Summary of NOAA's Aquaculture Listening Session
Army Corps of Engineers Building
New Orleans, Louisiana
April 19, 2010

Chair:	Dr. Christine Blackburn, Office of the Under Secretary, NOAA
Scientific Expert:	Dr. Barry Costa-Pierce, University of Rhode Island
Participants:	40 (list is attached to this document)
Public Comments:	16

Held on April 19, 2010, this listening session was the second in a series of public listening sessions conducted by the National Oceanic and Atmospheric Administration (NOAA).

At 6:00 p.m., Dr. Christine Blackburn, a senior policy advisor in NOAA's Office of the Under Secretary, opened the meeting as chair and thanked participants for attending and providing their input on a marine aquaculture policy for the agency. Dr. Blackburn's opening remarks highlighted NOAA's interest in developing a new policy for marine aquaculture that:

- Addresses all forms of aquaculture (seafood production, enhancement, and restoration)
- Supports development of a robust U.S. marine aquaculture industry that is environmentally and economically sustainable, creates new jobs and business opportunities, and enhances U.S. food security.
- Promotes protection of ocean resources and marine ecosystems.
- Addresses the fisheries management issues and opportunities posed by aquaculture.

She noted that NOAA is currently seeking public input to help shape the scope and objectives of a draft policy. Dr. Blackburn also noted that, for purposes of the NOAA policy, aquaculture is defined as the propagation and rearing of aquatic marine organisms in aquatic environments for any commercial, recreational, or public purpose. She noted that the definition covers all production of finfish, shellfish, and other marine organisms, excluding marine mammals, for:

1. Human consumption and other commercial uses
2. Wild stock replenishment
3. Rebuilding populations of threatened or endangered species
4. Restoration of marine habitat (e.g., oyster reefs)

Dr. Blackburn explained that:

- The policy will provide a foundation for sustainable aquaculture that will create employment and business opportunities in coastal communities; provide safe, sustainable seafood; and complement NOAA's comprehensive strategy to maintain healthy and productive marine populations, species, and ecosystems and vibrant coastal communities.
- NOAA is particularly interested in hearing ideas about how the policy can most effectively guide and support science; provide clear regulations; support outreach, education, and innovation; and define the U.S. role in this international industry.
- Once the public comment period is over, NOAA will take the input and develop a draft policy that will be released for additional review and public comment.
- Once NOAA has that input, the agency will finalize, adopt, and begin to implement the new policy.

Dr. Blackburn then directed participants to the meeting hand-out and the seven questions that are intended to guide discussion at the public listening sessions and the comments submitted in writing. Those questions are:

1. What opportunities exist for developing sustainable marine aquaculture nationwide? What are the major impediments?
2. What are the most important environmental considerations and how can these be addressed?
3. Which social and economic consequences or outcomes will be the most important in the next 5 years or in the next 20 years?
4. How can NOAA best support essential research and innovation? What should be the goals of NOAA-funded research related to aquaculture?
5. How can NOAA best communicate with the industry and public on aquaculture issues? What are the opportunities for partnerships?
6. What role should NOAA play with respect to aquaculture issues and initiatives at the international level?
7. What other considerations need to be addressed in NOAA's aquaculture policy?

Dr. Blackburn also outlined additional ways interested stakeholders could share their suggestions with NOAA through a national teleconference on May 6th or via the internet at any time 24 hours a day. Details about these options are posted on the NOAA Aquaculture Program website at http://aquaculture.noaa.gov.

Dr. Blackburn then introduced Dr. Barry Costa-Pierce to give an overview of U.S. aquaculture within a global context and his assessment of the challenges and opportunities for U.S. marine aquaculture. Dr. Costa-Pierce is professor of Fisheries and Aquaculture at the University of Rhode Island where he also directs the Rhode Island Sea Grant College Program. Dr. Costa-Pierce has a Ph.D. in Oceanography from the University of Hawaii and an M.Sc. in Zoology from the University of Vermont. He is a Fellow of the American Institute of Fishery Research Biologists, a Senior Fellow at the World Fish Center, and a member of the Board of Directors of the World Aquaculture

Society. His university group works on environmental interactions and ecological designs for sustainable aquaculture, life cycle assessments, and carrying capacity modeling.

When Dr. Costa-Pierce's presentation was over, Dr. Blackburn opened the meeting for public comments. Sixteen people signed up to give remarks. They were called on in random order. Please see the list at the end of this document for the names and affiliations of the attendees including the people who gave comments.

The following list is a condensed version of the public comments given at the listening session as compiled by the NOAA Aquaculture Program staff.

Science, Research and Technology and Innovation

- Recognize that a major impediment to the growth of the aquaculture industry is the lack of available fingerlings. NOAA should be a leader in supporting research and innovation through public/private partnerships for hatcheries and fingerling development.
- Recognize that soy protein can play a key role in reducing the need for fishmeal from reduction fisheries.
- Recognize that recirculating aquaculture systems hold some promise to manage potential environmental implications.
- Ensure continuing support for NOAA/USDA research being conducted through the Alternative Feeds Initiative.
- Promote coordination among federal, state, and private sector partners on fish nutrition research.
- Support a solid science and knowledge base.
- Support progress through demonstration projects.
- Move forward using the extensive research and development knowledge base that exists.
- Employ risk assessment to evaluate aspects of aquaculture projects.

Economic and Social Issues

- Heritage and culture are important to Louisiana. We have local shrimp but not local finfish. We need locally produced finfish, wild and farmed (from ponds, tanks, or offshore) for our restaurants. If we don't produce it here, we are opening the doors for more imports.
- Acknowledge that U.S. aquaculture will not displace U.S. workers but, instead, a domestic aquaculture industry would create tens of thousands of real jobs.
- Big corporations could take over an aquaculture industry and wipe out commercial fisheries.
- Aquaculture could ruin coastal communities and put people out of work. Land and communities could get displaced by aquaculture.

- Once aquaculture gets going, it will be uncontrollable. It is too easy to change legislation to make aquaculture profitable at the expense of the environment and the economy.
- When it comes to the perception of risk that the public regularly accepts, aquaculture is being held to a higher standard than other activities. The United States can manage the potential risks if we engage domestically.
- Choosing to not engage in domestic aquaculture shifts the risks and impacts of seafood production to other countries where they do not follow good practice as we do in the United States
- Focus on educating the public as to the benefits of aquaculture.
- Consider the long-term well-being of coastal communities.
- Address potential risks from natural disasters such as hurricanes.

Environmental Issues

- Hurricanes will be an issue for aquaculture facilities in the Gulf, including for on-shore facilities.
- Recognize that siting considerations are critical and be conservative about the design and placement of aquaculture facilities.
- Address potential environmental issues including pollution, interactions with wild stock, waste, and disease.
- Consider impacts on wild menhaden stocks used in aquaculture feeds.
- Don't use antibiotics.
- Address potential risks from natural disasters such as hurricanes.

Aquaculture in Federal Waters

- Acknowledge that there are many responsible aquaculture practitioners who are committed to sustainability and that the U S. Exclusive Economic Zone is the largest in the world and has ample space for many uses, including aquaculture.
- Because government regulations for aquaculture in marine waters are onerous (coastal or offshore), we will see more fish produced in ponds and tanks.
- The offshore aquaculture bill currently in the U.S. House of Representatives would be devastating to the aquaculture industry and to the research community.
- The House bill will not let the aquaculture community demonstrate that it can create jobs.
- NOAA should support the Capps bill (HR 4363)
- HR 4363 doesn't go far enough.
- The *Magnuson-Stevens Fishery Conservation and Management Act* is an inappropriate governing mechanism for aquaculture. Instead, we need to ensure that open ocean aquaculture proceeds only under a comprehensive national plan that addresses marine spatial planning, follows the precautionary approach, establishes rigorous environmental standards to guide rulemaking, and ensures that the public be fairly compensated for use of common resources and that operators are held liable for environmental damage.
- Consider a comprehensive framework guided by a single federal agency.
- Support pilot offshore aquaculture projects and advanced monitoring systems.

- Louisiana opposes aquaculture in federal waters at this time.
- The Gulf region should not be a testing ground for aquaculture as it has been for other industries such as Liquefied Natural Gas (LNG)

Institutional/Regulatory Concerns

- The Fishery Management Plan for Regulating Offshore Marine Aquaculture in the Gulf of Mexico (Gulf FMP) and the current House bill for offshore aquaculture would be too onerous for offshore aquaculture to succeed in the United States.
- A new set of regulations is not needed. The Gulf FMP is an adequate framework that should be used as a basis for any national policy.
- A number of federal agencies already have regulatory authority over aquaculture so there is concern over duplication of effort in any proposed regulations.
- NOAA should provide leadership.
- Support regulation of domestic marine aquaculture so as not to pollute the environment.
- Evaluate aquaculture development in the context of Marine Spatial Planning.

Market Development

- The United States should be growing its wild seafood industry and protecting coastal communities.
- If the United States doesn't produce more seafood product, we are opening the door to more and more imports.
- Additional fish provided by aquaculture would suppress prices for commercial fishermen, who are already being impacted by imports.
- How would U.S. aquaculture overcome the impact of low price imports in the U.S. market?

(see next page for list of attendees)

Attendees at the NOAA Aquaculture Listening Session in New Orleans, Louisiana.

First Name	Last Name	Affiliation	Speaker
Jorge	Aguilar	Food & Water Watch	x
Ronnie	Anderson	Louisiana Shrimp Association	x
Rene	Anderson	Louisiana Shrimp Association	
Amanda	Blanchard	Bayouside Drive Seafood	
Chad	Blanchard	Bayouside Drive Seafood	
Reg	Blaylock	University of Southern Mississippi - Gulf Coast Research Lab	x
Steve	Campbell	NOAA OLE	
Acy	Cooper	Louisiana Shrimp Association	x
Marla	Cooper	Plaquemines Parish Government	
Gregg	Creppel	Delta Sea/Watermark Energy	
Philip	David, Jr.	Louisiana Shrimp Association	
Doug	Drennan	Aquaculture System Tech, Inc.	x
James	Ferro	Ocean Conservancy	x
Clint	Guidry	Louisiana Shrimp Association	x
Betsy	Hart	National Aquaculture Association	
William	Hawkins	University of Southern Mississippi - Gulf Coast Research Lab	
Paul	Hightower	Aquaculture System Technologies	x
Terry	Huhart	citizen	
Donna	Hyndman	citizen	
Jill	Jensen	NOAA Fisheries	
James	Kejonen	NOAA OLE	
Chris	Kirkham	The Times-Picayune	
Barry	Kohl	Sierra Club/Audubon	x
Ben	Landry	Omega Protein	
Peter	Lindgren	Lindgren-Pitman Inc.	x
Jeff	Lotz	University of Southern Mississippi - Gulf Coast Research Lab	
Ronald	Lukens	Omega Protein	
Ronald	Malone	Louisiana State University	x
Roy	Marris, Jr.	Roy Marris Seafood	x
Toni	Massar	Scientific Associates	
Steven	Massar	Scientific Associates	
Tom	McIlwain	University of Southern Mississippi - Gulf Coast Research Lab	x
Harlan	Pearce	Louisiana Seafood Marketing/Gulf Council	x
Timothy	Pickett	Lindgren-Pitman Inc.	
Brad	Reuoult	citizen	
Marty	Ross	United Soybean Association	x
James	Savar	Louisiana Shrimp Association	

First Name	Last Name	Affiliation	Speaker
Jason	Smith	Jefferson Parrish Dept. of Environmental Affairs	
Aaron	Viles	Gulf Restoration Network	x
Scientific Expert			
Barry	Costa-Pierce	University of Rhode Island	
NOAA Staff			
Jessica	Beck	NOAA Aquaculture Program Southeast Regional Coordinator	
Christine	Blackburn	NOAA	
Chris	Botnick	NOAA Aquaculture Program	
Susan Bunsick	Bunsick	NOAA Aquaculture Program	
Amanda	Hallberg	NOAA	
Kate	Naughten	NOAA Aquaculture Program	
Michael	Rubino	NOAA Aquaculture Program	