



Aquaculture at NOAA

State Marine Fisheries Directors & NOAA Fisheries Meeting

April 11-13, 2005



Overview of Presentation

- Context for Current Efforts
- Overview of NOAA's Program
- Offshore Legislation Advancing
- The Future of U.S. Aquaculture



Emphasis on Opportunity

With increasing demand for seafood:

- Aquaculture can satisfy rising demand, reduce trade deficit, enhance food security and health
- Coastal communities can adopt aquaculture creating jobs
- Supporting industries expanding (feed, equipment)
- With best management practices, aquaculture is environmentally friendly source of seafood
- Need to continue replenishment and restoration

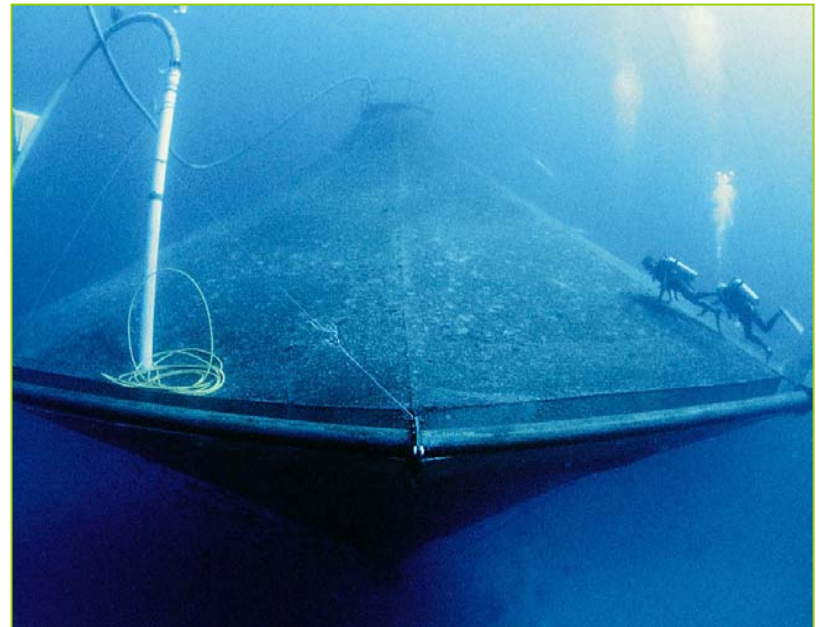
Challenges

- Globalization
- How to address divergent views among domestic interests
- Aquaculture: domestic or imports?
- Need for enabling regulatory framework
- Lack of understanding about environmental and economic effects



Why so much momentum now?

- President's Ocean Action Plan
- U.S. Ocean Commission Recommendations
- Permit applicants (Gulf, PR, HI, NH, etc.)
- Stakeholders ask NOAA to take active role
- New technology



Aquaculture: “The propagation and rearing of aquatic organisms in controlled or selected environments for any commercial, recreational or public purpose.”

- NOAA Aquaculture Policy, 1998



Elements of the NOAA Program

- Provides framework for all forms of marine aquaculture
- Safeguards the environment and wild stocks, benefits multiple stakeholders
- Addresses environmental and economic challenges
- Builds on social drivers
- Encourages learning by doing
- Develops/broadcasts BMPs



NOAA and State Programs

- NOAA labs work on hatchery and enhancement technology
- Sea Grant shellfish farming initiatives
- Ecosystem management approaches to managing wild stocks
- How can NOAA continue to help?



Rationale for Legislation

- No good way to allow operation in EEZ, regulate and set standards, and safeguard marine environment under current law
- Limited near shore areas in most states
- New technology developing
- Good production and environmental monitoring results of early efforts
- Over ten years of preparatory work
- Opportunities for stakeholder consultation

Offshore Aquaculture Legislation

Grant NOAA authority to issue offshore permits

- NOAA coordinates permit process (other permits still required)
- Aquaculture products not subject to fishing definitions that restrict size, season, and harvest methods
- NOAA to ensure that aquaculture operations do not interfere with wild stock conservation and management

Provide environmental and other safeguards

- Consistency with state plans
- **Consultations with states**, FMCs, federal agencies
- Environmental requirements, monitoring, enforcement
- Authority to suspend, modify, revoke permits
- Bonds or other financial guarantees

Support development of offshore aquaculture

- R&D industry partnerships
- Biological, social, production and economic data collection

Environmental Issues

- Gather information, science
- Determine which issues need regulation, BMPs, R&D, policy decisions
- Broadcast information, encourage BMPs
- Ecosystem based management
- Aquatic animal health
- Food safety



Economic and Social Issues

- Jobs, revenues, balance of trade
- Food security, citizen health
- Can coastal, fishing communities integrate aquaculture and fishing?
- Cost competitiveness of US production
- Associated feed, equipment, processing
- Price competition with fisheries, with meat
- Globalization – significant impacts regardless of US aquaculture and fisheries

Enhancement Opportunities

- Develop hatchery technology for species important to commercial and sport fishing, and for endangered species programs
- Improve effectiveness of hatchery and enhancement work
- Role in ecosystem management



Design Program with Stakeholders

- Aquaculture industry
- Commercial fishing
- Sport fishing
- Seafood buyers
- NGOs
- Congress
- States
- FMCs
- Universities
- Federal agencies



U.S. Aquaculture's Future?

- Niche markets
- Commodity crops?
- Value added
- R&D
- Equipment, know-how
- Feed, health and nutrition
- Cooperation with importing countries
- Enhancement (sport/commercial fishing)

