

**REPORT ON THE LOUISIANA STAKEHOLDERS
CONFLICT RESOLUTION FORUM ON OFFSHORE AQUACULTURE**

Sponsored by
The Louisiana Sea Grant College Program

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Foreword

Conflicts among users of the Gulf of Mexico's resources have multiplied in the 30-plus years since the Magnuson-Stevens Act tightened fisheries regulation. Recreational and commercial fishermen found themselves at odds with each other over the use of gill nets. The overnight popularity of blackened redfish resulted in overfishing and waste of that resource, and consequent closing of that fishery in federal waters. Concerns over the capture of sea turtles in shrimp trawls led to mandatory use of turtle excluder devices, and the effect of commercial fishing bycatch on various marine species fueled bycatch reduction measures. The subsequent losses of fishing efficiency in an already overcapitalized industry created additional tensions between harvesters, rule makers and supporters of the new policies. Yet, these groups, representing very different interests, found a common voice in opposition to a perceived threat – the energy industry's proposal to build "open loop" liquefied natural gas platforms offshore.

The most recent issue to surface revolves around offshore aquaculture and the Gulf of Mexico Fishery Management Council's intent to develop regulations for fish farming in federal waters of the Gulf.

Marine resource conflicts typically feed on distrust and misinformation. Sea Grant's interest in such conflicts is to insure that parties on all sides of an issue have access to the same, reliable information, and understand opponents' concerns. Getting the contending interests to meet together, exchange viewpoints, and identify secondary points of mutual agreement – notwithstanding their major disagreements – is a facilitation technique that can build trust, improve communication, and ultimately produce solutions to problems that all can accept.

When the Louisiana Legislature passed a concurrent resolution earlier this year asking Congress to oppose offshore aquaculture in the Gulf, Louisiana Sea Grant recognized an opportunity and responsibility to bring together stakeholders on both sides of the debate – as well as experts in the field – to discuss the topic and see if it needs further examination. In October, representatives of recreational and commercial fishing interests, charter fishermen and environmental advocates sat down at one table to voice their apprehensions and desires regarding offshore aquaculture. The day ended with a comprehensive listing of concerns and possible benefits of mariculture, as well as a number of consensus statements and an agreement to keep the discussion alive.

Many thanks to Jerald Horst for moderating that first meeting and preparing this report on that forum.

Charles Wilson
Executive Director
Louisiana Sea Grant College Program

Introduction

Multiple use of the waters of the United States' Exclusive Economic Zone (EEZ) is the rule rather than the exception for the oceans bordering this country. Economic principles usually dictate that multiple usage of resources yields the greatest benefits to society.

But multiple usage of natural resources comes at a cost, typically conflict between users attempting to enlarge or maintain their "share" of the resource. Potential new users of natural resources often face especially severe opposition from traditional users, resulting in the most intense conflict.

In seeking to gain hegemony over competitors for commonly held natural resources, users often level charges of over-exploitation against other users. In an environmentally conscious society such charges can have devastating impacts, arousing strong emotions in both camps. Often, each side attempts to use its own science to refute or reinforce the charges. Such "science" seldom resolves the issue in a democratic society, since share of the resource rather than conservation is the real issue.

In our increasingly complex society, the discipline of Natural Resources Conflict Resolution has evolved to help address these issues. A successful intervention will result in each group achieving what is necessary for its interest, rather than its position, which is often that other users have little or no right to exist.

In the issue at hand, conflict in Louisiana has arisen from a proposal to create rules for the development of offshore aquaculture ventures in the EEZ of the Gulf of Mexico. The proposal for rule development by the Gulf of Mexico Fishery Management Council has met with strong resistance from traditional user groups, including recreational fishermen, commercial fishermen, charter fishermen and environmental action advocates. Marine environmental organizations are the latest of the four user groups to develop, but must be considered as a user group nonetheless, because they demand a share, if only for existence value, just as surely as do harvesters of resources.

Workshop Participation

Recognizing the issues over rule development for offshore aquaculture as a natural resources conflict, the Louisiana Sea Grant College Program sponsored a *Stakeholders Workshop on Offshore Aquaculture in the Northern Gulf of Mexico* on October 7, 2008, in Kenner, Louisiana. Sixteen stakeholders, mostly Louisiana leaders of the four traditional user groups, were invited. Of these, 13 attended the workshop.

Three other stakeholders representing the Louisiana Wildlife Federation, Louisiana Department of Natural Resources, and Food and Water Watch were invited, but did not attend.

Stakeholders in attendance included the following individuals:

Lara Ballard, Louisiana Coastal Conservation Association

Barney Callahan, Louisiana Wildlife Federation

David Cresson, Louisiana Coastal Conservation Association

Louis "Woody" Crews, Louisiana Department of Wildlife and Fisheries Hunting and Fishing Education Advisory Council

A. J. Fabre, Louisiana Shrimp Association

Myron Fischer, Louisiana Charter Boat Association

Clint Guidry, Louisiana Shrimp Association

Miriam Juban, Louisiana Restaurant Association

Randy Pausina, Louisiana Department of Wildlife and Fisheries

Harlon Pearce, Louisiana Seafood Promotion and Marketing Board and Gulf of Mexico Fishery Management Council

Cynthia Sarthou, Gulf Restoration Network

Charlie Smith, Louisiana Charter Boat Association

Mike Voisin, Louisiana Oyster Task Force

Five presenters, as well as Chuck Wilson, Executive Director of the Louisiana Sea Grant College Program, and Ron Becker, Associate Executive Director of the Louisiana Sea Grant College Program, participated. The presenters were as follows:

Sebastian Belle, Maine Aquaculture Association

John Hawke, LSU School of Veterinary Medicine

Tom McIlwain, Gulf Coast Research Laboratory/University of Southern Mississippi

Michael Rubino, NOAA Aquaculture Program

Mike Tringali, Florida Fish and Wildlife Conservation Commission

The Program

Stakeholders and presenters were provided an opportunity to make a short statement following self-introductions.

Stakeholders

Lara Ballard, I am present to listen and learn more about the issue.

Barney Callahan, I have a number of questions. One of my biggest concerns is that any endeavor

of this size will have impacts, onshore as well as offshore. We are losing land in Louisiana. I am concerned about the balance between benefits and risks.

David Cresson, I am the executive director of Louisiana CCA and am here to listen and learn. We are a resource-first group and believe in using the best science.

Woody Crews, I am a recreational fisherman and have children that hunt and fish. I am looking forward to informed debate.

A. J. Fabre, My only problem is whether offshore aquaculture is safe. I am concerned about environmental impacts. Maybe the way to solve the problem of fish supply is to reverse laws to access redfish and trout. That would be better than using feeds to grow fish. I am not for or against aquaculture at this point, but I am very concerned about pollution.

Myron Fischer, I am a charter boat operator from Bayou Lafourche, which has a rich fishery heritage, especially shrimp. I trained as a biologist and served for nine years as a Gulf of Mexico Fishery Management Council member. I was part of the legislative initiative on aquaculture. I have concerns on siting, both for operators and traditional fisheries. I am also concerned about what is being imported as being safe food. I want input on quality and can get that input with domestic products.

Clint Guidry, Right now I am against offshore aquaculture. I need proof that it can be done environmentally safe.

Miriam Juban, I am a representative of the Louisiana Restaurant Association. My concern is about what will be in the center of the plate. We don't have the variety of fish available that we once did. Food safety is also a tremendous issue.

Randy Pausina, I am here to listen and learn. The state will have to vote on this issue. My perspective is to do what is right for Louisiana and take into consideration all user groups.

Harlon Pearce, I think that we can make this thing work. I am concerned with the lack of fish supplies. It is affecting our culture and heritage. Seafood made this state strong. No one comes here to eat fish produced in other countries. I feel aquaculture will enhance wild fisheries. I want to make it clear that at heart I am a wild-fish man. I want to protect our fishery. The two will work together.

Cynthia Sarthou, I worked during the liquefied natural gas (LNG) campaign for the process to be fish-friendly. I am concerned about those in charge of regulating aquaculture promoting it. I am concerned about genetic contamination, predator-prey problems, oil and gas platform use, fecal and feed pollution and aquaculture's effects on marine mammals and non-commercial species. I have concerns about precautionary principles and proceeding before we have answers. I have precautionary interests.

Charlie Smith, I am the executive director for the Louisiana Charter Boat Association, but really I am just the legislative lobbyist for the charter industry. I was involved in passage of the two legislative instruments last session which said that the position of Louisiana is that we don't want offshore aquaculture. My trust in the federal government is below zero. I'll give as an example the fact that they are supposed to reduce the size of the Dead Zone in the Gulf of Mexico, but they are providing subsidies for ethanol production.

Mike Voisin, My company farms and processes Louisiana oysters. I have a concern about how

we will feed people who don't fish for themselves. Aquaculture offers the opportunity to feed those people. I have other concerns. What if we don't do it and others do? Louisiana may lose out on leadership in fisheries. This state should be on the cutting edge of fisheries.

Presenters

Sebastian Belle, I have a background in commercial fishing. After experiencing the over-exploitation of the fishery, I went into aquaculture. I have worked in foreign countries, as well as the United States. I have a keen interest in maintaining working waterfronts in the face of development and regulation.

John Hawke, I am from the LSU Veterinary School and my field is diagnosing fish diseases.

Tom McIlwain, I have always had a close historical bond with Louisiana. I am the chair of the Gulf of Mexico Fishery Management Council, which is charged with developing this plan. The goal is to make it sustainable and environmentally friendly. Another goal is to produce a safe product for consumers.

Michael Rubino, I have experience in world aquaculture, followed by 10 years work with the World Bank. Now I am in charge of NOAA Aquaculture.

Mike Tringali, I am a fish geneticist.

Items of Concern and Consensus Recommendations

The rest of the morning was given over to informative briefings on key issues by the five presenters. Following the presentations and lunch, stakeholders were asked to identify specific items of concern about offshore aquaculture. The process was exhaustive and the listing of a concern was not subject to debate. Even if only one person had a specific concern, it was posted for discussion. Recommendations on the items of concern were made by the group and were made by consensus rather than by vote. Each consensus recommendation was deliberated and modified until language was produced that all stakeholders could live with.

Item 1. Wild fisheries products cannot be certified as organic.

Item 2. Will the products produced by offshore aquaculture be safe for human consumption?

Consensus Recommendation 1. Food safety concerns must be fully considered and addressed in any aquaculture programs in this country.

Item 3. Oil companies may turn offshore platforms over to aquaculture operations as an inexpensive way to abandon them.

Consensus Recommendation 2. If abandoned oil and gas platforms are to be used for aquaculture, the same removal and liability requirements should be maintained.

Item 4. Where will offshore aquaculture projects be sited?

Item 5. Poor provisions have been made for selecting aquaculture sites.

Item 6. The “no fishing zones” around aquaculture sites may be a problem.

Item 7. Water depth information for sites is lacking.

Consensus Recommendation 3. Siting procedures need appropriate public input.

Item 8. Competition for waterfront access between traditional commercial fisheries interests and aquaculture may occur.

Item 9. Coastal Louisiana may have infrastructure limitations for offshore aquaculture.

Consensus Recommendation 4. For offshore aquaculture to be serviced in Louisiana, we must maintain commercial waterfront access for traditional fisheries and nearshore infrastructure needs. Local social, economic and cultural concerns must be determined and analyzed.

Item 10. Farmed products may displace wild products in the market place.

Item 11. A reliable, affordable native fish supply is needed.

Consensus Recommendation 5. Appropriate commitments to marketing traditional fisheries must be maintained to ensure that farmed fish do not displace wild-caught seafood products, as well as to maintain the wild fishery’s culture and heritage.

Item 12. Maintaining Louisiana’s cultural history is important.

Item 13. It is unclear who is in charge of enforcing compliance with the rules governing offshore aquaculture and how they will be enforced.

Item 14. Agencies charged with oversight may be financially limited.

Item 15. Concerns exist over permitting bureaucracy challenges.

Consensus Recommendation 6. The state of Louisiana should consider developing its own system for involvement in permitting offshore aquaculture facilities.

Item 16. A question exists as to who will be held responsible and what the liability will be for offshore aquaculture impacts.

Item 17. The impacts of offshore aquaculture may extend to non-harvested species.

Item 18. Offshore aquaculture may produce increased pressure on prey species such as menhaden.

Item 19. Concern exists about disease impacts on wild stocks.

Consensus Recommendation 7. Extreme caution should be exercised and standards established to minimize impacts on non-harvested and prey species and to minimize disease impacts on wild fish stocks.

Consensus Recommendation 8. Mitigation and bonding procedures should be established to address the impacts of aquaculture.

Item 20. Release or escape of cultured fish may produce genetic impacts on wild Gulf fish.

Consensus Recommendation 9. Extreme caution should be exercised to ensure that no genetic impact will occur to indigenous wild fish stocks.

Item 21. Louisiana may get left behind in progressive development of offshore aquaculture if it refuses to participate in the process.

Item 22. Too much divisiveness on the issue of developing a permitting process for offshore aquaculture may divert attention from other important issues.

Consensus Recommendation 10. Louisiana should assure that it fully participates in the discussion on offshore aquaculture to ensure the protection of its natural resources. This includes the pursuit of pilot aquaculture projects to document potential impacts.

Item 23. It is unknown if fecal and feed pollution will be problems in the Gulf.

Item 24. No established data on offshore aquaculture exists for the Gulf of Mexico.

Consensus Recommendation 11. A joint pilot project with university, state and the commercial seafood community to develop commercial data should be conducted. Experienced commercial managers should be employed in the project so as to produce the most accurate data.

Extensive further discussion produced two additional consensus recommendations.

Consensus Recommendation 12. The offshore aquaculture stakeholders group should continue to meet and monitor this issue. Site visits and other activities should be developed to provide more information for the group.

Consensus Recommendation 13. A fact-finding trip, with delegates from the offshore aquaculture stakeholders group, should be arranged to go to the state of Maine to inspect aquaculture operations there and to talk to their traditional coastal stakeholders about aquaculture's impacts. To avoid "stage managing," the trip should be arranged between the Sea Grant programs of the two states.

Sea Grant should select the people from the stakeholders group to participate in the trip. Volunteers included Harlon Pearce, A. J. Fabre, Clint Guidry, Charlie Smith and Mike Voisin. Cynthia Sarthou also volunteered to go, if the Louisiana Wildlife Federation could not send a representative. It should be noted that as this part of the meeting was in overtime, some stakeholders had to leave and were not present to volunteer themselves for the trip, so the above list of volunteers may not be complete.

Possible Benefits of Offshore Aquaculture

After items of concern were identified by participating stakeholders, but before the group developed its consensus recommendations, they identified a range of possible benefits from the development of offshore aquaculture. It was recognized that achieving many of the benefits was predicated on resolving of the items of concern.

Possible Benefit 1. Successful offshore aquaculture would help meet increasing consumer demand

for seafood.

Possible Benefit 2. Domestic seafood production from offshore aquaculture could reduce this country's trade deficit.

Possible Benefit 3. If offshore aquaculture is successful, considerable local and state economic benefits may occur.

Possible Benefit 4. Offshore aquaculture could provide year-round access to native species.

Possible Benefit 5. Successful offshore aquaculture would create jobs.

Possible Benefit 6. Offshore aquaculture may help maintain the heritage and culture of the Louisiana fishery with a reliable, affordable native fish supply.

Possible Benefit 7. Successful offshore aquaculture would likely reduce fishing pressure on wild fish stocks.

Possible Benefit 8. Farm-raised fish, unlike wild-harvested fish, can be certified as organic.

Possible Benefit 9. Most people would likely prefer local aquaculture-produced seafood over imported foreign seafoods.

Possible Benefit 10. Successful offshore aquaculture would create independence from imported products.

Facilitator's Recommendations

Recommendation 1. Sea Grant should formalize the creation of a stakeholders advisory/action group on offshore aquaculture. The group should meet regularly enough to maintain viability and should be kept constantly informed on developments related to offshore aquaculture.

Recommendation 2. Sea Grant should, within budgetary constraints, fund research projects to provide answers for specific questions raised in the Items of Concern formally identified by the Stakeholder's Workshop (for example, genetic impacts). Further advice and input on these research projects from the stakeholders advisory/action group would be useful.

Recommendation 3. Sea Grant should pursue the development of a pilot project on commercial offshore aquaculture with advice and input from a stakeholders advisory/action group.

Recommendation 4. Sea Grant should follow through on its offer to arrange a visit by a delegation of Louisiana stakeholders to the state of Maine to inspect its aquaculture operations and hold discussions with that state's traditional stakeholders.

Recommendation 5. If aquaculture is not to be seen as a replacement for the commercial fishery, direct action on the future of commercial fishing may be necessary. The first and most important step in the process is clear identification of agreement, if that exists, that maintenance of the activity is an important component of Louisiana's coastal culture. If such a finding is made, it should be followed with an identification of the challenges to the commercial fishing culture's future and a plan of action