The case of the missing sea lice

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Marine Harvest Canada

It is impossible to tell if sea lice on wild salmon originate from farmed salmon.

***Why did the David Suzuki Foundation remove Web pages on the dangers of farmed salmon?***

**By Vivian Krause**

For more than a decade, the David Suzuki Foundation has run an aggressive campaign against farmed salmon. “It’s poison!” David Suzuki told a conference in Toronto. “Phone your local hospitals and find out if farmed salmon is served to patients,” said a brochure from his foundation.

The Suzuki Foundation distributed a brochure titled *Why You Shouldn’t Eat Farmed Salmon*. It features David Suzuki’s photo prominently on the front page. Since last February, however, that brochure — along with 20 press releases and Web pages about salmon farming — have been quietly removed from the foundation’s website. Gone.

In a recent op-ed in *The Vancouver Sun*, moreover, the foundation’s marine expert, Jay Ritchlin, wrote: “Salmon farming has long been a controversial issue, especially in British Columbia. But is the tide starting to turn? We think it is.” After all these years of anti-salmon-farm activism, the David ­Suzuki Foundation appears to be softening its stance. But why?

Internet archives show that last February, 16 press releases and Web pages about salmon farming were removed merely hours after I put on my blog a detailed letter to David Suzuki in which I asked questions about the funding and scientific weakness of the Suzuki Foundation’s position.

Two claims have been at the heart of the campaign against farmed salmon. One is that farmed-salmon consumption should be limited because of high levels of contaminants such as PCBs. Mr. Ritchlin now says the levels of contaminants “have been reduced.” Farmed salmon, once “poison,” is apparently not so poisonous any more.

What Mr. Ritchlin didn’t mention is that contaminant levels in farmed ­salmon were never high to begin with. But that’s another story.

My focus here is on the other Suzuki claim, that sea lice from salmon farms pose a serious threat to wild salmon. Both claims stem from studies published in the prestigious journal *Science* and in both cases the research has been harshly criticized and refuted within the scientific community.

Even before sea lice research began, the David Suzuki Foundation claimed that sea lice from salmon farms had decimated wild pink salmon, leading to an “ecological disaster.”

One of the biggest problems with the alarm over sea lice is that it is at odds with the excellent returns of wild salmon in recent years. In 2000, despite 13 years of salmon farming in the vicinity, the return of wild pink salmon in the Broughton Archipelago was the highest on record since the 1950s. The Broughton is ground zero in B.C.’s salmon-farming controversy. 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. In 2010, the return of Fraser sockeye was the best in nearly 100 years.

Sea lice research, partially funded and publicized by the David Suzuki Foundation, was done at the Centre for Mathematical Biology (CMB) at the University of Alberta. The lead researcher was Dr. Martin Krkosek, a graduate student. His supervisor was Dr. Mark Lewis. According to Dr. Krkosek, more than 500 news items reported the alarming conclusions of the CMB’s sea lice research.

The alleged danger of “farm-origin” sea lice is the basis of “Ingredients for Extinction,” the tag line of a boycott campaign by the David Suzuki Foundation and other environmental groups. This campaign sent more than 30,000 faxes to tell the CEO of Safeway to stop selling farmed salmon.

The David Suzuki Foundation has ­described its sea lice research as ­undeniable, compelling, irrefutable and proof. If the sea lice research from the Suzuki Foundation actually shows what the foundation claims, I would agree that salmon farms should be closed. But as I have explained in a ­series of detailed letters that I have sent to David Suzuki over the past four years, my opinion is that his sea lice ­research does not show what the foundation says it does.

The David Suzuki Foundation ­reported, “up to 95% of wild juvenile pink and chum salmon are dying from sea lice.” A huge number. But mortality in the wild was never measured and reported. Never. Hypothetical mortality estimates were computer-generated at that great salmon think-tank, the Centre for Mathematical Biology at the University of Alberta. The published mortality prediction was actually estimated at between 9% and 95%. The David Suzuki Foundation selectively highlighted the prediction of up to 95% mortality, but downplayed the fact that the study suggested that mortality could be as low as 9% or even lower.

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 it is methodologically impossible to distinguish between sea lice that originate from a fish farm and those that come from other wild fish. It follows that claims about “farm-origin” sea lice are flagrantly unsubstantiatable.

Back in 2007, thanks to Google, I unexpectedly found a University of Alberta document that reported that the sea lice researchers at the Centre for Mathematical Biology had “research partnerships” with a number of organizations which included SeaWeb, a U.S. environmental organization based in Maryland. This partnership was not mentioned in scientific publications.

SeaWeb gets money from a variety of interesting sources. Since 2000, the David and Lucile Packard Foundation, 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 a marketing strategy called Seafood Choices and $6-million for Communication Partnership for Science and the Sea (COMPASS), a program that helped publicize the CMB’s Canadian sea lice research around the world.

At the same time that SeaWeb was funded to co-ordinate Seafood Choices, the Gordon and Betty Moore Foundation funded SeaWeb to co-ordinate an “anti-farming 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 studies on both contaminants and sea lice were published in *Science*, the editor-in-chief was Dr. Donald Kennedy, a trustee of the Packard Foundation. The current editor, Dr. Bruce Alberts, is a trustee of the Moore Foundation.

The University of Alberta scientists reported that their sea lice research was funded by Ottawa’s Natural Sciences and Engineering Research Council of Canada, the David Suzuki Foundation and other sources. What the sea lice scientists didn’t mention is that some of the funding from the David Suzuki Foundation originated from the Moore Foundation, the same foundation that paid SeaWeb for the “anti-farming campaign” with “science messages” and “earned media.” The Moore Foundation, in an email to me, has said that it doesn’t know precisely how much of a $450,000 grant to the David Suzuki Foundation was re-granted to the CMB for its sea lice research, but that this amount was “less than $100,000.”

Given that for more than 10 years, the David Suzuki Foundation has played a leading role in fostering the opinion that sea lice from salmon farms are a serious threat to wild salmon, it is not good enough for the foundation to simply and quietly remove the press releases that started the whole sea lice controversy in the first place.

My hope is that David Suzuki is big enough to admit that contrary to his foundation’s claims that were broadcast far and wide, its sea lice research never did show that sea lice originating from salmon farms cause high levels of mortality among juvenile salmon in the wild.

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