

**Charlene Ponce**

**From:** GoWildCampaign@aol.com  
**Sent:** Wednesday, July 25, 2007 6:53 PM  
**To:** GulfCouncil  
**Subject:** letter on offshore aquaculture

Go Wild Campaign  
1081 Sudden Valley  
Bellingham, Washington 98229

Letter via E-mail and US Mail  
July 25, 2007

Gulf of Mexico Fishery Management Council  
Attn: Chairman Robin Riechers

Re: Marine Aquaculture

Dear Chairman Riechers and Gulf of Mexico Fishery Management Council Members,

I have 28 years experience in commercial fishing in Alaska and the Pacific Northwest. I am, therefore, greatly interested in activities that impact small scale fishing businesses, wild fish, coastal communities, and the marine environment. Particularly now, my interest is whether marine aquaculture fulfills promises offered by proponents of the "Blue Revolution" or whether there will be irreversible harm and we will regret the rush to allow open feedlots in our coastal and ocean waters.

Besides many years of fishing, I've worked for the Institute for Agriculture and Trade Policy, was a recipient of a Food and Society Policy Fellowship in 2001, and am now in the Kellogg Leadership Alliance. During the last decade I've become increasingly aware of many similarities between small farms and family fishing businesses, and how subsidized feedlot operations affect both. Just as family farms struggle to survive when governmental and regulatory policies favor agribusinesses and large scale, confined animal operations, the small boat fishing fleet in the United States is facing extinction from factory aquaculture operations taking their place.

The harm is not just from cheaply produced seafoods flooding the marketplace. Independent fishing businesses cannot survive if the bad practices of industrial food production are replicated in our marine environment.

Many of the hazards are the same: degradation of natural resources, introduction of genetically engineered and invasive species, concentration of ownership, subsidies providing unfair market advantage, pollution, amplification of diseases and parasites, usage of antibiotics, pesticides and other chemicals.

In the journal, "Issues in Science and Technology" (Spring 2006), Stanford's Dr. Rosamond Naylor writes, "If the aquaculture industry does not shift to a sustainable path soon, the environmental damage produced by intensive crop and livestock production on land could be repeated in fish farming at sea."

To contain costs, the fish farm industry has resisted using closed containment systems, so antibiotics, fungicides, pesticides, anti-foulants and other chemicals flush directly into the marine environment.

As a resident of Washington, one of the two states in the nation that allows salmon farming, I know, from direct experience, that pathogens, parasites, chemicals and escaped fish are not stationary in a fluid environment.

From 1996 to 1999, more than 613,000 non-native Atlantic salmon escaped from salmon farms into Washington waters. These non-native, invasive fish compete for food and spawning territory with local wild fish and carry potentially epidemic parasites and pathogens. In British Columbia, several wild salmon populations are facing extinction from sea lice infestations released by farms concentrated along the pathways of migrating wild salmon. As well, carnivorous fish that feed on pellets are being reared in captivity. As we've found with farmed Atlantic salmon, since they are predators, they endanger our wild fish by feeding on juveniles and competing for spawning territory.

Escaped fish are not the only pollutants from floating feedlots. The damage from industrial fish farming is largely under the waterline and out of sight, so the industry has gotten away with pollution that would have closed down comparable, dirty, land-based operations.

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Several years ago, Arthur H. Whiteley, Professor Emeritus, Department of Zoology at the University of Washington, compared fish feces generated by four salmon farms in Washington waters to treated waste from 830,000 Seattle residents who paid for an expensive sewage collection system to protect Puget Sound waters.

The Seattle sewage treatment plant cost more than \$573 million to build and \$80 million per year to operate. It releases around 4 million pounds of sterilized, total suspended solids (TSS) into Puget Sound annually.

Dr. Whiteley compared that to the amount of waste flushing into Puget Sound from four salmon farms in Puget Sound. Based on inputs of feed and numbers of fish permitted by the Department of Ecology, he calculated these fish farms produce more than 1,180,000 pounds of feces annually. Fish farm sewage is untreated and non-sterile and the cost to fish farmers for this use of our public waters is zero.

Putting cages offshore or in deeper water does not reduce the amount of sewage, it only disperses it over a larger area. Scientists calculate that NOAA's plan to expand fish farming fivefold under the newly reintroduced "National Offshore Aquaculture Act" would allow the annual discharge of nitrogen equivalent to the untreated sewage of 17 million people.

Economic devastation also cannot be contained. Production of cheap fish in one region can collapse fish prices and economies in another, as salmon farming has proven. Allowing open cages in state or federally managed waters not only places our marine environment at risk, but also the livelihoods of fishing businesses. Councils and regulatory agencies must not fail in their responsibility to ensure that coastal communities and family businesses are not destroyed in the quest for corporate profits.

As industrial food systems expand, codes and protocols have been developed to protect traditional businesses and activities. A guiding principle of the U.N. Food and Agriculture Organization (FAO)'s "Code of Conduct for Responsible Fisheries" is that aquaculture development does not negatively affect access to fishing grounds or livelihoods of local communities."

The United States is on the record as a signatory and strong supporter.

In 2002, the National Marine Fisheries Service released its own "Code of Conduct for Aquaculture Development in the U.S. Exclusive Economic Zone," stating that the United States adheres to the spirit and intent of the FAO Code and that "aquaculture development in the EEZ will adopt the guiding principle of a precautionary approach." It also says "it is necessary to address potential economic and social impacts on local communities ... and their participation [is] sought in any decision-making process."

There has been very little assessment of socio-economic impacts on communities and businesses from marine aquaculture. One of the few studies was prepared by Dr. Rosamond Naylor, senior fellow in Environmental Science and Policy at Stanford University. She found that commercial fishing incomes and license values dropped dramatically when farmed salmon replaced wild salmon in restaurants and stores. Between 1990 and 2002, the price for many limited-entry salmon permits in Alaska fell by 75 to 90 percent, plummeting in one fishery — Bristol Bay — from \$300,000 to \$30,000. Thousands of families have lost significant income and face serious debt, and even bankruptcy, since farmed fish prices are artificially low because the cost of cleaning up pollution is not borne by the industry.

In addition to what's happened with the value of wild salmon, wild blackcod (also known as sablefish) is another species that is being developed for marine aquaculture. In our Pacific fisheries, blackcod has a value of more than \$141 million annually to local boats. Wild Pacific halibut, another abundant and high-value wild fish, in 2004 brought \$168 million to harvesters, many living in our region.

When the value of fisheries decline, coastal residents face difficult decisions about how to maintain their economy and resist unsustainable and polluting industries that have the ability to destroy or alter irreparably their environment.

After several years of low wild fish prices and reduced processing capacity, residents of the Alaska western region are considering allowing the deepest, open pit copper, gold and molybdenum mine in North America into the Bristol Bay watershed, the most productive wild salmon region of the world. Arsenic, cyanide and other toxins are used to extract the metals and tailing ponds held back by 700 foot earthen dams are being proposed. The foreign corporations planning this project have little incentive to protect the region beyond the schedule of their own economic activities.

These kind of choices might please industrialists with an end time vision of our future, but they also mean that we will be passing on a greatly diminished world to our children and grandchildren.

It doesn't need to be that future. The chair of the PEW Oceans Commission, Leon Panetta, and of the U.S. Commission on Ocean Policy, Adm. James Watkins, wrote after "The National Aquaculture Act" was first introduced in 2005, "restoring depleted (wild) fish stocks would yield significant economic benefits" and "increase catch levels by 64 percent, adding \$1.3 billion to the U.S. economy."

Jared Diamond in his book Collapse gives examples of humankind's failure to recognize the perils of unsustainable activities, citing Easter Island, classic Mayan civilization and Viking colonies on Greenland. Describing marine fish farming, he writes, "aquaculture, as commonly practiced today, is making the problem of declining wild fisheries worse rather than better."

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Jean-Michel Cousteau, a well known wild fish advocate said, in describing industrial aquaculture, "Many fishermen are the victims. I am on the side of the fishermen. I do not want them to lose their jobs."

Your council, like all the others, face a very difficult dilemma when trying to create opportunities and allow productive food systems to flourish to meet the demands of seafood consumers. Sadly, our history in the U.S. is strewn with poor decisions. I urge you to consider that it is better to err on the side of caution than rush to allow an industry with known impacts and many unintended consequences.

While industrial aquaculture seems to hold a lot of promise, many of the harms will have ramifications that are likely irreversible. The impacts from pollution, pathogens, parasites and escapes of genetically engineered and nonnative species are indisputable and will have profound impacts on wild stocks valued by recreational, as well as commercial fisheries.

When the aquaculture industry utilizes closed containments with appropriate filtering and recirculation systems, then councils, regulatory agencies and the public will have a much greater degree of confidence that this industry is willing to minimize its impacts and is more than just a "get rich quick" scheme. As well, regulatory and management entities have a serious obligation to look at the socio-economic implications of allowing offshore aquaculture or any other industry that puts wild fish, coastal communities and our ocean commons at risk.

Sincerely,

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Center for Food Safety • Food and Water Watch • Gulf Restoration Network  
Institute for Fisheries Resources • Mangrove Action Project  
National Coalition for Marine Conservation • Sierra Club

VIA E-mail and U.S. Mail  
July 26, 2007

TAB J NO. 5(e)

Re: Offshore Aquaculture

Dear Chairman Riechers and Gulf of Mexico Fishery Management Council Members:

On behalf of the undersigned groups, please accept this letter as formal comments on the Public Hearing Draft Generic Amendment to the Coral and Coral Reef FMP, Coastal Migratory Pelagics FMP, Red Drum FMP, Reef Fish FMP, Shrimp FMP, Spiny Lobster FMP, and Stone Crab FMP (Generic Amendment).

After reviewing the Generic Amendment, our groups have significant concerns regarding the content and intent of this document. As written, the Generic Amendment seems to be primarily about ensuring maximum profits and ease for industry development, rather than protections for our natural marine resources and the communities and wildlife that rely on them. This is extremely troubling, as the Gulf of Mexico Fishery Management Council's (Gulf Council) charge under the Magnuson Stevens Fishery Conservation and Management Act, and all its amendments, (collectively, M-S Act), is to "to exercise sound judgment in the stewardship of fishery resources". The Council's focus should be to first do no harm to the assets we already have, and then if desired, work to develop a sustainable offshore aquaculture program that will result in benefits to the nation. We can not sacrifice our wild fish and habitat to promote an offshore aquaculture industry.

Given what we understand to be the origin of the Generic Amendment, the apparent disregard for M-S Act requirements is disappointing, but not unexpected. The National Oceanic and Atmospheric Administration (NOAA) with assistance from the National Marine Fisheries Service (NMFS), has been pushing the commercial development of offshore aquaculture in the U.S., with an almost flagrant disregard for existing laws and policies. We understand that staff from the NOAA Aquaculture Program were "very closely" involved with writing much of the contents of the Gulf Council's Generic Amendment, and additionally, that some consultants who assisted with the document drafting were paid using funds from NOAA Aquaculture as well. It seems clear that NOAA has a strong hold on the contents of this Generic Amendment, and given their zealous advocacy on this issue, that is a significant concern.

NOAA and NMFS have touted potential benefits from offshore aquaculture as a necessity for the survival of the U.S., while consistently trying to avoid discussion about the numerous concerns associated with full scale development of such an industry. The agencies have gone so far as to send out staff to meetings around the nation to lobby on behalf of developing more offshore aquaculture, including to National Marine Sanctuary Advisory Council meetings, the Marine Fisheries Advisory Committee (MAFAC) and regional Fishery Management Council meetings. We are not aware of this type of fervent promotional activity from NOAA or NMFS on any other issues, and are very concerned that it is the agencies' overwhelming commitment to offshore aquaculture that is encouraging the Gulf Council to now full steam ahead on the Generic Amendment, without careful consideration of its content. NMFS and NOAA have significant participation on many entities - NMFS has a voting representatives on the Fishery Management Councils, NOAA/NMFS have input on those appointed to both regional Councils and MAFAC, and it is a NOAA attorney that advises the Fishery Management Councils - this adds up to a tremendous amount of influence.

On another matter, it seems that the Gulf Council has been convinced that a *proposed* bill, the "National Offshore Aquaculture Act" ("the NOAA bill" for short), will become law sometime soon, as it is heavily referenced in the Generic Amendment. We hope to help clear up this misconception. The NOAA bill was originally introduced into the U.S. Senate back in 2005. It failed due to assorted inadequacies in environmental protections, among other things. A revised version of this bill was re-introduced this session, first into the U.S. House of Representatives under "HR 2010", and then on June 13, 2007, into the U.S. Senate under "S 1609". These bills are far from actually passed. In fact, those Congressional members introducing the bills made it explicitly clear that they did so only as a courtesy to the Administration, and do not intend to strongly push their approval at all. All references to any proposed legislation should be removed from the Generic Amendment.

Proposed legislation should not be used to guide Gulf Council policy or justify Gulf Council decisions on developing their own recommendations for regulations. Rather, the lack of national legislation should be seen as an opportunity for the Gulf Council to be proactive on the offshore aquaculture issue and set rules and policy as it sees fit for the Gulf region. We urge you to use this opportunity to conserve and manage the resources in the Gulf region, protecting the people and other wildlife that rely on them, as charged under the M-S Act.

Specifically, we ask that you address, in detail as action items (not merely in discussions), the following:

***1. Compensation to the general public for potentially exclusionary use of public resources for private profits:***

The waters of the Gulf of Mexico and the resources within them are held in trust by government officials for the people of the U.S. Allowing open water aquaculture in our waters grants a private interest the right to use public resources in a manner that could greatly conflict with and even exclude others' uses, for personal gain, without definite benefit to the U.S. There should be definite public gain from the contribution of such resources. The justifications of potentially having more seafood, and different jobs does not explain away the need for public compensation, as these are not necessarily benefits that will accrue to our Country unless so required. Foreign investors (who have already shown interest and own much of the ocean fish farming operations worldwide) could establish facilities using entirely their own money and staff, then ship the production elsewhere, leaving the U.S. with the environmental consequences, and little else. These are important factors to consider that are ignored in the new draft plan. **The Council should recommend means that ensure benefits from offshore aquaculture accrue to the U.S. public. (For example, a percentage of the profits be put into a trust fund for a public purpose, or all (or a percentage of) fish from offshore aquaculture be landed in a U.S. port and processed by a U.S. facility with U.S. labor.)**

***2. Competing/conflicting interests:*** Because open ocean aquaculture facilities take up real space in the environment, establishment of facilities could cause conflict of interest problems in certain water areas. Some areas that should not be used for aquaculture include: 1) known fishing grounds and routes to those fishing grounds, 2) vessel traffic lanes, 3) military sites and areas of concern regarding national security, 4) marine reserves, preserves, Sanctuaries and otherwise protected or known fragile or important habitat areas, and 5) areas of significant multiple use. **Areas of current conflicting significant use or public value should be eliminated for consideration as sites for open ocean aquaculture, and adequate buffer zones beyond these areas should be implemented. Creating allowable aquaculture zones could help better define to aquaculturists where such operations are most acceptable.**

***3. Diseases:*** Open ocean aquacultured fish are held in captivity, usually in higher concentrations than would be normal in the wild. Cramped quarters, concentrated fish wastes, stress and other factors are often breeding grounds for diseases. Open ocean aquaculture can allow captive fish to pass diseases to wild species. This is happening in Canada with salmon (See: Beware - Wild Salmon Now Contaminated with Sea Lice, USA Today, March 31, 2005). **Strict disease prevention and control methods should be established before permitting any facilities.**

***4. Escapement:*** Open ocean aquaculture of finfish uses cages, net pens or other containers to hold fish. These structures, even if well designed and built, will have some animal escapes into the ocean, due to various complications like severe weather, equipment failure or human error. In the case of net pens, predators, like sharks, might tear the enclosures to get at the fish. Escapement can affect wild populations through spread of diseases and dilution of local gene complexes, disrupt natural ecosystems and jeopardize the recovery of depleted or endangered species. Consequences could be widespread and devastating. Primary concerns with escapement involve non-native or mutated species, and genetically altered organisms. Currently, modern technologies cannot ensure 100% sterility of organisms to prevent interbreeding with wild populations.

*Use of selective breeding/GMOs/transgenics:* It is usually the intent for aquacultured organisms to be bred for profit, thus, those that have certain marketable traits are most desirable for there to be a significant industry. Selecting and only breeding fish with advantageous characteristics (e.g. largest and fastest growers) is one means to alter genetics over time. In some instances, direct genetic manipulation occurs in a lab, to change, for example, appearance and breeding abilities. In either of these circumstances, the outcome produces a genetically different fish than those found in the wild. Proposed

