489:galway-protest-planned&catid=46:world&Itemid=56](http://www.fishnewseu.com/index.php?option=com_content&view=article&id=9489:galway-protest-planned&catid=46:world&Itemid=56)

Green Around the Gills, 10 December 2012

Ireland Says ‘Feck Off’ to Super-Size Salmon Feedlot in Galway Bay



 "Feck off!" to Fish Farms in Galway Bay

Residents on Inis Oírr (Inisheer) in the Aran Islands are fighting the Irish Government's colossally stupid [proposal](#) for a 15,000 tonne "organic" salmon farm in Galway Bay.



Watch the video report [online here](#)

Inis Oírr is the location of the fictional Craggy Island made famous by the TV series Father Ted - featuring foul-mouthed Father Jack.



"I'm dead against a farm coming onto the coast of Inis Oírr," [said](#) local fisherman Ruairi O

Cualain. "We had a farm here about twenty years ago and we couldn't eat the mackerel that was swimming around the bay. This one's going to be thirty times the size of it."



## "Feck off!" to Fish Farms in Galway Bay

"I'm concerned about the waters around the beach," continued Ruairi O Cualain. "I'm sure it's going to be polluted. The last time we had a farm here we had sea urchins growing off the coast of Inis Oírr - they all disappeared afterwards. I do some lobster fishing and I'm concerned that would be wiped out. This could be the worst thing that ever happened to Inis Oírr. I've an awful fear that this could ruin the waters around Inis Oírr for generations."



"The more knowledge we get on this the more people we're getting against it," said another local resident. "We're concerned at the way BIM are handling it and giving us a whole load of lies. They're not being truthful and we don't trust them. People should know about it. We have to fight this and stand up for our cause and take the power back."



 **"Feck off!" to Fish Farms in Galway Bay**

"I don't think it should be here," said another local resident. "And I can tell you that half of Connemara is very much against a massive big sludge producing factory out in the middle of the feekin' bay. It's not good. It's not good for us. I don't see 500 jobs. And 500 jobs is not equal to 500,000 tourists who are not going to come."



Watch video report online via [““Feck off” to fish farms in Galway Bay”](#)

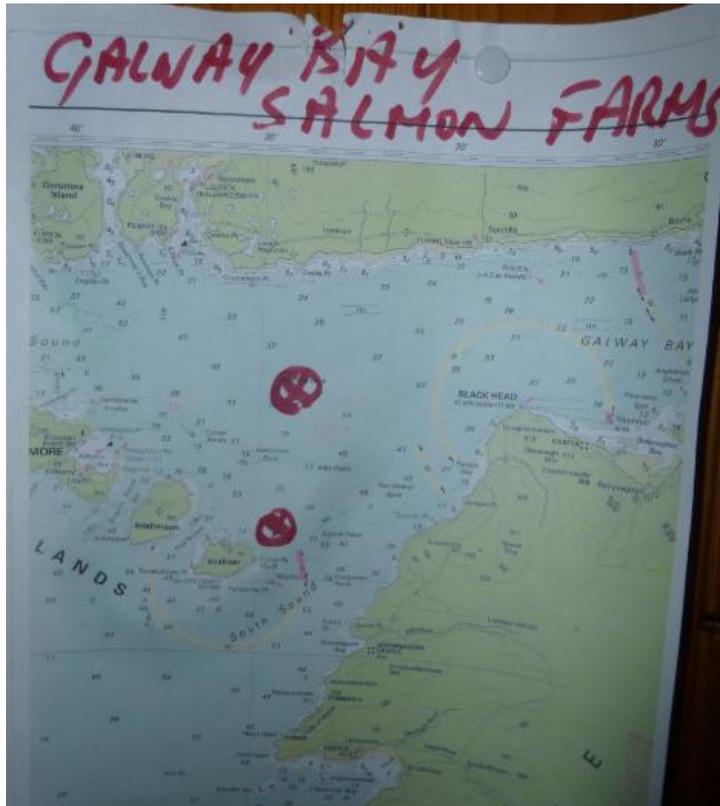


### "Feck off!" to Fish Farms in Galway Bay

Speaking on Inis Oírr, overlooking the proposed site and the world-famous Cliffs of Moher, [Dr. Roderick O'Sullivan](#) pointed to the dangers of the 15,000 tonne farm:



"One must remember that it's the biggest salmon farm certainly in Europe if not the world," said Dr. O'Sullivan. "And it's going to be discharging a tremendous amount of waste, fish faeces and uneaten food. It's going to have a very deleterious effect on water quality and the living organisms in this bay."

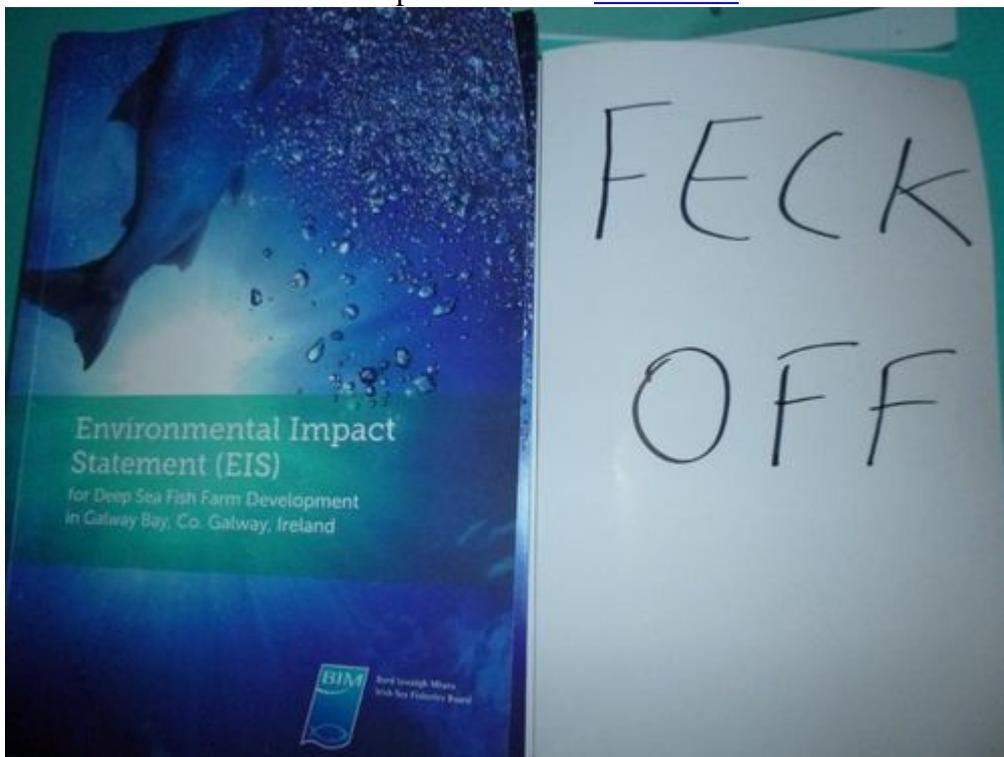


"What I'm concerned about is the quality of the Environmental Impact Statement that has been released by BIM," continued Dr. O'Sullivan. "Quite frankly, of all the Environmental Impact Statements that I've seen this is almost a work of fiction because it doesn't cover any of the worries or the concerns that the islanders would have both from their environment and their standards of living."



 **Dr. O'Sullivan on Salmon Farm Insanity in Galway Bay, Ireland**

Read BIM's Environmental Impact Statement [online here](#)



"If you take into consideration the last farm that was sited here, the Bradán Feasa - the biggest salmon farm in Ireland - and it was wrecked by the seas because the weather here is incredible," concluded Dr. O'Sullivan. "Look at this ship here - it's been driven up on these rocks. What chance the farms have when the storms really break here is highly debatable."

## Dr. O'Sullivan on Salmon Farm Insanity in Galway Bay, Ireland

Don Staniford

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Watch video report online via "[Dr. O'Sullivan on Salmon Farm Insanity in Galway Bay, Ireland](#)"

Read article in full online here: <http://donstaniford.typepad.com/my-blog/2012/12/ireland-says-feck-off-to-super-sized-salmon-farm-in-galway-bay.html>

Galway Bay FM, 10 December 2012

### COUNTY MAYOR CALLS FOR SUSPENSION OF LICENSING PROCESS FOR INIS OIRR FISH FARM

County Mayor Thomas Welby has called on the Minister for the Marine to suspend the licensing process for a proposed fish farm off Inis Oirr.

Bord Iascaigh Mhara has applied for the deep sea salmon farming licence at a site roughly 6 kilometres off Inis Oirr.

Mayor Welby says an independent review is required due to what he describes as an "inconsistency of information between state agencies Bord Iascaigh Mhara and Inland Fisheries Ireland.

It follows two separate presentations to Councillors in County buildings over the last week. Inland Fisheries has expressed concern over the possible effects on wild stock such as sea lice and the potential for cross-contamination.

However Bord Iascaigh Mhara has reassured Connemara Cllrs that escapes from farmed cages will not occur and that sea lice has not been an issue in the decline of wild stock.

A question mark has also been raised by Inland Fisheries over the number of jobs the proposed deep sea farm is likely to create, however BIM stands over its estimate of its capability to create up to 500 jobs.

The plans are now nearing the end of an eight week public consultation process which began in mid-October.

Speaking on Galway Talks, Mayor Welby says an independent review would clarify a number of issues.

<http://www.galwaynews.ie/29239-county-mayor-calls-suspension-licensing-process-inis-oirr-fish-farm>

Afloat, 10 December 2012

Groups To Protest Marine Minister's Office Over Galway Bay Salmon Farm

A group opposed to the [Galway Bay deep-sea salmon farm](#) proposals has announced it will **protest** the constituency office of **Marine Minister Simon Coveney** this **Saturday 15 December**.

In a statement to the media, **No Salmon Farms At Sea (NSFAS)** said that it will join likeminded groups Save Bantry Bay, Save Galway Bay, FISSTA and Friends of the Irish Environment, along with other local and national organisations, in a protest march through Carrigaline, Co Cork to Minister Coveney's office in the town, where invited speakers will address the crowd to express their opposition to the fish farm.

As [previously reported on Afloat.ie](#), the 15,000-tonne deep-sea organic salmon farm would be located on a 500-hectare site in Galway Bay off **Inis Oirr** in the **Aran Islands**, and would be one of the largest projects of its kind in Europe, projected to be worth more than €100 million annually for the economy, according to [Bord Iascaigh Mhara \(BIM\)](#).

But the proposals have [raised the ire of local anglers](#) and conservationists who fear the development could have a negative impact on wild salmon numbers in the area.

"Minister Coveney has been a strong supporter of the aquaculture industry and we intend to let him know that his support is misguided and will result in catastrophe not only for our stocks of wild atlantic salmon and sea trout, but also for the communities and local businesses that depend on their very existence," said NSFAS.

The statement also [cited the recent international study](#) involving experts from **Inland Fisheries Ireland** which concluded that 39% of all young salmon mortalities are directly attributable to sea lice in areas where salmon farming takes place.

It added: "The highly inflated number of jobs, which BIM claim will be created, will be far outweighed by the number of jobs lost in areas where no other industry exists apart from that

in [tourism](#)...We have a world class sport fishery here in Ireland and our outwardly projected clean environment is one of our greatest assets. However it is fragile and will be destroyed if the salmon farming industry is developed further.

"Anglers and conservationists will do everything in their power to prevent any further destruction to our environment and already declining wild salmon and sea trout stocks."

Meanwhile, [in today's Irish Times](#), [angling](#) correspondent **Derek Evans** writes that "anglers, stakeholders, hoteliers, restaurateurs, islanders and west coast citizens are 'up in arms' and rallying in large numbers in opposition" to what he describes as "this outrageous proposal".

He also backtracked on his [previous claim about the location of the deep-sea farm](#) as "a step in the right direction", explaining that he was contacted by a man living on Inis Oirr who said the location for the new fish farm is just "one land mile" opposite the beach, posing a threat to its tourism assets.

The Irish Times has [much more on the story HERE](#).

<http://afloat.ie/port-news/galway-harbour/item/20510-groups-to-protest-marine-ministers-office-over-galway-bay-salmon-farm>

The Irish Times, 10 December 2012

Opposition mounts to super-sized fish farm in Galway Bay



[Sea-liced pink salmon smolt from Broughton Archipelago, British Columbia, Canada.](#)

DEREK EVANS

THE Irish ballad The West's Awake, by Thomas Davis came to mind of late following the devastating news that Bord Iascaigh Mhara (BIM) had lodged a proposal for a supersized salmon fish farm off Inis Oirr in Galway Bay.

Angling organisations, anglers, stakeholders, hoteliers, restaurateurs, islanders and west coast citizens are "up in arms" and rallying in large numbers in opposition to this outrageous proposal.

Take, for example, my report of Oct 29th in which I said the off-shore location for the proposed farm was a “step in the right direction”.

I was immediately contacted by an islander who, quite rightly, takes issue with this assumption.

Living on Inis Oirr, he said the location is just “one land mile” opposite the beach, “which is one of our greatest tourism assets”. Any visible (or otherwise) pollution from the farm would have a devastating effect on the livelihood of many islanders.

He is also surprised that one of the biggest flaws in the Environment Impact Study (EIS) was overlooked, in which the proposed project is regarded as a “deep sea” initiative. “There is no area in Galway Bay that could, in maritime and fisherman’s terms, be considered as deep sea,” he said.

“This may seem a small issue but given the size and potential impact on the surrounding area, such

details are of paramount importance. Neither I nor any self-respecting fisherman would consider the waters a mile off our shores as anything but shallow,” he said.

In Galway anglers have united to fight the salmon farm proposed by BIM for Galway Bay. The proposed facility, reputed to be one of the largest open-pen salmon farms in the world containing 3.6 million salmon, has the potential to cause massive pollution to the bay, and to wipe out salmon and sea trout stocks in local rivers.

Galway Against Fish Farms (Gaff) condemned the way in which this project is being promoted by BIM. The State agency is trying to push through this application which could double the country’s production of farmed salmon. This would then be franchised to a private operator and the profits diverted abroad, Gaff said.

The agency is playing the jobs card by claiming the project would create 500 jobs. Given the increasing automation in the fish farming industry, most observers believe the project will create only a fraction of this number, while destroying local salmon and sea trout fisheries that support many tourism-related jobs, Gaff said.

According to Gaff, the EIS assessment contains many claims not backed up by fact, as well as omissions, and is clearly an unsound document. Gaff calls on Minister Coveney to turn down the application when it comes before him following the public consultation process.

World champion salmon fly tyer Declan Tuffy from Galway, said BIM’s plans to increase its salmon fish farming production by a staggering 100 per cent will be nothing short of an environmental disaster. “We have a duty as Irish citizens to protect our rare natural resource,” he said.

“BIM gave us a ‘golden egg story’ of how salmon farms will provide hundreds of jobs to coastal communities. The impact of fish farms on local economies is far more damaging to communities, the environment and businesses dependant on angling tourism with job losses way out-stripping job creation,” Tuffy said.





*Assessments a joke.*

*“The Environmental Assessments carried out for the industry are so full of inaccurate information that they are a joke!” said Bill Williams, a life-long angler and hunter from the area.*

“Worse still, now that, as of this fall, Environmental Assessments are now no longer required or handled by the federal government, we have nowhere to take our concerns about the environmental harms this industry will cause in our communities and bays. We are asking the province to accept these materials and to take our concerns seriously.”

President of APES, Dr. Marike Finlay, called for the provincial Minister of the Environment, Sterling Belliveau, to step up the level of play for licensing Snow Island Salmon to include a community-based, scientific assessment to prove beyond a reasonable doubt that no harm will come from this industry to the Eastern Shore environment, quality of life, and other industries such as lobster and tourism.



Belliveau in

conflict?

“We have a problem,” Dr. Finlay argued. “We do not believe that the Minister of the Environment, Sterling Belliveau, can presently guarantee an objective view of environmental harm, because he is also the Minister of Aquaculture, and openly promotes open pen fin fish aquaculture.” Bill Williams agreed: “Sterling Belliveau needs to choose whether he wants to promote salmon aquaculture or protect the environment and the wild-catch fishery. He cannot remain Minister of Aquaculture, Fisheries, and the Environment. These three portfolios and the politician who holds them need to be separated.”

Stakeholders from the lobster fishery, tourism, wild salmon anglers, the Sheet Harbour Chamber of Commerce and coastal dwellers of all ages came to Halifax to refuse open pen salmon feedlots in their coastal waters. A recent petition banning open pen salmon feedlots in two bays where they have been proposed, Spry Bay and Shoal Bay, was signed by more than 90% of the residents of those bays.



“It is outrageous that millions of dollars of taxpayers’ money is being spent to contaminate our bays, endanger our extant industries, and then compensate these companies when their fish die of disease. This industry is not economically sustainable without huge government subsidies,” said chant leader, Heather McCleod.

#### **Minister refuses meeting**

Minister Belliveau did not accept APES’ invitation to meet the citizens and receive their petitions. Progressive Conservative Leader, Jamie Baillie, did speak with the assembled citizens. He said he “had seen the future and it was on land closed-containment fish farming.” City Councillor David Hendsbee accompanied the entire march with his constituents dressed in a Bruins shirt, because, as he said, “bears prefer wild salmon.”

All photos copyright Karin Cope

<http://www.southcoasttoday.ca/content/eastern-shore-residents-march-legislature>

First Post, 10 December 2012

#### **N. Ireland Anglers Want Filthy Fish Farms OUT!**

Standing by the wild salmon bearing Glen Arm River, angler Mark Tierney speaks to Don Staniford about the importance of wild salmon and the need to oppose salmon farm operations in Northern Ireland.



One of the anglers then takes us out to where a nearby salmon farm is expanding, where Don Staniford explains the problems the farms has been having with disease and parasites.

Go to [www.nosalmonfarmsatsea.com](http://www.nosalmonfarmsatsea.com) to join the efforts to stop the expansion of salmon farms at sea and to protect wild salmon

<http://www.firstpost.com/topic/place/northern-ireland-n-ireland-anglers-want-filthy-fish-farms-out-video-1S2LNwxwFUY-1962-1.html>

Londonderry Sentinel, 10 December 2012

NW anglers urged to oppose salmon farms that could 'devastate' wild fish

THE Chairman of the North Atlantic Salmon Fund in Northern Ireland is urging Londonderry anglers to oppose plans for a host of new salmon farms off the West and North West coasts including prospective operations at Lough Swilly, Mulroy Boy and Tory island.

Jim Haughey wrote to local club secretaries and directors on behalf of the Ulster Angling Federation asking them to oppose Deep Sea Salmon Farm Aquaculture and Foreshore Licence Applications T9/489A & B, which the lobby believes will be devastating for the wild salmon.

He claimed a proposed farm in Galway Bay will produce more salmon than the whole of Ireland. A proposed farm near Tory will be similar in size.

He wrote: "This is to be in Galway Bay and forms the first of some 42 new salmon farms in the west and northwest of the Republic of Ireland which have the potential to destroy the remaining salmonid stocks.

“The Galway Bay farm alone will produce more salmon than the whole of Ireland at present, with a similar size farm planned for the Gola Island/Tory Island area of north west Donegal; further farms are planned for Lough Swilly, Mulroy Bay, and in most bays along the coast.”

An Inland Fisheries Ireland report noted the potential impact of fish farms on wild salmon stocks.

It found that an escape of approximately 29,000 fish in Lough Swilly in 1992 was investigated and it was found that up to 18 per cent of the juvenile salmon in the Crana river entering Lough Swilly were of farmed salmon origin.

<http://www.londonderrysentinel.co.uk/news/business/nw-anglers-urged-to-oppose-salmon-farms-that-could-devastate-wild-fish-1-4571850>

Fisheries Information Service, 10 December 2012

Mega fish farm contrary to moratorium in national development plan



REPUBLIC OF IRELAND

An environmental lobby group has written to the European Commission and to Irish Ministers claiming that the proposed Galway Bay mega fish farm is contrary to an agreement for a moratorium in salmon farm development reached under the National Development Plan 2007 – 2013 [NDP].

The group has documented the agreement for the moratorium which took place after objections from the Central and Regional Fisheries Boards were supported by the Department of Communication, Energy and Natural Resources (DCENR) about the negative impact that sea lice emanating from salmon farms are having on migratory wild salmonids.

[http://fis.com/fis/worldnews/search\\_brief.asp?l=e&id=57455&ndb=1&monthyear=&day=&country=0&df=1](http://fis.com/fis/worldnews/search_brief.asp?l=e&id=57455&ndb=1&monthyear=&day=&country=0&df=1)

Fisheries Information Service, 10 December 2012



María Eugenia Wagner, SalmonChile chairperson. (Photo: YouTube/pulsociudadano1)

Density regulation is the result of consensus between industry and government, says SalmonChile



**Monday, December 10, 2012, 03:30 (GMT + 9)**

The president of the [Association of Salmon Industry AG](#) (SalmonChile), Maria Eugenia Wagner, argues that the regulation of density "is an important step for the industry" and "a reasonable measure" in which the government worked with the industry.

"We must continue working together with the agenda, facing future challenges, such as carrying capacity, institutions and seek greater efficiency in the regulation," pointed out the leader.

Last Tuesday, in the first session of the National Aquaculture Commission the proposed Farming Density Regulation was presented for the Concession Clusters. This initiative is the result of joint efforts of the members of the industry and the Chilean Executive.

The regulation is part of the regulatory programme that includes the 44 measures encouraged by SalmonChile, the modification of the law and the implementation of the 16 rules the authority decided to create and improve in order to reduce the health risk, *Aqua* reported.

The first stage of this legislation will begin operating in 2013 while the second phase will begin in 2014 and 2015.

The rules will regulate the number of fish that the companies can put at sea, depending on the health behavior of the neighbourhood in which they operate.

The top of the density will be 17 kilograms per cubic metre for Atlantic salmon; and 12 kg/m<sup>3</sup> for Pacific salmon and trout.

"The new regulation has two elements: one of them is individual and is intended to reduce the stocking process in those farms with losses exceeding 15 per cent; and the other is a group

one, which aims to reduce farming density on site according to the level of risk the neighbourhood has, using a risk score based on productive and health elements," stated Wagner.

"However, if a centre in a neighbourhood has good results, the centre will be rewarded with higher density," he said.

Undersecretary for [Fisheries and Aquaculture](#), Pablo Galilea, admitted that the new production model will make costs increase. But he stressed: "This will be quite marginal, if one considers production volumes, compared to the damage we could have if we failed to obtain a healthy industry."

Galilea emphasized that the main objective of the production model and of this regulation is to have a relief from the health and environmental viewpoints so that virus episodes such as that of the infectious salmon anemia (ISA) do not take place again.

Moreover, he insisted that the difficulties currently faced by the salmon industry are a "market problem."

"This is due to the fact that the industry and the State had the capacity to create the conditions for the post- ISA recovery to take place sooner than thought," he said, so "the economic complications that some companies are undergoing have nothing to do with health because that has worked very well."

#### **Related article:**

#### **[- Farming densities to depend on environmental and health performance](#)**

*By Analia Murias*  
[editorial@fis.com](mailto:editorial@fis.com)  
[www.fis.com](http://www.fis.com)

<http://www.fis.com/fis/worldnews/worldnews.asp?monthyear=&day=10&id=57423&l=e&special=&ndb=1%20target=>

New Zealand Herald, 10 December 2012

Salmon farming feels the squeeze

Industry foresees billion-dollar future but Government-funded research paints a less optimistic picture.



The picturesque Marlborough setting of New Zealand's largest salmon farmer, NZ King Salmon. Photo / Supplied

Government-commissioned research paints a pessimistic picture of this country's salmon farming prospects and does not recommend investment in the sector due to uncertainty around securing the space the industry needs to grow.

Investment Opportunities in the New Zealand Salmon Industry, [a report by market research firm Coriolis](#) for the Ministry of Business, Innovation and Employment, says this country has strong "hypothetical potential" to increase its harvest of the high-value fish species.

Similar-sized Norway produces 75 times as much salmon as this country, the report says.

According to Aquaculture NZ, this country's salmon exports were worth \$63.4 million last year.

But the Coriolis report said that while there was strong potential for growing the local salmon farming sector, large-scale growth was "unlikely to be realised".

"The fundamental issue is that New Zealand as a society has yet to come to a consensus on salmon aquaculture, with proponents arguing for it to become a billion dollar industry, while a wide-ranging opposition of recreational fishermen, inshore fishing companies, holiday home owners and environmental advocates oppose its growth."

The report said it was difficult to recommend investment in the sector due to the high levels of risk, uncertainty and cost around ocean space tenure and renewability of tenure.

New Zealand King Salmon - which accounts for around 68 per cent of the country's production - has an application lodged with the Environmental Protection Authority to expand its farming area to 206ha of water space in the Marlborough Sounds, allowing for the construction of nine new fish farms.

Chief executive Grant Rosewarne said the extra space would allow the firm to grow revenue from its \$120 million to \$500 million over the next five to 10 years.

Only 12ha of the 206ha would be farmed at any one time, he said.

"We are confident that we will be granted some space but it is in the hands of a board on inquiry who are currently considering the matter."

An interim ruling on the application is due on December 19.

Rosewarne said he was confident that salmon farming could become a \$1 billion industry in New Zealand if it secured the extra water space needed.

"There's no other primary agricultural industry that can reap such rich rewards for New Zealand, requiring such little space and conducted in a completely sustainable way," he said.

Opponents of aquaculture, including Greenpeace, argue that the industry is not wholly sustainable and is damaging to the environment.

Coriolis analyst Tim Morris, who wrote the report, said the New Zealand salmon farming sector had the potential to grow to a \$2 to \$3 billion industry if enough space was granted.

"We could pay half of our [national] petrol bill with salmon."

Mt Cook Alpine Salmon, which farms in hydro power canals in the South Island's MacKenzie Basin, is more than halfway through a \$20 million expansion plan aimed at fuelling a 1400 per cent production increase over the next four years.

Eric Barrett, chief executive of Sanford, said the company had modest growth plans for farming salmon.

### **High value**

"Farmgate" value of an additional 700ha of farming space

\* Cattle/sheep farming \$500,000

\* Salmon farming \$1 billion.

*Source: Coriolis report.*

[http://www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objectid=10852975](http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10852975)

Avaaz, 9 December 2012

The world's largest and most effective online campaigning community for change

[START A PETITION](#)

## Save our Sounds - no new salmon farms

Created by  
**Leona P.**  
New Zealand

To be delivered to:  
**Chairman of the Board of  
Inquiry, Environment Court  
Judge Gordon Whiting**



### SIGN THIS PETITION

“ The Marlborough Sounds is a beautiful place and there are many parts of it that remain unspoilt. The Maori and Pakeha heritage goes way back, and today thousands of visitors come to this area to experience the beauty and endemic wildlife. King Salmon's application is proposing to build nine new salmon farms, on top of their existing eight farms. Eight of their proposed farms would be inside the Marine Farm Prohibited Zone. All the while King Salmon still can't explain why thousands of salmon died this year and had to be trucked away on a barge. This is the 'clean-green' country we love and are willing to fight for - say NO to further salmon farms. Join the fight!

#### ALREADY AN AVAAZ MEMBER?

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[http://www.avaaz.org/en/petition/The\\_Sounds\\_are\\_for\\_All\\_say\\_NO\\_to\\_nine\\_new\\_salmon\\_farms/](http://www.avaaz.org/en/petition/The_Sounds_are_for_All_say_NO_to_nine_new_salmon_farms/)

Limerick Leader, 9 December 2012

Anglers fear salmon super farm will impact local wild stocks



Wild salmon in the Feale could fall victim to the increase in sea lice attracted by the proposed salmon farm as they make their way to Greenland

By Gerard Fitzgibbon

ANGLERS in West Limerick have added their voices to a growing chorus of concern about the impact that a planned super-size fish farm off the Galway coast could have on already-depleted local salmon stocks.

With salmon numbers on the River Feale already approaching an all-time low, prompting fears that all fishing on the river could be banned as early as next year, local anglers believe that a planned 456-hectare fish farm near Inis Órr could have disastrous consequences if it is approved.

Brendan Danaher of the Brosna-Mountcollins Anglers said that the farm could lead to “an explosion” of parasitic sea lice which would prey on wild inland salmon making their way to Greenland to feed.

“We could be looking at a huge battle over this. I was at an anglers’ meeting last week, and there’s more coming up next week. If this thing gets built, there’ll be an explosion of sea lice attracted to the cages. They’ll treat the cages with chemicals, but the lice will still do serious damage to wild smolts.”

Earlier this year Bord Iascaigh Mhara made an application for a deep-sea fish farming licence off Galway bay.

The Government and Inland Fisheries Ireland are supporting the proposal, which it is claimed will see up to 15,000 tonnes of salmon harvested and create as many as 350 jobs.

However the plans have attracted fierce opposition from inland fishing groups across the country, who fear that Ireland's already-depleted salmon stocks will be prey to the fields of sea lice that the super sized farm would attract.

Recent figures taken on an official fish counter on the Feale near Listowel showed that in the first six months of 2012 there were just 1,055 salmon on the river, a fall of more than 50% from the same period in 2011.

To place that figure in context, the same counter reported 14,301 salmon on the Feale in 2007. For conservation purposes, the Feale needs to reach a quota of 4,323 salmon this year to allow for licensed angling and net fishing to take place there in 2013.

Mr Danaher said that local anglers' concerns about the potential impact of the farm have intensified following the recent publication of an international study by the Royal Society of Biological Sciences, which found that on average 39 out of 100 wild salmon are killed by sea lice.

"That's an astonishing figure", said Mr Danaher, adding that anglers fear that any jobs created by the farm would be offset by the loss of angling tourism to the country.

An environmental impact survey regarding the Galway proposals is open to public consultation until December 12, and submissions can be sent until that time to the Department of Agriculture, Food and Marine.

<http://www.limerickleader.ie/news/business/anglers-fear-salmon-super-farm-will-impact-local-wild-stocks-1-4568323>

Friends of the Irish Environment, 9 December 2012

### Mega Fish Farm Contrary to Moratorium in National Development Plan

An environmental lobby group has written to the European Commission and to Irish Ministers claiming that the proposed Galway Bay mega fish farm is contrary to an agreement for a moratorium in salmon farm development reached under the National Development Plan 2007 – 2013 [NDP].

The group has documented the agreement for the moratorium which took place after objections from the Central and Regional Fisheries Boards and supported by the Department of Communication, Energy and Natural Resources (DCENR) about the negative impact that sea lice emanating from salmon farms are having on migratory wild salmonids.'

The documents are part of the Strategic Environmental Assessment [SEA] of the Irish Seafood National Program 2007 – 2013 published under the National Development Plan in July 2010. It states

‘To address these concerns [the negative impact that sea lice], it has been decided that no financial assistance will be given to marine salmon aquaculture licence holders during the course of this National Programme until such time as the sea lice issue has been satisfactorily resolved.’

This decision is reflected in a note to the targets published in the July 2010 Irish Seafood National Program:

‘Targets

(Note: The targets for increased productive capacity for salmon will now have to be deferred until after 2013 as a result of the amendments made to this Programme arising from comments received during the SEA process).’

In spite of this, only just over a year later in December 2011 the Minister for Agriculture specifically provided an increase in the grant-in-aid for BIM ‘in view of the added responsibility which it will have in relation to the deep sea aquaculture.’ BIM is assigned with the role of obtaining the necessary licenses.

Inland Fisheries Ireland, [IFI] a statutory consultee under the Irish legislation recently issued two statements opposing the proposed Galway Bay salmon farm at this time.

IFI quote an international study in which they took part recently published in the Proceedings of the Royal Society B [Biological Sciences] which shows that wild

salmon mortalities from sea lice from salmon farms account for 39% of the returning fish’.

FIE says that in fact sea lice is an increasing concern due to resistance to treatment, warming waters favoring the spread of parasites and diseases, and an absence of some critical data on the migratory paths of salmon to enable fish farms to be located away from our wild fish paths.’ The group has asked the European Commission and the Irish Minister to ensure that the moratorium agreed through the SEA process remains in place until the ‘necessary conditions are met to address the agreed concerns’.

The consultation period for the Galway Bay salmon farm ends today.

Read in full via:

<http://www.friendsoftheireishenvironment.net/index.php?do=friendswork&action=view&id=1013>

CBC News, 9 December 2012

Association renews plea for land-based aquaculture



*The Salmon Preservation Association is calling for a land-based aquaculture industry to avoid illness in fish, such as Infectious Salmon Anemia. (CBC)*

#### *Related Stories*

[Pesticide approved for sea lice control](#)

After a second possible outbreak of infection on the south coast of Newfoundland, the Salmon Preservation Association is renewing its call for land-based aquaculture.

Earlier this year, almost 500,000 fish were destroyed, following an outbreak of Infectious salmon anemia in the St. Alban's area.

John McCarthy, president of the association, says land-based aquaculture would benefit rural areas of the province.

"If you went land based, every rural area in Newfoundland could sustain an aquaculture industry," McCarthy said.

"The fish is obviously is going to cost a little bit more money but ... I think there's a market out there for disease and penicillin free and lice free and chemical-free fish."

While the association has issues with present and proposed aquaculture operations, McCarthy said it is in support of greener aquaculture.

"We're not against aquaculture — we're just saying that what they're doing down here, it seems to me that they want success at any risk, he said.

"The fact that they're going to use some of these chemicals that they're proposing using tells me that they're pretty desperate."

Just over a week ago, Health Canada authorized the temporary use of a pesticide to control sea lice at provincial salmon farms.

<http://www.cbc.ca/news/canada/newfoundland-labrador/story/2012/12/07/nl-green-aquaculture-1207.html>

Denver Post, 9 December 2012

Maker of genetically modified salmon may sink if FDA doesn't act soon

Matthew Perrone



This 2010 photograph from AquaBounty Technologies shows two same-age salmon, but one is a genetically modified salmon, rear, and the other is a normal one. Genetically modified salmon grow twice as fast as normal. (*AquaBounty Technologies*)

WASHINGTON — Salmon that has been genetically modified to grow twice as fast as normal could soon show up on your dinner plate — that is if the company that makes the fish can stay afloat.

After weathering concerns about everything from the safety of humans eating the salmon to the fish's impact on the environment, AquaBounty Technologies was poised to become the world's first company to sell fish whose DNA has been altered to speed up growth.

The Food and Drug Administration in 2010 concluded that AquaBounty's salmon was as safe to eat as the traditional variety. The agency also said that there's little chance that the salmon could escape and breed with wild fish, which could disrupt the fragile relationships between plants and animals in nature. But more than two years later, the FDA has not approved the fish, and AquaBounty is running out of money.

"It's threatening our very survival," says Ron Stotish, chief executive of the Maynard, Mass.-based company. "We only have enough money to survive until January, so we have to raise more. But the unexplained delay has made raising money very difficult."

The FDA says it's still working on the final piece of its review, a report on the potential environmental impact of the salmon that must be published for comment before an approval can be issued.

AquaBounty is the only U.S. company publicly seeking approval for a genetically modified animal that's raised to be eaten by humans.

[http://www.denverpost.com/recommended/ci\\_22149896](http://www.denverpost.com/recommended/ci_22149896)

OpEdNews, 8 December 2012

## They Want Us to Eat What? Doubts About GM Salmon

By Martha Rosenberg

Many are hoping the AquaAdvantage salmon (AAS), often referred to as a "Frankenfish," is not approved by the FDA. The genetically modified salmon, created by Boston-based AquaBounty Technologies, is designed to grow twice as fast as wild Atlantic salmon--reaching its full size in 18 months instead of three years. It was created by inserting genetic material from Chinook salmon and ocean pout into wild Atlantic salmon. No wonder it's called a Frankenfish.



Bon appetit by Martha Rosenberg

Ninety-five to 99 percent of AAS are sterile, said AquaBounty at FDA hearings in 2010, so they are unlikely to breed and threaten wild salmon stocks if they escape. If they did breed, though, it could Jurassic Park-like since AAS eat five times more food than wild salmon and have less fear of predators, according to background materials. Nor is 1 to 5 percent a small amount considering the 15 million eggs AquaBounty plans to grow: that could amount to 750,000 fertile fish.

To prevent such risks, AquaBounty told an FDA advisory committee it plans to grow the eggs at a facility on Prince Edward Island in Canada, where escapees could not survive. "Water from the facility, including effluent from all floor drains, fish tanks and egg incubators, eventually discharges" into a tidal river that flows into the Gulf of Lawrence, says

the AquAdvantage FDA briefing package. Because water temperatures in the winter months are very low and the water has a high salinity, "it is highly unlikely that early life stages of any Atlantic salmon at the facility would be able to survive if they were able to escape."

But escape into the Gulf of Lawrence is not the only risk. AquaBounty also has safety plans for the adult salmon, which it plans to grow out and slaughter in the country of Panama because that environment is also hostile to survival. "In the lower reaches of the watershed, the water temperature is in the range of 26 to 28 degrees C, at or near the upper incipient lethal level for Atlantic salmon," says the FDA report. "As a result, it is extremely unlikely that AquAdvantage Salmon would ever be able to survive and migrate to the Pacific Ocean."

In the FDA briefing report, AquAdvantage salmon were also found to have high incidences of "jaw erosion" and "focal inflammation" (infection), though the defects are said to be "of low magnitude and not likely to be debilitating to fish in a production setting." What about the people who eat them? The report also identified low glucose levels and a possible "increase in the level of IGF-1 [insulin-like growth factor-1] in the AquAdvantage salmon compared to sponsor control fish."

Perhaps most troubling at the FDA hearings was AquaBounty's policy for handling dead fish in Panama. In its Environmental Assessment report, it says, "As dead fish are deposited, they will be covered with caustic lime, followed by another layer of dead fish and caustic lime, and so on, until the burial pit is ~0.5 m deep, at which point it will [be] sealed with plastic and covered with soil. Successive pits will be located at a minimum distance of 0.5--1.0 m from those used previously; the aggregate collection of such pits will be located on high ground that is not within the 100-year flood plain. . . . In the event that disposal capacity at the site is inadequate to handle the immediate or aggregate waste volume, alternative means of disposal will be sought."

Why are so many fish expected to die? Why would people want to eat such unhealthy fish? Why are the health of the environment, humans and fish overlooked when considering GMOs like the AquAdvantage salmon? END

The complete story of the AquAdvantage salmon is found in Martha Rosenberg's acclaimed expose, *Born With a Junk Food Deficiency: How Flaks, Quacks and Hacks Pimp The Public Health* (Prometheus Books, 2012. A great holiday gift.

Martha Rosenberg is a health reporter and commentator whose work has appeared in *Consumers Digest*, the *Boston Globe*, *San Francisco Chronicle*, *Chicago Tribune*, *New Orleans Times-Picayune*, *Los Angeles Times*, *Providence Journal* and *Newsday*.

<http://www.opednews.com/articles/They-Want-Us-to-Eat-What--by-Martha-Rosenberg-121208-9.html>

GAAIA, 8 December 2012



### "Feck off!" to Fish Farms in Galway Bay

<http://www.youtube.com/watch?v=ej1xNhML-D4>

UK Human Rights Blog, 8 December 2012

Culling seals to protect farmed salmon: what should we be allowed to know?

by [David Hart QC](#)



Global Alliance Against Industrial Aquaculture v. Scottish Ministers, 26 November 2012  
[read decision](#)

An interesting and robust decision from the Scottish Information Commissioner. An NGO (just look at the tin) asked the Scottish Ministers for information about seal culling licensed by them. The Scottish Ministers did not provide all the information sought; they said which companies had received the licences, and the total number of seals killed, but did not say who killed how many seals where – thus, doubtless, stymieing any focussed debate and engagement by the NGO on the justification for the killings. The industry’s position appears to be that such shootings only took place against occasional **rogue seals**.

It was common ground that the withheld information was environmental information within the Regulations – effectively the same north and south of the border. The Ministers relied on two exceptions – that provision of the information might affect public safety ([reg.12\(5\)\(a\)](#) in Scotland or [reg.13\(5\)\(a\)](#) in England) or the protection of the environment to which the information relates (*ibid.*(5)(g)). Their case was that production of the information would lead to direct action being taken (not by GAAIA) but by others against the sites involved or individuals involved in their operation. The material relied upon by the Ministers in respect of direct action was (a) an aborted mass slaughter of Orkney seals in 1978 (yes, 1978) – nothing to do with salmon farming (b) the confrontation of a Costa Rican ship in Guatemalan waters concerning shark finning and (c) a Canadian seal cull and (d) recent direct action against whaling. Example (a) was a tad ironic – this cull was in the end cancelled for public safety reasons – the public safety in question being that of the protesters who had put themselves in the line of fire between cullers and seals.

The IC took a pretty firm line in response to this. No, the Ministers accepted, the release of information about certain past salmon farm culls had not led to any direct action. And all GAAIA was after was more information about the past, in part to be able to inform customers whether or not seals had been killed in the farming of this product (this is perhaps closer to the nub of the case, which the cynic might infer was all about reputation management of the fish farmers as doubtless conveyed to Ministers). The IC said that the Ministers needed to demonstrate that disclosure would or would be likely to prejudice substantially public safety – not simply a remote or hypothetical possibility of such harm. The examples of direct action provided by Ministers were “tenuous and bore little relation to the issues or situations under consideration...”

Indeed, the IC was “disappointed that the Ministers continue to rely on general arguments to explain why they considered the information to be exempt under regulation 10(5)(a), without providing evidence to support their conclusions in the specific circumstances of this case.”

The harm to the environment exception was even more tenuously supported by Ministers. Protestors might damage fish farm cages, thus causing fish to escape and thus potentially impact on wild populations. Seals might also damage those cages, if companies were not allowed to shoot them because of protests. Not much credence was given to this by the IC.

Standing back from the decision, and the rather flimsy material advanced by Scottish Ministers, it demonstrates just how difficult these cases must be to decide in practice. They are meant to be morally neutral – it is not supposed to matter why someone wants the information. If the information sought falls within the rules, then it is for the public authority to justify refusal of disclosure, and to do so on objective grounds. But this process gives rise to the sort of decision here – how robustly should one look at the possibility of the actions of third parties? And to what degree should Ministers weigh all this up? Are they to take account of law enforcement or the ability of salmon farmers to look after themselves – in

return for an open debate on whether, and in what circumstances, seals should be killed. Let us assume that the data show that three salmon farmers, close to each other and in habitats of similar seal attractiveness, killed nil, 20 and 500 seals respectively over a given year. Why should not the last two have some explaining to do, not simply to Ministers but to the public and its market generally?

<http://ukhumanrightsblog.com/2012/12/08/culling-seals-to-protect-farmed-salmon-what-should-we-be-allowed-to-know/>

Read more via “[Scottish Salmon's Seal Killers Named & Shamed!](#)”

The Chronicle Herald, 8 December 2012

Outbreak no surprise

The suspected outbreak of ISA on the south coast of Newfoundland should be no surprise. Pens which are overstocked with fish that are being devoured by sea lice make a great portal for the ISA virus.

The Canadian Food Inspection Agency (CFIA) has stated that the samples taken would be sent to their lab in Moncton, N.B. It seems very strange the sample was not sent to Dr. Fred Kibenge’s lab, one of the best in the world and very capable of doing this test. CFIA states that it will take 45 days to complete testing.

Dr. Kibenge’s lab had its funding cut off after he testified before the Cohen commission. The farmed salmon industry and the federal government are trying to hide his proof that ISA exists in British Columbia in both farmed and wild salmon. I wonder how many millions this will cost the taxpayers. The CFIA-ordered kill in Shelburne cost us \$21 million.

Bill Williams, Sheet Harbour

<http://thechronicleherald.ca/letters/229354-voice-of-the-people-december-8-2012>

Dissident Voice, 7 December 2012

The Right to Test for Pathogens in Farmed Salmon

*Letter to the International Community*

by Alexandra Morton

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Last December, my lawyer Greg McDade made a prediction that was recorded in the Cohen Commission testimony – that within 12 months the federal government would attempt to strip the lab I am using to test for ISA virus of its international status.

He was right. They are trying.

In response I went back to the wealth of information Justice Cohen and his Counsel Brock Martland gave us on ISA virus in BC and laid out what is known to the Director General of the Organization of International Epizootics (OIE).

7 labs have detected ISA virus in BC, 4 of them are federal government labs, whose results have been hidden, muzzled or misrepresented in government communications

Only 1 lab says 100% of his tests have been negative – Dr. Gary Marty, Provincial farm fish audit lab. His lab is now an outlier.

1 lab is non-government and thus harder to muzzle — that is the one the CFIA has gone after.

Last spring government drafted Bill 37 that would have made this research punishable by 2 years in jail.

The CFIA is clearly under pressure too.

The workers in the fish farm industry must feel uncertain about their future as does everyone depending on the wild fish economy. This virus is well known to damage their industry, which is already on its knees running out of food and customers.

I am asking the Director General of the OIE to cast an international eye on what is happening in BC, in hopes that we will be able to finish this work without escalating harassment.

Here is [my letter](#) to Dr. Bernard Vallat, DG of the OIE.

I could really use your help. Everyone needs to speak up, there is a petition on the site above. Share widely so people know they can help.

If you want to know the extent of what is going on please read my blog. This is sheer nonsense, in a high-stakes game that everyone loses; the shareholders, trade partners, fish farm workers, the wild salmon economy, politicians the wild salmon of the North Pacific and everyone that comes after us.

*Alexandra Morton is a registered professional biologist who was living in a remote archipelago studying whales when the fish farmers came to her town. [Read other articles by Alexandra](#), or [visit Alexandra's website](#).*

<http://dissidentvoice.org/2012/12/the-right-to-test-for-pathogens-in-farmed-salmon/>

Alexandra Morton, 7 December 2012

Letter to Director General of OIE

Dr. Bernard Vallat



Director General  
World Organisation for Animal Health (OIE)  
12 rue de Prony  
75017 Paris  
France

Dear Dr. Bernard Vallat

I am writing to you in the wake of the anonymous complaint against Dr. Fred Kibenge's lab at the Atlantic Veterinary College. With this letter I seek to provide the OIE with a glimpse of the documentation on the biological and political state of ISA virus in British Columbia, Canada. While it remains unrecognized, seven labs have detected ISA virus in British Columbia. Kibenge's is the only non-government Canadian lab and I own the samples. I am appealing to the OIE to watchdog the situation so that our work can be completed.

As noted in the OIE document: *Notification of animal and human diseases Global legal basis*, the potential negative economic impact of reporting a new pathogen must not delay a country's disclosure of a reportable virus. Member countries are asked to take every reasonable step to limit the spread of disease. In this case, the potential social, economic and ecological threat of the ISA virus to the northeastern Pacific should likely be recognized and controlled as soon as possible.

[Download OIE notification-EN copy copy.pdf \(233.6K\)](#)

Our understanding of ISA virus in BC has been significantly aided by the recent document production and testimony provided by the federal Cohen Commission into the Decline of the Sockeye Salmon of the Fraser River. The Commission provides documentation on the ISA

virus positive test results from seven labs testing wild and/or farmed salmon in BC. Thus, for a window of time, British Columbia has the unprecedented opportunity to work to avoid the characteristically highly virulent outbreak this pathogen is capable of. The only opportunity to control ISA virus in BC is to detect and destroy it in the places most conducive to mutation into an HPR-deleted, highly virulent, made for BC variant. Those places are the high-density environments in salmon farms and hatcheries. To access the Cohen documents cited herein go to: <http://www.cohencommission.ca/> Enter the site. On the left-hand side, above “search” enter the word “exhibit” and the numbers I provide below.

It is clear confirmation of ISA virus in BC could have a strong negative impact on Marine Harvest, Cermaq and Grieg Seafoods that make up 95% of the BC salmon farming industry. But it is also apparent from the material below that ISA virus reporting in Canada threatens careers. Counsel for the \$26 million Cohen Commission asked a senior DFO scientist if the 2004, ISA virus positive test results for 115 BC salmon were “not disclosed because they were overlooked or were they deliberately set aside and not disclosed.”

The current non-government work to assess ISA virus in British Columbia is exceptional in several ways.

1. It is underway pre-epidemic.
2. Most of the farm salmon samples are purchased from supermarkets, not acquired directly from the farms and
3. some of the European ISA virus sequence has come from Pacific salmon.

We are thus in uncharted territory, because European ISA virus has not been studied in wild, free-swimming Pacific salmon. The ISA virus probes and primers are extremely sensitive, while the virus has great capacity for mutation. Novel hosts can be expected to stimulate mutation in exactly the region of the virus that determines the levels of virulence. All of this makes testing difficult. The slightest mutation in specific regions of the virus will cause the probes to fail. Accusations of contamination are widespread against labs doing this work, but the challenges presented by a European ISA genotype loose in the Pacific Ocean has to be considered as well.

The private sector is shouldering the cost of assessing the presence of ISA virus in BC, using the highest standards available, in as open and transparent a method as we are allowed. Government, industry, neighbouring countries, trade partners and shareholders should regard this work favourably, as they all stand to benefit. The alternative is to allow whatever virus the labs are detecting to continue with unchecked access to novel hosts.

The situation is politically charged. A law was drafted a few months ago by British Columbia to make public release of information on reportable diseases in farm animals punishable by two years in prison and a \$75,000 fine. While not passed, this Bill 37 remains on the order papers of the BC Government.

ISA virus is an incalculable threat to the eastern North Pacific. As per my interpretation of your revised, September 2012 OIE Chapter on ISA virus, and given the level of ISA virus detection in many of the labs, it is my view that British Columbia is ISA virus positive. It is extremely difficult to communicate with the government labs, but we are working to provide the evidence that will prove or disprove this.

## **The OIE newly revised Chapter 10.5. Infectious Salmon Anemia, (September 2012)**

The OIE very recently significantly updated their previous ISA virus Chapter 10.5. (2010). The new definition of an ISAV-positive region is simply finding “any detectable ISAV.” This is much more sensitive than the previous criteria: “Mortality, clinical signs and pathological changes,” “isolation of the virus in cell culture from at least two independent samples,” “isolation and identification in cell culture from a fish on the farm with corroborating evidence of ISAV in tissue...” The new OIE policy also initiates recommendation to restrict movement of whole eviscerated fish from ISAV positive regions, suggesting further risk assessment of such product. This is exactly the type of fish where Dr. Kibenge has detected ISAV sequence matching the virulent HPR5 and HPR7b. The OIE’s upgrade appears designed to head off outbreaks and responds effectively to the ongoing findings of the OIE reference lab at the Atlantic Veterinary College. The OIE standard is now much more sensitive than the outdated Canadian standard requiring culture to confirm ISA virus and this may be causing bureaucratic dysfunction.

[Download OIE notification-EN copy copy.pdf \(233.6K\)](#)

## **What prompted delivery of BC samples to Kibenge’s OIE lab at AVC**

On March 1, 2010, a BC environmental group won a decision by the Office of the Information and Privacy Commissioner for British Columbia to obtain access to the BC farm salmon disease records. In the decision document (Order F10-06, page 24) we see the fish farm companies threaten to cease participating in the provincial audits if their disease records were made public. In the end the environmental group never released the disease records after receiving them, but in April 2010, the fish farm companies operating in BC did indeed inform the Province of British Columbia that audits could no longer be conducted on the health of their fish. At the same time, the three Norwegian operators signed a memorandum of understanding to share information with each other specifically about viruses. Six months earlier, in the summer of 2009 Marine Harvest began asking the provincial vet, Dr. Gary Marty for private tests for the ISA virus (Cohen Exhibits, 1549-309, - 318, -322). They requested 32 such tests and no salmon farming company ever imported salmon eggs to BC again.

In 2011, the Cohen Commission [www.cohencommission.ca](http://www.cohencommission.ca) released the BC farm salmon health audit records by provincial vet, Dr. Gary Marty <http://www.agf.gov.bc.ca/ahc/staff.htm>. These records, now public exhibits, contain over 1,000 references to detection of ISA-type lesions (Cohen Exhibit 1549-217) in the BC quarterly audit data 2006-April 2010 (when the salmon farming industry declined to participate any longer). (If you require an excel version I can provide that to you). See also the reports Dr. Marty made directly to the companies (Cohen Exhibits 1549-309, - 318, -322). This document production by the Cohen Commission offers a view into farm salmon health unprecedented worldwide.

In addition to ISA virus lesions, Dr. Marty also reports lesions he identifies as consistent with Salmon Alphavirus, the jaundice condition of coho in Chile (Smith et al. 2006) and Heart and Skeletal Muscle Inflammation (HSMI). It would now appear that Dr. Marty is highly accurate in his histological interpretations.

[Download OrderF10-06.pdf \(417.0K\)](#)

In 2011, the Cohen Commission [www.cohencommission.ca](http://www.cohencommission.ca) released the BC farm salmon health audit records by provincial vet, [Dr. Gary Marty](#). These records, now public exhibits, contain over 1,000 references to detection of ISA-type lesions (Cohen Exhibit 1549-217) in the BC quarterly audit data 2006-April 2010 (when the salmon farming industry declined to participate any longer). (If you require an excel version I can provide that to you). See also the reports Dr. Marty made directly to the companies (Cohen Exhibits 1549-309, - 318, -322). This document production by the Cohen Commission offers a view into farm salmon health unprecedented worldwide.

In addition to ISA virus lesions, Dr. Marty also reports lesions he identifies as consistent with Salmon Alphavirus, the jaundice condition of coho in Chile (Smith et al. 2006) and Heart and Skeletal Muscle Inflammation (HSMI). It would now appear that Dr. Marty is highly accurate in his histological interpretations.

I decided to go out and check if these viruses were in BC salmon, farmed and wild.

### **The Rivers Inlet Sockeye samples – ground zero – in the BC debate**

The fish that ignited the debate - is ISA virus in BC - were 2 out of 48 Rivers Inlet sockeye smolts submitted to Dr. Kibenge by Dr. Rick Routledge of Simon Fraser University. Routledge wanted to rule out ISA virus in an inexplicably declining population of wild salmon that he is studying. Simon Fraser University held a press conference to get these results into the public domain, seeing this as a serious, time-sensitive situation and hoping to elicit scientific investigation. At that time, the public was unaware of any ISA positive test results. Government and industry had testified under oath only weeks earlier in the Cohen Commission that ISA virus had never been detected in BC. It is ironic the debate was ignited with these fish because they were highly-degraded, having been stored for months in a household-type freezer for stomach content analysis. The viral work was an after-thought.

While it is commonly presented that DFO could not reproduce Dr. Kibenge's positive result in these salmon, below is a November 4, 2011 email from Ms. Nellie Gagne, DFO Moncton lab, sometimes called the National Reference Lab, to Dr. Peter Wright (DFO) and others titled: – Good News? Bad News

*“Hi,*

*The homogenates (19, heart and gills) were done and one very weak (almost 38) showed up, in one duplicate only.*

*It is not one of the positives of AVC...*

*I am not convinced it should be reported to our friends in Ottawa, guess why !”*

*We do not like to see a Ct like this, but this is the type of Ct that is equivalent to the finding by Nylund, i.e. I can't conclude anything from it.*

*Nellie*

” (Cohen Exhibit 2040)

A list of ISA positives found in British Columbia salmon in 7 different labs

- 1.) **Nellie Gagne (DFO/CFIA)** weak positive among the 48 Rivers Inlet sockeye. There has been no other reporting on results from samples she has been sent that also tested positive in Dr. Kibenge’s lab. The media continues to report on these 48 samples without mention of the growing list of positives in BC farm salmon.
- 2.) Cohen exhibit 2053, Farmed chinook salmon, Clayoquot Sound. Creative Salmon provided samples to **Dr. Kristi Miller (DFO)**, Pacific Biological Station, to figure out why their fish were experiencing unexplained persistent mortality and jaundice condition. In Cohen Exhibit 2053, test results are given for 47 farm salmon, from two different salmon farms, 12 tested positive for ISAv.
- 3.) Cohen exhibit 2060, lists many ISAv positives from the **Miller lab (DFO)** in wild sockeye salmon from a large number of commercially and socially important BC salmon rivers. Samples were collected in 2007-2010. Miller reports some primers work better than others: “So I believe that what we have in B.C. is a somewhat divergent strain of ISA that is not universally picked up with all -- with the assays that are presently in use... there is always the possibility that you will develop an assay that doesn't pick other variants that you didn't know about. And I believe that that's what's happening here.” (Cohen Commission Testimony, Dec 15, 2011, Page 22)
- 4.) **Sonja Saksida, BC Centre for Aquatic Health Services**, reported ISA PCR positives to the CFIA in the farm chinook salmon from Creative Salmon, sequence confirmed for ISA-P7. The only mention of this reporting is in an email from Miller to Stephen Stephens (DFO, OTTAWA) Cohen Exhibit 2055.
- 5.) Cohen Exhibit 2043, 2056 – positive results by **Dr. Kyle Garver, Pacific Biological Station DFO** described by Dr. Miller: “So he ran basically the validated assay that Nellie uses, and the ISA-7 Plarre assay and he was able -- he was not able to pick up any positives using the DFO validated assay, but he did pick up a positive of ISA-7 using our assay with our pre-amplification.”
- 6.) Cohen Exhibit 2045, a 2004 draft paper coauthored by **Drs. Molly and Fred Kibenge and Drs. Simon Jones and Garth Traxler (DFO)** reporting 115 ISA virus positive results. These results demonstrate up to 99.7% identity to an ISAv isolate from Norway. Sequence was produced. These samples included Atlantic salmon, wild salmon from Alaskan waters, throughout BC and 100% of the Cultus Lake sockeye tested, a Fraser sockeye population that has been declining despite efforts to restore it. It is unclear whether the Americans or the CFIA were informed. This work was never provided to the Cohen Commission by DFO. Dr. Fred Kibenge provided this document to the Commission when he was asked by the Commission to provide all information on ISAv in BC.
- 7.) **Kibenge, AVC**, results on 2/48 River’s Inlet sockeye smolts positive for European ISAv genotype
- 8.) **Are Nylund, U. Bergen** weak ISA virus positives among the 48 sockeye smolts and ongoing positives in BC samples I am providing to his lab.
- 9.) **Kibenge, AVC**, results on 3/11 salmon that died in the Fraser River without spawning positive for European strain ISAv; chinook, coho, sockeye. I am the owner of these samples and they were provided to the CFIA
- 10.) **Kibenge, AVC**, results on HPR5 sequenced from a female chum salmon in the Vedder

River, a tributary to Cultus Lake. I am owner of these samples and they were provided to the CFIA

11.) **Kibenge, AVC**, positive results on 19 farm salmon bought in supermarkets in the city of Vancouver. Many are HRP5, one HPR7b, this work is ongoing and will be more fully reported when complete. I am the owner of these samples and they were provided to the CFIA.

Despite all these labs, reporting ISA virus positive results, including 3 DFO labs, the DFO position remains - no salmon in BC have tested positive for ISA virus.

Dec. 4, 2012 “In recent years, the Government of Canada and B.C. have tested more than 5,000 wild and farmed salmon in B.C. for infectious salmon anemia. None has ever tested positive.”

<http://www.ottawacitizen.com/news/confirmed+disease+salmon/7646808/story.html>

There is currently only one lab known to have tested BC salmon for ISA virus reporting 100% negative results. The provincial lab run by Dr. Gary Marty, BC’s Provincial Animal Health Centre reports ISA virus “negative” results for 7,002 BC farm salmon. (Cohen Exhibit 2146). It is unclear what protocol he is using.

### **Inconsistent results**

A common finding throughout ISA virus positive results for BC is that they are “inconsistent.” Real time PCR positive results come and go between replicates. Dr. Miller’s work demonstrates that different probes behave differently (Cohen Exhibit 2060). This suggests that the trouble identifying this virus may not be a failure by the labs, but rather the unique nature of this variant of virus.

As Greg McDade, a participant lawyer for the Cohen Commission stated in his final argument:

*“The independent findings by Dr. Nylund and Dr. Kibenge in the initial Rivers Inlet group of 48 fish provided them with the confirmation of each other, and on a statistical basis eliminate any reasonable possibility of contamination or other laboratory error.*

*The subsequent findings of Dr. Miller are again confirmatory of both Dr. Kibenge and Dr. Nylund. The fact that Dr. Miller used different primers, a different machine, and a different methodology, but also produced positive findings, itself provides another level of confirmation that reduces any possibility of a consistent error. Dr. Miller’s genetic approach is novel and advanced, but this is not grounds to reject it. Dr. Kibenge, the OIE designated expert on ISA, considered her results to be credible. Dr. Miller is a senior DFO scientist, in charge of the genomics lab, and it would not serve DFO or Canada well to contest the credibility of her findings.*

“It appears that there is likely considerable sequence variation within BC strains of the virus” (Dr. Kristi Miller, Cohen Exhibit 2061)

### **Pacific salmon that tested positive for ISA virus - fighting the flu**

The most interesting substantiation of ISA virus in BC is contained within Cohen Commission Exhibit 2052 describing the genomic expression profile in ISA virus positive

salmon. These results suggest that BC salmon may not be carrying this virus without cost. The Miller Lab examined whether salmon were responding at a cellular level to the presence of the ISA virus. Post-doctoral student, Brad Davis, used the fish's immune response to gauge impact of the virus on the fish. The work produced a very strong signal indicating that the immune systems of ISAV positive salmon are fighting influenza. Since ISA is an influenza-type virus this suggests that even if Pacific are not exhibiting exterior sign of ISA virus, their immune systems appear to be actively engaged in fighting the flu. This work also provides novel supporting evidence that ISA virus is present in British Columbia. Based on this work it would be premature and unsupportable to suggest ISA virus is not causing disease in BC.

### **ISA virus positive results 2004, not disclosed – Cohen Testimony**

Before Dr. Fred Kibenge tested Dr. Rick Routledge's Rivers Inlet smolts, Cohen Commission participant lawyer, Greg McDade specifically questioned government and the salmon farming industry if ISA virus had been detected in BC:

**DR. MacWILIAMS:** There has been no indication of ISA or ISAV on this coast in B.C. (DFO Fish Health)

**DR. MARTY:** And so that gives me a great deal of confidence that we don't have ISAV in British Columbia (Farm Salmon Fish Pathologist, Animal Health Centre, BC)

**CLARE BACKMAN:** The level of surveys done in the country of origin and then again, the quarantine and follow-up sampling here in British Columbia has been successful in preventing any exotic disease, including this particular one, ISAV (Marine Harvest Director of Communication and Community Relations)

**PETER MCKENZIE:** We have over 5,000 tests for ISAV all are negative, and that gives us an extremely high level of confidence that our industry is free from ISAV (ex CFIA, now Cermaq veterinarian and Fish Health Manager, board of BC Centre for Aquatic Health Services)

But when the Cohen Commission reopened in response to Dr. Kibenge's ISA virus positive results, we learned that, in fact, DFO had 115 ISA virus positive results in BC salmon. As an NSERC student in 2002, Dr. Molly Kibenge embarked on a project looking for viruses in BC salmon. She found ISA virus and was never allowed to make this public. The table below from this draft work, shows where these positive results were from, including 64 out of 64 of the Cultus Lake sockeye tested. Cultus Lake is part of the Fraser River sockeye population. Thus, this draft paper should have been submitted to the Cohen Commission by Dr. Simon Jones, a senior DFO scientist and expert witness to the Commission into the Decline of the Sockeye Salmon of the Fraser River. Molly Kibenge was a student in his lab; he was in charge of the fate of this study as seen below. Jones never did disclose this work to the Commission, even when the Commission reopened to hear evidence specifically on the ISA virus in BC. It was Dr. Fred Kibenge who submitted the work to the Commission. It is Cohen Exhibit 2045 and it changed the entire tone of the hearings.

Table 1: Pacific salmon species analyzes for the presence of ISAV segment 8 primers

Salmon Species (weight)	Location and number of samples examined (positive by RT-PCR with segment 8 primers)										
	PBS	LL	ISEA	IVI	VI	QCS	EP	DE	FI	BA	CL
Chinook (200-350g)			37 (10)	40(22)	8 (1)	9(3)					22(0)
Chum (150-250g)				5(0)	14(0)		17(0)	52 (0)			
Coho (100-200g)				16 (0)							20 (0)
Pink (150-250g)					24(4)		19 (4)	40(6)	2 (1)		
Sockeye (100g-200g)					19(0)			20 (0)			64(64)
Kokanee <sup>a</sup>		50(0)									
Atlantic (100-150g) SW	2 (1)										
Atlantic (18-20g) FW	7(0)										

PBS=Pacific Biological Station, LL=Lois Lake, ISEA=Inside East Alaska, IVI= Inside Vancouver Island (inlets the coast line of Vancouver Island, EP= Estavan point, DE- Dixon Entrance, FI= Forrester Island, TI= Triangle I =Broughton area, CL=Cultus Lake

<sup>a</sup>Weight unknown.

A November 4, 2011 email from Simon Jones to Dr. Molly Kibenge attached to this Exhibit.

“... I do not give permission to submit this work, whether in this manuscript or any other, for publication.” (Cohen Exhibit 2045).

**MARTLAND** (Commission Counsel): *I suppose the basic question is were these documents not disclosed because they were overlooked or were they deliberately set aside and not disclosed?*

**DR. JONES (DFO)**: *I was certainly aware that we had conducted that work, but there was no reason to assign any importance to that. It was a series of experiments that yield some puzzling results that were not verifiable and it didn't seem to add meaning to -- it didn't seem to contribute to anything other than that this was a confusing piece of information that -- yeah, was essentially a negative result.* (Cohen Commission Transcript Dec. 16, 2011, Pg. 126)

These results should have triggered further study out of concern for the wild and farmed salmon in British Columbia, but no follow-up work is evident. It is unknown if the CFIA or the salmon farming industry were alerted. It is unknown why DFO halted this work.

While Dr. Gary Marty was recording “the classic lesions associated with ISA infection” in nearly every salmon farm audited 2006 - April 2010, (Cohen Exhibit 1549-217), Dr. Jones of the Pacific Biological Station (DFO) had ISA virus positive test results in the BC wild salmon that were swimming amongst the Atlantic salmon farms where Dr. Marty was recording classic ISA virus lesions.

In light of this, the question has to be asked; if the Federal government of Canada failed to disclose 115 positive test results for a reportable virus, what assurances do we have that the Provincial Government of British Columbia has not done the same thing? Are they withholding ISA virus positive test results as well? The only lab not reporting 100% test results for ISA virus is the provincial lab where Dr. Gary Marty reports 7,002 negative tests, most of these tests were done on the natural host species for ISAV, Atlantic salmon. (Cohen Exhibit 2146). Dr. Marty was not called to testify at the ISA hearings.

### **International trade implications**

In the March 27, 2012, the BC Ministry of Agriculture, Don McRae spoke in the BC Parliament:

*“... when ISA was first talked about from the lab in P.E.I.... There were lawmakers and legislators both in the United States — various states bordering British Columbia — and in Asia who at that time were speculating and pushing for closing our market share. ... if we had followed the protocols accordingly, I think it would have been more appropriate in terms of making sure we did not threaten our international markets.”* (BC Hansard [1700])

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**KLOTINS:** *So if, let's say, we do find ISA in B.C. and all of a sudden markets are closed, our role is then to try to renegotiate or negotiate market access to those countries. Now, what it will be is a matter of they'll let us know what the requirements are. We'll let them know what we can do and whether we can meet that market access. If we can't meet it, then there will be no trade basically.* (Cohen Testimony Dec. 19, 2011, Page 109)

November 2, 2011, a CFIA internal email from Dr. Kim Klotins to Cornelius Kiley:

*“I'm thinking we should advise all laboratories in Canada to not test any more samples of wild finfish for ISAV from the Pacific Ocean (Canada and US).”* (Cohen Exhibit 2104)

### **Notification of animal and human diseases Global legal basis – OIE document**

This OIE document lends advice to the current state of affairs surrounding ISA virus detection in British Columbia, Canada. *“Notification of diseases may have a negative impact on the economic performance of a country”* It also states *“new information technologies and practices make it difficult for governments to hide occurrences of serious notifiable diseases.”*

The document emphasizes; *“Member Countries have unconditional duties to disclose all relevant information about animal diseases”*.

When I contacted the CFIA, April 6, 2011, to ask if suspect ISA virus had ever been reported in BC, the emailed reply from Nathalie Bruneau, CFIA was *“All suspected or confirmed cases of ISA that have been reported to date by the CFIA to the OIE are from parts of Eastern Canada.”* Does this suggest none of the results from Dr. Jones's lab had been reported to the national authority on animal pathogens in Canada?

Ratification of OIE membership comes with international legally binding reporting obligations. *“The withholding of information on a disease situation from the OIE by an OIE*

Member would also amount – regardless of the grounds – to a violation of the OIE Organic Statutes.” Canada is a member, providing \$2 million to the OIE in February 2010 <http://www.oie.int/for-the-media/press-releases/detail/article/oie-receives-a-canadian-2-million-contribution-from-canada-for-animal-health-activities/ to support safe trade>.

The OIE Notification of diseases document stresses the importance of rapid reporting of reportable pathogens in an effort to protect society from disease.

The ISA virus sequence obtained in Dr. Jones’s lab in 100% of Cultus Lake sockeye tested and 50% of east Vancouver Island chinook, both highly valuable wild salmon stocks directly exposed to Atlantic salmon farms, does not appear to have been reported to the CFIA as per the response to my email.

Annie Champagne (CFIA) wrote to me on June 6, 2011: “*Infectious salmon anaemia is a reportable disease in Canada. This means that anyone who owns or works with aquatic animals, who knows of or suspects infectious salmon anaemia in the animals that they own or work with, is required by law to notify the CFIA.*”

**8. No person shall conceal the existence of a reportable disease or toxic substance among animals.** <http://laws-lois.justice.gc.ca/eng/acts/H-3.3/page-3.html#docCont>

### **CFIA – Cohen Testimony**

On December 16, 2011, Brock Martland, Cohen Commission Counsel, questioned the CFIA about this email from Joseph Beres regarding Dr. Kibenge’s ISA virus positive results.

*"It is clear that we are turning the PR tide to our favour, ... One battle is won, now we have to nail the surveillance piece, and we will win the war, also".* (Cohen Exhibit 2110)

**MARTLAND:** *It's from someone named Joseph Beres. Who is he?*

**DR. KLOTINS [CFIA]:** *Joseph Beres works in CFIA operations in the western area, more specifically out of the Burnaby office, and on this particular disease response he's one of the co-leaders for the team that's running the response.*

**MARTLAND:** *Okay. So he's involved in the CFIA's active investigation right now?*

**DR KLOTINS:** *Yes. Yes, he still is, yes.*

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**MARTLAND:** *That language, that way of framing it ...suggests that CFIA is going into this with a hypothesis or with an end goal... Is the CFIA going into this out of a concern for trade partners and other interests with a view to, however we get there, to announcing there is no ISAV? (Transcript, Dec 16, page 112)*

**Did DFO management understand their lab results on the 48 sockeye were not 100%**

**“negative”?**

On November 8, 2011, Fisheries and Oceans Canada (DFO) made a News Release:

*“No Confirmed Cases of Infectious Salmon Anaemia in British Columbia”*

Commission participant lawyer, Greg McDade asked DFO about the 4th paragraph:

*“DFO has tested all 48 samples received as part of the original investigation and the results are all negative for the virus. These results are consistent with the findings of an independent laboratory in Norway, which also tested samples associated with this investigation and provided a report to the CFIA”* (DFO News Release, Cohen exhibit 2029)

**MCDADE:** *In the fourth paragraph [of Government of Canada “News Release”] it says that DFO has tested all 48 samples...and the results are all negative for the virus. Is that a correct statement, Mr. Stephen?*

**MR. STEPHEN:** (DFO Director Aquatic Health, Ottawa): *I think Dr. Wright might be able to provide a better answer to that than I.*

**MCDADE:** *Well, before Dr. Wright answers, I want to know what your views were.*

**MR. STEPHEN:** *I was advised by our laboratories, yes, that was a correct statement.*

**MCDADE:** *That's Nellie Gagné's laboratory?*

**MR. STEPHEN:** *That's correct.*

**MCDADE:** *Now, you heard her testify, didn't you?*

**MR. STEPHEN:** *I did.*

**MCDADE:** *And you heard her testify that her statements were not negative, they were inconclusive because there wasn't enough RNA present to be able to make a conclusive statement; isn't that right?*

**MR. STEPHEN:** *I'm not sure I recall that exactly, no. I heard a lot of testimony in a day and a half.*

**MCDADE:** *Well, let me suggest to you that she agreed that without some qualification that would be misleading, the qualification being that the results were too degraded to be able to test.*

**MCDADE:** *Before you answer, Dr. Klotins, I want Mr. Stephen's answer on this.*

**MR. STEPHEN:** *Could you repeat the question, please.*

**MCDADE:** *I understood her evidence to be that the samples were so degraded that she couldn't say that they were negative, that they were inconclusive, and further that she would*

*have expected a statement to that effect in the release, otherwise it would be misleading. What's your view on that?*

**MR. STEPHEN:** *On my understanding from the information I was provided that those samples were negative.*

**MCDADE:** *You didn't know that they were inconclusive.*

**MR. STEPHEN:** *I knew that some samples were inconclusive based on degradation of other materials, the 299 fish that were collected from Dr. Routledge. But I wasn't aware that these particular ones were degraded to that level, no.*

**MCDADE:** *The next statement says: These results are consistent with the findings of an independent laboratory in Norway... Now, did you hear Dr. Nylund testify that he found positives?*

**MR. STEPHEN:** *I did.*

**MCDADE:** *Doesn't the word "consistent" there mean they're all negative? How is a positive from him consistent with negatives from the other?*

**MR. STEPHEN:** *I don't know.*

**MCDADE:** *All right. Do you agree that's very misleading, isn't it?*

**MR. STEPHEN:** *I wouldn't say it's misleading. I said I don't know who put that comment in there.*

**MCDADE:** *Dr. Klotins, do you know?*

**DR. KLOTINS** [CFIA, Vet Epidemiologist, Risk Assessment]: *That would have been an assessment by the CFIA, an assessment of all the information we had gathered to date, an assessment of whether those findings were true positives or false positives, and also in terms of the negative testing, how confident we could feel in that.*

**MCDADE:** *Let me go back to the question of the Fraser River fish. Do you not see that issuing this statement when you were fully aware that there are positives also in the Fraser River it's misleading to the Canadian public?*

**DR. KLOTINS:** *I have to disagree*

Cohen Commission Testimony, December 19, 2011 beginning on page 41

### **Cohen testimony regarding BC ministerial briefing on risk of ISA to British Columbia**

In 2007, Dr. Mark Sheppard, the Managing Veterinarian of the Provincial Fish Health Program wrote a Confidential Briefing on the risk of ISA to British Columbia for the Minister of Agriculture and Lands – the BC ministry in charge of salmon farms at that time. It was written to assess the risk of ISAv to BC in light of the 2007 Chilean ISA outbreak. It is now public Cohen Exhibit 1679.

In this briefing, Dr. Mark Sheppard advised his minister that importation of live Atlantic salmon eggs and movement of Atlantic salmon between farms had contributed to the Chilean ISA epidemic.

Dr. Sheppard assures the Minister that BC was at low risk for ISA virus because:

*“These high-risk activities are not allowed in BC.”*

Dr. Sheppard goes on:

*“The most likely source for ISA in BC is from migrating wild fishes from other regions of the Pacific Ocean as there is no importation of live Atlantic salmon or eggs to BC”*

This sentence is hard to understand because, at the time of writing the DFO reports ~ 26 million, presumably live, Atlantic eggs had been imported to BC. <http://www.pac.dfo-mpo.gc.ca/aquaculture/reporting-rapports/egg-oeuf-eng.htm> Dr. Mark Sheppard was and still is the government vet in charge of the health of the fish that hatched from those eggs.

In addition, farm salmon are frequently moved between BC fish farm sites, from saltwater smolt sites to saltwater grow-out sites and for various other reasons. Dr. Sheppard continues in his briefing to the minister:

*“The presence of ISA would profoundly impact a company’s business due to initial slaughter orders of entire populations and subsequent bio-containment activity.”*

Dr. Sheppard describes his role as a provincial vet in his testimony to the Cohen Commission:

*“... my role was, literally, with the Provincial Government was as the aquatic animal health veterinarian to oversee the Fish Health Program for the Province and it's largely a program to monitor and collect, and record, and then report out on the information of health-related findings at the farm on an audit basis.”* (Cohen Testimony Aug. 31, 2011, Page 23)

Dr. Sheppard is the bureaucratic link between Dr. Gary Marty’s records reporting “classic lesions associated with the ISA virus infection” and a provincial minister seeking risk assessment on the potential for ISA virus to reach British Columbia, in light of the economically damaging epidemic involving the same companies in Chile. This was 4 years after DFO got 115 positive ISA virus results in BC wild salmon. As Managing Veterinarian of the Provincial Fish Health Program, Dr. Sheppard must have known most of the farm salmon in BC were Atlantic salmon.

When Dr. Sheppard faced this document during the Cohen Commission he turned to Justice Cohen and addressed him directly:

*“Mr. Commissioner, as you’re aware, these briefing notes sometimes are drafted and then go places after me. But I have to admit that this one, to my recollection, was done -- and sometimes these briefing notes take some time to develop before they get sent along, and this was done in a fairly rushed manner, based on a media report, I think the day previous. And that particular statement I would probably tend to word more accurately now.”* (Cohen Commission testimony Aug. 31, 2011, Page 68)

When jurisdiction of salmon farming was removed from the provincial government into the federal government, Dr. Sheppard was hired by DFO as Lead Veterinarian – Pacific Region, Aquaculture Management Division DFO and continues in his role.

[Download ISA Confidential BCP1001938.pdf \(491.2K\)](#)

### **Atlantic Salmon Egg Imports – ISA virus risk or not**

ISA virus is not included on the Canadian Fish Health Certificate egg import form. As such when 30 million eggs entered BC, no one had to sign anything guaranteeing that the eggs did not contain ISA virus.

On August 31, 2011 Dr. Peter McKenzie, Veterinarian and Fish Health Manager, Mainstream Canada [Cermaq] testified on the lack of ISA virus reporting on the Fish Health Certificate.

**QUESTION:** *Right. And I don't see ISA on that list.*

**DR. McKENZIE:** *There is also a provision under the Fish Health Protection Regulations where they stipulate "any filterable agent," so there's sort of a catchall phrase for any unknown disease. But that is the -- those are the criteria that are currently in regulation.*

**QUESTION:** *And would ISA be caught under the other filterable replicating agent?*

**DR. McKENZIE:** *Yes, it would. (Cohen testimony, Aug. 31, 2011, Page 48, 49)*

Given the tremendous difficulty interpreting ISA virus positive results it is hard to understand how a much more generalized test could effectively screen for ISA virus.

**DR. McKENZIE:** *So Dr. Hammell is the Director of the OIE Collaborating Centre on Epidemiology & Risk Assessment for Aquatic Animal Diseases, and so he's -- and he has a tremendous amount of experience in the area of ISA. ... we asked him to conduct a risk assessment of the practices of importation into British Columbia from 1985 until 2009. (Cohen Testimony August 31, 2011, Page 78)*

Dr. Larry Hammell's risk assessment states:

*"The primary concern from a biological and economic consequence perspective is the potential to introduce ISAV, IPNV, SAV (or Pancreas Disease, PD) or Heart and Skeletal Muscle Inflammation (HSMI, associated with a novel Reovirus (Palacios et al, 2010).) As there is no evidence to support egg involvement in transmission for SAV/PD (Rodger and Mitchell, 2007) or for HSMI (Kongtorp et al, 2006), neither is considered for its potential consequence. ISAV has been devastating to Chile (Mardones et al, 2009), causing a drastic reduction in Atlantic salmon farming but has little effect on Pacific salmon (Oncorhynchus) species (Rolland and Winton, 2003). For this reason, the Atlantic salmon farming industry is at much greater risk of negative consequences than wild salmon populations."* (Cohen Exhibit 1982)

Note: Piscine reovirus is common in BC farm salmon test results by Dr. Kibenge. Dr. Marty has confirmed it is common in BC farm salmon as well

<http://www.cbc.ca/news/canada/british-columbia/story/2012/04/25/bc-salmon-virus-morton->

[inquiry.html](#) Kibenge has also gotten a number of positive results for Salmon Alphavirus in BC farm salmon. This work is ongoing.

Dr. Hammell's report continues:

*“The probability that eyed eggs imported from 1995 to 2009 introduced any new pathogens to British Columbia is ‘extremely low’ to ‘remote’.”*

*“Pathogens not known in the early years of egg importation (e.g. ISAV, SAV) did not have testing to confirm their absence in the imported egg or their brood stock. However, the fact that these pathogens have little or no conclusive evidence of vertical transmission, absence of clinical disease in broodstock and tests that often detected other pathogens (such as virus isolation on cell lines that are quite permissive to these viruses), mean that other measures coincidentally reduced the probability of the introducing exotic pathogens, even if not yet discovered.”*

Dismissal of vertical transmission of ISA virus seems outdated and yet this expert opinion was provided to the Cohen Commission in 2011. Two parallel outlooks exist in Canada without cross-pollination;

1. that ISA virus is significant pathogen, given to rapid mutation, moving long distances in Atlantic salmon eggs can cause economically damaging outbreaks and a concern to BC vs.
2. ISA virus is unlikely to move in eggs and not a concern to BC

Dr. Hammell's website <http://avc.upei.ca/profile/research/providing-evidence> recommends there are “less bad” ISA virus strains and this designation should guide which infected farm salmon are depopulated and which are not. This view seems at cross-purposes with the current OIE view on ISA virus - that all strains are potentially dangerous, and must be controlled even HPR0 because of its recognized capacity to mutate.

**QUESTION:** *Dr. McKenzie, how do you reply to people whose rhetoric suggests that ISA can be introduced through egg importation?*

**DR MCKENZIE:** *I have to admit, Mr. Commissioner, that the rhetoric that continues on about ISA introductions and importation is concerning to me, both personally and professionally.... we have now a report from CFIA that, you know, they've looked at the data we have on ISA and they see it as a no-risk, in their words from their report, and Canada recognizes, based on international standards, that B.C. is free of ISA, based on this infrastructure of fish health expertise that is in place. But - but - the commentary by people that a lot of it was initiated when Ms. Morton raised the concerns of the ISA reports, comments of that constantly in the media seem to dissuade or dismiss all of this expertise in these layers of audits and credentials. And professionally I find that very, very concerning that we can have this many individuals, skilled individuals involved, and we can have people interpret, non-fish health experts interpret information and run with it and create this type of -- this type of situation. So I find that hard -- it's hard to understand. (Cohen Commission testimony, Aug. 31, 2011, Page 78)*

It is imperative to complete science that will be open to the world community of scientists for review to answer these questions.

## Efforts to discredit

I think it is important to recognize what scientists who report on novel farm salmon disease outbreaks endure unpleasant consequence.

Consider Dr. Kristi Miller who runs a federal DFO government lab with a staff of 22. She is well published including in the journal of SCIENCE on the 18-year decline of the Fraser sockeye. Miller is adjunct professor at the University of British Columbia, on the editorial board of Immunogenetics, a scientific reviewer, and sought after to give seminars internationally. Miller, dedicated to sharing her work on immune function and disease in fish, has co-published in over 65 scientific papers. A BC salmon farming company went to her with unexplained mortality in jaundiced farmed chinook salmon. But when she detected ISA virus in these fish (Cohen Exhibit 2053), her work did not elicit government response to confirm and contain. These farm salmon were in several floating netpen farms in the region of a UNESCO Biosphere Reserve. The Biosphere status was partly due to its wild chinook runs, runs that are inexplicably crashing. DFO should be concerned to find ISA virus in farmed chinook salmon among a declining wild chinook population. But the only visible government response was to muzzle this scientist.

<http://margaretmunro.wordpress.com/tag/kristi-miller/>

Then there is the team of Norwegian researchers who published the finding that ISA virus was transported to Chile in Atlantic salmon eggs. A company filed a *Scientific Misconduct* complaint against them (defined as falsification, fabrication, serious breach of good scientific practice...) When the University of Bergen's investigation concluded there had been no misconduct, Aquagen, [http://aquagen.no/En/About\\_Aqua\\_Gen/Owners\\_of\\_Aqua\\_Gen/](http://aquagen.no/En/About_Aqua_Gen/Owners_of_Aqua_Gen/) a company that ships eggs to Chile, pushed the investigation to the national level. The Report on the National Commission for the Investigation of Scientific Misconduct also found Dr. Nylund and his co-authors "not guilty of scientific misconduct." Although there were unfavourable details noted, these did not rate as "misconduct," nor did they alter the result. The decision document recognizes that such proceedings negatively impact the reputation of a researcher regardless of outcome [www.ebookbrowse.com/nylund-ethics-investigation-pdf-d316561910](http://www.ebookbrowse.com/nylund-ethics-investigation-pdf-d316561910)

Now to Dr. Fred Kibenge. Similar to Miller, the salmon farming industry went to Kibenge to rule out ISA virus in Chilean salmon farms experiencing unexplained mortality. He found ISA, HPR7b and very quickly the virus spread to cause \$2 billion in damages. The industry used Kibenge's lab without complaint through that epidemic. They needed his expertise. The only difference I see in this case in BC is that it was not the BC salmon farming industry that went to Kibenge for information. In this case, it was the academic community who went to him to rule out ISA virus.

But we have to also consider the position of the CFIA, who testified at the Cohen Commission that if ISA virus is recognized in British Columbia, trade in BC farm salmon could stop. What kind of pressure are they under? If Kibenge's work is not allowed to run its course, the questions about ISA virus in BC might stop in the short-term, but will Canada further damage its agricultural export reputation? Recently, the CFIA was implicated in an international E. coli scandal when a 2008 CFIA memo instructing inspectors to "ignore visible fecal splatter and intestinal contamination on meat for Canadians." The US Department of Agriculture currently auditing the CFIA

[http://news.sympatico.ctvnews.ca/local/bc/beef\\_inspectors\\_told\\_to\\_turn\\_blind\\_eye\\_to\\_contaminated\\_carcasses/0208a4b8](http://news.sympatico.ctvnews.ca/local/bc/beef_inspectors_told_to_turn_blind_eye_to_contaminated_carcasses/0208a4b8).

If the pressure created by international trade is greater than agencies and individuals can bear it falls to international organizations like the OIE to protect food security and society.

### **The CFIA, DFO and the Kibenge Lab**

**MCDADE:** *Could we have Exhibit 2101 on the screen. It's an email that you looked at on Friday, Dr. Klotins. It's dated October 19th, 2011 at 3:35. The subject of this email is Dr. Kibenge's laboratory. Is it correct that as of October 19th, 2011, CFIA had already determined that one of the reactions it was going to have to this finding of positive results is to go and check Dr. Kibenge's lab?*

**DR. KLOTINS:***Yes. It was one of the options on the table that we would ascertain, try to get some more information to help make a determination whether the results he got on the PCR test are true positives or false positives.*

**QUESTION:** *No, I didn't ask you if you were going to confirm his results. What I said was you were going to go and attack his credibility, the credibility of his lab. You were going to go and check his lab, weren't you?*

**DR. KLOTINS:***I disagree.*

**QUESTION:***You weren't going to go check his lab. That isn't what this email says?*

-----

**QUESTION:** *Well, let me put it in the nicest possible way. You were going to go check the credibility of his lab?*

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**QUESTION:***And, Mr. Stephen, I suggest to you that the federal government is going to try and take away his OIE certification as a punishment for this; is that right? That's what you're going to do, isn't it?*

**MR. STEPHEN:** *I have no authority to do anything about his OIE certification.*

**MCDADE:** *I predict within the next 12 months Canada will go after his [Dr. Fred Kibenge's] credibility; isn't that right?*

**MR. STEPHEN:** I disagree. (Cohen Commission Dec. 19, 2011, Page 45)

Dr. Vallat I respectfully request that the OIE keep an eye on the situation in BC and support the opportunity for this research to be completed.

Thank you for your consideration of this matter,

# BIM farm would destroy Galway Bay's salmon and sea trout in five years

BY DR RODERICK O'SULLIVAN

The Minister of the Marine plans to build four industrial-sized salmon farms along the west coast, starting with a 15,000 tonne per annum complex in Galway Bay. This could potentially become the largest salmon farm in the world.

Bird Icaegah Mhara (BIM) is applying for the licence, intending to finance-out the complex of farms to an independent operator. The only candidate capable of running such an operation is a well known multi-national; hence, all profits will go to Norwegian banks.

The Minister of the Marine, who wholeheartedly supports the complex, will ultimately decide himself on whether this colossal expansion will get his go-ahead. Bizarrely, this is the first time a Minister is indirectly applying to himself for permission to build giant salmon farms.

Having already paid out millions in consultancy fees, the taxpayer will shell out a further €70 million to build this highly controversial and potentially damaging complex. Whereas BIM claim the project will create 500 new jobs, the more likely figure is 65.

Hyper-inflation of employment prospects is a standard BIM ploy when existing environmentally damaging projects or when shying away from legitimate objections.

Since its inception, BIM has distributed over a hundred million euros of State and EU grants to the salmon farming industry. Odana na Gaeltacht has handed out €60 million. Surely the long suffering taxpayer deserves to know why the Department of the

Marine continues to lavish such eye-watering handouts on salmon farmers?

BIM's complex will threaten the survival of wild salmon and sea trout. Hundreds of thousands of wild salmon previously reared through Galway Bay; today only 20,000 remain and these will be attacked by the billions of lice that will infest BIM's rows of salmon farms.

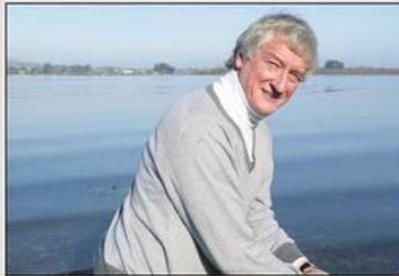
Lice only attack salmon and trout. Small pockets of these parasites previously preyed on salmon for four months, today lice swarm around salmon farms all year round.

The wild salmon may be further attacked by the *Caligus elongatus*, another species of louse. Wild salmon swim around the Aran Islands on their way to spawn in the Corrib catchment and in the Castliffe, Spiddal and Kilcolgan rivers. Other shoals bound for rivers in North Mayo, Wales and England will be similarly at risk.

BIM insists lice will not kill Galway Bay's salmon because the proposed complex will be the only salmon farm on the globe to be untroubled by lice and any lice from the farms would remain distant from wild salmon. Both these claims are without any scientific basis and are based solely on BIM's wishful conjectures.

BIM appears unaware that lice have ten different stages of development and are particularly adept at locating salmon, irrespective of distance or geography. Were Galway and Connemara's fisheries to collapse, the resultant economic damage would be considerable. Job losses in the angling sectors would far outnumber any created by BIM's proposed complex.

BIM similarly dismisses the serious



Warning...Dr Roderick O'Sullivan.

problems posed by escapee salmon.

Carrying infective pathogens, escapee fish will fatally transfer their ailments to wild salmon which possess no natural immunity against the new and exotic diseases introduced by farmed salmon. Cross-breeding has already taken place between wild and farmed stock in Scotland and Norway. If similar cross-breeding takes place in Galway, irreparable genetic damage to wild stock will result. Farmed fish always break free; 150,000 escaped from the Bandal Fossa, 40,000 into Bantay Bay; 20,000 into Clew Bay.

BIM predict, with clairvoyant certainty, that none of its stock will abscond. BIM will score a double miracle - theirs will be the world's first lice free and escape-proof farm. Back on planet earth, BIM's complex can be

expected to lose an average of 50,000 escapees annually.

BIM refuses to accept the overwhelming weight of scientific evidence from international agencies that blames salmon farming for the eradication of wild salmonids.

These include, the Norwegian and Icelandic governments, Scottish Wildlife Links, World Wildlife Fund, Friends of the Earth, Inland Fisheries Ireland and numerous sources of impeccable scientific pedigree.

BIM's complex will use 80,000 tonnes of fish-food annually, releasing vast quantities of wastes into Galway Bay. These will result from fish metabolism, uneaten food and faeces. Being busy feeders, salmon only take food descending from the surface and will

not bottom-scavenge, hence all uneaten pellets drop to the seabed. An accepted figure for food wastage is 20% hence thousands of tonnes of uneaten food will pollute the ocean floor.

BIM's complex will annually discharge: 1,100 tonnes of suspended solids i.e. fish, fish faeces, rancid waste; 740 tonnes of ammonia; 340 tonnes of phosphorous, and 2,000 tonnes of nitrogen. According to BIM - absurdly - these pollutants will simply 'disappear'.

The truth is nitrogen and phosphorous cause water pollution, ammonia is toxic to aquatic creatures and the phosphorous loadings equate to 174,000 humans.

The total pollutant mass roughly equates to the discharges of a moderately-sized city. Neighbouring shellfish concerns will be at risk from these wastes, yet BIM phooses over the numerous prosecutions taken by Scottish and Canadian shellfish farmers for loss of their livelihoods due to salmon farming pollutants.

The Minister of the Marine (via the Marine Institute) holds dual responsibility for the protection of wild salmon and for salmon farming.

Despite 60% of farms having excessive lice infestation, no action is ever taken against the guilty farmer. No license is ever revoked, no farmer is prosecuted.

For ten years the State regulators allowed the use of chemicals that were banned throughout the developed world as either cancer-causing or environmentally dangerous i.e. Malachite Green, Di-chlorvos, and Ipermectin.

Two papers published this month, blatantly accuse salmon farming for the death and destruction of wild salmon. The Cohen Commission in British

Columbia, the largest investigation into salmon mortalities took three years to prepare and cost €32 million. Blaming salmon farming for the eradication of wild salmon, the Commission recommends:

- No more salmon farms to be placed in wild salmon migration routes
- All threats posed by salmon farms on wild salmon - proven and unproven - should be removed
- Protection of wild salmon to have priority over salmon farming interests
- Regulatory Authorities with dual roles in promoting salmon farming and protecting wild salmon should be relieved of their duty to promote salmon farms.

The Scottish Oceans Institute Report starkly blames salmon farms for the eradication of 39% of our wild salmon. This staggering statistic, based on twelve years of analyses by scientists from Norway, Canada, Ireland and New Zealand, not alone shocked the investigators but will equally shock anybody reading of such wanton destruction of our endgame of wild life.

Ireland's salmon farming industry, despite the wealth of evidence proving that it is the deaths of wild salmonids has only been allowed to expand due to State financial, legal and political support.

Both the above reports ominously warn that should the Minister of the Marine wish to license BIM's proposed complex, he will be responsible for the extermination of Galway Bay's salmon and sea trout within five years.

Dr Roderick O'Sullivan is a writer, environmental scientist and international authority on salmon farming.

Download article in full as PDF [online here](#)

GAAIA, 7 December 2012



### **Roy Christie of N. Ireland Speaks for the Salmon**

Watch online via: <http://www.youtube.com/watch?v=-rGoTyf6dmY>

Fisheries Information Service, 7 December 2012



Julio Traub Kipreo, Acotruch president, forecasts the industry production costs will rise USD 10 million. (Photo: Stock File)

Farming densities to depend on environmental and health performance



**Friday, December 07, 2012, 04:10 (GMT + 9)**

The new rules as to farming densities, which determine how many fish the farming cages can withstand, was one of the issues discussed at the first meeting of the brand new National Aquaculture Commission.

In this regard, the head of the [Undersecretariat of Fisheries and Aquaculture](#) (Subpesca), Pablo Galilea, announced that a cluster density will be set and it will depend on several factors:

- The environmental and health performance that the concessions have had in the previous period (two previous years);
- The future risk, which considers the potential impact of increasing the number of fish to be farmed, from one cycle to another one.

Specifically, the Atlantic salmon farming density with the new regulation will range from 17 kilograms per cubic meter to 11 kg/m<sup>3</sup> while the Pacific salmon and trout one ranges from 12 kg/m<sup>3</sup> to 8 kg/m<sup>3</sup>, Subpesca reported.

Galilea recalled that at the time of the health crisis caused by ISA virus, the Atlantic salmon farming density reached as high as 30 kg/m<sup>3</sup> per cage.

"This crisis showed us that self-regulation did not work, so to safeguard the health asset it is vital to address the risks associated with the projected growth in each district in these regulations," pointed out the undersecretary.

The new regulation, which aims to prevent further health crises, will have different impacts on the sector.

"These new rules will mean an increase in costs of USD 10 million for the industry, which is important considering the losses that will reach about USD 700 million for the salmon firms," warned the president of the [Association of Coho Salmon and Trout Producers](#) (Acotruch), Julio Traub Kipreos.

Meanwhile, Armasur general manager, Manuel Bagnara, believes that the Act "will normalize the trips" performed by the ships, which "do not stop at present."

"We're going to have fewer trips, instead of 100 per cent, we're going to perform 70 per cent," the executive stated.

And in Luís Andrade's opinion, general manager of [Nisa Redes](#), the new regulation on densities could benefit them, "because more nets should be used to produce the same number of salmon."

The president of the [Association of Salmon Industry AG](#) (SalmonChile), Maria Eugenia Wagner, explained that "the new regulation has two elements."

"One is individual, which is intended to reduce stocking in those farms with losses exceeding 15 per cent; and the other one is a group factor, which aims to reduce farming density on site

using a risk score based on health and productive items," she said, according to *Diario Financiero*.

"However, if a farming centre has good results in a neighbourhood, the centre will be rewarded with higher density," added Wagner.

**Related article:**

**[- Government and salmon sector analyze production model](#)**

By *Analia Murias*

[editorial@fis.com](mailto:editorial@fis.com)

[www.fis.com](http://www.fis.com)

<http://www.fis.com/fis/worldnews/worldnews.asp?monthyear=&day=7&id=57408&l=e&special=&ndb=1%20target=>

Whistler Question, 6 December 2012

Cohen report no surprise

Dear Editor,

Well there you have it — the Bruce Cohen Report on the ongoing annihilation of salmon in our province.

Eleven hundred pages, 18 months of hearings and \$26 million later we have uncovered the same main reasons that wild salmon are extinct in Ireland, Norway etc.

For a 26-cent text message to the department of fisheries in Ireland we could have saved some funds. "Hello ... How come your salmon over there are no more? What's that you say? Diseases, viruses, sea lice from salmon farms and over fishing with methods that are unsustainable."

So, having received this vital shocking report what do the conservatives do? Table bill C-38, which increases the tenure of the existing salmon farms, dismantles environmental protection agencies and orders another study.

Where did the \$26 million go? Well to start with \$12.4 million went to lawyers, I should say no more in case they sue me, and a further \$1.98 million went for communications. I guess the price of stamps went up.

Geoff Swan

Whistler

<http://www.whistlerquestion.com/article/20121206/WHISTLER07/312069966/-1/WHISTLER/cohen-report-no-surprise>

VOCM, 6 December 2012

### SPAWN Against use of Sea Lice Chemical



The Salmon Preservation Association for the Waters of Newfoundland says a recently-approved sea lice control chemical is bad news for the province. The association is opposing all sea-based aquaculture in favour of land-based aquaculture. President John McCarthy says the recently-approved chemical (Salmosan) is not sustainable. He says the chemical is indiscriminate in what it kills, and will kill lobster, shrimp, and anything that ingests these species.

McCarthy says it's time for the provincial government to move in a new direction regarding aquaculture.

He says his group feels they are at a point where a review needs to be made, and that land-based aquaculture is the way to go.

<http://www.vocm.com/newsarticle.asp?mn=2&id=28928&latest=1>

Fish News EU, 6 December 2012

### Marine Harvest presents investments plans

MARINE Harvest is due to reveal details of its recent investments, as well as its Q3 results, at a presentation to be given at today's Intrafish Seafood Investment Forum in London.

In a talk given by Finance Director, Henrik Heiberg, the Norwegian salmon producing company will reveal that, in Q3 of 2012, it has suffered from low prices, further spot price reductions in the Americas and limited benefits from sales contracts compared to previous quarters.

Its operational EBIT was NOK 73m, with good cost performance in Norway, while a biological issue increased costs in Scotland and the company also saw losses in Chile and Canada.

Despite this, it has made a number of significant investments, not least by going into feed production. By the time this side of the business is fully operational, in 2014, it is scheduled to cover 2/3 of its feed requirement for its Norwegian farms, at a cost of NOK 800m divided over 2013 and 2014. This, the company claim, will create both an attractive return on investment and the stabilization of earnings, as feed currently represents 50% of the company's costs.

The plant will also balance the current situation of few suppliers operating at full capacity and offer full traceability throughout the value chain.

The company's other significant investment is going towards the creation of a secondary processing facility in Poland, at a cost of NOK 300m divided over 2013 and 2015. This aims to strengthening VAP Europe by adding capacity to handle 40,000 tons HOG.

[http://www.fishnewseu.com/index.php?option=com\\_content&view=article&id=9475:marine-harvest-presents-investment-plans&catid=46:world&Itemid=56](http://www.fishnewseu.com/index.php?option=com_content&view=article&id=9475:marine-harvest-presents-investment-plans&catid=46:world&Itemid=56)

Read presentation in full [online here](#)



- Biological issue increased costs in Scotland
- Losses in Chile and Canada

The Fish Site, 6 December 2012

#### Investor Interest in Galway Bay Organic Salmon Farm Heightens

IRELAND - Twenty-one financiers, spanning three continents have now registered firm interest in the €60 million investment for the proposed deep sea organic salmon farm in Galway Bay.

Bord Iascaigh Mhara, the Irish seafood development agency, has applied for a licence for the development, which could create 500 jobs in the local area and generate a wage flow of €14.5 million per annum. The licence application is to farm up to 15,000 tonnes of organic salmon, a product for which Ireland is world-renowned and currently unable to satisfy demand.

Speaking about the proposed development, Jason Whooley, BIM's CEO highlighted the impressive market growth figures for farmed salmon around the globe: "In a time of world recession, there are few products that can boast the market growth that farmed salmon is experiencing. The figures have shown a steady upward curve since 1997 and according to the Food and Agriculture Organisation of the UN, this growth curve is likely to stay as world population increases. The latest figures (2011) show that the market growth for farmed salmon in the EU grew by 120,000 tonnes, an increase of 15 per cent, the US market grew by 62,000 tonnes and the Russian market alone demanded an additional 36,000 tonnes of farmed salmon. I can't think of any other food product showing such consumer demand in these difficult economic times. This is a really exciting opportunity for Ireland, who already holds the position as 'world leader' in organic farmed salmon."

"Investors from around the world are enquiring as to how soon we can progress this project. On the other side, we are receiving calls on a regular basis from people seeking employment on the proposed farm, many of them emigrants wanting to return home. This is an invaluable opportunity to create much needed jobs and wealth around our coast."

The intention is to undergo a public tender process for the operation of the farm, leaving the licence itself in the hands of the State, ensuring it remains a valuable State-asset. The experience which can be drawn from the private sector allied to BIM's expertise in the sector gives rise to confidence that the Galway Bay project has the potential to be one of the most exciting developments in the sector for many years.

Based on existing job creation in the salmon farming industry and specifically modelling from job creation in Ireland, the proposed development, when running at full capacity (most likely by year four) will create 350 jobs directly, rearing the juvenile fish, working on the farm at sea and the packing and processing of the salmon as they come ashore and are transported to market. A further 150 jobs would be created indirectly in the service sector – including the supply of fish feed, netting, transportation and a range of other services to the proposed unit.

<http://www.thefishsite.com/fishnews/18948/investor-interest-in-galway-bay-organic-salmon-farm-heightens>

The Press & Journal, 5 December 2012

Salmon firm hits back at protestors

By Catriona MacPhee



**CONTROVERSY: A fish farm on Harris . . . campaigners have accused the industry of destroying sustainable local fisheries**

An Outer Hebrides anti-fish farming lobby group has stepped up its campaign in response to public consultations being held by a leading fish-farming company on Harris today.

However the Scottish Salmon Company, who employ 169 people on Harris and Lewis, have hit back accusing the group of being “bitter” and spreading misinformation.

The Outer Hebrides Against Fish Farms (OHAFF) group launched an attack on the multimillion-pound industry, accusing companies of destroying sustainable local fisheries.

For the full story, pick up a copy of today's Press and Journal or [read our digital edition now](#)

<http://www.pressandjournal.co.uk/Article.aspx/3036756>

Read more via "[Salmon firm's profit's sink](#)"

Fish Farming Xpert, 5 December 2012

Government steps in to dispel myths

Canada: The two departments of the Canadian federal government tasked with the management of farmed and wild fish, as well as animal diseases confirm that there has not been any ISA found in B.C.

### Odd Grydeland

The erroneous reports being perpetrated by extreme anti-salmon farming activists that the *Infectious Salmon Anemia* virus (ISAv) has been found in wild salmon from British Columbia waters are still heralded as gospel and are still being spread far and wide. This false information has never been retracted by those who started the rumours in the first place- individuals that refer to themselves as scientific researchers.

This week saw two attempts by federal agencies to set the record straight- both in the form of letters to *The Ottawa Citizen*;

- **Kevin Stringer**, Assistant Deputy Minister, Ecosystems and Oceans Science with the Department of Fisheries and Oceans Canada replied to a previous writer who obviously got her facts mixed up;

*Elizabeth Payne's column paints an inaccurate picture of Fisheries and Oceans Canada's role in testing for infectious salmon anemia. There are stringent federal regulations in place to protect Canada's aquatic species, both wild and farmed, from disease. To date, contrary to some media reports, there has not been a confirmed case of ISA in British Columbia salmon, either wild or farmed.*

*Upon the allegations that ISA had been found in wild Pacific salmon, the government reacted quickly and tested the samples using Fisheries and Oceans Canada's Gulf Fisheries Centre (in Moncton, New Brunswick), which meets internationally recognized standards for ISA testing; results from our laboratory can be considered valid. The Government of Canada, in collaboration with the province of British Columbia, tested all samples related to the suspected ISA investigation in B.C. Based on the final results, there have been no confirmed cases of the disease in wild or farmed salmon in B.C. In recent years, the Government of Canada and B.C. have tested more than 5,000 wild and farmed salmon in B.C. for infectious salmon anemia. None has ever tested positive.*

*ISA poses no risk to people. Pacific salmon appear to be resistant to the disease. Canadians can have full confidence in the testing results from the Gulf Fisheries Centre, as they can in the Government of Canada's serious and ongoing commitment to protecting the health of Canada's wild and farmed fish from aquatic animal diseases.*

- And in a separate submission, **Dr. Ian Alexander**, Chief Veterinary Officer of the Canadian Food Inspection Agency explained that the Canadian government is keeping a close eye on any diseases that may be of importance to either wild or farmed salmon, and confirmed that there has been no disease or death of salmon found to be caused by the ISA virus in British Columbia;

*The Canadian Food Inspection Agency (CFIA) is committed to protecting fish health - both wild and farmed. That is why we have undertaken a surveillance initiative, which will provide a comprehensive picture of the health status of salmon in British Columbia. Our actions are being guided by science and given the importance of this issue, we are taking the steps needed to ensure that the results of our surveillance, whatever they may be, are based on sound verifiable information. Based on these criteria, it is important to note there have been no confirmed cases of infectious salmon anemia in salmon in B.C.*

*ISA is a reportable disease, which means all suspected cases must be confirmed at a federal laboratory where tests are conducted according to stringent World Organization for Animal Health (OIE) standards.*

*As the OIE stated last week, their reference laboratories are expected to provide high quality disease diagnostic services and to maintain the highest technical and operational standards. It is the prerogative of the OIE and their membership to designate their reference laboratories. CFIA remains committed to keeping Canadians informed of our work surrounding this important Canadian resource.*

[http://fishfarmingxpert.com/index.php?page\\_id=76&article\\_id=97069](http://fishfarmingxpert.com/index.php?page_id=76&article_id=97069)

Fish Farm News & Science, 5 December 2012

DFO Refuses to Admit ISA Virus is in BC Wild Salmon

Go read this article in the Ottawas Citizen on Dec 4. It is a stunning refusal to admit DFO knows there is ISA in wild and farmed salmon in BC:

<http://www.ottawacitizen.com/news/confirmed+disease+salmon/7646808/story.html>.

Then come back and read this rebuttal:

DFO ADM Kevin Stringer's assertion that there is no ISA in BC salmon is simply shocking. It is stunning that DFO would say so many things that it knows are not true. I am sorry to say it, but, Stringer should be fired, and Minister Keith Ashfield should resign.

Here is why:

1. **There are stringent federal regulations in place to protect Canada's aquatic species, both wild and farmed, from disease. WRONG.** In fact, DFO has gutted the Fisheries Act of its fish and fish habitat provisions. Ditto for the Environmental Protection Act. And 200 scientists are being fired.

Furthermore, the enforcement of the regulations is farmed out to the BC testing system that is so cosy with fish farms that it tells them when it will come out and look at the farms. DFO does not do its own testing and relies on the BC system – see its unreliability below.

- 2. To date, contrary to some media reports, there has not been a confirmed case of ISA in British Columbia salmon, either wild or farmed. WRONG.** In fact there are hundreds of thousands of farmed fish that have been confirmed to have ISA, and wild sockeye back to 1988, and chum, Chinook and pink from the Fraser River. In addition, the farmed salmon have HSMI, which also can only have come from Europe - Creative Seafood in Clayoquot Sound. This is DFO's own research by Dr. Kristi Miller. Her confirmation of this is in the Cohen Commission evidentiary hearings into fish farm disease in December 2011 – 25% of the farmed Chinook have both viruses, that is, 125,000 fish per farm.

DFO continues to make this claim, based on the earliest of two sockeye fry of 48 that tested positive for ISA by the Kibenge lab in PEI, that is the World Organization Animal Health (OIE) certified lab for ISA in the western hemisphere. The Nylund, Norway lab is the only other OIE certified lab in the world for ISA. It retested the 48 samples finding one weak positive and its notes say there is a problem in BC. The DFO Moncton lab retested the degraded samples and reached a finding of 'inconclusive'. Minister Ashfield changed this finding to negative, and has stuck saying no, something he knows is untrue.

- 3. Upon the allegations that ISA had been found in wild Pacific salmon, the government reacted quickly and tested the samples using Fisheries and Oceans Canada's Gulf Fisheries Centre, which meets internationally recognized standards for ISA testing; results from our laboratory can be considered valid. WRONG.** This refers only to the first two sockeye fry, and the DFO Moncton lab does not meet the OIE standards. In fact, in the Cohen testimony, Miller, Nylund and Kibenge discussed that lab and found that it uses old equipment and could not find ISA in sockeye samples from Miller. Furthermore, Miller retested the samples using the Gagne, Moncton procedures and could not confirm ISA. This means the DFO lab is not up to international standards. The results cannot be considered valid.
- 4. The Government of Canada, in collaboration with the province of British Columbia, tested all samples related to the suspected ISA investigation in B.C. WRONG.** There have been many wild salmon testing positive for ISA at either the Kibenge or Nylund labs. Furthermore, this is DFO only referring to the first sockeye samples discussed above, not the extra wild salmon tested later. The BC public are so concerned with DFO/BC testing system/CFIA (Canadian Food Inspection Agency) that we have anti-ed up \$27,000 ourselves to have fish tested.

Furthermore, the Cohen testimony of Miller, Nylund and Kibenge also stated that the BC system said it was using one test, when, in fact, it was not. In addition, it was using a probe developed by an in-house grad student that has never been verified by other scientists, like say, Nylund and Kibenge. This renders the testing of the 4,700 farmed fish as negative for ISA simply unreliable. All the fish need to be tested again - by an arms length lab like Kibenge and Nylund.

- 5. Based on the final results, there have been no confirmed cases of the disease in wild or farmed salmon in B.C. In recent years, the Government of Canada and B.C. have tested**

**more than 5,000 wild and farmed salmon in B.C. for infectious salmon anemia.**

**WRONG.** Refer back to item 4.

**6. None has ever tested positive. ISA poses no risk to people. Pacific salmon appear to be resistant to the disease. WRONG.** Refer back to earlier items. There have been hundreds of thousands of confirmed ISA virus-carrying farmed and wild salmon. The doomsday scenario is that ISA may wipe out all the 10 species of wild Pacific salmonids from California north to Alaska and all the way down to Korea. This extinction threat is real and DFO/CFIA/BC Governments are refusing to admit it and get on with getting rid of the fish farms diseases such as ISA, HSMI and IHN.

In Clayoquot Sound, Chinook stocks are on the edge of extinction and there are 22 fish farms in this non-flushing body of ocean. Here are DFO's own 2012 numbers for wild Chinook: Bedwell – 93; Moyeha – 0; Tranquil – 11; Megin – 35; Cypre – 362. They stand no chance against as many as 20,000,000 farmed salmon, each of 22 farms releasing 60 billion virus particles per hour.

Furthermore, Pacific salmon are not resistant to the disease. See this article for its link to science saying that wild salmon also get the several dozen viral, bacterial and fungal diseases that farmed salmon get: <http://fishfarmnews.blogspot.ca/2012/05/fish-farms-infect-wild-bc-salmon-may-13.html>.

**7. Canadians can have full confidence in the testing results from the Gulf Fisheries Centre, as they can in the Government of Canada's serious and ongoing commitment to protecting the health of Canada's wild and farmed fish from aquatic animal diseases.**

**WRONG.** As above, this is stunningly wrong and all the 10 species of pacific salmonids, perhaps a billion fish, are in peril from this refusal to admit the diseases have been brought to the Pacific Ocean. I used to work for government. When the facts came out you modified what you had said before, so that it accommodated the new information. You did not simply continue saying what you knew was untrue. Ashfield should resign.

You may recall that east coast cod were lost because DFO did not follow its own science. The same thing is happening to west coast salmon. The solution is simple: put fish farms on land, or send them back to Norway. There are only 820 actual jobs in BC, less than 0.2% of GPP – against the backdrop of a billion wild Pacific salmon.

**Please note:** I won the 2012 Art Downs Award for environmental writing for my continued research into the science and diseases of farmed salmon.

<http://fishfarmnews.blogspot.ca/2012/12/dfo-refuses-to-admit-isa-virus-is-in-bc.html>

Seafood Source, 5 December 2012

GM salmon producer headed for bankruptcy?

Deep in the rain forests of Panama, in a secret location behind padlocked gates, barbed-wire fences and over a rickety wooden bridge, grows what could be the most debated food product of our time.

It may look like the 1993 hit movie “Jurassic Park,” but at this real-life freshwater farm scientists are altering the genes not of dinosaurs — but of fish.

They are growing a new DNA-altered saltwater fish in the mountains, far from the sea — a salmon that could be the first genetically altered animal protein approved for the world to eat. If it is approved, this would be a landmark change for human food.

But it is one critics call “Frankenfish.”

“The idea of changing an animal form, I think, is really creepy,” said Gary Hirshberg, founder of Stonyfield Farm, an organic dairy farm. “When you move the DNA from a species into another species ... you create a new life form that's so new and so unique that you can get a patent for it.”

And until now, AquaBounty, the multinational biotech company that for 20 years has been developing this giant fish, has kept it under close wraps.

The press has never been invited to its Prince Edward Island laboratory on the Canadian maritime coast, and its fish farm location in Panama has been kept secret out of fear of sabotage.

The Food and Drug Administration has seen it, but few from the outside. In fact, the last public tour of any kind was four years ago.

[Click here to read the full story from ABC News >](#)

<http://www.seafoodsource.com/newsarticledetail.aspx?id=18736>

Hampton Roads, 5 December 2012

DNA salmon: Perfect fish or chemically toxic food?



Can a scientifically genetically DNA induced fish that matures twice as fast as a natural fish be a healthier choice for you? The founder of the Aquabounty would want you to believe DNA duped fish are superior to wild catch ocean salmon; however, that has yet to be proven and approved by the FDA.

#### GMO Food in America

Genetically modified food affects over 90% of the food produced in America. Farm raised seafood is no stranger to the process as it has been receiving GMO by-products in the food it is fed. However, creating the “perfect” salmon through DNA modification seems to be taking the GMO concept to an all new level. In 2010, the FDA determined that the Aquabounty salmon was as safe to eat as traditional fish, yet they haven’t given the full go ahead for the company to produce the fish. Without the FDA approval, Aquabounty will soon run out of resources and may have to put their “super fish” idea on hold. Aquabounty claims that a larger sized fish is just one of the benefits in their DNA salmon.

“Animal biotechnology” is a scientific way of building a better fish through manipulating the DNA, producing the most desirable attributes to design the outcome wanted. The lag in the process is clearly with the FDA, which may become a deterrent to future manufacturers of genetically modified seafood in the future.

The claim that GMO food has no connection to any illness or disease is simply not true. The perfecting of fish may seem like a good alternative between consuming fish whom have ingested contaminants in the ocean as opposed to those who have been raised in a contaminate free environment, producing a supposedly healthier fish. But the problem with GMO food products and their safety to the public has been under scrutiny for many, many years. European countries have mostly banned GMO’s, along with countries like Japan. In those countries, diseases like cancer are greatly lower than they are in the United States.

#### DNA Super or toxic fish?

The purpose behind the DNA “super fish” is to give you more fish for your dollar. The DNA injected into the salmon produces a larger fish by scale to the wild caught salmon. The debate is that there are just as many concerns with wild caught fish that are exposed to toxic pollution in the oceans as there are to GMO or DNA produced fish; however, GMO food products have not proven to lower health risks when it comes to health concerns. Where the fish is caught and under which conditions it is caught is just as important as to whether it’s fresh or wild caught. Even “farm raised fish” are often considered “wild caught” under certain conditions.

The best policy would be for the FDA to demand that all GMO food products are labeled. Consumers should be able to make an informed decision about their food and the FDA should enforce that policy.

<http://hamptonroads.com/2012/12/dna-salmon-perfect-fish-or-chemically-toxic-food>

Times Colonist, 5 December 2012

## Headless sea lions remain a mystery

Judith Lavoie

Some First Nations around Vancouver Island are given licences to shoot sea lions and remove whiskers and hides for ceremonial purposes, but Paul Cottrell, Fisheries and Oceans marine mammal coordinator, doubts if the mysterious cluster of headless sea lion bodies recently found on northern Vancouver Island has anything to do with an authorized First Nations harvest.

"Under the licence conditions they have to report the kill and the species and, typically, we don't have Steller sea lions on the licence," Cottrell said.

The exception is in some northern areas, where there are few California sea lions, and DFO scientists are consulted about conservation needs, he said.

"Then we may allow a few Stellers, but very few."

Steller sea lions are listed as animals of special concern in Canada, and as threatened in the U.S.

Licences are approved by area managers, said Cottrell, who could not say how many have been issued this year.

"I don't know the number off the top of my head, but it's not a large number," he said.

Licence conditions require the animals be killed in a humane manner.

Some First Nations use sea lion whiskers to make traditional masks and the hide is used for drum-making.

Three bullet-ridden and mutilated Steller sea lions turned up in Campbell River and Comox over the last week.

"Two were decapitated and the third one had half the head and part of the skin removed," Cottrell said.

A headless harbour seal was found in Barkley Sound earlier this week.

"One of the difficult things is the animals might have died elsewhere and washed up on the beach and then been decapitated," Cottrell said.

Since the discoveries, there have been reports of dead sea lions from various locations around Vancouver Island, but, with decomposition, it is difficult to tell how some of them died, Cottrell said.

"We are going back over the last couple of months trying to piece this together," he said.

"We are getting lots of calls ... It's really good because we can keep tabs on what is going on."

Salmon farmers are also permitted to shoot nuisance marine mammals, but few farms now resort to killing animals, Cottrell said.

DFO figures show that between April and June, the latest statistics available, two California sea lions were shot.

Six harbour seals, two California sea lions and an unidentified marine mammal accidentally drowned after becoming entangled in predator nets.

Mary Ellen Walling, B.C. Salmon Farmers Association executive director, said it is highly unlikely any of the farms would know anything about mutilated sea lions.

"We are also quite concerned about this situation. This is not how we operate at all. Our goal is to reduce interactions by using methods such as predator nets," she said.

Anyone who sees a dead, distressed or sick marine mammal can call the reporting hotline at 1-800-465-4336.

[jlavoie@timescolonist.com](mailto:jlavoie@timescolonist.com)

<http://www.timescolonist.com/technology/Headless+lions+remain+mystery/7653594/story.html>

Read also "[Headless seals may have been shot](#)"

GAAIA, 4 December 2012

## Dr. O'Sullivan on Salmon Farm Insanity in Galway Bay, Ireland

Don Staniford

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The Coaster, 4 December 2012

Suspected finding of ISA in COB

CFIA investigating case

The CFIA has launched an investigation into a suspected finding of ISA at a commercial aquaculture facility in Newfoundland and Labrador.

The Agency has placed a quarantine on the facility, and is taking samples for further testing. Confirmatory testing is being conducted by Fisheries and Oceans Canada (DFO) at their national reference laboratory in Moncton, New Brunswick. Results are expected within weeks.

If ISA is in fact confirmed, the CFIA will take further disease control actions if warranted and notify the World Organization for Animal Health (OIE).

At this point, it is too early in the investigation to define the precise measures that would be taken if ISA were confirmed. The response measures taken would depend on a number of

factors, including the strain of the virus and biosecurity protocols and procedures at the site location. Any decisions made would be based on sound science.

The CFIA is committed to protecting aquatic animal health and the viability of Canada's aquaculture industry using the best available science.

In all cases where federally reportable aquatic diseases are suspected or confirmed, the goal is to minimize exposure to infection and the disruptions to producers, while respecting domestic and international obligations to take appropriate and prudent control measures.

The Government of Canada is committed to protecting fish health – both wild and farmed.

Infectious salmon anaemia (ISA) is a reportable disease under the *Reportable Disease Regulations*. This means that all suspected or confirmed cases must be immediately reported to the CFIA

ISA does not affect human health or food safety, but does pose risks to aquatic animal health and the economy.

<http://www.thecoaster.ca/News/2012-12-04/article-3132988/Suspected-finding-of-ISA-in-COB/1>

VOCM, 4 December 2012

#### Another Scare in Aquaculture Industry

There is another scare in the province's aquaculture industry. The Canadian Food Inspection Agency has launched an investigation into the suspected discovery of Infectious Salmon Anaemia at an unnamed commercial aquaculture facility on the south coast. A precautionary quarantine has been put in place while federal and provincial officials conduct further testing.

The agency says if Anaemia is confirmed, further disease control measures will be put in place, and the World Organisation for Animal Health will be notified. It's still too early in the investigation to determine what those measures could be, but any decisions made will be based on what the CFIA calls sound science.

In July, a salmon farming operation in St. Alban's, owned by Grey Aquaculture, was quarantined and the fish destroyed after an outbreak of ISA. As of now, there is no word on which company is involved in the latest scare.

Last week in the House of Assembly, Liberal Fisheries Critic Jim Bennett raised concerns about ocean farmed salmon, suggesting the industry adopt inland tank farming techniques. He was soundly dismissed by the Tory government and area MHA Tracey Perry.

<http://www.vocm.com/newsarticle.asp?mn=2&ID=28869>

South Coast Today, 4 December 2012

New east coast ISA outbreak? Cooke Aquaculture says 'false positive' possible

The Canadian Food Inspection Agency (CFIA) has confirmed that they have launched an investigation into a suspected finding of infectious salmon anemia (ISA) at a commercial aquaculture facility in Newfoundland and Labrador.

The Agency has placed a quarantine on the facility, and is taking samples for further testing, which is being conducted by Fisheries and Oceans Canada (DFO) at their national reference laboratory in Moncton, New Brunswick. Results are expected within weeks.

Cooke Aquaculture spokesperson Nell Halse told reporters via email Wednesday, "If and when a positive diagnosis for infectious salmon anaemia is made by the CFIA, the company that is directly involved will be able to provide details on whatever actions they will be required to take. ... The N.L. industry has previously seen false positive results and also cases of a non-pathogenic virus so we all need to wait for CFIA to confirm a diagnosis before speculating on what actions will be required."

If ISA is confirmed, CFIA says it will take further unnamed disease control actions, if warranted, and notify the World Organization for Animal Health (OIE).

In a formulaic PR missive sent to inquiring media, CFIA says, "At this point, it is too early in the investigation to define the precise measures that would be taken if ISA were confirmed. The response measures taken would depend on a number of factors, including the strain of the virus and biosecurity protocols and procedures at the site location. Any decisions made would be based on sound science."

A reporter from the St. John's Telegram contacted Grey Aquaculture, who denied that the infected fish farm was theirs. Cooke Aquaculture, who is the largest operator of open pen net farms in Newfoundland, referred the reporter to the CFIA.

ISA outbreaks have affected salmon farming operations in New Brunswick, Maine, Scotland, Norway and Chile.

An outbreak of a virulent strain of ISA at a Cooke facility in Shelburne in early 2012 resulted in the slaughtering of a reported 700,000 market-ready salmon, for which company was reimbursed by the government up to \$15 million.

The outbreak also resulted in a quarantine of all fish cage sites in Shelburne Harbour.

Possible ISA infection of wild salmon from farmed salmon in British Columbia has been a topic of great contention since the hearings earlier this year by the Cohen Commission there.

CFIA contends that ISA does not affect human health or food safety, but says that it does pose risks to aquatic animal health and the economy.

SEE PREVIOUS STORIES HERE:

[Province unconcerned about ISA outbreak](#)

[BREAKING NEWS: Deadly ISA in Shelburne harbour?](#)

[More Shelburne salmon kills ordered by feds](#)

[Federal quarantine for Cooke aquaculture in Shelburne, Nova Scotia](#)

[ISA infected fish from Shelburne likely headed for supermarket shelves](#)

[Cooke, CFIA confirm another suspect ISA outbreak](#)

[More ISA virus quarantines](#)

[ISA virus hearings question Canada's response to potential salmon disease](#)

[Shelburne ISA scare proof of need for moratorium, says Eastern shore group](#)

<http://www.southcoasttoday.ca/content/new-east-coast-isa-outbreak>

Ottawa Citizen, 4 December 2012

No confirmed disease in B.C. salmon

Re: [Salmon drama raises questions about government's role](#), Nov. 30.

Elizabeth Payne's column paints an inaccurate picture of Fisheries and Oceans Canada's role in testing for infectious salmon anemia.

There are stringent federal regulations in place to protect Canada's aquatic species, both wild and farmed, from disease. To date, contrary to some media reports, there has not been a confirmed case of ISA in British Columbia salmon, either wild or farmed.

Upon the allegations that ISA had been found in wild Pacific salmon, the government reacted quickly and tested the samples using Fisheries and Oceans Canada's Gulf Fisheries Centre, which meets internationally recognized standards for ISA testing; results from our laboratory can be considered valid.

The Government of Canada, in collaboration with the province of British Columbia, tested all samples related to the suspected ISA investigation in B.C.

Based on the final results, there have been no confirmed cases of the disease in wild or farmed salmon in B.C. In recent years, the Government of Canada and B.C. have tested more than 5,000 wild and farmed salmon in B.C. for infectious salmon anemia.

None has ever tested positive. ISA poses no risk to people. Pacific salmon appear to be resistant to the disease.

Canadians can have full confidence in the testing results from the Gulf Fisheries Centre, as they can in the Government of Canada's serious and ongoing commitment to protecting the health of Canada's wild and farmed fish from aquatic animal diseases.

**Kevin Stringer**, Assistant Deputy Minister, Ecosystems and Oceans Science, Fisheries and Oceans Canada

<http://www.ottawacitizen.com/news/confirmed+disease+salmon/7646808/story.html>

Associated Press/Canadian Business, 4 December 2012

Fast-growing fish may never wind up on your plate

WASHINGTON (AP) — Salmon that's genetically modified to grow twice as fast as normal could soon show up on your dinner plate. That is, if the company that makes the fish can stay afloat.

After weathering concerns about everything from the safety of humans eating the salmon to their impact on the environment, Aquabounty was poised to become the world's first company to sell fish whose DNA has been altered to speed up growth.

The Food and Drug Administration in 2010 concluded that Aquabounty's salmon was as safe to eat as the traditional variety. The agency also said that there's little chance that the salmon could escape and breed with wild fish, which could disrupt the fragile relationships between plants and animals in the wild. But more than two years later the FDA has still not approved the fish, and Aquabounty is running out of money.

"It's threatening our very survival," says CEO Ron Stotish, chief executive of the Maynard, Mass.-based company. "We only have enough money to survive until January 2013, so we have to raise more. But the unexplained delay has made raising money very difficult."

The FDA says it's still working on the final piece of its review, a report on the potential environmental impact of the salmon that must be published for comment before an approval can be issued. That means a final decision could be months, even years away. While the delay could mean that the faster-growing salmon will never wind up on American dinner tables, there's more at stake than seafood.

Aquabounty is the only U.S. company publicly seeking approval for a genetically-modified animal that is raised to be eaten by humans. And scientists worry that its experience with the FDA's lengthy review process could discourage other U.S. companies from investing in animal biotechnology, or the science of manipulating animal DNA to produce a desirable trait. That would put the U.S. at a disadvantage at a time when China, India and other foreign governments are pouring millions of dollars each year into the potentially lucrative field that could help reduce food costs and improve food safety.

Already, biotech scientists are changing their plans to avoid getting stuck in FDA-related regulatory limbo. Researchers at the University of California, Davis have transferred an experimental herd of genetically-engineered goats that produce protein-enriched milk to Brazil, due to concerns about delays at the FDA. And after investors raised concerns about

the slow pace of the FDA's Aquabounty review, Canadian researchers in April pulled their FDA application for a biotech pig that would produce environmentally-friendly waste.

"The story of Aquabounty is disappointing because everyone was hoping the company would be a clear signal that genetic modification in animals is now acceptable in the U.S.," said Professor Helen Sang, a geneticist at the University of Edinburgh in Scotland who is working to develop genetically modified chickens that are resistant to bird flu. "Because it's gotten so bogged down — and presumably cost AquaBounty a huge amount of money — I think people will be put off."

## AGAINST THE CURRENT

The science behind genetic modification is not new. Biotech scientists say that genetic manipulation is a proven way to reduce disease and enrich plants and animals, raising productivity and increasing the global food supply. Genetically modified corn, cotton and soybeans account for more than four-fifths of those crops grown in the U.S., according to the National Academies of Sciences.

But there have always been critics who are wary of tinkering with the genes of living animals. They say the risk is too great that modified organisms can escape into the wild and breed with native species. Not that we don't already eat genetically altered animals. Researchers say the centuries-old practice of selective breeding is its own form of genetic engineering, producing the plumper cows, pigs and poultry we eat today.

"You drive a hybrid car because you want the most efficient vehicle you can have. So why wouldn't you want the most efficient agriculture you can have?" asks Alison Van Eenennaam, a professor of animal science at University of California, Davis.

Aquabounty executives say their aim is to make the U.S. fish farming industry, or aquaculture, more efficient, environmentally friendly and profitable. After all, the U.S. imports about 86 percent of its seafood, in part, because it has a relatively small aquaculture industry. Aquaculture has faced pushback in the U.S. because of concerns about pollution from large fish pens in the ocean, which generate fish waste and leftover food.

Aquabounty executives figure that the U.S. aquaculture industry can be transformed by speeding up the growth of seafood. The company picked Atlantic salmon because they are the most widely-consumed salmon in the U.S. and are farmed throughout the world: In 2010, the U.S. imported more than 200,000 tons of Atlantic salmon, worth over \$1.5 billion, from countries like Norway, Canada and Chile.

Using gene-manipulating technology, Aquabounty adds a growth hormone to the Atlantic salmon from another type of salmon called the Chinook. The process, company executives say, causes its salmon to reach maturity in about two years, compared with three to four years for a conventional salmon.

Aquabounty executives say if their fish are approved for commercial sale, there are several safeguards designed to prevent the fish from escaping and breeding with wild salmon. The salmon are bred as sterile females. They also are confined to pools where the potential for escape would be low: The inland pens are isolated from natural bodies of water.

And the company says that these pens would be affordable thanks to the fast-growing nature of Aquabounty's fish, which allows farmers to raise more salmon in less time. Overall, the company estimates that it would cost 30 percent less to grow its fish than traditional salmon.

## TOUGH SALE

But getting the fish to market hasn't been easy.

The company began discussions with the FDA in 1993. But the agency did not yet have a formal system for reviewing genetically-modified food animals.

So Aquabounty spent the next decade conducting more than two dozen studies on everything from the molecular structure of the salmon's DNA to the potential allergic reactions in humans who would eat it. By the time the FDA completed its roadmap for reviewing genetically-modified animals in 2009, Aquabounty was the first company to submit its data.

After reviewing the company's data, the FDA said in a public hearing in September of 2010 that Aquabounty's salmon is "as safe as food from conventional Atlantic salmon." The FDA also said the fish "are not expected to have a significant impact" on the environment.

But as the company has inched toward FDA approval it has faced increasing pushback from natural food advocates, environmentalists and politicians from salmon-producing states. In fact, following the FDA's positive review of the fish, the House of Representatives passed a budget that included language barring the FDA from spending funds to approve a genetically-engineered salmon.

"Frankenfish is uncertain and unnecessary," said Rep. Don Young of Alaska, who authored the language. The Senate did not adopt the measure.

Despite such opposition, environmental groups such as the Food and Water Watch say that FDA approval seems inevitable. "We think there is a clear bias toward approving genetically modified animals within the FDA," said Patty Lovera, assistant director of Food & Water Watch, a nonprofit that promotes environmental-friendly fishing and farming practices. "This thing is trapped in a regulatory process that is predisposed toward approving it."

But the delay could cause Aquabounty to go bankrupt before its salmon reaches supermarkets.

Aquabounty, which started in 1991 focusing on proteins used to preserve human cells, changed direction after acquiring the rights to gene-manipulation technology from researchers at the University of Toronto and Memorial University of Newfoundland.

Aquabounty's Initial financing came from Boston-area investors and biotech-focused venture capital funds, but the company has burned through more than \$67 million since it started.

According to its mid-year financial report, Aquabounty had less than \$1.5 million in cash and stock. And it has no other products besides genetically-modified salmon in development.

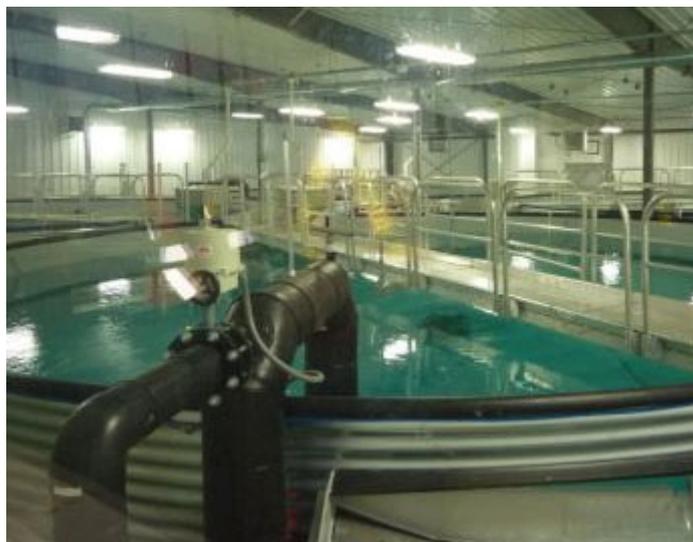
In February, the cash-strapped company agreed to sell its research and development arm to its largest single shareholder, Kakha Bendukidze, a former Republic of Georgia finance minister turned investor, in return for his help raising \$2 million in cash to stay afloat. Aquabounty's CEO Stotish fretted that Bendukidze, who controlled nearly 48 percent of Aquabounty's public stock, would move the company overseas. But in October Bendukidze's investment fund sold its shares to Intrexon, a biotech firm headquartered in Germantown, Md.

Stotish views the sale as a positive development, but he still worries that the U.S. government is unwilling to approve the technology at the heart of his company's work.

"This is about more than Aquabounty and more than salmon," Stotish says. "And shame on us if we allow this to slip away because of partisan bickering and people who oppose new technology."

<http://www.canadianbusiness.com/article/109023--fast-growing-fish-may-never-wind-up-on-your-plate>

Fisheries Information Service, 4 December 2012



Closed containment at a salmon nursery. (Photo: Marine Harvest Canada)

Land-based fish farms continue to gain popularity



**CANADA**

**Tuesday, December 04, 2012, 23:40 (GMT + 9)**

Land-based fish farms have gained traction and are now recognised as productive, efficient and adaptable, according to a recent workshop in the Wilfred Carter Atlantic Salmon Interpretive Centre in New Brunswick.

The purpose of the workshop -- attended by the Atlantic Salmon Trust (AST) and [Atlantic Salmon Federation](#) (ASF), plus representatives from Canada, the US and Europe involved in creating closed containment (CC) systems -- was to provide updates on the progress made in alternative forms of salmon farming and particularly land-based options.

It was agreed that new technologies will work together with existing open cage systems rather than take their place, offering the option of locating farms closer to retailers and markets. Farmers would also have more control over water quality, temperature, disease management, early maturation and delivery of daily husbandry, *The Irish Times* reports.

ASF and AST highlighted the extent to which CC technologies can allow for a “biological firewall” between farmed salmon and wild fish, reducing the risk of polluting and spreading disease, but how land-based systems were more reliable in this respect.

Conversely, the new prototypes may be more expensive and would have more difficult access to fresh water, plus greater electricity costs and consumer resistance.

Atlantic Sapphire is a possible market leader in developing commercially viable land-based CC systems. It is planning to develop a 2,500-ton CC facility in the US with the intent of growing production to 16,000 tonnes in the next decade.

The company is interested in using sustainable feeds and various firms in the UK, Canada, Norway, China and US are following suit.

*By Natalia Real*  
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<http://fis.com/fis/worldnews/worldnews.asp?monthyear=&day=4&id=57320&l=e&special=&ndb=1%20target=>

Intrafish, 4 December 2012



# Salmar's new farm under threat

Will environmental concerns scupper plans?

 IntraFish Media

**Published:** 04 December 2012 07:14 AM

**Updated:** 04 December 2012 08:59 AM

The Governor of South-Trondelag County says he has environmental fears around salmon farmer SalMar being allowed to establish new marine farms off the island of Lauvoya in Aafjord Municipality, central Norway.

Last Spring the company's marine aquaculture arm, Salmar Farming, applied to establish a fifth marine farm to be sited at Krabbholmen, outside Lauvoya in the Aafjord.

The governor is keen to apply a "precautionary approach", as no one knows what the long-term consequences of a concentration of marine farms in this area might be. There are already four other marine farms outside the Åfjord.

Marine Harvest has also applied to establish a farm site at Persflua, according to local newspaper *Fosna-Folket*.

The Governor is worried the outcome will be an increase in lice and escapes if more farms are established.

SalMar Central Norway harvested 63,400 metric tons of gutted salmon in 2011, divided between 44 licences.

In addition, SalMar's segment in Rauma harvested 10,900 metric tons, divided between 14 licenses and 18,700 metric tons from 13 operating licenses in Troms County, northern Norway.

## Associated Articles

- Faroe Islands tighten reins on foreign ownership
- Iceland in pole position for Faroese salmon investments
- Villa reports positive results despite lower prices
- Salmon prices: Has recovery begun?
- Nordea: SalMar will see higher earnings in 2013

<http://www.intrafish.com/global/news/article1360032.ece>

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The Irish Times, 4 December 2012

Deep-sea salmon farm to go for public tender

ALISON HEALY, Food and Farming Correspondent

Some 21 financiers across three continents have registered their interest in a proposed €60 million deep sea organic salmon farm in Galway Bay.

Bord Iascaigh Mhara, the seafood development agency, said it was not at liberty to identify any of those interested in the project.

It has applied for a licence for the development and will hold a public tender process for the operation of the farm. However, the licence will remain in the hands of the State, according to BIM chief executive Jason Whooley.

“Investors from around the world are inquiring as to how soon we can progress this project. On the other side, we are receiving calls on a regular basis from people seeking employment on the proposed farm, many of them emigrants wanting to return home,” he said.

According to BIM, the proposed salmon farm could create 500 jobs in the local area and generate a wage flow of €14.5 million a year. The licence application is to farm up to 15,000 tonnes of organic salmon, more than double the State’s entire output.

The Inland Fisheries Ireland has raised concerns about the location and scale of the salmon farm and its impact on wild salmon and sea trout stocks. Groups such as Friends of the Irish Environment have also raised questions about the scale of the plans, the potential for pollution and the spreading of disease.

An eight-week public consultation period closes next Wednesday.

<http://www.irishtimes.com/newspaper/finance/2012/1204/1224327438733.html>

Galway Independent, 3 December 2012

Group to fight Galway fish farm

Marie Madden

A new organisation has been launched in Galway to oppose the creation of a large-scale fish farm in the area.

Galway anglers came together at a meeting last Monday night in Claregalway to form Galway Against Fish Farms (GAF), which will fight the massive new salmon farm being proposed by Bord Iascaigh Mhara for Galway Bay.

GAF said that the proposed farm has the potential to cause massive pollution to the bay and to wipe out salmon and sea trout stocks in local rivers.

The group also condemned the way in which this project is being promoted by BIM, accusing them of trying to “push through an application for a farm which would, in one fell swoop, double the entire country’s production of farmed salmon”.

“This would then be franchised to a private operator, most likely Marine Harvest, a Norwegian company, and all the profits will be diverted abroad, while Galway Bay and its residents take all the environmental risk,” said a spokesperson.

“The agency is playing the jobs card by claiming the project would create 500 jobs, a ridiculously optimistic view. Given the increasing automation in the fish farming industry, most observers believe the project will create only a fraction of this number, while destroying local salmon and sea trout fisheries that support many tourism-related jobs.”

GAF also accused BIM of displaying an “arrogant and dismissive attitude” to local concerns. However, a spokesperson for BIM said that the proposed farm had been “well researched” using ecological, modelling and hydrographic data supplied by the Marine Institute of Ireland, adding that Ireland’s salmon farming sector would still be “extremely small” in comparison to other countries.

They also vigorously denied claims that it had not engaged with the public on the project, saying the organisation had gone to “considerable lengths” to consult widely with local stakeholders.

“It is not fair to say that this proposed development would damage angling. Scotland has a salmon farming industry ten times bigger than Ireland. Norway has a salmon farming industry nearly 1000 times bigger than Ireland. They both have large salmon and trout sport angling sectors as well. The two activities can coexist successfully,” said the spokesperson.

Interested parties can make submissions on the proposal at [www.bim.ie](http://www.bim.ie) until 12 December.

<http://galwayindependent.com/stories/item/4999/2012-49/Group-to-fight-Galway-fish-farm>

West Cork Times, 3 December 2012

Anti salmon farm protestors to hold demo at minister’s office



The site of the proposed salmon farm at Shot Head in Bantry Bay. Pic: West Cork Times

OPPONENTS of salmon farming from around the country are set to converge on Carrigaline on December 15th next to hold a protest march against proposals for the further development of salmon farms around the Irish coast.

Various groups including Save Bantry Bay, No Salmon Farms at Sea (NSFAS), the Federation of Irish Salmon and Sea Trout Anglers (FISSTA), Save Galway Bay and Friends of the Irish Environment will take part in the protest march.

The protestors will meet at Carrigaline Secondary School at 12pm and march from there to Minister Simon Coveney's constituency office.

A spokesperson for the protestors said, "Minister Coveney has been a strong supporter of the aquaculture industry and we must let him know that his support is misguided and will result in catastrophe not only for our stocks of wild salmon and sea trout but also for the communities and local businesses that depend on their very existence.

"This is an appeal to all like minded individuals and organisations to show your support for our cause and your opposition for this proposed blight on our coastline."

The Save Bantry Bay group are opposed to plans from Marine Harvest Ireland who are currently awaiting permission from the Department of the Marine to begin the construction of a 14 cage salmon farm at a site just off Shot Head in Bantry Bay.

The company plans to invest €3.5 million in setting up the farm and a further minimum of €10 million over each two year production cycle.

In addition there will be eight long-term positions for operatives.

The company will advertise locally and are confident that the positions can be filled with local expertise. Six people will also be employed during construction.

"Successful salmon farming, especially organic salmon, as proposed for Shot Head, is dependent on a clean and healthy environment no-one understands this more than Marine Harvest Ireland which was the first primary food producer in Ireland to be certified under ISO 14001:1996 (International Environmental Standard)," a Marine Harvest spokesperson said.

<http://westcorktimes.com/home/?p=13957>

No Salmon Farms At Sea, 3 December 2012

Protest against Filthy Salmon Farms in Ireland on 15 December

On the 15th December NSFAS (No Salmon Farms At Sea), FISSTA, Save Bantry Bay, Save Galway Bay and Friends of the Irish Environment, along with other local and national organisations, will be holding a protest march in Carrigaline against the proposals for the further development of salmon farms around our coast. We will be congregating at Carrigaline Secondary School at 12.00pm and march from there to Minister Simon Coveney's constituency office.

Minister Coveney has been a strong supporter of the aquaculture industry and we must let him know that his support is misguided and will result in catastrophe not only for our stocks of wild salmon and sea trout but also for the communities and local businesses that depend on their very existence. This is an appeal to all like minded individuals and organisations to show your support for our cause and your opposition for this proposed blight on our coastline.

Please inform your clubs, friends and families and turn up on the day with banners or placards. Let's give Mr.Coveney something to think about over his Christmas holidays.

<http://www.nosalmonfarmsatsea.com/latest-news/>

Save Bantry Bay/Southern Star, 3 December 2012

International speakers slam Bantry fish farm plans

The views of anti-fish farm campaigners – environmental scientist Roderick O’Sullivan, Don Staniford of the Global Alliance Against Industrial Aquaculture and Elena Edwards of Wild Salmon First – were well received at a meeting held in the Marine Hotel, Bantry, last Friday night.

Hosted by the local Save Bantry Bay group, and chaired by Keiran O’Shea, chairman of this group, a large and representative group from interested parties across Ireland, and some from the UK, attended the meeting. However, public representatives were conspicuous by their absence.

During the question and answer session that followed the speeches, people expressed their concerns. There was but one dissenting voice, a man who said he was a fish farmer. His views were met with silence and were at odds with the large numbers who attended.

During the session, Dr. Penny Stanway advised that the word ‘farm’ which conveys growing and nurturing, should not be used when speaking about the huge factory-sized conglomeration of fish production which is being proposed for Irish waters. She said it was similar to the situation when the method of providing cheap battery chickens was exposed in the UK in the 1970’s.

That caused such a public outcry that people stopped buying chicken when they were made aware of the conditions the animals were grown in. She and others present encouraged the media to call the product what it is, battery caged salmon.

Don Staniford presented a packet of Donegal Catch salmon to the meeting which showed that the fish was actually from Poland.

Dr. O’Sullivan and Don Staniford both claimed some of the chemicals used to kill the sea lice on these fish are banned in other countries. It was claimed also that it was environmental lunacy to pour chemicals in any form in Irish waters and bays. Questions were raised about the use of chemicals banned in other countries and if this was the case why authorities in Ireland were permitting their use.

## Demise of salmon stocks

Elena Edwards of Canada's Wild Salmon First gave a report which visually explained on a map on the screen the demise of salmon stocks in the Fraser River, British Columbia. There, the wild fish had to swim past caged fish and so were exposed to salmon lice. It was explained that if 11 lice attached themselves to a wild salmon, the salmon died.

Campaigners are urging people to log onto [www.savebantrybay.com](http://www.savebantrybay.com) and read the Board of Inland Irish Fisheries Report and observations on the proposed fish conglomeration for Bantry Bay,

There is a further report in an international study which was released on November 15th from Inland Fisheries Ireland which highlights the impact on wild salmon of populations from sea lice.

It states: 'On average 39% of salmon mortalities are attributed to sea lice which impacts wild salmon numbers and therefore wild salmon fisheries. The full report maybe downloaded at <http://rspb.royalsocietypublishing.org/content/early/2012/11/01/rspb.2012.2359.full>

The importance of maintaining and protecting wild salmon stocks was highlighted by representatives of the angling and tourism industries. It was claimed that exposing wild salmon to sea lice, to the chemicals used to kill the lice in the battery cages, combined by escapees, could lead to the extinction of the Irish wild salmon species as it is known today.

Carol Gilbert,  
Southern Star  
30 November 2012

<http://bantryblog.wordpress.com/2012/12/03/international-speakers-slam-bantry-fish-farm-plans/>

The Irish Times, 3 December 2012

Land-based fish farms now part of aquaculture's future



[Wild pink salmon infected with sea lice near a salmon farm in British Columbia. Photograph: Alexandra Morton.](#)

DEREK EVANS

'THE time for questioning the importance and viability of closed containment land-based salmon aquaculture is now past, as new technologies demonstrate their productivity,

efficiency, and adaptability” this was the key message at a recent workshop in the Wilfred Carter Atlantic Salmon Interpretive Centre, Chamcook, New Brunswick, Canada.

Those in attendance included senior personnel from Atlantic Salmon Trust (AST) and Atlantic Salmon Federation (ASF) along with 78 delegates from Canada, USA and Europe representing state governments; conservation bodies; angling interests and 18 companies involved in developing closed containment (CC) systems.

The purpose of the workshop was to update those present on progress in developing alternative forms of salmon farming and the relevance of CC technologies, especially the land-based options, to global salmon farming.

There was consensus that aquaculture has to be the main provider of fish and sea foods in the future. There is already a multi-million pound industry producing hundreds of thousands of tons of farmed salmon in Norway, Scotland, Ireland, Canada and Chile.

A feature of the workshop was acceptance that new technologies cannot replace existing open cage systems, but will work alongside them, providing an alternative to salmon farms that are shown to be poorly sited, or for retailers wanting production units close to market.

An important issue for ASF and AST is the extent to which CC technologies can provide a “biological firewall” between farmed salmon and wild migratory salmonids. The range of CC systems includes floating modules in the sea and, while these were seen as an improvement on open cage units, land-based systems were more likely to reduce risks.

On the positive side, CC land-based aquaculture would ensure segregation from wild salmon and sea trout. Sites can also be sited close to markets, and control of water quality and temperature made easier to manage along with bio-security, diseases, early maturation and delivery of daily husbandry.

On the not-so-positive side, the new prototypes will have to explain how their capital costs can be justified as well as show an availability of fresh water, cost electricity and deal with consumer resistance.

It became apparent at the workshop that the Danish company, Atlantic Sapphire, is a potential market leader in developing commercially viable land-based CC systems. The company will build a 2,500 tonne CC facility in the US, and plans to expand production to 16,000 tonnes within 10 years.

An aspect of company policy is to move towards sustainable feeds for farmed salmon in the near future. A number of other companies in the UK, Canada, Norway, China and USA are close behind them.

Meanwhile, the board of Inland Fisheries Ireland has expressed concern in relation to location and scale of the proposed salmon farm in Galway Bay, and how its operation could impact on wild salmon and sea trout stocks.

Question marks also surround the 500 jobs associated with the offshore farm. Published data shows that 9,923 tonnes were produced in 2007 and created 133 jobs. If the same ratio applied for the current proposal then this adds up to only 202 jobs. A recent report in

[fishnews.eu](http://fishnews.eu) claims Scottish islanders were delighted when a 2,000 tonne salmon farm was granted planning. The jobs gain will be four full time jobs.

The board believes that proposals for two further offshore salmon farms in Co Mayo and Co Donegal are premature given that significant issues over the current proposal have not yet been resolved.

“We cannot be complacent about the resource or management of the environment. In this regard the board would like to reiterate its commitment to the protection of Ireland’s wild fish and aquatic habitat,” the statement added.

<http://www.irishtimes.com/newspaper/ireland/2012/1203/1224327385850.html>

The Times, 3 December 2012

Fish farms that kill seals must be named, says Scots information czar



Killing seals on salmon farms is an emotive matter, but the farms that do, and the numbers they kill, can be revealed Times photographer, Ben Gurr

[John Simpson](#)

Scottish ministers have been ordered to reveal the names of fish farms that shoot seals alongside the numbers killed, after attempting to keep the information secret.

Rosemary Agnew, the Scottish Information Commissioner, has rejected as “tenuous” the SNP case for secrecy.

In a report published today, Ms Agnew announces her disappointment at the government’s failure to prove that the argument that the public would be put at risk if the details were published.

More than 300 seals have been killed by some or all of eight government-licensed fish-farming companies since the start of 2011.

Article in full via: <http://www.thetimes.co.uk/tto/news/uk/scotland/article3618633.ece>

Intrafish, 3 December 2012

Monday 03 December 2012



## Scottish government ordered to reveal seal-shooting salmon farmers

Scotland's information commissioner is ordering ministers to name companies that shoot seals to protect their salmon.

**Published:** 03 December 2012 07:10 AM

**Updated:** 03 December 2012 08:05 AM

Scotland's Information Commissioner, Rosemary Agnew, is ordering the Scottish government to reveal the number of seals killed by fish-farming companies at individual sites before Jan. 10, according to *The Herald Scotland*.

The Scottish government has previously refused to identify fish farms that shoot seals because of fears that direct action by protestors could put shooters at risk.

This was angrily disputed by anti-fish-farming campaigners, and has now been dismissed by Agnew. "The commissioner accepts that the killing of seals is an emotive subject, and one which could conceivably lead to direct action by protestors," says her ruling.

The only way to the government can avoid naming the companies is by appealing to the Court of Session on a point of law.

"However, in relation to a potential threat to public safety, the ministers have not provided any specific examples or evidence which would support their view that public safety would, or would be likely to be, threatened."

Scottish ministers have licensed eight fish-farming firms to shoot more than 300 seals since the start of 2011. Killing them should be a last resort to stop them attacking salmon. But campaigners say it is unnecessary, as seals can be kept out of farms with high-tension nets.

"Farmers are legally required to protect the welfare of their stock and one rogue seal can kill thousands of fish. Removal by anglers, netters and farmers is permitted as a last resort strictly under licence by Government," said Scottish Salmon Producers' Organisation (SSPO) chief executive, Scott Landsburgh.

<http://www.intrafish.com/global/news/article1359985.ece>

Subscribe to Intrafish online via: <http://www.intrafish.com/subscription/>

Read more via "[Scottish Salmon's Seal Killers Named & Shamed!](#)"

Scoop, 3 December 2012

2012 Roger Award Finalists Named

The eight finalists for the 2012 Roger Award for the Worst Transnational Corporation Operating in Aotearoa/New Zealand are: **the Australian-owned banks (ANZ/ASB/BNZ/Westpac collectively), BAT (British American Tobacco), IAG (Insurance Australia Group), King Salmon, Newmont Waihi Gold, Rio Tinto Alcan NZ Ltd/NZ Aluminium Smelters Ltd, Taejin Fisheries Co. Ltd and Vodafone.**

The **criteria** for judging are by assessing the transnational (a corporation with 25% or more foreign ownership) that has the most negative impact in each or all of the following categories: **economic dominance**- monopoly, profiteering, tax dodging, cultural imperialism; **people** - unemployment, impact on tangata whenua, impact on women, impact on children, abuse of workers/conditions, health and safety of workers and the public; **environment** - environmental damage, abuse of animals; and **political interference** - Interference in democratic processes, running an ideological crusade.

#### Associated Articles

- Scottish salmon supplier inks deal with UK retailer
  - Scottish Salmon Company Q3 earnings hit
  - French sushi producer readies for Chinese New Year
-

**King Salmon** was nominated because of its, in the words of one nominator, “total disregard for the Marlborough District Council’s community-based Sounds Management Plan by using Government’s fast track Environment Protection Agency (EPA) system to override the plan and to put salmon farms in ‘prohibited areas’. King Salmon and its executives have consistently used intimidatory ‘Goliath’ style bully tactics in newspapers and in ‘brutal’ style, as one newspaper called it, cross-examination at the EPA hearings. Complained at having to spend millions of dollars for the hearings and evidence when it was King Salmon who wanted it and started it. Use of public space i.e. seabed, for corporate profitmaking. Intolerance of any public opposition to use of public space. Failure to explain deaths of thousands of salmon at their farms, glossing over it in glib, nebulous style”. Local opponents have memorably described salmon farms “as piggeries of the sea”. King Salmon is owned by Malaysia’s Tiong Group (one of whose forestry companies, Ernslaw One, was a finalist in 05). There is a memorable quote from Peter Beech of Guardians of the Sounds: “It’s as if a Malaysian dairy company came over and was allowed to put 1,000 cows on a hectare of DoC land, not pay any rent for using the land, the public can’t go on the farm any more, and we get left with the nitrates as well” (*Listener*, 5/5/12, “What’s The Catch?”, Bev Doole). Just to emphasis the depth of local opposition – the Marlborough District Council has decided to oppose King Salmon’s application for new fish farms, saying that the company is seeking a rewrite of the rules to suit its own interests. It is a profit-driven transnational corporate grab for private control of the Marlborough Sounds.

<http://www.scoop.co.nz/stories/BU1212/S00011/2012-roger-award-finalists-named.htm>

The Sunday Herald/Rob Edwards, 2 December 2012

Ministers told to reveal where seals are shot



Scottish ministers are being ordered to name the fish farms that shoot seals - and rebuked for trying to keep them secret.

In a damning decision to be published tomorrow, the [Scottish Information Commissioner](#), Rosemary Agnew, rejects ministers' arguments for secrecy as "tenuous". She says she is "disappointed" at the government's failure to provide evidence in support of its claim that public safety would be put at risk.

Ministers now have to reveal the number of seals killed by fish farming companies at individual sites before 10 January. The only way they could avoid doing so is by appealing to the Court of Session on a point of law.

The Sunday Herald [disclosed in September](#) that the Scottish government was refusing to identify the fish farms that shot seals because of fears that direct action by protestors trying to save the seals could put shooters at risk.

This was angrily disputed by anti-fish-farming campaigners at the time, and has now been dismissed by Agnew. "The commissioner accepts that the killing of seals is an emotive subject, and one which could conceivably lead to direct action by protestors," says her decision.

"However, in relation to a potential threat to public safety, the ministers have not provided any specific examples or evidence which would support their view that public safety would, or would be likely to be, threatened."

Ministers had referred to previous protests against a Canadian seal cull, Japanese whaling and a Costa Rican boat cutting the fins off sharks. They also mentioned demonstrations against a proposed seal cull in Orkney more than 30 years ago.

But such examples are "tenuous and bear little relation to the issues or situations under consideration," argues Agnew. She concludes that "ministers have failed to demonstrate a real risk or likelihood that the harm they anticipated was likely to occur."

Her decision was welcomed by the [Global Alliance Against Industrial Aquaculture](#), which had appealed against the government's refusal to name the fish farms. "The public will now be able to avoid buying farmed salmon from farms where seals are killed needlessly," said the alliance's Don Staniford.

"Supermarkets should do the right the thing and announce a boycott from all salmon farms caught killing seals. Anyone buying farmed salmon from the killing farms has blood on their hands and should hang their head in shame."

Scottish ministers have licensed eight fish farming companies to shoot [more than 300 seals](#) since the start of 2011. Killing them is meant to be a last resort to prevent them from taking and eating salmon from underwater cages.

But the shooting, which is also carried out by anglers and netters, has faced fierce opposition from campaigners, who argue that it is cruel and unnecessary. Seals can be stopped from taking fish from farms by high-tension nets, they say.

John Robins from [Save Our Seals Fund](#) accused the Scottish government of siding with fish farms and netters to hide facts from the public. "If they have been honest salmon farmers and netters have nothing to fear," he said.

“All we are going to do is compare the number of seals they claim to shoot with eyewitness reports of seal shooting. If these do not match up, the industry and the Scottish government will have a lot to answer for.”

The [Scottish Salmon Producer's Organisation](#) accused activists of making “veiled threats” against the fish farming industry. “We remain concerned about the welfare of individuals who may be identified and targeted by pressure groups,” said the organisation’s chief executive, Scott Landsburgh.

“As farmers are legally required to protect the welfare of their stock and one rogue seal can kill thousands of fish, removal by anglers, netters and farmers is permitted as a last resort strictly under licence by government.”

The [Scottish government](#) confirmed it had received Agnew’s decision. “We are considering its terms,” said a spokeswoman. “Far fewer seals are being shot than in the past due to an unprecedented level of protection in Scotland.”

*The report of the decision by the Scottish Information Commissioner, Rosemary Agnew, is available to download [here \(377KB pdf\)](#).*

*This story was followed up by [The Times \(subscription required\)](#), [For Argyll](#), [Seafood Intelligence](#) and elsewhere.*

<http://www.robedwards.com/2012/12/ministers-told-to-reveal-where-seals-are-shot.html>

The Canadian Press/The Tyee, 2 December 2012

Reports of deadly salmon virus in B.C. tied up federal resources for months

Keven Drews

VANCOUVER - Reports that a potentially lethal salmon virus had been found in the waters off British Columbia last year drew a fast, co-ordinated response from the federal government, tied up resources of three federal ministries for months, and even required the assistance of Canadian consular officials in the U.S., newly released documents indicate.

Documents obtained by The Canadian Press under the Access to Information Act detail the lengths the federal government went to try to confirm and then respond to an October 2011 announcement by a Simon Fraser University professor that infectious salmon anaemia had been found in two of 48 sockeye smolts collected from the Central Coast.

Federal officials have repeatedly reported they haven't been able to confirm the presence in B.C. of the virus, which can't infect humans but poses a serious threat to farmed and wild salmon stocks because it can cause anemia, hemorrhaging and lead to death.

In November, news broke that a Prince Edward Island lab at the Atlantic Veterinary College that deals with the virus had been audited by the World Organization for Animal Health after

member countries became concerned the lab's work was not consistent with findings from other researchers.

That lab also played a key role in the research that prompted the October 2011 announcement by Prof. Rick Routledge and salmon-farming critic Alexandra Morton.

A draft summary of a Dec. 12, 2011 conference call between Fisheries and Oceans, the Canadian Food Inspection Agency and Foreign Affairs and International Trade Canada, shows officials inside one DFO branch were still dealing with questions about the virus almost two months after Routledge's announcement.

"DFO Science noted they have been seized with this issue for the past two months, and speaking with media and other interested parties has consumed much of their time over this period," stated the document. "They posed the question about what more could they be doing."

Listed as participants in the conference call were seven officials from DFO, two from the CFIA, and at least four officials from Foreign Affairs, as well as representatives of Canadian consulates in Seattle, Anchorage, San Francisco and Los Angeles.

News about the discovery of the virus broke Oct. 17, 2011, during a news conference held by Routledge and Morton.

Routledge announced tests conducted at the Atlantic Veterinary College on the smolts identified the virus as coming from the same European strain that wiped out about 70 per cent of farmed-salmon stocks in Chile.

Morton blamed open-net-pen salmon farms and called for the operations to be expunged.

Even before the announcement, DFO was preparing to respond.

Andrew Thomson, director of aquaculture management for DFO, tipped off his colleagues to the news conference in an 11:16 a.m. email, and almost 90 minutes later, an official in the department's communications branch announced plans were in the works for a co-ordinated response with the CFIA.

"We will contact CFIA, which is the lead federal department for reportable fish diseases, to review how we will handle media relations with respect to this issue and ensure that our messages are consistent," wrote Terence Davis, DFO's regional director of communications in an email that same day.

Davis said officials within DFO's science program were also reviewing literature to determine "if there is scientific research available on the potential impacts of ISA on Pacific salmon."

The following day, Thomson said in an email that there was only a "presumption of disease" until the department's national reference laboratory could confirm or deny the results. He also said the CFIA would get the original fish samples from the university and send them for further testing.

By Oct. 21, the department was preparing a statement by Keith Ashfield, minister of fisheries and oceans, warning Canadians and people around the world from "jumping to conclusion" that the virus had been found in B.C.

Stephen J. Stephen, director of biotechnology and aquatic animal health science branch, also wrote in an email that day that an official with the CFIA had been in contact with several countries, including the U.S., on the issue.

At the beginning of December, the CFIA announced followup tests couldn't confirm the presence of the virus, and the government was moving ahead with a surveillance plan.

Just how much time and how many resources federal officials were dedicating to the issue becomes clear in that Dec. 12, 2011, draft summary of a conference call between the three federal agencies.

Unfortunately, the entirety of what was said remains unclear because much of the document has been blacked out.

During the conference call, officials discussed how the federal government could engage Americans on the issue. The summary indicated a "climate of mistrust" persisted in the U.S. even after the announcement by the CFIA at the beginning of December.

It also noted the CFIA had "extensive discussions" with partner agencies in the U.S., and consular officials working south of the border were taking calls on an ongoing basis and were asking about spokespeople who could answer technical issues.

"The Los Angeles consulate spoke to interest they have seen, including requests from the L.A. Times and the need to be able to respond to these types of inquiries," states the document.

Tom Robbins, a spokesman with Fisheries and Oceans, said he doesn't think any costs have been attached to the federal government's response to the Oct. 17 announcement.

While Routledge said he anticipated a response from DFO and the CFIA, he didn't think any other agencies would have been involved, especially consular officials.

Routledge said he believes the federal government was working in the best interests of the salmon-farming industry.

"It's very clear to me the role of promoting the industry was given precedence here," he said. "I would say that because they did not take the threat to wild salmon to heart, and the evidence that I have for that is that they did not go out and collect fresh samples."

Not surprised by the response was Morton.

"This is now an international incident that they've got going on here because what about the countries that are buying farmed salmon from British Columbia thinking that this is an ISA-free zone?" she said.

Meantime, the World Organisation for Animal Health, known as the OIE, announced earlier this week the conclusions of its audit on the Atlantic Veterinary College lab will be reported to its elected governing bodies and finally, to its World Assembly of Delegates, in May 2013.

The organization has already stated publicly a "series of weaknesses in the system have a direct impact on the quality of diagnosis conducted by AVC."

As a result, the college could lose its designation as a international reference laboratory focusing on the virus, but it won't find out until May.

<http://thetyee.ca/CanadianPress/2012/12/02/Salmon-Virus-21038103/>

The Common Sense Canadian, 1 December 2012

Food Safety Agency Should Protect Public, Not Cover up Virus for Salmon Farming Industry

Written by [Damien Gillis](#)



Lucas Jackson / Reuters

The federal agency embroiled in the recent [XL Meats tainted beef scandal](#) is at it again - this time leading efforts to cover up a potentially catastrophic farmed salmon flu-like viral outbreak on BC's coast. Charged with ensuring your food is safe to eat, the [Canadian Food Inspection Agency \(CFIA\)](#) increasingly appears to be acting as a political arm of the Harper Government and an inept custodian of Canadian trade which will do our export business far more harm than good in the long run.

A little over a week ago, it became apparent that the CFIA is working hard to discredit and de-certify one of the two labs in the world recognized by the World Animal Health Organization (OIE) as experts in detecting a deadly salmon virus, known as ISAv. The lab in question, run out of Atlantic Veterinary College at the University of P.E.I. by Dr. Fred Kibenge, diagnosed the ISAv outbreak that devastated the Chilean aquaculture industry several years ago, causing \$2 Billion in damage. Such is his scientific credibility that when the fish farm industry was experiencing unexplained losses of their fish in Chile in 2007, they went to Kibenge to test for ISAv.

Recently, Dr. Kibenge has been testing farmed and wild salmon samples from BC as he investigates a potential similar outbreak here. His findings were instrumental in [forcing the re-opening of the Cohen Commission](#) into disappearing sockeye last year, where he went before Justice Cohen as a key witness. That the Commission took Dr. Kibenge's testimony and research as seriously as it did - reflected in its [ultimate findings released a month ago](#) - should be of particular note to the CFIA as they attack his lab and credibility.

During the same judicial proceedings, internal emails revealed these CFIA senior staff acting, as the Commission's lead lawyer suggested, more like hockey players high-fiving each other after beating their opponent than scientists and civil servants serious about getting to the bottom of a viral mystery which threatens the environment and economy of BC - even the salmon farms themselves.

[The emails](#) followed the telephone press conference the CFIA hosted to rebuke the [first discovery of ISAv](#) in wild salmon on BC's coast by independent salmon biologist Alexandra Morton and SFU Professor Rick Routledge. I was on that call and appalled by the lengths they went to dismiss and discredit this groundbreaking new finding. I asked the CFIA's spokespeople where the Precautionary Principle fit in their approach. Evidently it receives nowhere near the prominence Justice Cohen accords it.

In one of the emails that surfaced at the Cohen Commission, dated November 9, 2011, Joseph Beres, an inspection manager at the CFIA, wrote to colleague Dr. Con Kiley and other senior DFO and CFIA staff who had appeared on the conference call:

*Con,*

*It is clear that we are turning the PR tide to our favour – and this is because of the very successful performance of our spokes[people] at the Tech Briefing yesterday – you, Stephen, Peter and Paul were a terrific team, indeed. Congratulations! One battle is won, now we have to nail the surveillance piece, and we will win the war also.*

*Cheers, Joe.*

In the same strain, Dr. Kiley replies, “Concentrate on the headlines, that's often all that people read or remember. Both the 'Top Stories' and the 'Related Pieces'.”

During the Commission's investigation into this matter, Dr. Kibenge addressed what would come to be described by CFIA officials as an "audit" of his lab in the midst of his initial research into ISAv in BC. It is the disputed results of this and one other similar audit that form the basis for the CFIA's request to the World Animal Health Organization to strip Dr. Kibenge of his status as one of two "reference labs" certified to investigate ISAv outbreaks.

While he was on the stand during the Inquiry, Dr. Kibenge described this bizarre "audit": "The inspection was meant to be about understanding my processes so they could improve their own practices, but once the inspection began I got the sense that it was about obtaining information, because the first thing they asked me about when they did the inspection was the samples." Dr. Kibenge added, “I quickly realized that the purpose of the site visit...was actually in my view, to confirm a hypothesis that had already been presented in the media.”

According to Mark Hume, who broke the story last week in *the [Globe and Mail](#)*, "The [CFIA] has promised to sample nearly 8,000 salmon in B.C. in response to concerns about ISA. But the results of those tests are not yet known, and the CFIA has challenged the validity of Dr. Kibenge's tests, saying government labs couldn't replicate his results."

Of course, as the XL Meats scandal taught us, the CFIA's detection methods are quite capable of failure.

In response to this latest attack on his lab by the CFIA, Dr. Kibenge told Hume, “What they are doing here is essentially punishing me for having testified at the Cohen Commission and trying to suppress the findings that we've been finding. It's an attack on my credibility,” he said. “I just feel compelled to continue with my research work because there is nothing here that I can see that I've done wrong.”

Dr. Kibenge isn't the only world-class lab working on the BC ISAv mystery. The lab run by Dr. Are Nylund at the University of Bergen in Norway has reviewed some the same samples as Dr. Kibenge and come to similar conclusions about the likelihood of ISAv's presence in BC waters.

The CFIA has responded to concerns raised about its denial that ISAv is here in BC by affirming its commitment to protecting Canadian trade. If BC were to become officially designated as an ISAv-contaminated region, CFIA employee Dr. Kim Klotins testified at the Cohen Commission, that could indeed close borders to the 92% Norwegian-owned salmon farming industry in BC - a potentially fatal blow to the industry's local operations. Setting aside for a moment the troubling notion that our food safety inspector views protecting trade as its chief mandate, the CFIA's defence raises more questions than it answers.

Just as its failure to take proactive enforcement action in the XL Meats scandal ultimately led to a serious blight on Canadian trade - with the temporary closing of the US border to Canadian beef exporters - so will covering up this salmon virus until it has mushroomed into a full-blown catastrophe. This short-term butt covering is downright dangerous - not just to our wild fish, but to the trade the agency purports to be defending.

On the heels of the first indications the virus is already here, CFIA joined senior Harper Government leaders and BC's Liberal Premier in a coordinated offensive to convince foreign governments there was nothing to these concerns. In November, 2011, Agriculture Minister Don McRae accompanied Premier Clark on a [trade mission to China](#) to deliver the message that BC seafood is safe. How will those trading partners feel when they later learn they were misled? What impact will that have on Canada's international reputation and trading opportunities? There is much more than Norwegian farmed salmon at stake here.

Now, the question that must also be asked, given the agency's health and safety mandate, is can we be so sure that this salmon virus in the influenza family, from industrial farming practices, won't mutate in a way that poses a threat to human health such as bird flu and swine flu have done before? I want to be clear: I'm not suggesting there's a shred of science to support that notion - but the question must be asked, as the science must be done, not stifled at every turn because it's politically *inconvenient*.

Justice Cohen called for the Precautionary Principle to be thoroughly implemented in future fisheries management. I suggest the CFIA act accordingly and treat this potential viral outbreak seriously. We may one day be dealing with more than just the loss of our wild salmon and the economy dependent on them.

It is time for the CFIA to quit playing petty, vindictive political games and to start *working with* Dr. Kibenge's lab to get to the bottom of this salmon flu mystery - not to mention to begin regaining the confidence of the public it's supposed to serve. In all the media they do, the CFIA and politicians rest their criticisms on two admittedly poor initial samples from Rivers Inlet that tested positive for ISAv, which led to many subsequent samples following far more rigorous protocols. To the CFIA, it's as if the other salmon from BC that have tested positive for ISA virus - including wild fish from various streams and lakes and farm salmon purchased from Vancouver-area supermarkets - simply don't exist.

While the CFIA appears to think it is acting in the interest of Canadian exports by protecting the salmon farming industry from these damaging revelations, it is in fact undermining our nation's credibility on the international stage and doing long-term damage to our cross-border trade - all to protect a largely Norwegian-owned industry that contributes marginal economic value to the province of British Columbia.

Prime Minister Stephen Harper must reign in CFIA now and start paying serious attention to this important salmon virus research.

<http://thecanadian.org/item/1829-food-safety-agency-should-protect-public-not-cover-up-virus-for-salmon-farming-industry-cfia-isav-kibenge>

The Mercury, 1 December 2012

Big stink over fish plant

Helen Kempton



Triabunna residents have put up with stench from Seafish Tasmania.

**THERE is something fishy going on in Triabunna and it is getting up the noses of residents and tourism operators.**

The popular coastal area has already been hit hard by the closure of recreational and commercial fisheries because of algal bloom toxin contamination.

Now a stench from Seafish Tasmania's fish offal processing operations threatens to drive holiday-makers away.

The Seafish Triabunna factory turns salmon by-products from fish farms into oil and soil supplements.

The factory processes about 100 tonnes of fish heads, frames and guts a day, using the waste from Tasmania's three salmon farms. The Environment Protection Authority has now put Seafish on notice and given it two weeks to sort out the ongoing odour problems.

Seafish has already apologised for the smell to the community in a newsletter to residents.

The company said most of the odour was being caused by the temporary spreading of a fish protein liquid on a nearby farm as fertiliser.

Director Gerry Geen said a new system would be put in place within the next two weeks and land spreading would then be reduced.

Chris Dillon from the Triabunna Chamber of Commerce said he had been asked by the EPA to keep a track of peaks and troughs in the odour.

"We have been plotting the smell on a scale of one to 10 and at 9pm last night it was a 12," Mr Dillon said yesterday. "We are in a tough spot.

"We want to support local business but the situation has become unbearable.

"The last thing we want to do is drive people away from Triabunna and Orford."

The EPA said it had received numerous odour complaints about the Seafish facility.

EPA director Alex Schaap said the authority had been working with the company to address potential odour sources but the efforts had not reduced the smell significantly.

Seafish Tasmania has now been given two weeks to install and commission the necessary equipment to allow this material to be packaged for sale.

Mr Geen said Seafish would comply with all EPA orders.

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[http://www.themercury.com.au/article/2012/12/01/367402\\_most-popular-stories.html](http://www.themercury.com.au/article/2012/12/01/367402_most-popular-stories.html)

The Economist, 1 December 2012

Salmond's salmon

A boom in Scottish salmon is no occasion for nationalism



NO GULLS, no stink of dead fish or of submerged midden greet a visitor to the Glenfinnan salmon farm, near Fort William in the Scottish Highlands. It is remarkably unsqualid, for a fish farm. This is good, because Scotland will soon have many more. A combination of Scottish government policy and global politics is churning the waters.

A few years ago the industry was still recovering from a crisis caused by global over-supply. Then, in 2010, the Oslo-based Nobel prize committee awarded the peace prize to Liu Xiaobo, a Chinese civil-rights activist. China promptly switched preferred trade partners from Norway to Scotland. In the first nine months of 2010 Britain exported just eight tonnes of salmon to China. In the same period last year the figure was 2,920 tonnes. This year it reached 4,897 tonnes.

The difficulty of obtaining planning permission had previously checked growth. But aquaculturists have learned to court communities. Salmon farming employs just 2,124 workers in Scotland, but it employs them in job-thirsty places. Now that most decent fish-farming spots on the west coast have been filled, companies are looking to the archipelago. Marine Harvest, which produces almost a third of Scottish salmon, has taken to plebiscites. The 21-strong population of Canna narrowly edged them out, but on South Uist and Barra people have been more welcoming. Two new farms will bring 12 jobs to islands with a population of around 3,000.

That will concern environmentalists, who argue that fish farms have caused serious pollution, devastated Scotland's wild salmon population with infestations of parasites and often consume more fish—in the form of fishmeal—than they produce. Yet on all these counts the situation is improving. Ire at farmed fish being fed on delicate anchovy and sardine stocks has been doused by the development of vegetable substitutes. Some 70% of Scottish salmon now qualify for the RSPCA's "freedom food" standard—more than any other farmed food. The lice that fly fishermen blame for a decline in native salmon are being dealt with. Earlier this year farmed wrasse—minnow-sized fish, which clean salmon of lice—were developed in the Western Isles. Hendrix Genetics, a multinational food-research company, is closing in on isolating the gene for lice resistance.

The growth of farmed salmon benefits not only Scotland. The country's four biggest producers have Norwegian owners. Many workers in the processing plants are east European. Alex Salmond, Scotland's nationalist first minister, wields salmon production, like North Sea oil, as a totem of Scottish virility. But the industry's growth is also a testament to Scandinavian guile.

<http://www.economist.com/news/21567428-boom-scottish-salmon-no-occasion-nationalism-salmonds-salmon>

Caledonian Mercury, 30 November 2012

Business trumps wildlife once again

John Knox

Including:

Scotland's 250 marine fish farms are also potential polluters of the sea, particularly as more and more chemicals are being used to treat sea lice. The use of chemicals has increased 110 per cent in the last four years. The Salmon and Trout Association says samples of the sea around 13 per cent of fish farms have been found to have chemical residues more than the permitted limit.

The anglers are also worried about the rise of escapes from fish cages, causing contamination of wild salmon. There have only been three incidents of escapes this year – involving 11,000 salmon – but in the severe storms of January 2005 up to a million farmed salmon and trout escaped from damaged cages.

There is a bill currently going through the Scottish Parliament to tighten the regulations on fish farming. There are also moves being made under the new Marine Acts to bring in planning regulations and marine protected areas but progress is slow, suspiciously slow. Conservation organisations, under the umbrella campaign Environment Link, are outraged that the Scottish Marine Plan has been postponed from this year to 2014 – giving time, they say, for the fishing, oil and gas, and wind farm industries to go ahead with business as usual before any new conservation measures or planning controls can be brought into effect.

<http://caledonianmercury.com/2012/11/30/business-trumps-wildlife-once-again/0036194>

Donegal News, 30 November 2012

# Sea lice hitting Donegal farms hardest

Problems in Lough Swilly and Mulroy Bay

BY CROMAN SCANLON

THE highest recorded levels of sea lice on farmed fish in Ireland were found on two Donegal fish farms in recent months, it has emerged.

According to industry-circulated Marine Institute reports leaked to the Donegal News, the worst affected fish farms were those in Lough Swilly and Mulroy Bay.

The reports were passed to by an international anti-fish farming activist, Mr Don Staniford, who visited Donegal this week.

Mr Staniford said the figures proved the sites in Mulroy Bay and Lough Swilly recorded the highest sea lice levels during the months of August, September and October.

Sea lice from fish farms, he said, were destroying local, long-established wild Atlantic Salmon stocks.

Marine Harvest has said that it operates controls laid down by the Marine Institute which are of the highest international standard.

Mr Staniford said: "Marine Harvest (stock) is disease-ridden with more than 70 lice recorded on some fish at their site in Lough Swilly in

CONTINUED ON PAGE 9

DERRY PEOPLE FRIDAY EDITION

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## Sea lice problems at fish farms

FROM PAGE ONE

September and as many as 99 per fish in Mulroy Bay during the same month. These figures come from official Marine Institute reports which have been leaked to me," Mr Staniford said.

"Sea lice is a result of the intensification of fish farming and lethal chemicals are being used to kill them.

"This is having a devastating effect on wild Atlantic salmon, the environment and traditional fishermen," he added.

The figures quoted by Mr Staniford were confirmed by copies of the same reports which were released to us by the Marine Institute.

A spokesperson for the institute said these reports are circulated to stakeholders, including Inland Fisheries Ireland and Salmon Watch Ireland, on a monthly basis.

"You will note that each report con-

tains a statement that they should not be cited or passed on without prior permission of the Marine Institute. They are intended for information only. The full set of inspection results together with a detailed commentary is published annually and posted on the Marine Institute website," the spokesperson said.

A spokesperson for Marine Harvest said it is untrue to say that they have exceeded sea lice limits every month of this year to date.

"Marine Harvest Ireland would also like to point out the control protocols in respect of sea lice are operated by the Marine Institute on behalf of the State and are more advanced than those operated in other jurisdictions," the spokesperson said.

"This is because the regime is totally independent of the industry, data obtained as a result of their inspections are published and treatment

trigger levels are set at a low level.

"These controls are widely accepted as representing best practice internationally."

Mr Staniford also claimed that Marine Harvest will be forced to close sites in Mulroy Bay as a result of an outbreak of the deadly Amoebic Gill Disease (AGD).

The naturally occurring disease affects farmed salmon and is attributed to an increase in water temperatures.

The spokesperson for the company said it been impacted by AGD this year but denied this will lead to the closure of any of their sites.

"Mulroy Bay will be followed following Christmas 2012 and will be operational again in the future. This is in accordance with good farming practices. Similarly, Lough Swilly will be followed early next year," the spokesperson said.

Meanwhile, Mr Staniford heavily

criticised government plans to develop a "super site" fish farm off the coast of Donegal near Gola Island.

Mr Staniford was in Donegal as part of a tour of the west coast of Ireland where he outlined the damaging effects that common fish-farming practices which he described as "fundamentally flawed".

"It has become clear that factory farming in Ireland causes mass diseases and the public has a right to know what diseases and treatments affect farm salmon," he said.

Mr Staniford referred to the first study on salmon farming in Ireland in 1989 which said the use of hydrogen peroxide to combat sea lice heightens dangers for wild stocks.

He also quoted a recent report by Ireland's Inland Fisheries that showed 30 per cent of the wild salmon that would normally return to their rivers are being killed by sea lice.

Read in full online via <http://donstaniford.typepad.com/files/donegal-news-30-nov-2012.pdf>

Napa Valley Register, 30 November 2012

Farmed and dangerous: the dish about fish

This holiday season, there are many things I am looking forward to. I am extremely excited to escape from the fast-paced college atmosphere and be able to relax with my family in Napa.

I cannot wait to catch up with childhood friends, and am especially anticipating the delicious home-cooked meals that will be waiting for me once I arrive at home.

Whether it is the tasty Thanksgiving turkey, my family's traditional Italian Christmas dinner, or the array of appetizers that are served on New Years Eve, in my family, the holidays are a time to celebrate, share, and enjoy mouth-watering meals.

Although the menu changes slightly each year, there is one thing that I know will always be served during the holiday season: my mom's famous grilled salmon — a meal so delicious that I request it every time I return home.

Salmon, in addition to many other varieties of fish, is a staple of my diet. It is a type of food that I never thought twice about consuming, because I knew it was not only packed with healthy fats and omega-3 fatty acids, but was also very delicious.

It was not until I came across old pictures of my sixth-grade class field trip to a Northern California fish hatchery that I began to think more about the fish I was consuming, considering how “natural” the salmon was that my family purchased at our local supermarket.

After researching the process that occurred before salmon was served on my plate, my perspective on fish drastically changed, as I was exposed to a world where fish were not natural or fresh, but rather, for the most part, farmed and dangerous.

I bet you did not know that

69 percent of the salmon sold in the U.S. is farmed, not wild — raised in packed aquaculture farms, floating feedlots that are home to more than 1 million fish crammed into a small cages (“Farmed Salmon vs. Wild Salmon,” Oct. 9, [healthcastle.com](http://healthcastle.com)).

I’m sure you were unaware that there are currently more than

2 million aquaculture lots located off of the West Coast, and that the fish in these farms are constantly doused with antibiotics and exposed to pesticides to prevent disease and infection (“What is wrong with salmon farming,” Oct. 9, [raincoastresearch.org](http://raincoastresearch.org)).

I can almost guarantee that you have not once considered the health and ecological implications that arise due to the current popularity of aquaculture farming. It is creating new forms of disease among other marine animals and humans, including increased heart disease and bioaccumulation of toxins.

The emergence of aquaculture in today’s world creates more harm than good, making a fish that was once very healthy, not so nutritious. Lacking high levels of omega-3 fatty acids, as a result of exposure to pesticides, aquaculture salmon are not conducive to the same health benefits of their wild kin.

In addition, as a result of the crammed conditions within aquaculture farms, fish are developing diseases that spread beyond the cages to other marine animals and humans, creating serious health and ecological consequences.

These truths are not being recognized by consumers, who purchase the “fresh and healthy” salmon they see for sale at local supermarkets, without inquiring about how the salmon got there in the first place.

During this holiday season, I urge you to think long and hard about where your food comes from.

Think about the health and ecological implications of ordering that salmon wrap, or asking for that specialty sushi roll; and take the next step and ask your supermarket if the fish they sell is free or aquaculture-grown.

Consider the concept of sustainable seafood, because turkey and chicken are not the only sources of protein that have the ability to be free range. Take the first step toward an aquaculture-free America: a country where fish are free, just as we are.

It is time to think about the fish on your dish, and the process it took to get it there.

Gabriella B. Salva / Durham, N.C.

[http://napavalleyregister.com/news/opinion/mailbag/farmed-and-dangerous-the-dish-about-fish/article\\_d1c909d4-3b71-11e2-af6b-001a4bcf887a.html](http://napavalleyregister.com/news/opinion/mailbag/farmed-and-dangerous-the-dish-about-fish/article_d1c909d4-3b71-11e2-af6b-001a4bcf887a.html)

Intrafish, 30 November 2012



(Foto: Geir Bjørn Nilsen)

## Biomar readies salmon farmers for new reality in fish feed production

Feed producer considers putting poultry in fish feed as fishmeal and oil supplies get scarce.

 Jeanine Stewart

Published: 29 November 2012 11:45 PM

Updated: 30 November 2012 10:44 AM

Feed producer Biomar is launching intense discussions with customers – most of all salmon farmers – as it faces a new reality in fish feed production.

The Peruvian anchovy quota for the second season of 2012 is set at 1.1 million metric tons, which is down 82 percent from last year, and the quota for the year as a whole is down 40 percent from last year, Andrew Jackson, technical director of the International Fishmeal and Fish Oil Organization (IFFO), told IntraFish.

Imarpe, Peru's marine assessment agency, is conducting a reassessment of the biomass, but any increase in quota that could come as a result would not take place until January, which is midway through the second season for 2012, which always runs into the first month of the next year, Pablo Trapunsky, CEO of fishmeal and oil producer Copeinca, told IntraFish. A drastic increase would be a surprise to Trapunsky, who said it is unlikely the quota would go up more than half of what it is now.

### Associated Articles

- Ramifications good and bad looming from anchovy quota decrease
- Peruvian anchovy industry pushes for quota reassessment
- Peruvian anchovy fishery quota down 68%
- Peru blog: Size is no limitation for Rubio's supplier
- Peru authorizes start of 2012 anchovy season

When it comes to fish oil, Peru is particularly important. Last year, about one-third of the world's fish oil came from Peru, which is typical, Jackson said. With salmon farmers highly dependent on fish oil to produce healthy fish, the question of what will happen to one of the world's most important aquaculture industries looms.

Most likely, some customers will be left out in the cold, Neils Alsted, vice president of Biomar, told IntraFish.

The company is not planning to diffuse its low supply across customers but instead to retain the customers that it is able to work with and continue to supply them substantial volumes.

"We will be very selective," Alsted said.

"We will have a dialogue with our customers saying this is the reality of the world -- we have a price increase on fishmeal and fish oil, and if you want to pay the price, you will have to accept a certain price increase, and if you don't want to, then you will have to accept a certain amount of substitutions," Alsted said.

But the company is also urging customers to be open to change.

"We are preparing our customers that there will be a lot more replacement of fish oil and fish meal soon, but we are working on it in our research and we make test new raw materials replacement materials," Irmgard Lorenzen, international marketing coordinator for Biomar, told IntraFish.

On average, most salmon farmers are likely going to have to get used to a new normal in fish feed composition. Fishmeal use is already down at 18 percent of feed's total composition this year on average, which is a historic low and a significant decrease from 30 percent a few years ago. That trend is likely to continue. In the coming year, "I wouldn't be surprised to see standard diets of 12 percent fishmeal," Alsted said.

Biomar has been researching alternatives to fishmeal and oil for years, but the new quota cut came as a surprise to multiple sources IntraFish spoke to.

"Now we really really have to hurry," Lorenzen said. "We were already into (researching substitutions), but when this news came, we knew it was very good for us to have already started the process...It's horrendous to see we might not even get all the raw material we need to."

Soy meal is a likely candidate, although it too is at historically high prices at the moment. Biomar may begin to use poultry biproducts more, but the practice is illegal in Europe. In June the European Commission is set to decide on whether to legalize the use of poultry biproducts for fish consumption, Alsted said. He is hopeful they will.

"We expect it to be legal in June of next year," Alsted said.

Whether customers will accept such substitutions is questionable, but Alsted hopes they will.

"There are no consequences for fish health when you use it," Alsted said. "Its product that could be used for human consumption -- it's what we call a category three material. So it's not any risk at all."

<http://www.intrafish.com/global/news/article1359792.ece>

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The Herald, 30 November 2012

Scottish Salmon profits are hit by disease outbreak

Simon Bain

Scottish Salmon Company (SSC), the Edinburgh-based group quoted on the Oslo stock exchange, has reported a third-quarter rise in revenues of 21% to £21.5 million but said profits were being impacted by "biological issues".

Experts have warned that the salmon industry stands to lose millions from a parasitic disease outbreak, with SSC estimating it could lose 1000 tons of fish, or 4% of its annual production, though it said customer demand could be met.

The company yesterday reported a fall in net earnings in the quarter from £690,000 to £130,000, impacted by disease costs as well as a weaker spot price of salmon, trends which it saw continuing during the rest of the year.

Harvested volume of fish rose from 4686 tonnes to 6607 tonnes, a rise of 41% on the same quarter last year.

SSC said: "The incidence of Amoebic Gill Disease and other biological challenges, partly due to higher water temperatures and high levels of salinity prevalent across Scottish salmon farming industry, has led to increased mortalities, lower growth and increased production costs."

It expected a "more normal biological performance" in the next generation of salmon to be harvested in the first half of next year from Loch Fyne.

The group reported "strong interest from top UK retailers" as a result of Freedom Foods accreditation, increased volumes to French smokers, expanded distribution in Japan and China, and a strengthening of domestic customer relationships.

SSC said a new license granted near Mull would add up to 2500 tonnes of additional volume, putting it on course to deliver 29,000 tonnes in 2014.

The licence at Gometra, close to Fingal's Cave and nine miles from Iona, was opposed by the Mull and Iona community councils but SSC claimed "overwhelming support" in the area.

The company said the global market outlook was "low supply growth and strong demand, leading to expectations of improving salmon prices going forward".

[http://www.heraldscotland.com/mobile/business/company-news/scottish-salmon-profits-are-hit-by-disease-outbreak.19550600?\\_=90cefe7404ffb4fc8e121cafb0bb185c0b3d8c73](http://www.heraldscotland.com/mobile/business/company-news/scottish-salmon-profits-are-hit-by-disease-outbreak.19550600?_=90cefe7404ffb4fc8e121cafb0bb185c0b3d8c73)

Ottawa Citizen, 29 November 2012

Salmon drama raises questions about government's role

Elizabeth Payne

If there were persistent reports of mad cow disease in Canadian beef, say, or hoof-and-mouth disease, you would expect the federal government to act quickly to get to the bottom of the issue.

Which makes the government's reaction to the threat of a potentially devastating salmon virus on the West Coast confounding. Canada has a growing fish farming industry on both coasts and world-renowned wild salmon stocks, which many fear are at risk from fish farms. Infectious salmon anemia would not have the same direct impact on human health as some animal illnesses, but it is a "reportable disease" because of its serious potential — the deadly virus could devastate both farmed and wild stocks, as it did in Chile.

Rather than simply working double time to determine whether the virus exists in wild and farmed salmon in the west and either looking for the source or taking precautionary action to make sure it does not get introduced, the federal government has invested energy and time into shining an uncomfortable spotlight on the scientists who say they have found evidence of the virus. Some prefer to characterize it as an attack on scientists whose findings, if true,

could have serious implications for trade, for the aquaculture industry and wild salmon fishery.

“This is a classic campaign of denial, much like the tobacco industry,” said Rick Routledge, a professor at Simon Fraser University who discovered the virus in two of 48 sockeye smolts he collected as part of his research and, he says, was discredited by government officials as a result. The virus in the fish he collected was diagnosed at an independent Prince Edward Island lab, now threatened with being stripped of its international accreditation. The lab’s head, Dr. Fred Kibenge, has said he believes he is being punished by the federal government for testifying about his findings at a federal inquiry into declining sockeye salmon stocks.

The Department of Fisheries and Oceans retested Routledge’s samples at its own lab and was unable to find traces of the virus, it has said, although the quality of the samples was not good by the time they were using them. The department says it is retesting salmon.

Meanwhile, a letter from the Canadian Food Inspection Agency reportedly urged the World Organization for Animal Health (OIE) to strip Kibenge’s PEI lab of its international credentials. The lab at the Atlantic Veterinary College is one of two in the world recognized by the OIE for its expertise in detecting ISA virus. It diagnosed the salmon virus in farmed salmon from Chile where it killed millions of fish.

The lab has been the subject of several audits and concerns about lab conditions and testing methods, according to the OIE, and could be stripped of its international designation in coming months. The problems with the PEI lab are an added wrinkle in a complex story about science and salmon. Such concerns should be carefully investigated and problems, if they exist, rectified. False reports can do damage to the industry and consumer confidence.

But it is important to have an independent laboratory testing fish, especially since the Department of Fisheries and Oceans has a potentially conflicted role.

Scientists studying the health of West Coast salmon feel under attack. And the head of an inquiry into the decline of Fraser River sockeye put his finger on something that could explain government action around salmon viruses: the Department of Fisheries and Oceans is charged with both promoting salmon farming and protecting wild salmon, a dual mandate that creates a fundamental conflict when aquaculture practices potentially harm wild salmon stocks.

“As long as DFO has a mandate to promote salmon farming, there is a risk that it will act in a manner that favours the interests of the salmon farming industry over the health of wild fish stocks,” said Justice Bruce Cohen, whose commission spent 138 days looking into the decline of the Fraser River salmon stocks. His recommendations included that the department focus on its paramount responsibility of conserving wild fish.

Senators from Alaska and Washington state are also concerned. In an open letter, three senators wrote that Canada can’t be trusted to test for salmon virus and the U.S. should do so itself. “We should not rely on another government — particularly one that may have a motive to misrepresent its findings ...”

At issue is the aquaculture industry on the West Coast, which is an important player in the economy and employs thousands. Routledge said there is growing evidence that “wherever

fish farms are present, the viability of the wild stocks that swim past them has been harmed.” Alaska went as far as to ban fish farms (although they do engage in something called ocean ranching, farther out to sea).

The Department of Fisheries and Oceans has the kind of fundamental conflict of interest that is increasingly common within federal government departments.

The mandate of the Canadian International Development Agency, for example, includes helping to “improve the advantage of Canadian extractive sector companies operating abroad” as well as improving the lives of some of the world’s poorest people. And, clearing the way for resource projects has become intertwined with the mandates of many federal government departments, as evidenced in recent changes to fisheries and environmental protection laws.

But what happens when the dual roles of a federal department are at odds?

“My big concern is that the federal government is putting trade relations and short-term economic activity ahead of the priority for preserving wild salmon,” said Routledge. “By trying to pretend the risk isn’t there, our government is being irresponsible.”

*Elizabeth Payne is a member of the Ottawa Citizen editorial board.*

<http://www.ottawacitizen.com/technology/Column+Salmon+drama+raises+questions+about+government+role/7629982/story.html>

Fisheries Information Service, 29 November 2012



The Atlantic Veterinary College facilities. (Photo: AVC/FIS)

PEI college could lose prestigious designation after having ISA results disputed



**Thursday, November 29, 2012, 05:20 (GMT + 9)**

The [Atlantic Veterinary College](#) (AVC) in Prince Edward Island (PEI) might lose a prestigious international designation after having issued results showing the presence of infectious salmon anemia (ISA) in British Columbia (BC) waters, according to Canadian media reports.

The [World Organisation for Animal Health](#) (OIE) issued a statement this week informing that it conducted an audit of a lab at the Atlantic Veterinary College and uncovered “a series of weaknesses in the system [which] have a direct impact on the quality of diagnosis conducted by AVC.”

“Conclusions of the audit were unfavourable,” the organisation said.

The audit was conducted after “different member countries” pointed to “questionable results” from the lab, according to OIE, and the conclusions of its audit will be reported to its elected governing bodies and finally, to its World Assembly of Delegates, in May 2013.

AVC’s facility is one of only two international reference laboratories that focus on ISA.

“OIE reference laboratories have a responsibility to provide high-quality disease diagnostic services as global references to all member countries of the OIE, particularly in the case of doubts or controversies about animal sample analyses,” the organisation said. “The OIE is therefore keen to maintain the highest technical and operational standards of all reference laboratories.”

AVC’s lab and the work of researcher Fred Kibenge received national attention after he conducted research on samples from BC’s sockeye salmon and found the ISA virus, which had never been seen in BC waters before. His findings were subsequently disputed by the federal government.

Environmentalists believe these may be attempts to “silence” Kibenge’s findings.

But the complaint that provoked the OIE audit was not the first against Kibenge’s work: in 2011, after his lab found ISA in two of 48 sockeye salmon smolts, the [Department of Fisheries and Oceans](#) (DFO) ran its own tests and was unable to find ISA. Those results were then verified by an independent lab in Norway, *The Canadian Press* reports.

Paul Kitching, BC’s chief veterinary officer, announced that anyone who claimed the virus was present in BC based on results from the PEI lab, was misrepresenting the science because Kibenge’s sample size was just too small.

In December 2011, Kibenge told the Cohen Commission that after he released his findings on ISA in BC, the [Canadian Food Inspection Agency](#) (CFIA) audited his lab, which he believed represented an attack on his reputation and an attempt to discredit his work.

**Related articles:**

- [Report on ISA in BC salmon disputed](#)
- [ISA virus found in wild BC salmon](#)

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<http://www.fis.com/fis/worldnews/worldnews.asp?monthyear=11-2012&day=29&id=57226&l=e&country=0&special=aquaculture&ndb=1&df=0>

CBC News, 29 November 2012

Pesticide approved for sea lice control

Health Canada has granted fish farms in Newfoundland and Labrador emergency approval to use a pesticide to help control sea lice.

Salmon farmers on the island's south coast have had major issues with the parasites because of warm water temperatures.

The Newfoundland Aquaculture Industry Association said the use of the pesticide Salmosan is a necessary move to help fight outbreaks that can take a serious toll on caged fish.



*The FFAW's Mildred Skinner said some fishermen are concerned the use of the pesticide Salmosan will harm their catches. (CBC)*

Miranda Pryor, the association's executive director, said there's no need to worry about the pesticide's use.

"These are very safe. They're very safe for the fish," she said.

"They're very safe to be used in the marine environment and they're certainly safe from a consumer perspective."

Mildred Skinner, Fish, Food and Allied Workers union representative, said lobster fishermen on the island's south coast fear it will harm their catches.

"The problem is we don't know the impact of this stuff," she said. "You know it was restricted by the government for some reason."

Matt Abbott, marine coordinator of the Conservation Council of New Brunswick, said studies show that Salmosan does in fact harm many sea creatures.

"Things designed to kill a crustacean like sea lice can certainly have an impact on other crustaceans, be they lobster, be they shrimp, krill, crab," he said.

Abbott said salmon farms should move towards raising fish in contained tanks on land.

<http://www.cbc.ca/news/canada/newfoundland-labrador/story/2012/11/29/nl-pesticide-sea-lice-salmon-1128.html>

Fish Update, 28 November 2012

Stronger management and more transparency calls for Scottish fish farms



THE Scottish Wildlife Trust has called for stronger management and greater transparency of Scottish fish farms as part of its evidence on the Aquaculture and Fisheries Bill.

The Trust says the Bill is a chance to reform fish farming, putting obligations on the industry to protect the natural environment which is so important to Scottish seafood.

Alex Kinninmonth of the Scottish Wildlife Trust will give evidence to the Scottish Parliament's Environment Committee in person on 5 December.

Although mandatory publication of data, such as the results of sea lice monitoring, has not been included in the Bill, the Scottish Wildlife Trust claims this is essential to fully assess strategies for the control of sea lice and gain a broader understanding of the impacts on wild salmon and sea trout.

Kinninmonth said: "The reputation of Scottish farmed fish products depends to a considerable degree on the quality of Scotland's aquatic environment. Quite apart from the need to minimise impacts on ecological grounds, it makes every sense for the industry to minimise impacts to reduce the risk to their own reputation.

"The lack of publicly accessible farm-specific data is a major barrier to assessing the impacts of fish farming on wild fish. We believe the publication of sea lice data should be a legal requirement. It would not only deliver a more accountable industry, but would also improve the health of Scotland's wild salmon and sea trout."

[http://www.fishupdate.com/news/fullstory.php/aid/18649/Stronger\\_management\\_and\\_more\\_transparency\\_calls\\_for\\_Scottish\\_fish\\_farms.html](http://www.fishupdate.com/news/fullstory.php/aid/18649/Stronger_management_and_more_transparency_calls_for_Scottish_fish_farms.html)

The Coaster, 27 November 2012

Bennett proposes all land-based aquaculture - Time for new vision in aquaculture?

Clayton Hunt



Clayton Hunt photo

The Honourable Derrick Dalley, the provincial Minister of Fisheries and Aquaculture, talking to Tim Gray, the president of Gray Aquaculture at a meeting held recently in St. Alban's.

The Honourable Jim Bennett, the MHA for St. Barbe and the Liberal Fisheries Critic in the House of Assembly, is saying that the province's aquaculture industry should only use land-based or closed-contained growing operations in the future.

Mr. Bennett is basing his stance on Justice Bruce Cohens Final Report into the 17-year decline of the Fraser sockeye salmon in British Columbia.

Cohen recommends a freeze on salmon farming production on the Fraser salmon migration route and a revision of fish farm siting criteria to protect salmon migration routes.

The report also says that, if by 2020, Department of Fisheries and Oceans officials cannot be certain farm salmon are not a threat to wild salmon, salmon farms should be prohibited from Fraser sockeye migration routes.

Bennett said that the Cohen recommendations could as easily apply to aquaculture open-net operations in this province too. He stated that some of the issues related to the industry such as the ISA outbreak in Butter Cove this summer could have serious negative impacts on wild fish stocks here.

Bennett said, "I am not saying that we should shut the current Newfoundland aquaculture industry down.

"What I am saying is don't grow it any bigger than what it is today, maintain the size you already have and move toward closed contained or land-based aquaculture operations."

Bennett said that research shows that there is a higher-end niche market for higher-end produced salmon products and that some people will be willing to pay for the sustainable fish products raised on land.

“There is a market for the higher end product, and we could be cornering that market. Our industry has an opportunity to become a world leader in this industry, to get out in front of other jurisdictions and now is the time to take this giant step forward.”

With concerns to a lower volume of fish from land-based operations, Bennett said, “The industry should not necessarily be concerned about the volume of fish produced. We wanted to turn out large volumes of fish in our traditional fishery too and this thinking helped destroy the wild fishery.

“All I’m saying is go slow, move to close contained growing operations which will also lead to jobs in the future. Besides, if the Coast of Bays already has close to 100 percent employment due to the aquaculture industry, why do we want to grow so terribly fast heading into the future? Where will the workers for the growth be found?”

Bennet said if he were Minister of Fisheries the government money pumped into the industry, such as the \$5 million for Gray Aquaculture earlier this month, would still be donated but it would have to go toward land based aquaculture projects.

“The time has come for government to look closer at the research in this industry before they invest any more taxpayers’ dollars. We need a new vision for the industry, one based on new evidence in collaboration with all stakeholders. If done properly more sustainable wealth can be generated in our rural regions.”

## **RESPONSE TO MR. BENNETT**

### **Tim Gray**

Tim Gray, the president of Gray Aquaculture, said that his company has been land-based farming for over 20 years with their hatchery, which is essentially land-based farming.

Gray said, “From a carbon footprint point of view, it is just not feasible for closed-contained operations to produce market size salmon.

“The energy we would consume would in itself outweigh anything we could do in the ocean. And besides, open-net farming is sustainable, so I’m not a proponent of the land-based systems.

“You can raise fish to a certain size on land such as to smolt size but you can’t do it beyond that. I think you’d be hard pressed to show one successful land-based aquaculture operation anywhere.”

### **Miranda Pryor**

Pryor, the executive director of the Newfoundland Aquaculture Industry Association, said (in a letter to the Coaster): While we do not argue that niche markets may in fact exist for this product, the number of customers who would be willing, or who can afford, to pay a premium for any product is limited and can only be sustainable on small-scale production basis.

### **Minister Derrick Dalley**

The Honourable Derrick Dalley, the provincial Minister of Fisheries and Aquaculture (DFA), said that Bennett's conclusions are not based on facts and that the Cohen Report was inconclusive in terms of the correlation between fish farming and its impact on wild stocks.

According to DFA information, a 2010 DFO-commissioned study investigated the feasibility of nine different closed-containment aquaculture systems for full growout and compared them to conventional open net pens in British Columbia.

Only one closed option, land based recirculating system proved marginally viable.

From an environmental impact, the electricity costs, construction material, land use and disposal of waste are believed by many to have at least an equal, if not greater environmental footprint, than current cage aquaculture.

Dalley said, "We have developed a very successful aquaculture industry in this province. We've established a strong working relationship with the industry.

"These companies have made significant private investments, have created meaningful employment and right now our aquaculture industry is growing and has great potential for the future.

"Neither this government, or myself as Minister of the DFA, plan to jeopardize that and companies are not interested in closed containment. The reality is that closed containment is not feasible and, to date, closed containment for the farming of salmon on land has not proven to be commercially viable.

"Since 2005, aquaculture has grown in value from just over \$52 million to \$120 million in 2011. The industry is on course to again experience success in 2012, and at this point we see no reason, no scientific evidence and no conclusions that would suggest we should stop what we are doing."

### **MHA Tracey Perry**

Tracey Perry, the MHA for Fortune Bay-Cape La Hune, said, "Our aquaculture industry is a world leader now, and I believe we are proceeding in an environmentally friendly manner.

"While we will continue to explore every opportunity that is before us people with expertise in the industry have evaluated land based farming systems and have concluded that these systems have not proven to be commercially viable.

"The value of this industry continues to rise, the biosecurity protocols in use are some of the highest in the country and the world, and our government practices due diligence in managing and regulating the industry.

Mr. Bennett also talks about the future growth in land-based systems for rural Newfoundland. If land based farming becomes economically viable, then there is no economic advantage to establishing such facilities in the province. It would make greater sense to place such farms close to major markets to take advantage of lower transportation costs and to provide fresh product daily to major centers."

<http://www.thecoaster.ca/News/2012-11-27/article-3128291/Bennett-proposes-all-land-based-aquaculture/1>

Times Colonist, 27 November 2012

Farmed fish feed high on food chain



A letter-writer suggests that the aquaculture industry can never produce the volume of food that land-based agriculture does because fish farms rely on food sources from further up the food chain.

Photograph by: Roar Greipsland, AFP, Getty Images , Times Colonist

Re: "Aquaculture is the big fish that got away," opinion, Nov 25.

The writer correctly states that "global demand for seafood is increasing." But so is the demand for automobiles.

Many advocates suggest that fish farms are the solution to feeding millions of starving people. Really? When the cost of farmed fish rivals the cost of beef?

There is one simple reason why aquaculture provides a minuscule percentage of the world's food supply: It just costs too much. The reason is basic: Seafood feeds too high up in the food chain. Big fish eat little fish, shellfish filter out zooplankton.

By comparison, cattle feed on grass, at the bottom of the food chain. One step.

Until aquaculture starts growing its own grass, it will never be able to compete with land-based systems. Furthermore, until aquaculture can supply its own grass, it will never be sustainable. This is not something you can blame on Ottawa or NIMBYs.

Lloyd Erickson

Nanaimo

<http://www.timescolonist.com/business/Farmed+fish+feed+high+food+chain/7614272/story.html>

Fisheries Information Service, 27 November 2012



Location of BIM's proposed organic salmon farm (Photo: BIM/FIS)

Govt agencies face off on proposed salmon farm



**REPUBLIC OF IRELAND**

**Tuesday, November 27, 2012, 02:30 (GMT + 9)**

A proposed deep sea salmon farm off the west coast has two government agencies battling.

[Bord Iascaigh Mhara](#) (BIM), which supports the farm's development, claims it will create 500 jobs. Opponent Inland Fisheries Ireland (IFI) says the farm will generate less than half of that number.

BIM has applied for a licence to raise 15,000 tonnes of organic-certified salmon each year in Galway Bay at 456 ha spread over two sites located 1.7km off Inis Oirr, "much further out to sea than conventional fish farms."

Meanwhile, the IFI worries the location and scale of this venture may harm wild salmon and sea trout stocks.

“The board believe that Ireland’s reputation as a pristine wild fishery destination must be safeguarded,” the IFI said.

In contrast, BIM said that the farm’s distance from shore in combination with wave action and space will slash the risk of sea lice transfer to nearby wild fish.

In a submission, the IFI board said it believes that the plan’s proponents have failed to fully consider the potential damage to wild salmon and sea trout in the Environmental Impact Assessment (EIS) prepared by BIM as part of the public consultation process.

“The board does not believe that the corpus of peer reviewed international scientific literature which recognises the negative impacts of sea lice on salmonids have been adequately dealt with in the EIS,” the submission states.

Regarding job production, the IFI said that the farm would not create 500 jobs and that instead, based on 2007 production and employment statistics, only 202 jobs would be generated.

Further, proposals for two offshore farms off Mayo and Donegal should be put on hiatus while agencies conduct thorough assessments until they are convinced that the deep sea plan does not jeopardise Ireland’s recreational angling industry.

BIM has said its salmon farm plan would yield salmon worth EUR 102 million per annum and local wages of about EUR 14.5 million for its workers.

**Related article:**

- [\*\*BIM applies for aquaculture licence for the first time\*\*](#)

*By Natalia Real*  
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<http://www.fis.com/fis/worldnews/worldnews.asp?monthyear=&day=27&id=57131&l=e&country=0&special=aquaculture&ndb=1&df=0>

The Irish Times, 26 November 2012

Concerns over size of proposed new salmon farm in Galway Bay



[Sea trout showing multiple sea lice infestation, the wound probably caused by cormorant or similar](#)

DEREK EVANS

As a keen salmon angler, I am deeply concerned to learn of a proposal by Bord Iascaigh Mhara (BIM) to install a supersized salmon farming unit off Inis Oirr in Galway Bay.

Over the past 30 years, sites chosen have proven to be ill-judged in terms of their close proximity to river mouths. The untold damage from sea lice infestation to wild salmon and sea trout smolts on their outward journey to oceanic feeding grounds is nothing short of catastrophic.

A new report in the highly regarded Proceedings of the Royal Society of Biological Sciences reveals that on average 39 per cent of wild salmon mortalities are attributable to sea lice.

In the past, salmon farms were considered large when they were licensed to harvest 2,000 tonnes, the current proposal is for a farm harvesting 15,000 tonnes.

While this latest proposal is a step in the right direction in terms of its “off-shore” location, nevertheless, it will bring a plethora of problems, beginning with the size of its annual output and the “baggage” that entails if and when it moves into unchartered waters.

Sound advice as to the way forward on this issue can be found in the Inland Fisheries Ireland (IFI) submission on the Environmental Impact Statement (EIS) by way of correspondence to BIM.

In addition to a comprehensive analysis on the EIS content, IFI has included an additional checklist for consideration including the location and dimension of this proposed farm; site characteristics; production process; potential impacts; monitoring; and organic farming.

As an addendum, IFI believes it would be appropriate for an assessment of all wild salmonid fisheries in the affected zone, a full monitoring system put in place and a baseline study undertaken in advance of any farm being established.

Salmon Watch Ireland (SWI) also welcomes the Royal Society (RS) report, citing “a causative link between decreased wild salmon abundance and aquaculture-generated sea lice infestation of wild stocks”.

According to SWI, Ireland is obligated under the Habitats Directive to protect wild Atlantic salmon and all current and future salmonid aquaculture farms must be required to move to land-based facilities.

In its submission to Government regarding the proposed Galway Bay salmon farm, SWI will demand that the RS report forms the basis of future management of aquaculture facilities.

The report is definitive and wide ranging. It asserts that state agencies cannot be allowed to dictate policy in the field of aquaculture which are spatially too narrow, even though their own findings demonstrate that sea lice have a statistically negative effect on wild salmon abundance, according to the SWI.

Atlantic salmon survival has diminished alarmingly over the past decades and any man-made negative impact must be tackled effectively.

In welcoming the RS report, the Minister of State for Natural Resources, Fergus O'Dowd, said: "it is crucial that sea lice levels are maintained below protocol levels, particularly in spring when wild salmon smolts are migrating to sea.

"I have consistently given my support for the development of aquaculture and its reported potential for job creation. I am equally conscious of the imperative to develop Ireland's angling sector, worth an estimated €50 million annually to the national economy, and to ensure a cohesive approach to development across departments and state agencies involved in both sectors."

The EIS report on the project is open for public consultation until December, 12th. Responses should be sent to Department of Agriculture, Food and Marine (Aquaculture and Foreshore Management Division), National Seafood Centre, Clonakilty, Co Cork.

\*angling@irishtimes.com

<http://www.irishtimes.com/newspaper/ireland/2012/1126/1224327088617.html>

The Irish Times, 26 November 2012

Details of fish farm chemicals sought

LOUISE ROSEINGRAVE

An opponent of fish farming who is on a tour of the west coast has called for details of chemical parasite treatments used in Irish waters to be made available.

Don Staniford of the Global Alliance Against Industrial Aquaculture drew a 100- strong crowd on Friday night to Bantry Bay, where he was a guest speaker for local campaign group Save Bantry Bay (SBB). Mr Staniford outlined damaging effects of common fish-farming practices on wild fish stocks and said the industry was "fundamentally flawed".

Marine Harvest is seeking to develop a 100-acre fish farm at Shot Head in the bay and has lodged an application for a foreshore and aquaculture licence with the Department of the Marine.

SBB is fighting the project, citing concerns about the farm's impact on wild fish stocks, water quality, fishermen's livelihoods, angling, tourism and water sports.

Mr Staniford said Marine Harvest was fighting farmed fish parasites but information on chemical treatments used in Ireland was "particularly difficult to access".

<http://www.irishtimes.com/newspaper/ireland/2012/1126/1224327093892.html>

Irish Examiner, 26 November 2012

Outspoken opponent of fish-farming rallies support

*By Louise Roseingrave*

A global anti-fish farming activist on a tour of the west coast has called for details of chemical anti-parasite treatments used in Irish waters to be made available.

Activist Don Staniford, a known 'public enemy' of salmon farming drew a 100-strong crowd to Bantry Bay on Friday. A guest speaker on behalf of campaign group Save Bantry Bay, Mr Staniford outlined the damaging effects that common fish-farming practices wreak on wild stocks claiming the industry was "fundamentally flawed".

Marine Harvest seeks to develop a 100-acre site fish farm at Shot Head and has lodged an application for a foreshore and aquaculture licence with the Department of the Marine.

Save Bantry Bay is fighting the project, citing concerns about the farm's impact on wild fish stocks, water quality, fishermen's livelihoods, angling, tourism, and water sports.

Mr Staniford said Marine Harvest is fighting farmed fish parasites such as sea lice and gill amoeba, but information on chemical treatments used in Ireland is "particularly difficult to access". "The public has a right to know what diseases and treatments affect farm salmon in Ireland," he said.

Dr Roderick O'Sullivan, the author of the first study on salmon farming in Ireland in 1989, said the use of hydrogen peroxide to combat sea lice in fish farming disperses sea lice, heightening dangers for wild stocks. He quoted a recent report by Ireland's Inland Fisheries that showed 39% of the wild salmon that would normally return to their rivers are being killed by sea lice. "The location of two fish farms, on either side of Bantry Bay will provide a gauntlet to run for wild salmon stocks," he said.

Save Bantry Bay secretary Alec O'Donovan said information on chemical treatments used by Marine Harvest is required to determine the environmental impact the proposed 100-acre fish farm will have on Bantry Bay.

"We were directed by Minister Simon Coveney's office to the company, who said the

information was commercially sensitive and could not be divulged," he said.

A Marine Harvest spokeswoman said the industry is heavily regulated in Ireland. She said Marine Institute studies contained information of diseases and treatments including sea lice.

Director of Friends of the Irish Environment Tony Lowes said a campaign to boycott farmed salmon this Christmas was under consideration following Friday's meeting.

Don Staniford continues his tour which includes the Aran Islands, Connemara, Clew Bay, Clare Island, Donegal Bay, Mulroy Bay, and Lough Swilly.

<http://www.irishexaminer.com/ireland/outspoken-opponent-of-fish-farming-rallies-support-215090.html>

West Cork Times, 26 November 2012

Show of force from Bantry fish farm protestors



Don Staniford pictured in Bantry.

THE bitterly cold night did little to dissuade all those who gathered at the Maritime Hotel in Bantry for the latest Save Bantry Bay (SBB) public meeting on Friday night last.

More than 150 people attended the SBB protest meeting, with many local fishermen and Bantry Bay residents being joined by protestors from Kerry, Cork city and as far away as Fermanagh.



The location of the proposed fish farm at Shot Head.

“This is very encouraging; it’s good for the people of Bantry to see that they are not alone in their fight to stop Marine Harvest.

“We now plan to unite the different groups around the country so that we can ensure that Marine Harvest will face opposition no matter where they go to set up their farms,” Tony Lowes of Friends of the Irish Environment told *West Cork Times*.

Marine Harvest Ireland are currently awaiting permission from the Department of the Marine, to begin the construction of a 14 cage salmon farm at a site just off Shot Head in Bantry Bay.

The key speaker, who is known worldwide as the salmon farm industry’s “public enemy number one”, Don Staniford was in Bantry to offer his support as the SBB continue to resist plans for a new salmon farm in Bantry Bay.

Mr Staniford urged the people of Bantry to resist any attempt to develop more salmon farming businesses in the area.

“You can’t allow this corporation to expand in your area. If Marine Harvest gets a foothold in Bantry Bay it will cause problems just like they’ve done around the world as in Chile, Scotland and in Norway.

“This company is bad news, bad news for the environment, bad news for wild salmon and bad news for the people of Bantry Bay,” Mr Staniford said.

Marine Harvest Ireland plans to invest €3.5 million in setting up a 14 cage salmon at the Shot Head site and a further minimum of €10 million over each two year production cycle.

In addition there will be eight long-term positions for operatives. The company will advertise locally and are confident that the positions can be filled with local expertise. Six people will also be employed during construction.

“Successful salmon farming, especially organic salmon, as proposed for Shot Head, is dependent on a clean and healthy environment no-one understands this more than Marine Harvest Ireland which was the first primary food producer in Ireland to be certified under

ISO 14001:1996 (International Environmental Standard),” a Marine Harvest spokesperson said.

However, the SBB claim that Marine Harvest’s plans will have a huge impact on local sea-life and the livelihoods of all those dependent on Bantry Bay’s fishing and tourism industry.

“The Environmental Impact Assessment (EIS) completed by Marine Harvest as part of the licence application has failed to meet standards set by the EU EIA Directive. “Their EIS fails to assess the ability of the immediate area to flush waste; the document failed to consult a single living resident in the parish (only one person was written to and he died 10 years ago).

“The document also fails to acknowledge the Dromogowlane River, only 500m away and home to protected species that will be affected and the Marine Harvest EIS fails to consider alternative technologies such as the non-polluting closed containment systems or to consider alternative sites,” Kieran O’Shea SBB chairman and Bantry Bay pot fisherman said.

<http://westcorktimes.com/home/?p=13831>

Intrafish, 26 November 2012



Photo: Inland Fisheries Ireland

## Ireland's proposed salmon farm slammed

Ireland's deep-sea salmon project, potentially Europe's biggest, hits roadblocks over concerns about sea lice impacting wild salmon and trout stocks.

 Rijuta Dey

**Published:** 26 November 2012 02:17 PM

**Updated:** 26 November 2012 02:25 PM

The Irish government agency Inland Fisheries Ireland (IFI) raised concerns about the location and scale of a proposed organic salmon farm on the country's west coast.

### Associated Articles

- Irish fisheries agency criticizes planned mega-fish farm
- Farmed fish lice link to wild salmon death claims questioned

In its 16-page evaluation in the public consultation period of the planned Galway Bay organic salmon farm, IFI highlighted concerns about the Irish Sea Fisheries Board's (BIM) environmental impact statement (EIS).

- **Seventeen firms interested in Irish organic salmon farm**
- 

BIM is applying for a licence to develop a 15,000-metric-ton deep sea salmon farm in Galway Bay, at 456 hectares spread over two sites located north of Inis Oirr, western Ireland.

IFI's submission focused on the migration routes of salmonids provided in the EIS and dubbed the sea lice -- [which recently made news when a study from a Scottish university linked lice from farmed salmon impacting wild stocks](#) - issue as "a legitimate concern" in BIM's proposal.

"There is not enough scientific evidence supporting the potential impact of sea lice from the proposed locations on wild smolts," IFI said.

### **The number game**

One of the trump cards played by BIM is the potential number of jobs created if a deep sea salmon project producing 15,000 metric tons of fish does take off.

"This project has the potential, based on a 15,000 metric tons production capacity per annum to create 500 direct and indirect jobs," BIM said in its EIS.

"These jobs would create an annual wage flow of €14.5 million (\$18.8 million) per annum."

This number is countered by IFI, which argues "published data on employment and production in the salmon farming sector show that 9,923 metric tons of salmon were produced in 2007 and 133 full time equivalent (FTE) people were employed in salmon farming. If the same ratios, 74.6 metric tons of salmon per person employed, are used in the context of the current proposal for a 15,000 metric tons salmon farm this accounts for only 202 jobs."

### **Tussle with tourism industry**

The salmon farm has raised the hackles of the angling/tourism industry, and IFI points out domestic anglers contribute approximately €143 million (\$185.6 million) to the country's economy, predominantly in rural areas, and an additional €89 million (\$115.5 million) contributed by tourist anglers.

"We cannot be complacent about the resource, or our management of the environment," IFI said.

"IFI welcomes the development of aquaculture in Ireland if it is done sustainably," Suzanne Campion of IFI told **IntraFish**.

Donal Maguire, aquaculture development manager at BIM, told **IntraFish** that IFI's position was "not surprising but disappointing."

"The statutory process needs to be followed, with regard to the consultation, and BIM has engaged with the local communities which will be impacted by this project," he told **IntraFish**.

"It is a good application with no danger to the environment and wild fisheries."

The European organic food market is valued at over €18.9 billion (\$24.5 billion), and the key markets are Germany, France, Italy, the United Kingdom and Spain (Mintel, 2011).

The estimate of the current underlying unmet demand in Europe is in the region of 20,000 metric tons of organic grade farmed salmon per annum.

<http://www.intrafish.com/global/news/article1359604.ece>

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Donegal Democrat, 25 November 2012

Inland Fisheries wants freeze on new salmon farms

Inland Fisheries Ireland (IFI) has said proposals for new salmon fish farms in Galway, Donegal and Mayo should be put on hold.

The statutory body responsible for the protection and conservation of the inland fisheries resource released a statement on Friday expressing concerns about the impact of new fish farms on the stock of wild trout and salmon.

The IFI said: “Ireland’s reputation as a pristine wild fishery destination must be safeguarded....No further applications should be progressed until all stakeholders are satisfied that the current proposal is sustainable and has no adverse impact on wild salmon and sea trout stocks.”

<http://www.donegaldemocrat.ie/news/local/inland-fisheries-wants-freeze-on-new-salmon-farms-1-4523197>

Donegal Daily, 25 November 2012

**FUTURE OF DONEGAL FISH FARMS IN DOUBT AFTER AGENCY’S TOUGH STATEMENT**

November 25, 2012



**A DONEGAL fish farm has been halted amid concerns all fish farms in the county could be facing new restrictions.**

The authority which regulates fish farms in the country has also issued a strongly-worded statement questioning the number of jobs created by them.

It has questioned one new fish farm in Galway Bay and is opposing two others – in Donegal and Mayo. It says scientific studies show sea lice from farmed salmon are wiping out wild salmon stocks off the Irish coast.

The Inland Fisheries Ireland (IFI) is the state agency charged with the conservation, protection, development, management and promotion of Ireland's inland fisheries and sea angling resource.

The Board of IFI agrees with the recent statement by Minister Fergus O' Dowd on offshore salmon farming and welcomes the development of Ireland's aquaculture sector, once any development complies with Ireland's obligations under relevant EU environmental legislation, particularly the Habitats Directive, and does not adversely affect salmon and sea trout stocks.

The Board have made a submission on the Environmental Impact Statement (EIS) prepared by Bord Iascaigh Mhara (BIM) for the proposed offshore salmon farm as part of the public consultation process, and recommends that this submission, which is on the IFI website, is read in full by any interested parties.

In the submission, concerns were raised in relation to the location and scale of the proposed salmon farm and how its development and operation could impact on wild salmon and sea trout stocks and their habitat. These concerns are based on scientific reports by respected authors and knowledge of the impact of existing fish farms on salmon and sea trout populations off the west coast of Ireland.

Recent peer reviewed international scientific literature on the impacts of sea lice on salmonids show them to have devastating effects on wild salmon, accounting for up to 39% of salmon mortalities. The Board does not believe that the corpus of peer reviewed international scientific literature which recognises the negative impacts of sea lice on salmonids have been adequately dealt with in the EIS.

The Board says it welcomes any sustainable initiative which will provide jobs in rural coastal communities however it queries the figure of 500 jobs being associated with the proposed offshore salmon farm.

Published data on employment and production in the salmon farming sector show that 9,923 tonnes of salmon were produced in 2007 and 133 Full Time Equivalent (FTE) people were employed in salmon farming.

If the same ratios, 74.6 tonnes of salmon per person employed, are used in the context of the current proposal for a 15,000 tonne salmon farm this accounts for only 202 jobs.

A very recent report in aquaculture news site [www.fishnews.eu](http://www.fishnews.eu) claims that Scottish Islanders were delighted that a new 2000 tonne salmon farm had been granted planning and would create 4 full time jobs.

“Again if applying the same ratios to the current proposal this amounts to 30 jobs, assuming no economies of scale,” said the IFI.

The statement went on: “Notwithstanding this the Board have serious concerns that whatever the number of jobs created by the current proposal they will be more than offset by the associated loss of jobs in the recreational angling and tourism sectors if this development proceeds without adequate environmental protections in place.

“Top line figures from a recently commissioned survey of domestic recreational anglers suggest they contribute approximately €43 million to the economy, predominantly in rural areas, with the preferred locations for angling overnights in the West and South West and an additional €9 million is contributed by tourist anglers.

“The Board believe that Ireland’s reputation as a pristine wild fishery destination must be safeguarded. Angling tourism is characterised by the fact that consumption takes place where the resource is readily available, such as on the West Coast.

“Tourism activity is particularly concentrated in areas which lack an intensive industry base, and it is credited with having a significant regional distributive effect. Consequently, the economic benefit is kept within Ireland, and not expatriated to another country which would most likely be the case if an international operator was awarded the franchise to run the proposed offshore salmon farm.

“The Board believe that proposals being brought forward for two further offshore salmon farms in Mayo and Donegal are premature given that significant issues over the current proposal have not yet been resolved. No further applications should be progressed until all stakeholders are satisfied that the current proposal is sustainable and has no adverse impact on wild salmon and sea trout stocks.

“Despite the ever increasing pressures on our fisheries, Ireland still boasts a wealth of inland and sea angling resources which greatly enhance the quality of people’s lives on a daily basis as well as delivering economic and social benefits to the Irish economy in the form of job creation, social inclusion and tourism revenue. We cannot be complacent about the resource, or our management of the environment. In this regard the Board of IFI would like to reiterate its commitment to the protection of Ireland’s wild fish and the aquatic habitat.”

<http://www.donegaldaily.com/2012/11/25/future-of-donegal-fish-farms-in-doubt-after-agencys-tough-statement/>

Vancouver Observer, 25 November 2012

Friends of the Earth calls for investigation into silencing of Canadian salmon scientist

[Anja Konjicanin](#)

Is **Canadian Food Inspection Agency** (CFIA) working to silence a scientist responsible for uncovering the widespread infectious salmon anemia (ISA) in salmon and trying to cover-up a disease that threatens wild Pacific salmon in British Columbia?

**Friends of the Earth Canada** has called for an independent investigation after the federal agency asked the **World Organization for Animal Health** (OIE) to strip the reference lab certification status from Dr. Frederick Kibenge's, researcher who has played a key role in investigating ISA in salmon from BC, lab at the Atlantic Veterinary College in PEI, one of only two laboratories in the world recognized for its ability to detect ISA in infected fish.

"We are concerned about efforts to silence a scientist who has played a leading role in uncovering the widespread infectious salmon anemia (ISA) in salmon. Given the CFIA's recent experience with XL Foods Inc. and E. coli, you would think they would pay close attention to this warning of the ISA virus in salmon," said Beatrice Olivastri, CEO of Friends of the Earth Canada, in a press release sent to us by the environmental organization.

"We believe Dr. Frederick Kibenge's work should have been welcomed, and strategically used in informing CFIA's own surveillance work to protect wild salmon rather than hide the extent of the spread of the ISA virus," said Olivastri in the press release. "This can only be a witch hunt against someone who doesn't agree with the government line, and is suffering from the government's bullying."

Decertification of the lab would reduce Canadians' ability to know about the presence of this disease in salmon. It would have international ramifications, they said, as people from other countries also send samples to the lab.

The request for investigation, or petition, is addressed to the Commissioner of the Environment and Sustainable Development and to the Office of the Auditor General of Canada.

<http://www.vancouverobserver.com/world/canada/friends-earth-calls-investigation-silencing-canadian-salmon-scientist>

Telegraph-Journal, 23 November 2012

Salmon farming: The risks outweigh the benefits

Inka Milewski

## Commentary

Aquaculture does have the potential to drive us forward, but not for the reasons and the manner suggested by Brian Lee Crowley, the managing director of the Macdonald-Laurier Institute in Ottawa. In his commentary, which was circulated in various media outlets last week, Mr. Crowley suggested that feeding a growing world population can be met through a blue revolution which calls for an intensification of aquaculture in our oceans.

Farmed fish represents a very small portion (six per cent) of per capita global protein consumption. According to the most recent data from the UN Food and Agriculture Organization, plants and animals still represent about 80 per cent of the primary source of protein for most of the world's population. Globally aquaculture is dominated (89.1 per cent) by seaweeds, crustaceans and freshwater fish production which is land-based. Open net pen farmed salmon represents only 2.8 per cent of global aquaculture production.

The same kind of enthusiasm and optimism expressed by Mr. Crowley for the blue revolution and the promise of industrial aquaculture was heard decades earlier during the green revolution in agriculture.

Prompted by a series of famines in the 1940s and concerns about a growing world population, the green revolution began putting to use new and emerging science and technology to develop high-yielding cereal grains, genetically modify crops, produce synthetic fertilizers, build massive irrigation infrastructure and manufacture an arsenal of pesticides and herbicides.

Mr. Crowley says that the green revolution "super-charged" our ability to produce food. It also displaced small-scale mixed farms and replaced them with large-scale monoculture operations owned by vertically-integrated corporations. There has been a decline in agricultural biodiversity where only a few varieties of high-yielding crops are now grown world-wide. This type of agriculture required a massive increase in the use of synthetic fertilizers which have polluted coastal and freshwater ecosystems. Farmlands have been turned into deserts and insects and diseases have developed resistance to pesticides and antibiotics.

Similar issues now plague industrial aquaculture.

Open net pen fish farms operate like industrial feedlots in coastal waters. They generate large quantities of wastes (200 metric tonnes (MT) for every 1000 MT of production) and the cost of waste disposal is paid by the environment, not the industry. All the science and technology being pressed into the service of expanding industrial salmon feedlots have not succeeded in keeping fish or the environment healthy. It has failed to prevent the desertification of sea bottoms, eliminate the release of chemical pollutants, prevent interactions between farmed and wild salmon populations and prevent the outbreak and spread of pests and diseases.

Like industrial agriculture, the fish farming industry has enlisted the power of science and technology to make improvements in their operations. Most of their effort has been directed to improving production and efficiency. Automated feeding has reduced the number of workers needed to operate a single farm. Underwater cameras have helped to improve feed efficiency. And, a genetically modified salmon that will grow faster has been developed but not approved for commercial production.

As for addressing their environmental impacts, changes to the composition of feed pellets have reduced (not eliminated) the use of wild fish and the development of vaccines has reduced the use of antibiotics. In some jurisdictions, management practices similar to those used in intensive agriculture such as fallowing and a form of crop-rotation referred to as bay management have been introduced.

Any benefits gained from these improvements have been offset by an increase in farm sites and the number of fish produced per feedlot. Feedlots which once raised 100,000 now raise 300,000 to 700,000 fish and where there were once three or four feedlots, there are now 20. Fallowing and bay management have failed to stop disease and sea lice epidemics or to prevent many salmon farms from routinely requiring some kind of remediation because the sea bottom under their net pens has become so toxic that 60 to 70 per cent of biological diversity has been lost.

A more recent proposal to manage fish farm waste is integrated multi-trophic aquaculture (IMTA), the process of growing shellfish and seaweeds next to salmon farm to gobble up the excess nutrient and organic wastes. To date, all scientific studies have failed to demonstrate IMTA's effectiveness.

The future of aquaculture is not in displacing wild fisheries with industrial feedlots that foul coastal ecosystems.

In Canada, traditional fisheries still economically and socially out-perform the aquaculture industry. In 2010, Canada's exports of wild capture fish and seafood products were worth more than \$3.4 billion, three times the value of aquaculture exports. Lobster exports alone almost equal that of aquaculture export. In Atlantic Canada, for every job in aquaculture there are at least 10 jobs in the traditional fisheries.

Fish farming does have a place in the economic mix of communities but it is on land where, as with other industrial operations, the real and total cost of production is paid by the industry and not the environment and traditional fisheries.

Inka Milewski is a marine biologist and science advisor with the Conservation Council of New Brunswick.

[http://alexandramorton.typepad.com/alexandra\\_morton/2012/11/an-excellent-editorial-from-eastern-canada.html](http://alexandramorton.typepad.com/alexandra_morton/2012/11/an-excellent-editorial-from-eastern-canada.html)

The Chronicle Herald, 19 November 2012

Lamont: Fish farm facts don't float

[By BRUCE ERSKINE Business Reporter](#)

Businessman disputes claims of low impact on lobster stocks

Stewart Lamont thinks there is something fishy about Atlantic Canada Fish Farmers Association claims that salmon farms don't have a negative impact on wild lobster.

“They have more nerve than Dick Tracy,” the managing director of Tangier Lobster Co. Ltd. on the Eastern Shore said in an email Monday.

The fish farmers association said Monday in its 2012 year-in-review that lobster populations near a New Brunswick salmon farm have grown dramatically in the past several years.

“Highlights of the report include details about a groundbreaking lobster survey that shows the number of berried female lobsters more than tripled at locations adjacent to a new salmon farm on Grand Manan that was surveyed annually over a period of five years,” association executive director Pamela Parker said in a news release.

“To this point, the data shows that the salmon farms did not have a negative impact on wild lobster populations in this area.”

Large-scale salmon farming has come under fire in Nova Scotia, where planned expansion by New Brunswick giant Cooke Aquaculture in southwestern Nova Scotia and by Scotland’s Loch Duart Ltd. on the Eastern Shore are seen as threats to the lucrative lobster fishery.

Tangier Lobster ships three million pounds of lobster a year to 18 countries.

Lamont, who also sits on the Lobster Council of Canada’s board of directors, questioned how the fish farmers association could celebrate achievements given the problems the industry has faced in Nova Scotia this year, including mass kills of farmed fish stricken with infectious salmon anemia.

“Are we all actually looking at the same industry?” he said, suggesting the association’s lobster survey should be reviewed with skepticism.

Lamont said lobster catches have increased throughout Atlantic Canada by an average of 40 per cent in the last three years for several reasons, including a strong Canadian dollar that has forced fishermen to chase more lobster as they have lost an exchange rate advantage. Lobster stocks have also benefited from a decline in groundfish predators that feed on young lobster, he said. Salmon farms, which use pesticides to control parasites such as sea lice and dump feces on the ocean floor, tend to displace lobsters, Lamont said.

“Over the course of a 16-month production period, as the waste accumulates, lobsters move to other areas.

“We won’t even discuss whether pesticide treatments for lice are destroying lobster larvae in these same areas. Sadly, in some cases we will never know.

“What we do know is that pesticides are lethal in most instances to lobsters in infancy. So, many of us hope for the best but actually fear the worst.”

In an interview from Ottawa Monday, Parker acknowledged that fewer groundfish predators have helped boost lobster stocks.

And while she said she didn’t want to get into a “he-said, she-said” debate, she defended the survey’s findings that salmon farms have not have a negative impact on the lobster fishery in New Brunswick.

“The lobster fishery has increased at the same time as salmon farms increased production,” she said.

Parker said the salmon pens form a canopy to create new habitat for wild fish to hide in and to provide food for lobster.

([berskine@herald.ca](mailto:berskine@herald.ca))

<http://thechronicleherald.ca/business/181708-lamont-fish-farm-facts-don-t-float>

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24 September - "Flotilla Protest"/"Shooting Seals Row"/"Farm Not Welcome" - [online here](#)

11 September - "Dirty Secrets"/"FishyLeaks: Toxic Toilets"/"Disease Risk" - [online here](#)

29 August - "Virus Trackers"/"Compensation Culture"/"Say No to 9 New Salmon Farms" - [online here](#)

8 August - "Legal Strategy"/"Wave of Controversy"/"IHN Virus" - [online here](#)

3 August - "Fatal Virus Detected in BC"/"Fish Farm Quarantined" - [online here](#)

31 July - "IHN Virus Spreads"/"Norway's Olympic Mascot"/"Playing With Fire" - [online here](#)

20 July - "Norwegian Fish Farm Virus Found in BC"/"ISA Confirmed"/"A Fishy Tale" - [online here](#)

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6 July - "CFIA quarantines fish farm"/"Parasite found in Norwegian-owned salmon" - [online here!](#)

4 July - "Parasite-ridden salmon sold in BC stores"/"95% of BC salmon is BAP certified" - [online here!](#)

