

**Show Transcript
Deconstructing Dinner
Kootenay Co-op Radio CJLY
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Title: “Norway British Columbia V (“Organic” Salmon?)

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Jon Steinman: And welcome to the 142nd episode of Deconstructing Dinner, produced at Kootenay Co-op Radio CJLY in Nelson, British Columbia, I'm Jon Steinman.

As promised, for the *first* half of today's episode we'll continue with our ongoing Norway, British Columbia series – a series that is looking deep into the controversial salmon farming industry off the western coast of Canada. While the vast majority of the product is shipped into the United States, the known and unknown impacts of these farms on the *Canadian* marine ecosystem have attracted *many* concerned conservation groups to place this industry clearly on their radar.

On this part 5 of the series, we speak with The Living Oceans Society's Shauna MacKinnon – a Markets Campaigner for the organization based in Vancouver who has been closely monitoring the emergence of “*organic*” salmon – a rather perplexing concept that we'll learn more about on today's broadcast.

Increase Music and Fade Out

The presence of open net-cage salmon farms is an ongoing and contentious debate not only off the coast of British Columbia but around the world where such farms exist. Norway, Chile, Scotland and Canada are some of the most notable locations for these controversial operations.

And by all accounts these farms are industrial factory farms with many of the sites in Canada being home to half a million fish in a surface area no larger than a football field. The farms interact directly with the marine environment raising concerns over their concentrated accumulations of waste, disease and parasite transfer between the cultured and wild fish, animal welfare concerns, and the list goes on.

And so when salmon eaters around the world are slowly being introduced to salmon labeled as *organic*, we certainly need to inquire into what *exactly* that means. Salmon after all are most *commonly* recognized as a *wild* food,.. and is *wild* food not as *organic* as any?

Sharing her thoughts on the subject with Deconstructing Dinner is Shauna MacKinnon - a Markets Campaigner with The Living Oceans Society - Canada's largest organization focusing exclusively on marine conservation issues. Based in Sointula, a small fishing village on the Central Coast of British Columbia, the Society was started in 1998 and has long been a vocal critic of open-net cage salmon farms.

Shauna spoke to us from Vancouver

Shauna MacKinnon: Well when you see an organic labeled salmon in the grocery store in the US or in Canada, you're not actually seeing a product that's been certified to North American organic standards. Right now the only organic certification for salmon is actually from European certifiers but in fact the rules around organic certification in Europe allow for the use of antibiotics and pesticides to treat livestock so salmon is no exception.

Most of the organic famed salmon products that you see in the shelves these fish are grown in net cages because the same way the industry in BC is growing them. And because they are grown in net cages they are exposed to disease and parasites and these continue to be persistent problems on the farms so the animals, if they do become infected with sea lice or with any type of disease, these organic farms are still able to treat them with the same chemicals that are used in the production, in regular conventional production here.

So when you see an organic farmed salmon product your not actually seeing a product that's much different than the run of the mill, industrial, conventional farmed salmon that are causing problems in our own backyard. So that is something that is a surprise to many consumers also many of the businesses that are selling the product are selling it because they think its better but it's really just not the case.

JS: With no *certified* organic salmon being produced in North America, Shauna shares how *prevalent* organic labeled salmon is on grocery store shelves and restaurant menus.

SM: It definitely is out there. It's hard to track what the prevalence is because it isn't tracked by import or export statistics. I definitely know that its being sold in a lot of specialty fish shops and many restaurants are also starting to use it in their supplies as well. Probably not so much on the west coast and the Pacific northwest but definitely it's being used in California and Ontario. So it's quite prevalent.

JS: In *British Columbia* where controversy within the salmon farm sector has been widespread, an association of industry groups has been working diligently to create a certified organic standard *for* farmed salmon. Throughout the 8 years of those efforts the Living Oceans Society has been actively involved.

SM: There are not standards for organic aquiculture in North America yet but there has been a push to develop them. In British Columbia the push for organic certification of

salmon has really been an eight year ongoing push from industry players to get organic certification and its been unsuccessful in BC.

Up until this year when the national program for organics will be put into place, organic certification has been regulated at the provincial level. So BC salmon farmers were attempting to get organic standards for salmon but they had to work through the provincial organic standards body. And they opened up the question to a lot of public input, a lot of scientific input, and after a protracted debate that has taken place over 8 years they still were not successful in coming to a set of standards that everyone could feel comfortable with passing. And what it had taken was for the board members to agree that these standards were strong enough, that they wouldn't be negatively impacting the broader standards so it was really important for them to make sure that any organic aquaculture standards would be on the same level of certified organic livestock standards for terrestrial production. So that has been a debate that living oceans society have been involved in.

JS: The Certified Organic Associations of BC the COABC is no longer involved in determining whether a standard for farmed salmon should exist, and Shauna further explains why and who is *now* involved in moving these efforts forward.

SM: Well what actually happened was the BC certifying organic body, the board members decided about a year or two ago that they didn't want to go any further in this process that they had spent so much time discussing this and were not able to come to an adequate set of standards but they decided to stop working on it and at that point the BC Ministry of Agriculture and Lands which is also responsible for promoting aquaculture, decided to get involved and they tried to keep on with this push. They were also unsuccessful in completing that. So now it will have to go through a national process similar to what the national organic standards for food and crop production had to go through that but the agency ,the government agency, that's now pushing for the standards is actually the Department of Fisheries and Oceans and they've been working with industry and actually supporting, financially, the development of industry standards, which will then go to the national standard setting process.

JS: The Living Oceans Society has also been involved in the United States, submitting their comments on the development of an organic standard for farmed salmon underway there. In November 2008, Shauna co-authored a letter to the National Organic Standards Board in the US sharing their concerns.

SM: We've also been involved in the US, the national organic standards board in the US has been working on organic aquiculture standards and they're actually further along than we are in Canada. They have a draft set of standards that the board members have put forward but in those standards, clearly stated and clearly designed the standards to ensure that net caged salmon production, like what we have here in the Pacific Northwest that's causing so much harm to wild salmon, cannot be certified as organic. We have worked with our allies in the US as well and helping to get more public involvement from Canada

and the US in putting information to that process to make sure that a high bar of standards was put in place.

JS: Back here in *Canada*, and as introduced earlier, for about a year now the Federal Department of Fisheries and Oceans (The DFO) has been working *with* industry to assist them in moving towards the creation of a national standard, however, the DFO is *not* the body that would *set* the standard, that would instead end up in the hands of the Canadian General Standards Board, and so it remains to be seen whether the Standards Board will too encounter the challenges faced by British Columbia's certifying body – the COABC. We asked Shauna what the primary challenges were *for* the COABC that led *them* to give up on the decision-making process.

SM: There definitely were a few issues and the same type of issues that have come up in the US as well. One of the issues is the fact that wild salmon are a migratory species. The average salmon travels over 1000 kilometers in its lifetime so confining that type of migratory species to a small pen, it's really difficult to make the argument that its being raised in a way that's natural to its behavior.

So that was a really huge stumbling point for the COABC. In the US the national organic standards board was not so concerned with that but their concerns focused more heavily on the impact to wild salmon from sea lice and prevent the spread of disease and just the inability of net cages to control disease and prevent the spread to wild fish. The other element that has been a huge issue is the use of wild fish in feed. While this is quite a confusing point for consumers and for the public wild fish cannot be considered as organic because they are free ranging and you can't control the diet that they are eating so organic standards are all about being able to control the inputs and outputs of the production system. So wild fish themselves could never be considered organic but then that raises the question of how do you consider a farmed fish that's eating wild fish as a main part of its diet to be organic so that was a big stumbling block in BC.

JS: This is Deconstructing Dinner and part five of our Norway British Columbia series – a series exploring the controversial salmon farming industry of the western coast of Canada.

We're hearing from Shauna MacKinnon – a markets campaigner with the Living Oceans Society – a vocal critic of the sector.

Shauna has introduced a number of concerns as to *why* the Society believes the public should be weary of salmon labeled as *organic* and why certifying bodies have found it so difficult to agree upon standards for a certified organic sector that is trying to develop itself here in North America.

Certainly the *feed* fed to the farmed salmon is a critical piece of this organic salmon equation, and Shauna expands on the notion of feeding wild fish to farmed salmon and then calling it organic.

SM: The use of forage fish and the need to have more wild fish being eaten by farmed salmon or other types of farmed fish that are a high trophic level than you can actually produce is a huge cause of concern because from a sustainability perspective if you have a type of production that's actually using more protein than it's producing it's very difficult to argue that that could be sustainable or something that is not causing an environmental impact which is one of the main goals of organic production. So that is a definite issue that cannot be addressed by current production standards. So in the US the standards that they decided to go with demand at least a 1:1, fish in fish out, standard so that's something that the Living Oceans society supports as a baseline and if farmed salmon is to be included in any type of Canadian standard, then they would not be able to meet that at the moment so we would hope that would be a baseline bar for what we talk about as sustainable or organic aquaculture.

JS: Perhaps the most well known of concerns facing the industry as a whole are sea lice and the unnatural incubation of this parasite *on* the farms and the risks that they pose to wild juvenile salmon passing by the farms. We asked Shauna MacKinnon if sea lice risks to the passing wild salmon would be any different in a proposed *organic* system.

SM: For the proposed standards in the US, one of the restrictions that they put was net cages could not be used in areas where there could be impacts on wild fish migration or reproduction. So in an area like BC where we have a significant body of scientific evidence showing that there are impacts from these farms on wild fish, this would be an area where they would not be able to operate. In Canada I would hope that we would have the same type of standards but my concern is that because the Department of Fisheries and Oceans, who as part of their portfolio, is to be protecting wild fish but they are also actively promoting aquaculture. The fact that they are financing industry to develop these standards, the concern is that they would obviously want to operate on both coasts where we have information that sea lice from these salmon farms are impacting wild fish.

JS: Now one of the group's making themselves heard and *encouraging* the emergence of certified organic salmon is the BC Salmon Farmers Association (the BCSFA)– the trade group representing British Columbia's salmon farming industry. In late 2008, the BCSFA published a comment on their web site in *support* of creating a standard for organic salmon. The commentary sought to compare the existence of organic standards on-land to those that they would like to see exist in the *marine* environment. One paragraph in particular reads this, "Land farms are open to the environment, wild animals, animal and airborne pests and diseases, in *exactly the same way* as aquatic farms. The risk of disease and parasite transfer is real in both cases. Whether this risk can be managed in a manner conducive to organic certification on ocean farms should be judged in accordance with the impact of land-based farms on terrestrial wildlife"

The Living Oceans Society's Shauna Mackinnon responds

SM: This quote really I think is a falsehood that the salmon farming association has definitely tried to perpetuate this myth that there's no difference farming in water than

farming on land. But it's absolutely a completely different situation. Just take one example with sea lice - the impact of sea lice in a net caged farm from one farm, and the amount of sea lice that's produced on that farm because the farmed salmon are in close proximity to each other, sea lice numbers breed very quickly, and even with a fairly low level of sea lice per farmed fish, when you have 500,000 salmon in a farm that quickly becomes a huge number of sea lice and we've seen through scientific research that the impact of that farm, the sea lice clouds so to speak is up to 70 kilometers away so the impact of each one of those farms, or the footprint of each one of those farms is huge and is impacting wild fish for many, many kilometers and on land we just don't have the same type of dynamic of having farmed and wild species of the same type in close proximity transferring disease and parasites and if you look at the bio-security measures that are demanded of on-land intensive livestock operations those are just not at all, not even close to what's being followed in the water for these net caged farms. So it's no surprise really that we do have these massive problems with net caged farmed salmon because there is no bio-security measure to separate or control disease and parasites passing between the wild and farmed, so the Salmon Farmers Association and this assertion that it is the same is just a falsehood. To try and make this comparison between well there could be organic or better management using a net caged system its untrue because organic management really depends on being able to have control what's being inputted and outputted from a farm system and without that control it can't work.

JS: Shauna MacKinnon.

As mentioned earlier, the efforts to introduce an organic standard for farmed salmon in Canada has been led by industry players. Certainly the BC Salmon Farmers Association is one of those players, but the most active though is a group calling itself the Pacific Organic Seafood Association (POSA). One of the Association's founding members and the only producing any notable production of finished product, is Creative Salmon, located off the Western Coast of Vancouver Island near the community of Tofino. Creative Salmon happens to be one of only a few *Canadian*-owned companies. Another very active member of the Association is Taplow Feeds.

Shauna Mackinnon shares her thoughts on the activities of POSA.

SM: Well POSA is the Pacific Organic Seafood Association, they're based here in BC, and it's a number of industry groups that are interested in organic certification so these businesses would like to see organic certification for the products so that they can receive a premium for their products. From our perspective, their motivations are quite clear for why they would like to see organic certification. They feel like if they do things a little bit differently they can have this organic brand which would be very powerful for them in the marketplace.

JS: Now Canadian-owned Creative Salmon has for a number of years been seeking to operate their farm sites following the organic standards that POSA is proposing become the *certified* standards. For Creative Salmon however, this has not been an easy process. To learn more about the company's efforts Deconstructing Dinner had scheduled an

interview *with* Creative Salmon but their General Manager cancelled the interview the day before the scheduled time. No reason was given as to why.

But there's quite a lot of information about Creative Salmon out there... The company has been in the middle of a *number* of incidents that don't seem to bode well for their *organic* intentions, and certainly would not be of help to *any* salmon farm business regardless of the label on the final product.

In 2000, as an example, a mass grave of more than 15 sea lions was found in Tofino Inlet. The sea lions were confirmed to have been shot by employees at the Creative Salmon farms. Fish farms often obtain a license to dispatch marine mammals that threaten the fish in their net-pens.

Creative has been cited numerous times for non-compliance with regulations. In 2003, the BC Ministry of Water, Land and Air Protection cited Creative Salmon with non-compliance violations at 3 of its 4 active farms in Clayoquot Sound. The infractions included disposal of net waste, fuel storage and containment, and site registration. And also in 2003, BC Ministry of Agriculture, Food and Fisheries cited Creative with non-compliance violations of site configuration and/or biomass at three of its farms. In 2002, the same government agency reported 9 cases of non-compliance at Creative's farms, including a failure to report escapes at its Eagle Bay site.

In 2005, fish from Creative Salmon's sites tested positive for the presence of Malachite Green – a known carcinogen that can be used as a fungicide in the raising of farmed salmon. With malachite green *not* being permitted for food production in Canada, the incident did not go unnoticed by the public and conservation groups. The company maintained that they had never *used* the product and the issue has since passed. But then in late 2007, the United States Food & Drug Administration – the FDA, performed a random test of Creative Salmon's fish as they passed across the border and those *too* tested positive for traces of malachite green. The company continued to maintain that they had never used malachite green.

Creative Salmon has *also* been involved in a lengthy and ongoing legal battle after taking a well-known opponent of open-net cage salmon farms to court in a defamation suit.

Challenges continued into the first months of 2007 when 110 sea lions died at Creative's salmon farms, including 51 California sea lions found entangled in the nets and drowned at one of their farm sites in Tofino Inlet.

The company's feed supplier Taplow Feeds has also run into difficulties both in 2007 and 2008 in *accessing* certified organic wheat for their feed and have instead resorted to conventional wheat on both of those occasions.

Also in 2008, the company found trace levels of the antibiotic florfenicol in their fish – which, under normal organic food standards would not be permitted.

and perhaps it was these, among other concerns, that led the General Manager of Creative Salmon Spencer Evans – to leave the company in 2008. One of the most telling comments we came across *made* by Evans was in an interview for the magazine BC Business in which he declared that the goal to *achieve* organic status is “toast”. Evans believes that conservation groups have forced the proposed standards to be so high, that open-net cage salmon farms would not be able to attain such standards. Creative Salmon nevertheless continues to promote itself as working to become certified organic.

Here again is the Living Oceans Society’s Shauna Mackinnon, sharing her thoughts *on* Creative Salmon and some of the other players either seeking to produce certified organic salmon or who already are.

SM: Creative Salmon, one way that they do differ from the other companies operating in BC is that they are producing chinook salmon, so it is a pacific salmon species. The benefits of this is they seem to be more resistant to sea lice infection which would be a positive but in fact Creative Salmon has been doing monitoring on their farms for sea lice but they have not shared that data publically and they’re also operating in the Tofino Biosphere Reserve so the biosphere reserve committee has actually been requesting to have this sea lice data but they’ve been unwilling to share it. This gives an example of the resistance to public scrutiny of the farms and to sharing with their neighbors and other people who have a vested interest in production of the local area. For other companies involved, Yellow Island Aquaculture is also a member of POSA and they really are a very very tiny operation that is just sort of experimenting with ways of producing salmon and are not a major producer and I think they got involved with the idea of this promotion of organics as a way of trying to find maybe a better way of producing this product but I don’t know that they’re actually actively pursuing this anymore and I really think that at this point it’s Creative Salmon and Taplow Foods but I think also even though POSA has been the main champion of organics so far in BC, the biggest producer in BC, which is Marine Harvest, they have organic certified farms in Ireland which are basically using exactly the same kind of production that they are using in BC so one of the concerns is that with organic certified standards if the bar is set low then all of the production here could go for organic certification.

JS: This is Deconstructing Dinner

Now the Pacific Organic Seafood Association drafted a set of standards in 2004 that they have posted on their web site. POSA did not respond to our email invitation to appear on the show, and no phone number is listed on the site.

But of interest in their standards is the section on Animal Welfare, which would require a certified organic salmon farm to “meet the salmon’s physiological and behavioural needs”

Now with salmon (as mentioned earlier) being a nomadic species that travel thousands of miles as part of their annual migration, it really doesn’t appear that *any* salmon farmer

would *ever* be able to come close to being certified organic so long as the fish are in cages.

And perhaps the objectives of this push to create organic standards are made even *more* questionable upon coming across a section of *Creative Salmon's* web site under the heading "organic". The page summarizes some of the ways that the company operates using what they *call* organic principles, with one heading reading, "animal welfare". Listed there are the Five Freedoms... a standard for animal welfare that has existed for decades and is used around the world as a benchmark. The five freedoms consist of Freedom from thirst and hunger, freedom from discomfort, freedom from pain, injury and disease, freedom from fear and distress and freedom to express normal behaviour. Yet upon closer look at *Creative Salmon's* list of five freedoms, it appears that the company has conveniently *changed* one of the freedoms to suit their *own* needs... Instead of "freedom to express normal behaviour"... *Creative Salmon* has changed it to read, "Freedom from unnecessary restriction on behaviour". Seemingly a way for the company to argue that keeping salmon in cages is "necessary".

soundbite

Another questionable standard proposed on the POSA web site are "social objectives" – under which reads... "The encouragement of the use of local resources and services".

The Living Oceans Society's Shauna Mackinnon responds to this objective

SM: The one thing that's very interesting about that objective is that in Canada it's actually not legal to use forage fish as feed for farmed fish so one of the products that's being used in farmed salmon feed is herring and herring is caught for roe in BC and so that's just for the eggs and then the rest of the herring, the entire fish, is considered a waste by-product so they are able to incorporate that into feed. But the reason why we have this regulation in Canada is to prevent the fishing of one type of fish to be feed to a higher trophic one which is not as an efficient of a use as wild fish so its quite funny actually that they would include this as an objective to use local resources but one of the local resources that they are using, they are actually using it in a way that is counter to the regulations that exist, and really in general, if you're looking at an organic farm system, what you're ultimately looking for is a system that can use as many things on site within the farm system and reducing the amount of off-farm inputs that you need to bring in and wild fish are ultimate users of local resources - they do all the work for you. So one might ask the question why would you be trying to raise a farmed fish in a way which could never be more efficient than what wild fish are doing. There is definitely a role for sustainable aquaculture in meeting our food needs but when it comes to farming wild salmon I think wild salmon has it beat.

JS: And that was Shauna MacKinnon – a markets campaigner working with the Living Oceans Society in Vancouver. In closing out this part five of our Norway, British Columbia series here on Deconstructing Dinner, we'll leave you with some final thoughts

from Shauna before we move into the second half of today's show and part six of our ongoing series on co-operatives as an alternative to our industrial food system.

SM: As I mentioned earlier, Fisheries and Oceans Canada is now helping to issue organic standards for aquaculture that would be taken national and this is a new development, they're actually still doing this behind closed doors and very soon it will have to become a public process and so I would encourage everybody that cares about organic food and the sustainability of both our land-based ecosystems and our marine ecosystems to actively get involved when that becomes a public process. Because it's very important not just for protecting wild salmon but also for protecting the integrity of the organic food system and what organic farmers in Canada have been working for decades to build. So you can keep following this issue on the livingoceanssociety.org website or also the farmedendangerous.org, which is the website of the Coastal Alliance for Aquaculture Reform.

soundbite

JS: And this is Deconstructing Dinner – a syndicated weekly one-hour radio show and Podcast produced at Nelson British Columbia's Kootenay Co-op Radio. I'm Jon Steinman. Today's broadcast is, as usual, archived on our web site at deconstructingdinner.ca

Show continues with half-hour segment on the Park Slope Food Co-op