Identifying Information Needs and Regulatory Impediments to Off-Bottom Oyster Culture in Texas

John Scarpa
(john.scarpa@tamucc.edu)
Florida Shellfish Aquaculture Retraining Programs

Project OCEAN
1991 – 1993

Project WAVE
1995 - 1997

Project CLAM
1996 - 1998

Atlantic Ocean
Charlotte Harbor
Cedar Key
Oak Hill
Gulf of Mexico
Season:
1 Nov – 30 April

Size: 3 inches

Devices:
Hand, Tong or Dredge

Public Reefs

Private Leases
(Galveston Bay)
Coastlines

FL: 1350 miles (8436 tidal)

LA: 397 miles (7721 tidal)

TX: 367 miles (3359 tidal)
Texas Oyster Landings (20 yrs)

\[ y = -439.43x^4 + 18186x^3 - 253924x^2 + 1E+06x + 4E+06 \]

\[ R^2 = 0.223 \]

NMFS fisheries data
USDA Oyster Aquaculture – 2013 (~$152M)

- $81.1M WA (Cg)
- $10.6M OR (Cg)
- $9.8M CA (Cg)
- $0.5M AK
- $13.3M LA
- $0.5M – FL West
- $0 - TX
- $10M - CT
- $11M - MA
- $8.0M - NJ
- $?M - DE
- $?M - MD
- $20.8M - VA
- $0.07M - NC
- $0.18M - SC
- $?M - GA
- $?M - FL East
- $?M - NY
- $?M - RI
- $?M - ME
- $10M - CT

https://www.lib.utexas.edu/maps/united_states/usa_blank.jpg
Aquaculture is the fastest growing form of global food production. It accounts for about 40 percent of the seafood consumed by humans worldwide, and almost half of the seafood consumed by Americans.

“...we must turn to the sea with new understanding and new technology. We need to farm it as we farm the land.”

- Jacques Cousteau
CULTCHLESS EASTERN OYSTER (*CRASSOSTREA VIRGINICA* (Gmelin 1791)) CULTURE ON THE TEXAS GULF COAST: A FEASIBILITY ANALYSIS AND COMPARISON TO TRADITIONAL OYSTER FISHING

MIRELLA MARTINEZ,¹ LEONARD DIMICHELE¹,³ AND SAMMY M. RAY²

¹Department of Wildlife and Fisheries Sciences
Texas A & M University
College Station, Texas 77843
²Department of Marine Biology
Texas A & M University at Galveston
Galveston, Texas 77553

Dr. Leonard DiMichele (2014)
Figure 1. Life cycle of the eastern oyster, Crassostrea virginica.
Semi-Structured Interview

Are you aware of oyster aquaculture and the different methods that are practiced in the U.S.?

Does your agency/organization have an official stance on oyster aquaculture (national or Texas)?

Are you aware of, or does your agency have, any regulations that exist regarding oyster aquaculture in Texas?

Would your agency/organization support oyster aquaculture in Texas?

What information would your agency/organization require to further evaluation for allowing oyster aquaculture in Texas?

What other agencies or organizations/people should I visit?
State Agencies

Texas Parks and Wildlife Department

Texas General Land Office

Texas Commission on Environmental Quality

Texas Department of State Health Services
Non-Governmental Organizations

The Nature Conservancy

Coastal Conservation Association (TX)

Galveston Bay Foundation

Mission Aransas National Estuary Reserve
Commercial

Misho’s Oyster Company

The Union of Commercial Oystermen of Texas

Jeri’s Seafood, Inc.

Prestige Oysters, Inc.*
Commonalties

Not one group was opposed

Sustainability (e.g., siting, seagrass, genetics)

State Agency authority
Impediments

State agencies; authority

Support for increased costs (e.g., monitoring)

Spatial Planning (i.e., user conflict, sustainability)
Galveston Bay system
Solutions

State agencies; legislation

Support for increased costs (e.g., monitoring)

Spatial Planning – Education

Sustainability - Education
Information for Shellfish Growers:

Leases, permits, and other authorizations required for shellfish aquaculture gear, seeding, rearing, cultivating, transplanting and harvesting

The Interagency Working Group on Aquaculture

January 2015