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**Aquaculture - the good, the bad and the ugly  
Birds I View  
Bill Montevecchi**



Hermit thrush with a beak full of insect protein for the nestlings at Salmonier Nature Park.  
(photo; Kanwal Richardson)

During CBC Radio's The Broadcast on 9 and 10 July, a fisheries scientist from the University of Washington Dr. Ray Hilborn made some very interesting points about aquaculture (<http://www.cbc.ca/listen/shows/the-broadcast/episode/15555778>). He addressed issues that lie at the forefront of sustainable fishery concerns in Newfoundland and globally, so it is worth overviewing the contentions he raised and those he didn't. These considerations are especially timely as the Grieg proposal for the massive salmon farming project in Placentia Bay is currently open for public review.

Dr. Hilborn's major emphasis was that shellfish aquaculture has a relatively minor environmental footprint, because of its high yield from a small area and because food does not have to be provided for growth and production. He pointed out that shellfish farms are more energy efficient with less environmental impact than terrestrial livestock and soybean farms. These are very intriguing relationships.

Salmon farms were also considered to be more efficient producers of protein than terrestrial farms. And open-sea salmon farms were deemed more efficient than land-based ones because they do not require energy to pump water into fish holding tanks. Dr. Hilborn argued further that purse-seine fisheries for small fishes like sardines and presumably capelin (not mentioned) are also more efficient protein providers than terrestrial farms owing to their high catch rates and low fuel consumption.

Major concerns about the well documented risks and damage that open sea salmon aquaculture pose for stocks of wild Atlantic and Pacific salmon were alluded to but not addressed. We have come to accept the biological dangers of introducing non-native species to new habitats - such as that involved with the farming Atlantic salmon in the Pacific Ocean.

Dr. Hilborn generalized that wild stocks fished by developed countries are globally stable or increasing. A conjecture that contradicts scientific evidence to the contrary. Nowhere is that more evident than here in Newfoundland. Think haddock - gone. Think lumpfish – gone. Think cod - fished to commercial demise. Consider the declining stock trajectories of crab and shrimp.

There is no reason that Newfoundland shouldn't be one of the wealthiest places on the planet by providing clean fish caught in a clean ocean. Yet the economic drivers that favor fast money over sustainability favor aquaculture over capture fisheries and favor rapid extraction vs conservative harvesting. They also favor oil production over fishing. Sustainability is the key – it's the only escape the boom and bust economics associated with non-renewable resources such as oil and ore.

Given the state of cod and capelin stocks in Newfoundland, a precautionary approach to the capelin fishery that takes egg-carrying females is essential. But again common sense is over-ridden by a fast-money orientation.

The most disturbing example of the waste of fish involved in salmon farming was embedded in my memory during a day in April 2016 in Bonne Bay on the west coast. Purse-seiners were coming and going from the wharf the entire day and unloading herring into large fish boxes that were being fork lifted into huge freezer trailer trucks. Any one of the herring could have provided a nutritious meal for one or two people. The herring were being trucked some 500+ km to the Beothuk fish in Valleyfield on the NE coast. There they were rendered into meal for salmon (and mink) farms. Consider the waste and energy consumption involved in this process and the preposterousness of the claim that aquaculture is providing food for a hungry planet.

In sum, Dr. Hilborn presented some compelling relationships about the positive aspects of shellfish aquaculture and some intriguing comparisons between aquaculture and livestock and soybean farming. Yet in the bigger scheme, he avoided the danger that open sea salmon farms pose for wild salmon, defended the fishing of forage fishes and misrepresented the state of global fish stocks – all in the name of maximizing energy efficiency – a reflection of the time is money paradigm. In doing so, Dr. Hilborn clarified some of the many ways in which energy efficiency can be environmentally destructive.

### **Gannets apparently caught in herring gillnets in Placentia Bay**

On July 5, Ian Jones alerted me to a call that he received from Joyce and Roger Randall who saw six freshly dead adult Northern Gannets just off the beach at the Atlantic Charter Monument Memorial Park near Ship Cove, Placentia Bay. There was no obvious sign of injury and birds were soaked suggesting that they may have drowned in a herring gillnet before being discarded. The Randalls managed to pick up three of the birds and delivered them to Pierre Ryan of the Canadian Wildlife Service. It also possible that the birds died of other causes including toxins. The birds are being sent to Veterinary Clinic in PEI, so it should be quite straightforward to diagnose whether they drowned from entanglement in a gillnet or died of other causes.

## **Birds in the area**

Loons are frequenting local ponds though young birds are not evident. And in general not many young birds are fluttering about as would normally be the case at this time of year. The cold snap in June seems to have taken a heavy toll on nesting birds. I know of a robin's nest and a junco's nest that failed following the frigid weather, and no doubt the effect is widespread.

A pair of nesty semipalmated plovers are frequenting the Heritage Graveyard site in Portugal Cove (Kathryn Welbourne). If you visit there please try not to disturb them.

Great horned owls have been calling in the area, and on 11 June, Angie West found owl pellets beside the new trail at Voisey's Brook Park. A juvenile gray jay was seen at the end of June on the Beachy Cove Mountain trail (Janet Montevecchi). Cedar waxwing flocks were common in Burin in June (George and Carolyn Mayo).

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