**Fish not foul**

**Fish farming could prevent extinctions and feed the planet. A former Greenpeace activist asks: Why do so many environmentalists oppose it?**

By Patrick Moore, National Post March 29, 2011

The farming of fish goes back at least 3,000 years in China, where carp and other freshwater fish are still the main contributor to worldwide aquaculture production. Trout have been farmed for more than a hundred years around the world, and catfish have been successfully domesticated in the U.S. south. Marine shellfish, such as oysters and mussels, also have been farmed for centuries.

But it wasn't until 35 years ago that scientists and fish farmers cracked the life cycle of marine fin fish. It was the coastal people of Norway who pioneered the art and science of salmon farming in the 1970s in the sheltered fjords along their rugged coast. Decades of overfishing had reduced the Atlantic salmon runs there to mere remnants, as fleets from two dozen European countries ravaged the northern seas.

The Norwegians figured out how to take the fry from freshwater salmon hatcheries and transfer them to "netpens" in the sea, where they were given a formulated feed and were grown out to market size. The entire life cycle was now brought into domestication and a new revolution in seafood production began.

I told my brother-in-law, Peter Taylor, about the idea of salmon farming. My hometown of Winter Harbour, B.C., would be a good location to build a hatchery and netpen operation. A few pioneers had already established small salmon farms farther down the coast. We met them and learned the basics of what we needed to get started. Quatsino Seafarms was born, named after the inlet of which Winter Harbour is a part, and the First Nations people who first settled there.

Excited by the fact that I was participating in a sustainable new industry and producing good food, I approached my fellow Greenpeace members for support. "You know, we are against whaling, sealing, drift-net fishing, bottom dragging, and just about every way people are getting food from the ocean," I said, then added, "How about if we come out in favour of sustainable aquaculture as a solution to the depletion of wild sea life?"

I was surprised with the sharp rebuke. "No way; aquaculture is causing the destruction of coastal mangrove forests in the tropics," one of my fellow Greenpeacers shot back. "OK," I replied, "Let's not endorse that kind of aquaculture. In fact, why don't we define the meaning of sustainable aquaculture for the world so that we become leaders in providing the solution to getting food from the sea?" My entreaties fell on deaf ears. The only other scientist in the organization, Sidney Holt, was a staunch anti-aquaculture advocate who had the ear of Greenpeace chairman David McTaggart.

I thought, If Greenpeace is against farming fish, what on Earth are we in favour of?

The activist campaign against salmon farming has grown steadily, keeping pace with the growth of the industry worldwide. Since its beginnings in Norway in the 1970s, salmon farming has become established in Scotland, Ireland, Chile, Canada, Australia, New Zealand and the United States. Salmon farming has proved controversial everywhere it operates, partly just because it is new and partly because it competes with existing wild fisheries. But the opposition has been most virulent in British Columbia. Today, the province is home to a small industry of full-time activists who are bent on damaging the salmon farming industry and its markets.

The anti-aquaculture activists who belong to Greenpeace, the David Suzuki Foundation and the Coastal Alliance for Aquaculture claim to support the salmon-farming industry, but only if it adopts "closed containment" technology. There is only one small catch: There is no such thing as "closed containment." It would be like telling chicken farmers they can't take the chicken manure out of the chicken coops and spread it on their fields. All agricultural systems have inputs and outputs -farming can't be done in a vacuum. But the idea of a salmon farm that has no outputs seems to appeal to some people, so much so that the opposition political party in British Columbia has adopted "closed containment" as a condition for its support of salmon farming. Watch it wriggle out of that one if it wins an election someday.

Let's look at the laundry list of complaints that activists make about what I maintain is one of the cleanest industries on the planet and one that produces the healthiest food in the world.

SALMON FARMS ARE POLLUTING THE OCEAN

Activists compare salmon farms to "cities of 500,000 people, dumping their raw sewage" into the environment. The primary reason for concern about untreated human waste is disease transfer, not the waste itself. But fish waste consists of carbon, oxygen, hydrogen, potassium, nitrogen, phosphorous, calcium, iron, zinc and the other nutrients essential for life. If a farm is properly located where there are strong tidal currents, the nutrients are dispersed widely and actually increase the area's productivity. It is no secret that prawn and crab fishermen often set their traps close to fish farms due to the abundance of marine life in their vicinity.

FARMED SALMON MAY ESCAPE AND DISPLACE WILD FISH

The concern is that if a farmed fish escapes and mates with a wild fish, the offspring will be genetically inferior and unable to compete in the wild. A variant of this concern is that if a farmed fish escapes, it will overpower the wild fish and displace it. Activists can't have it both ways: Either the farmed salmon are inferior and won't be able to compete, or they're superior and will out-compete. (In fact, the critics are wrong on both counts because in the wild the rule is the fittest will survive.)

SALMON ARE FED LARGE AMOUNTS OF ANTIBIOTICS

During salmon farming's early years, it was common to medicate fish fairly regularly to control a number of diseases to which they were susceptible. Today, antibiotics are used very seldom because vaccines have been developed for most diseases. Whereas pigs and chickens are on antibiotics for over 50% of their lives, salmon are on medicated feed for only 3% of their lives. Many salmon farms are now completely antibiotic free and some even qualify for organic status.

SALMON FARMS ARE SPREADING SEA LICE TO WILD FISH

There is no direct evidence that lice from salmon farms harm wild salmon stocks. The population crash of 2002 was clearly a natural phenomenon caused by overpopulation in the 2000 year-class of salmon. The salmon simply ate themselves out of house and home and collapsed. This pattern occurs in most populations of wild species; it is a typical boom-and-bust cycle.

The activists never mention that the 2000 and 2001 pink salmon populations were the highest recorded since records have been kept. They don't mention that salmon farms had been established for 15 years before the crash occurred. And they certainly don't talk about the fact that in a number of years before salmon farms existed on the coast, the populations were even lower than in the crash year of 2002. You can be doubly sure they will never volunteer the fact that in 2003, 2004, 2009 and 2010, the population rebounded, quickly coming back to a level higher than the 50-year average for the region.

SALMON FARMS SPREAD DISEASE TO WILD FISH

In fact, the reverse is true. All the diseases that farm fish contract come from the wild. Farm fish go into the ocean diseasefree from hatcheries and sometimes contract natural diseases from the waters around them. If the disease outbreak is severe, they can be treated and cured, unlike wild fish, which get diseases and transfer them to both other wild fish and to farm fish.

FISH FARMERS FEED SALMON ARTIFICIAL PINK DYES

This is one of the most preposterous allegations, yet it often is repeated in the activist rant against aquaculture. True, naturally occurring chemicals called carotenoids are added to salmon feed and this gives the salmon a distinctive colour. These same carotenoids also make shrimp and crabs pink, and that is why shrimp farmers add them to their feed as well. These carotenoids benefit human health and are essential nutrients for salmon. They are powerful antioxidants, sold as health food supplements and sunless tanning treatments.

FARMED SALMON CONTAIN HIGH LEVELS OF CANCER-CAUSING PCBS AND DIOXINS.

Yes, farmed salmon contain minute traces -in the parts per billion range (i.e., pennies out of $10,000,000 -of PCBs and dioxins. But so do milk, cheese, butter, beef, chicken and pork. The levels of these chemicals in all these foods are so far below what is considered a risk to health that it isn't worth talking about; but apparently it is worth fear-mongering in order to fabricate campaigns, make media headlines and bring in the big grants and donations.

WE SHOULD BOYCOTT FARMED SALMON AND ONLY EAT WILD SALMON

Whoever thought up this lunatic idea should get the Nobel Prize for anti-logic. How can you save wild salmon by eating more of them? Yet a whole gaggle of goofy groups has succeeded in convincing chefs, restaurant owners and consumers that a boycott of farmed salmon will somehow be good for wild salmon. Activists are blackmailing chefs and restaurateurs by threatening to picket and harass them if they don't take farmed salmon off their menus. But the truth is, every time you eat a farmed salmon you are saving a wild salmon.

It's clear to me that aquaculture, including salmon aquaculture, constitutes the future of healthy protein and oil, nutrients that we need to feed a growing population. It is also the only feasible way to increase seafood production while at the same time managing the wild fisheries on a sustainable basis. More seafood is good for us; the health benefits of the Mediterranean diet and the longevity of Japanese people attest to this.

Designed properly, the combination of fin-fish and shellfish farming could dramatically increase seafood production while simultaneously removing any excess nutrients from the ocean -and help feed a hungry world.

- Excerpted from Confessions of a Greenpeace Dropout: The Making of a Sensible Environmentalist, courtesy of Beatty Street Publishing, 2011.

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