

# Editor's Note

Offshore or open ocean aquaculture is expanding rapidly around the world, but has not been developed in the United States to any extent. A good deal of research has been conducted in the ocean in New Hampshire and Hawaii, for example, and commercial operations have been established in Hawaii and the Territory of Puerto Rico. It looked like a leasing and permitting system for the Exclusive Economic Zone (EEZ) in the United States might be developed as bills were introduced in both the House of Representatives and the Senate in at least 2006 and 2007. The Secretary of Commerce during that period also expressed strong support for development of offshore aquaculture. To date, no bill before Congress has ever even been debated, and I don't think the bill was even introduced in 2009.

A few years ago, the Gulf of Mexico Fishery Management Council began developing an amendment to the fishery management plan for the Gulf and formed an ad hoc marine aquaculture committee to review and comment on the draft amendment. I was a member and ultimately chair of that ad hoc committee, which was sent drafts to review periodically and met once in Louisiana and a second time in Florida. The last meeting, in which I was elected chair of the committee, was held in May 2007 and I believe the first one was in 2005. After extensive discussion of the draft amendment at the 2007 meeting, recommended courses of action were submitted and the draft amendment was ultimately submitted to the Council as a new fishery management plan on offshore aquaculture.

The plan was made available for public comment later in 2007 but did not get much attention from the public until the Council was about ready to vote. It was anticipated that the Council would be supportive of the plan. Opponents of offshore aquaculture, apparently discovering that the Council was about to pass the plan, demanded more opportunity to comment. Much of the opposition was based on the notion that the plan had been rushed to completion, when in fact it had been developed over a period of years. The draft plan was submitted to the Department of Commerce, which has final approval authority over activities in the EEZ, and the review process at that level further delayed the vote. Ultimately, Commerce provided feedback and the plan was put before the Council in 2009.

Delays in the vote continued to occur, until finally, on January 28, 2009, the Council voted 11 to 5 in favor of the plan, which was then to be sent back to the Department of Commerce for final approval. According to news reports, the opposition was quick to express outrage at the Council's action. If approved at the Department of Commerce level, there still needs to be developed a detailed permitting and leasing policy, which will undoubtedly

require a considerable amount of time.

Establishing an aquaculture facility in the EEZ will be expensive and will carry with it high risk. The Gulf of Mexico is not a friendly environment. Severe storms are common over much of the year (hurricane season through winter), so culture systems that can withstand high waves and strong currents will be a necessity. Logistics associated with operating in the offshore environment will also be an issue. Finding a species that can be reared economically is also a major consideration.

As a member of the ad hoc committee, I can report that there was a strong consensus that offshore facilities should be carefully monitored to ensure that they do not lead to irreversible environmental degradation. Siting of facilities will be important so as to limit as much as possible interference with other activities in the Gulf. I am a strong advocate of adaptive management, which would give permit holders the opportunity to take corrective action and develop new procedures to avoid repetition of any environmental problem associated with their activities is identified.

Permits need to be of sufficient duration to allow culturists a realistic opportunity to demonstrate either success or failure in terms of economic success in addition to developing best management practices that ensure their operations are environmentally and socially sustainable and that their product is of the highest quality and both healthful and safe for consumers.

Environmental concerns are certainly justifiable and I have long argued that it is the aquaculturist who will be the first to suffer from a degraded environment. Profit will be a motivation for the commercial open ocean aquaculturist without a doubt, but most who are willing to gamble that they can develop a profitable facility offshore will also be dedicated to protecting the environment. For that minority who may not, there will be sufficient safeguards in the policies associated with environmental monitoring to ensure against permanent negative impacts.

To those who are adamantly opposed to open ocean aquaculture, I offer this challenge. Quit predicting gloom and doom about aquaculture development and step back while a few offshore aquaculture facilities are established in the Gulf of Mexico. Let the results of their activities either support your case or demonstrate that your concerns can be addressed satisfactorily. Is there a fear that the objections are either baseless or can be dealt with, or is there some other agenda that is not being expressed? We can discuss the issues forever, but it's time to deal with them head on. Let's get a few operations in the water at a commercial level and let the chips fall where they may.

— *Robert R. Stickney*  
Editor-in-Chief