

Sea Lice Research Funded & Broadcast by the David Suzuki Foundation: A Critical Analysis

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Mr. Robinson,

Below, please find a draft of an article that I have written regarding the sea lice research funded and publicized by the David Suzuki Foundation. I will be trying to get this published. I will also post this at my blog: www.fair-questions.com.

If I have presented anything here that is factually incorrect, or if I have missed any important points, please let me know this week. If I do not hear from you by the end on Thursday, March 26, 2011, I will assume that you do not dispute any of the points that I have raised here.

As before, I can be reached at 604.618.8110.

Sincerely,
 Vivian Krause

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"[Do not purchase farmed salmon raised in open net cages](#)," says the David Suzuki Foundation. Wild salmon gets promoted but not farmed salmon. "[Its poison!](#)" David Suzuki once told a conference in Toronto.

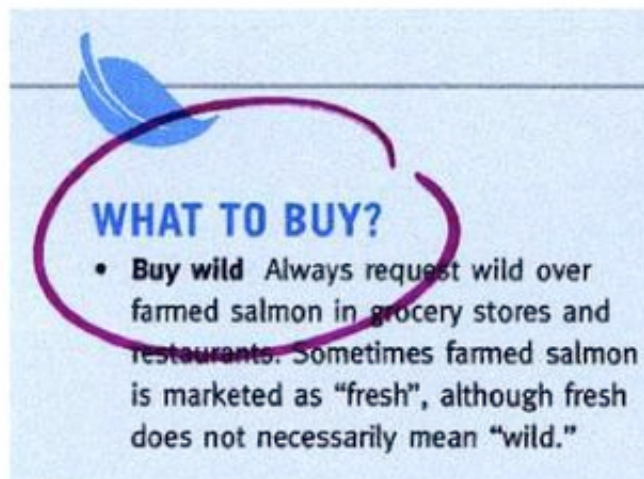
The David Suzuki Foundation even went so far as to say, "[Phone your local hospitals and find out if farmed salmon is served to patients.](#)"

At the same time that David Suzuki and his foundation have been telling people "[don't buy farmed salmon ANYWHERE](#)," the foundation says "[buy wild](#)."

In North America, about 95 percent of "wild" salmon is Alaskan so when David Suzuki urges us to eat "wild" salmon, in essence what Canadians are being told is eat American salmon.

The fact is, [nearly half \(49 percent\)](#) of Alaskan "wild" salmon are ranched. These salmon are not wild. They're born in a bucket, fed pellets, grown in tanks and raised in net pens for up to half their lives before they are put in the wild. In essence, Alaska is using the Pacific Ocean as a salmon ranch.

If Alaska didn't ranch salmon, the 2010 salmon harvest would have been only 78 million fish, not 169 million.



Source:
 David Suzuki Foundation Newsletter
 Summer 2005

The ex-vessel value would have been only [\\$366 million, not \\$534 million](#). Salmon ranching increased the ex-vessel value of Alaskan commercial fisheries by a whopping \$168 million. Not only that, hatchery-born salmon also accounted for an estimated [270,000](#) of the so-called "wild" salmon caught in Alaskan sport fisheries.

Just because Alaska doesn't call it farming doesn't mean that Alaska isn't growing salmon. In fact, Alaska actually grows **more than twice as many** salmon as British Columbia. Unless we're prepared to settle for substantially less salmon for sport fisheries and for food, growing salmon is a necessity. The question we should be asking is what is the best way to go about it.

No doubt about it, during the early years, the environmental impacts of salmon farming were unacceptable. Since then, salmon farming has improved a lot. With better anchoring and staff training, many farms have had no escapes in five years or more. Thanks to under-water cameras, the use of feed has been reduced by half. New vaccines mean that the use of antibiotics is one tenth of what it used to be.

Of the two ways to grow salmon (farming vs. ranching), farming is advantageous in the sense that it avoids the risks of over-fishing, ghost nets, by-catch and the strains of ocean-ranching on the food chain and the carrying capacity of the Pacific ecosystem. But that's not what we hear from the David Suzuki Foundation.

Salmon farming entails "[devastating costs](#)" says the David Suzuki Foundation but when it comes to Alaska's salmon ranching, the foundation, and most environmental groups, seem to look the other way.

In a recent study by Canadian Business, two towns on Vancouver Island ranked among the worst places to live in Canada. [Port Alberni was #172](#) out of 180. [Campbell River was #175](#). In both towns, unemployment was over 10 percent. Both are places where salmon farming could provide hundreds of year-round, well-paying jobs but one badly handled controversy after the next has paralyzed this once promising industry. Meanwhile, since 2003, farmed salmon exports from Norway [have doubled](#). Norwegian companies are succeeding but Canada, despite being right next door to the world's largest seafood market, is losing out.

On top of notoriously bad P.R., what has most hurt the B.C. salmon farming industry is the perception, fomented by the David Suzuki Foundation (DSF), that sea lice from salmon farms put wild salmon at serious risk. This perception, now widely held, stems from studies done by the Centre for Mathematical Biology (CMB) at the University of Alberta in Edmonton.

More than [500 news stories](#) have reported this sea lice research. The lead researcher was Dr. Martin Krkosek, a graduate student of Dr. Mark Lewis.

The biggest problem with alarm over sea lice is that it is completely at odds with the excellent returns of wild salmon in recent years. In 2000, despite 13 years of salmon farming, the return of wild pink salmon in the Broughton Archipelago was the highest on record since the 1950s. The Broughton lies between the north tip of Vancouver Island and the mainland and is ground zero in B.C.'s salmon farming controversy.

In the Broughton, the largest pink salmon producing watershed is Glendale Creek. In 2004, pink salmon returns to the Glendale were the third highest on record. In predicting extinction due to sea lice, the CMB excluded Glendale data.

In 2009, in the very same area where extinction due to sea lice was predicted, wild pink salmon returns were so good that [commercial fishing](#) took place. DSF didn't say boo. Instead, DSF and other environmental groups shifted their focus to low returns of Fraser sockeye. So much fuss was raised that Prime Minister Stephen Harper established a public inquiry, [The Cohen Commission](#), costing \$15 million. The following year, 30 million Fraser sockeye showed up. That historic return was the best in nearly 100 years.

The David Suzuki Foundation has described its sea lice research as [undeniable](#), [compelling](#), [irrefutable](#) and proof. "These (sea lice) data, due to the massive sampling effort and the unequivocal nature of the conclusions, satisfy even [the most conservative benchmark for proof](#)," says the David Suzuki Foundation. The fact is, that study was done over [14 days](#). That's hardly a massive effort. According to the company that operates the salmon farm under study, harvesting was in process so during the last part of the data collection, there were apparently [no fish at the farm](#).

The David Suzuki Foundation reports, "[up to 95 percent of wild juvenile pink and cum salmon are dying from sea lice](#)" but mortality in the wild was never measured and reported. Never. Hypothetical, mortality estimates were computer-generated in Edmonton. The CMB's published mortality prediction was "[9 - 95 percent](#)." The David Suzuki Foundation selectively publicized the CMB's prediction of up to 95 mortality but not the fact that it could be as low as 9 percent.

According to Dr. Richard Beamish, a federal government scientist and member of the Order of Canada, the survival rate of juvenile wild salmon in the Broughton in 2002 was an unprecedented high of 34 percent. If 34 percent survived, it is mathematically impossible that "up to 95 percent" were killed by sea lice, as the David Suzuki Foundation has claimed.

Studies from the 1960s — when there were no salmon farms — found that between 59 and 77 percent of juvenile salmon die within the first 40 days of life. And yet, the David Suzuki Foundation claims that sea lice from salmon farms "[frequently kill over 80 percent](#)." Again, the numbers don't ring true.

Sea lice are found on many species of wild fish, including herring. A method to trace the origin of sea lice is under development but currently does not exist so its methodologically impossible to distinguish between sea lice that originate from a fish farm and those that come from other wild fish. It follows that the David Suzuki Foundation's many claims about "farm-origin" sea lice, are flagrantly unsubstantiated (read: bogus).

In science, unsubstantiated claims lack integrity. Getting such claims published in a prestigious, peer-reviewed journal does not change that. The Natural Sciences and Engineering Research Council of Canada (NSERC) states that [any action that is inconsistent with integrity is regarded as misconduct](#).

As for the David Suzuki Foundation, its web-site says, "[We do not assume responsibility for omissions and inaccuracy of our materials](#)."

In stark contrast to the David Suzuki Foundation and the CMB, other scientists believe that wild salmon populations are actually increasing. Dr. Kenneth Brooks and Dr. Simon Jones concluded, "When all of the Broughton's watersheds are considered, pink salmon stocks are seen to have steadily increased over the last five years with [no indication that they are headed for extinction](#)." Brooks is an aquaculture consultant while Jones is a

DFO scientist. [Twenty scientists](#) endorsed their view but unlike the alarming claims coming from the David Suzuki Foundation, this reasoned conclusion from 20 international scientists didn't make the news.

Back in 2007, thanks to Google, I unexpectedly found a [University of Alberta document](#) in which the CMB reported that it had a "research partnership" with SeaWeb, an American organization based in Maryland. This was not mentioned in scientific publications nor in press releases.

Since 2000, the David and Lucile Packard Foundation ("Packard"), based in California, has funded SeaWeb as part of its Marine Fisheries program. This program has a focus on "[the U.S. arctic](#)" which presumably is Alaska. U.S. tax returns show that Packard has paid SeaWeb [\\$23 million](#) since 2000. That included \$9 million for Seafood Choices and \$6 million for COMPASS which publicized the CMB's sea lice research in 2005 and again in 2007.

Seafood Choices is a marketing strategy with three components: 1) Marine Stewardship Council (MSC) Certification, 2) Large U.S. Buyers, and 3) "Context Setting." In 2006, under pressure from Packard-funded organizations, [Wal-mart committed](#) to sourcing MSC-certified fisheries of which Alaska accounted for 95 percent of the volume.



Source: The David and Lucile Packard Foundation

Since 2003 and all the bad press over farmed salmon, consumers and restaurants have switched to "wild" salmon, most of which is Alaskan. The ex-vessel value of Alaskan "wild" salmon has more than tripled from \$125 million in 2002 to \$409 million in 2008.

At the same time that SeaWeb was paid to co-ordinate Seafood Choices, the Gordon and Betty Moore Foundation ("Moore") paid SeaWeb to co-ordinate an "antifarming campaign" with "science messages" and "earned media." The purpose of this campaign was "... to shift consumer and retailer demand away from farmed salmon," [U.S. tax returns say](#). When concerns were raised about this grant, it was [quietly re-written](#) along with three other grants for a total of \$3.6 million.

In 2007, sea lice research was published in the journal *SCIENCE*. At the time, the editor-in-chief was Dr Donald Kennedy, a [trustee](#) of the Packard foundation. Since 2000, Packard has spent [\\$88 million](#) on its [Market Intervention strategy](#) that sways consumers and retailers towards wild fish and away from the competing product: imported farmed fish, especially farmed salmon. That included \$2.7 specifically for two campaigns ([Farmed and Dangerous](#) and [Pure Salmon](#)) which did media relations for the CMB's sea lice researchers.

Sea lice research has also been reported in [Conservation Biology](#), a journal [created by the Packard foundation](#), and PLoS ([Ford et al., 2008](#) and [Price et al., 2010](#)), a journal created with [\\$ 9 million](#) from Moore.

Over the years, Packard has paid [\\$546,863](#) to Fenton Communications, a P.R. company. "To move an industry, target one company" and "make your case with hard science" advises Fenton. Indeed, that's exactly what the "antifarming campaign" has done.



The alleged danger of “farm-origin” sea lice is the basis of “[Ingredient for Extinction](#),” the tag-line of Smarten Up Safeway, a campaign that sent more than [30,000](#) faxes telling the CEO of Safeway to stop selling farmed salmon. Safeway's real motto is "Ingredients for Life."

The day before the CMB's sea lice research was published in *SCIENCE*, SeaWeb sent out an [e-mail](#) saying that it had worked with the CMB on media outreach. Within two weeks, [250 news stories](#) reported the sea lice research. Two thirds of the stories ran **before** the study was officially published. Ahem.

Media-ready photographs of sea lice have become the mushroom cloud of salmon farming. Two of the CMB's sea lice researchers, [John Volpe](#) and [Alexandra Morton](#), are profiled at SeaWeb's web-site as photographers.

The CMB has reported that its sea lice research was funded by the Natural Sciences and Engineering Research Council of Canada, the David Suzuki Foundation and other sources. What the CMB and DSF didn't mention is that [funds granted through DSF were also from the Gordon & Betty Moore](#) Foundation. Was the David Suzuki Foundation's sea lice research and its media coverage part and parcel of the "science messages" and the "earned media" of a multi-million dollar, American marketing campaign? That's a fair question.

In a [recent op-ed in the Vancouver Sun](#), the David Suzuki Foundation seems to soften its stance. "Salmon farming has long been a controversial issue, especially in British Columbia. But is the tide starting to turn? We think it is," says the foundation. That's good but not good enough.

David Suzuki should publicly clarify that contrary to his foundation's claims that were broadcast far and wide, the sea lice research funded and publicized by the David Suzuki Foundation does not show and has never shown that sea lice originating from salmon farms cause high levels of mortality among juvenile salmon in the wild.
