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## Fish stories

### Impressions from the Seafood Summit in San Diego

Posted by [Tom Philpott](#) at 7:34 AM on 04 Feb 2009

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My plunge into the complex world of sea stewardship has been invigorating but also overwhelming. I find myself among literally hundreds of people who know various aspects of the topic intimately. My mind buzzes with ideas to develop and questions to ask -- more than can be done in the span of a few days.

I'll be developing Grist's coverage of the impacts and potential of seafood production over the next weeks. In the meantime, here are some impressions:

\* I'm impressed by the analogies between land- and sea-based food production. Just like our solid-ground food system, the sea-based one has become dramatically consolidated, with larger, more industrialized players squeezing out smaller artisanal ones. And just as on land, as production consolidates, the infrastructure for small-scale production gets shuttered. Right now, I'm in a session listening to sustainable-fish consultant and fisher person Amy Grondin talk about how small-scale fishing communities in Alaska are suffering from lack of access to simple processing equipment.

Meanwhile, while fishing communities get iced out of the growing global market for seafood, factory-scale fish farms are booming. The amount of farmed fish consumed globally since the '70s has been growing at the astonishing rate of 9 percent per year since the 1970s. As recently as 2005, a third of total fish consumed came from farms. Most analysts reckon by 2010, half of all fish will come from farms, the vast majority of it from large monocrop operations. The analogies with land-lubbing factory-farmed meat operations -- including feed issues, antibiotic reliance, disease outbreaks, and manure pollution -- are almost too obvious to make.

\* Speaking of analogies to land farming, probably the most hopeful development I've learned about is integrated multi-trophic aquaculture (IMTA).

Just like on the land, monocrop fish operations tend to require huge amounts of inputs and throw off massive amounts of waste. The best sustainable-minded farmers figure out ways to "close the loop" through on-farm biodiversity -- composting animal manure to maintain soil fertility, and then feeding vegetable scraps and culls to animals.

Some very smart folks are working to apply those principles to aquaculture in the form of IMTA. The basic idea is this: rather than let huge concentrations of fish manure from, say, salmon cages foul coastal waters, you place shellfish, which filter and are nourished by the manure, slightly downstream from your salmon cages; and then seaweed further downstream still, which takes up remaining nutrients from the manure.

[Thierry Chopin](#), professor of biology at the University of New Brunswick, gave an extremely compelling presentation on the economic and ecological case for IMTA; as did two practitioners, [Stephen Cross](#) of Canada and Nick Joy of [Loch Duart](#) in Scotland.

Listening to these folks is like reading Michael Pollan's almost poetic [description](#) of the elegant and highly productive multi-species grazing system of Virginia farmer Joel Salatin, who produces an astonishing amount of food with minimal inputs.

Alas, just as Salatin's methods are marginalized by the sheer scale and dominance of industrial meat production, IMTA remains a niche activity. Even at the Seafood Summit, the IMTA proponents got a polite but unenthusiastic reception. The IMTA panel took place in the smallest of the three conference rooms, and received less time than the others.

I will be doing a story on IMTA going forward.

\* Here's something that was brought home to me during the summit: land- and sea-based food production systems don't just present many analogies; they're also profoundly linked. Hog and poultry farms use fish meal in their feed rations, pressuring fish stocks. Livestock production contributes mightily to climate change, which raises ocean temperatures and destroys coral reefs, which are engines of ocean biodiversity. Mono-crop corn production in the Midwest releases massive amounts of nitrogen fertilizer, ultimately causing a "dead zone" in the Gulf of Mexico. Large-scale fish farms are looking increasingly to soybeans as a protein substitute for fish meal. And so on. Teasing out these links will be one of my tasks going forward.

\* Another topic I'll be writing about is the feed issue around conventional aquaculture. It's massive -- and highly contested. In short, highly popular carnivorous farmed fish like salmon are net consumers of fish. Producing them in farms consumes more fish than it yields.

Feed was the topic of the most contentious and fascinating session I attended: "The Effect of Aquaculture on World Fish Supplies -- Ten Years on." It featured two super-slick industry dudes (Daniel Lee of the Global Aquaculture Alliance and Andrew Jackson of the International Fishmeal and Fish Oil Association) and one of the best academic food-system analysts working today (Roz Naylor of Stanford University).

To make a long story short, Lee and Jackson reveled in efficiency gains around fish feeding: over time, the industry has gotten better and better at needing less and less feed to generate a pound of, say, salmon. The catch, as Naylor pointed out, is that while efficiency has indeed improved, the overall amount of fish meal and fish oil going to the fast-growing aquaculture industry continues to rise dramatically. (A similar argument goes on in land ag: over time, the amount of fertilizer required to grow a bushel of corn has fallen; but the steady growth in acres devoted to corn means that we continue to use massive amounts of fertilizer.)

This is yet another point I need to spend time thinking about and researching in the weeks and months ahead.

I think I've figured out what the Seafood Summit *is*. A journalist covering the conference for a seafood trade mag laid it out for me over breakfast coffee. The conference -- not so much the sessions, but the gathering itself -- seems to be a kind of complex dance between the fish industry and the NGOs that monitor them.

The NGOs seem to be saying to industry players, in effect, "choose us, and not the other guy, to advise you on sustainability and certify your products!" Industry players in turn are saying, "check us out -- we're sustainable! Tell the public about us!"

I don't intend to demean very real efforts to improve the ecological performance of the seafood industry. But I wonder if these piecemeal programs will amount to enough to save the oceans from fishery collapse and over-pollution.

An analogy from the financial world comes to mind. Investors rely on credit-rating agencies like

Standard & Poor's and Moody's to "rate" the debt instruments released by banks and corporations. But it's those very debt-issuing entities that pay the credit raters for the service. S&P and its peers have often been criticized for seeming to go easy on the issuers for fear of losing business to a rival.

We should remember that the great bulk of "toxic assets" now suffocating our financial system -- particularly the so-called "mortgage-backed securities" -- received high ratings from S&P et al. A plethora of credit-rating agencies, funded by the entities they vet and staffed by smart MBAs, utterly failed to save an out-of-control financial industry from collapse -- or help investors avoid trillions in losses.

Let's hope our ocean NGOs do better with the industry they get paid to monitor. I respect their work, but wish the globe's governments and the United Nations would take a more active role in protecting our oceans from the inherently invasive task of harvesting food for a growing human population.

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