

New Opportunity for Oyster Mariculture in Texas



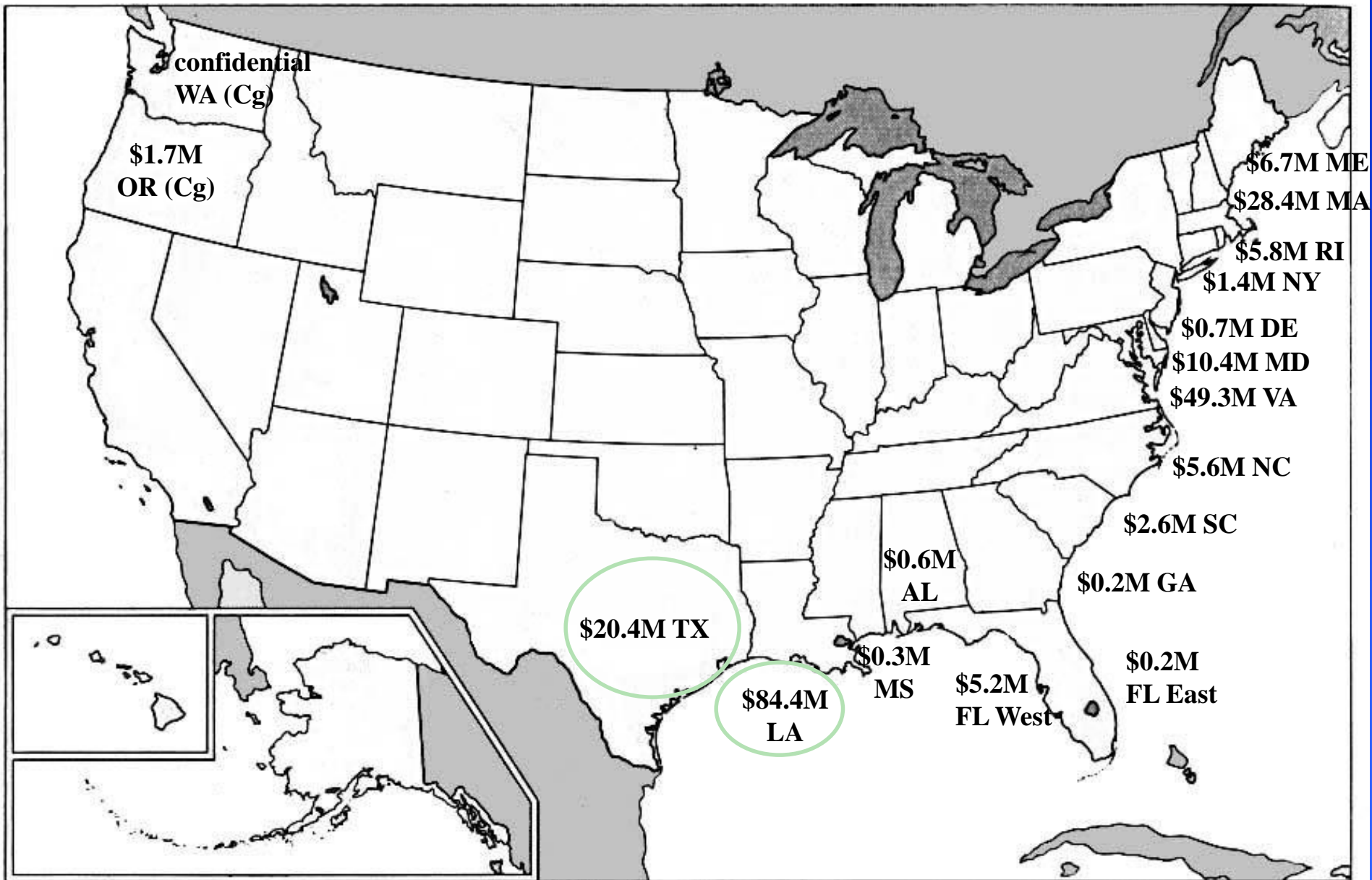
John Scarpa, Ph.D.



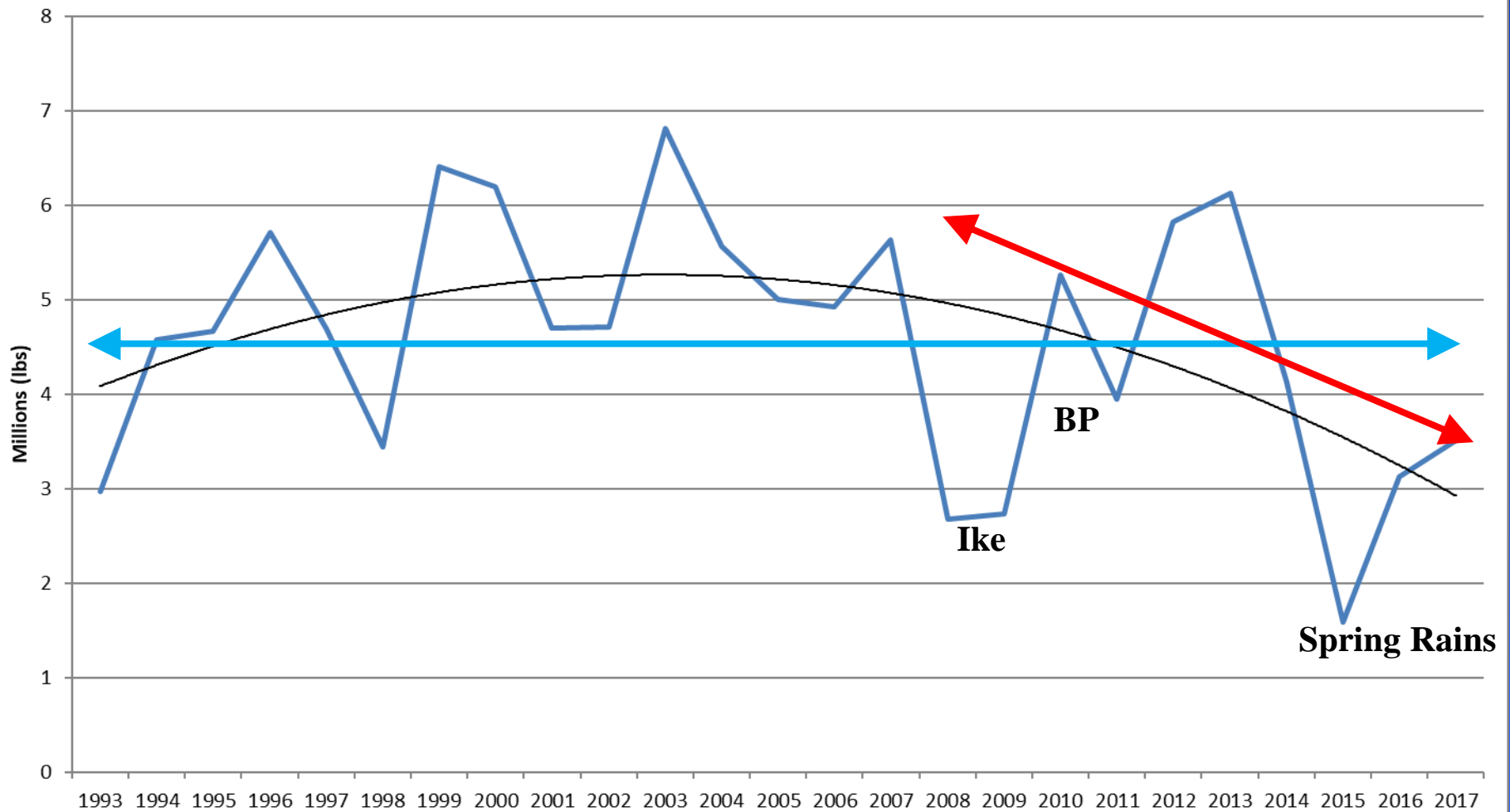
TEXAS A&M UNIVERSITY
CORPUS CHRISTI



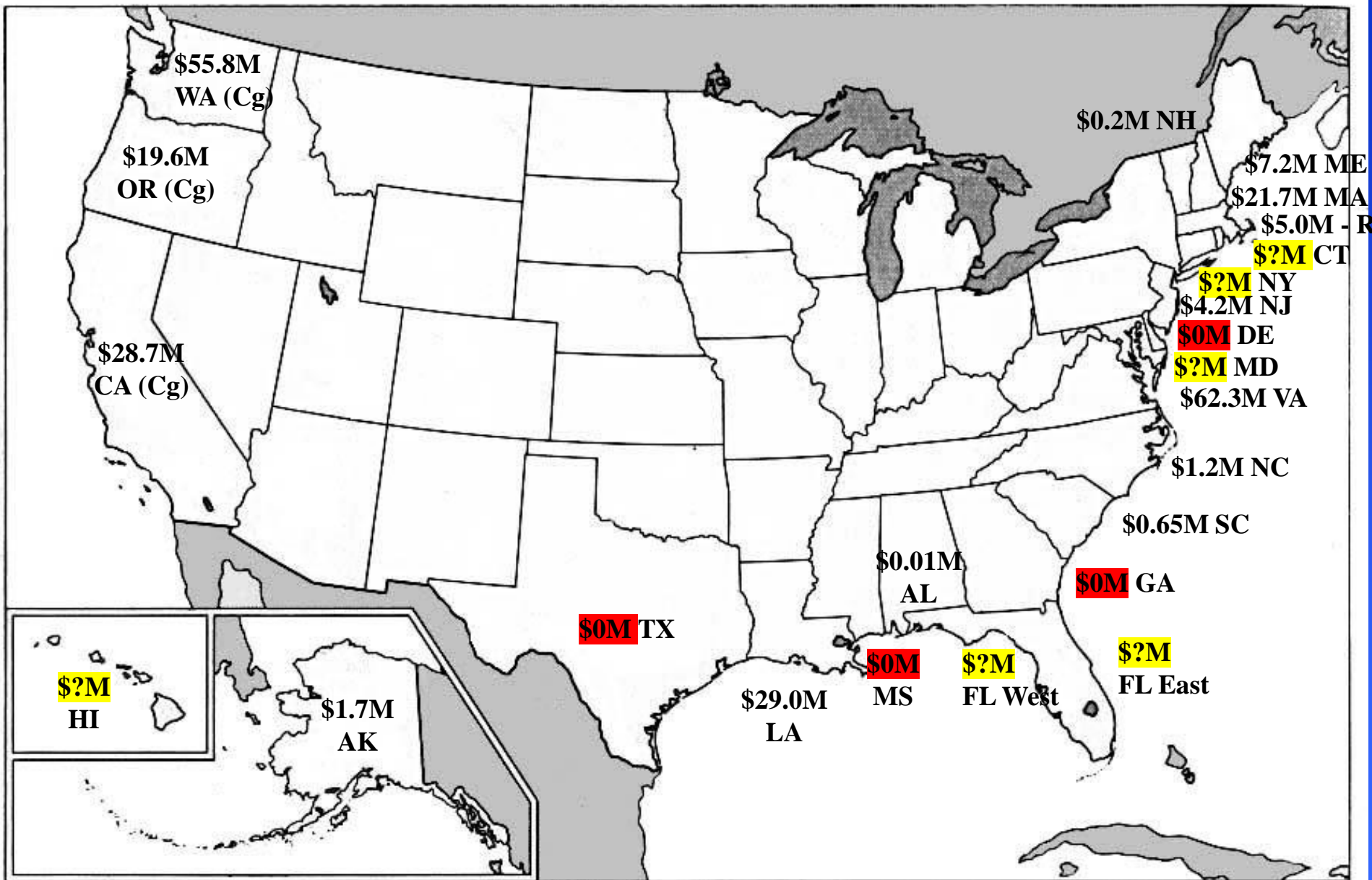
NMFS Oyster Landings – 2017 (~\$222M+)



Texas Oyster Landings (25 yrs)



USDA Oyster Aquaculture – 2018 (~\$285M)



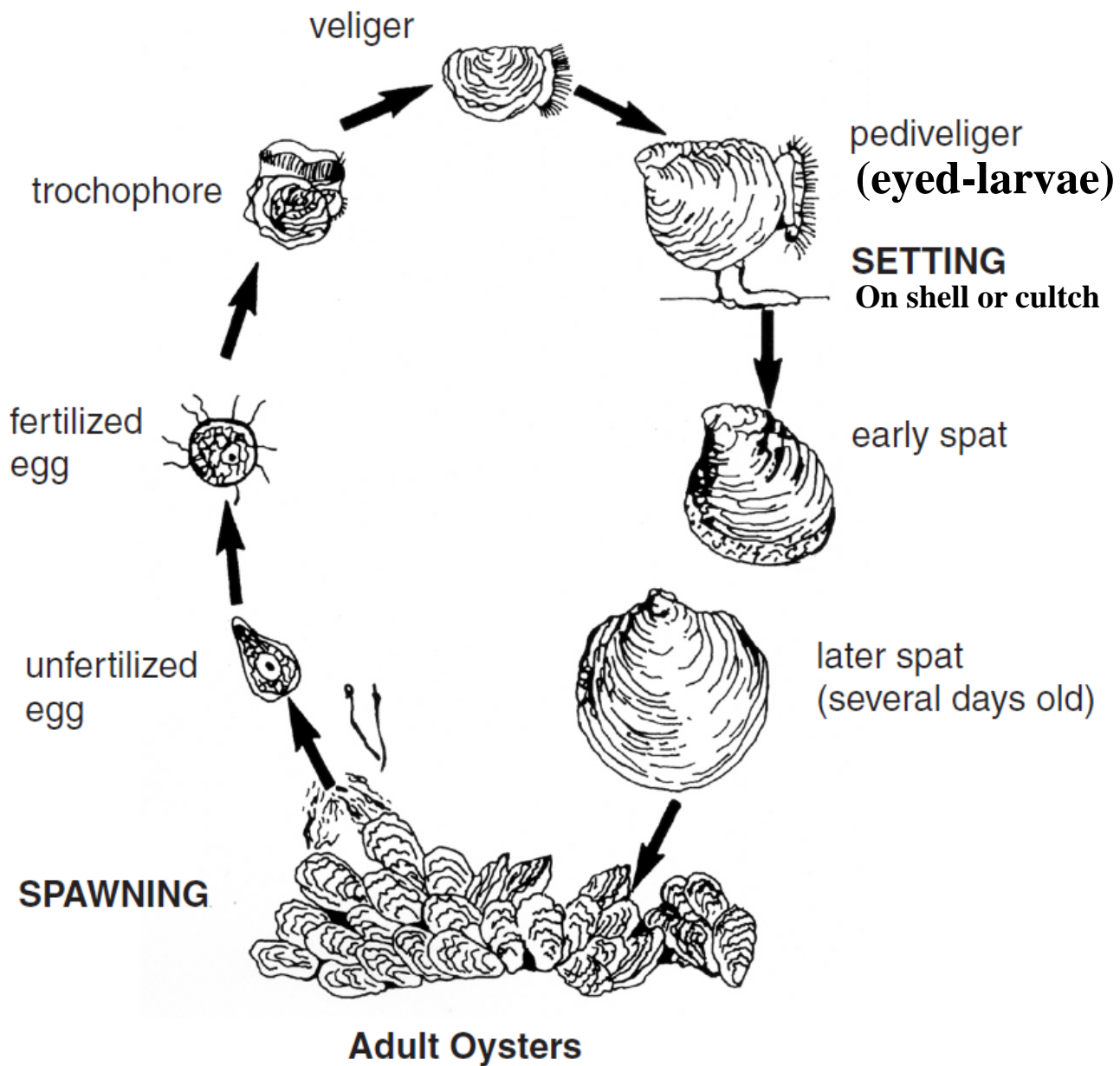
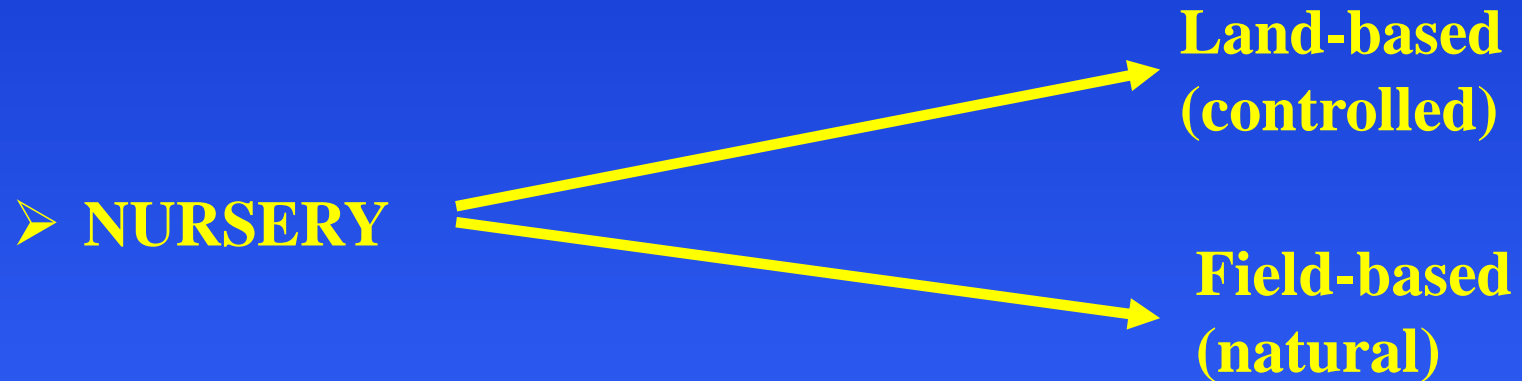


Figure 1. Life cycle of the eastern oyster, *Crassostrea virginica*.

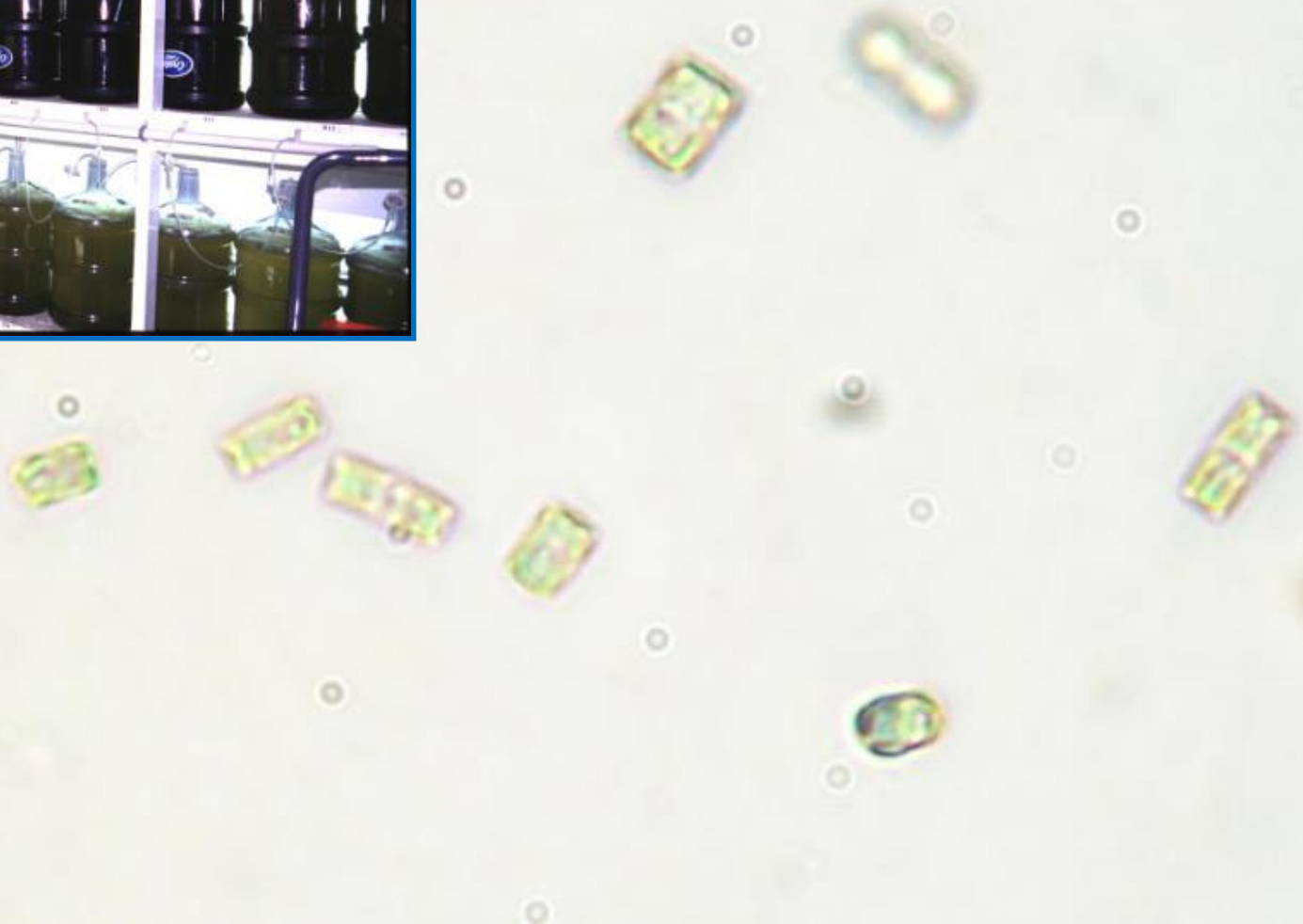
STAGES FOR THE CULTIVATION OF BIVALVE MOLLUSCS

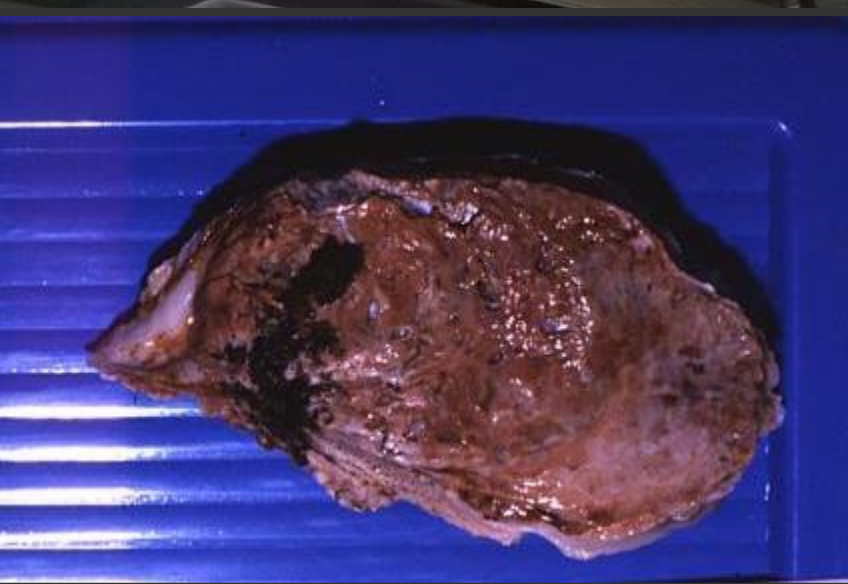
➤ **HATCHERY** (controlled conditions)



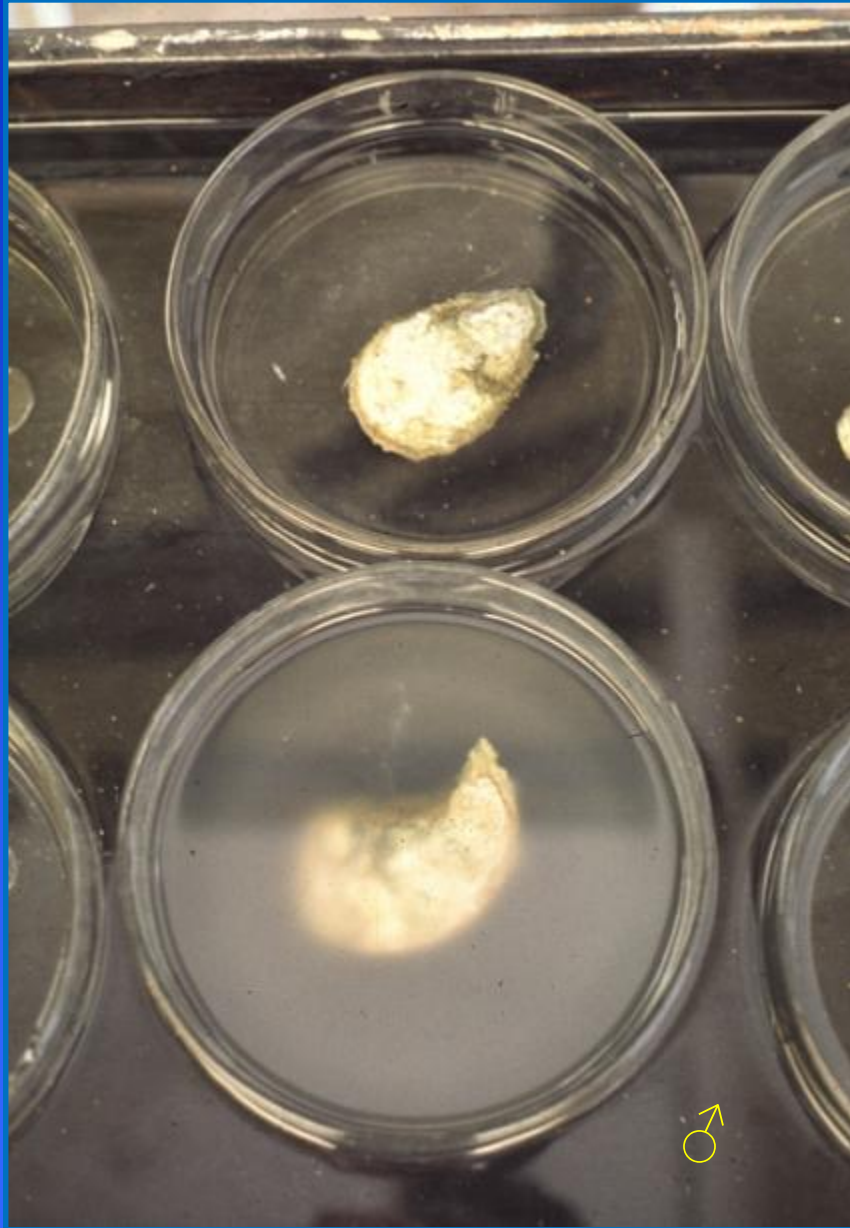
➤ **GROW-OUT** (natural conditions)

MICROALGAE (phytoplankton)





SPAWNED OYSTERS



LARVAE CULTURE







A wide-angle photograph of a large industrial facility, likely a hatchery or laboratory. The room is filled with rows of white rectangular tanks, each containing a green mesh screen. A worker in a grey shirt is visible in the middle ground, working with the tanks. The ceiling is high with exposed metal beams and numerous fluorescent lights. Blue overhead cranes with yellow lifting straps are suspended from the ceiling. In the foreground on the right, there are large, stacked white cylindrical containers. The overall scene depicts a large-scale, organized industrial process.

Setting Tanks

Larvae Tanks

LAND-BASED UPWELLER SYSTEMS



<http://ccesuffolk.org/events/2019/04/17/spat-workshops-scmelc-southold>

<http://www.oysterssa.com.au/an-oysters-life>

Floating Upweller System



Spat

Seed



“BOTTOM” CULTURE





MID-COLUMN CULTURE



FLOATING CULTURE



Photo: Courtesy Leslie Sturmer, Florida

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

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Dr. Leonard DiMichele (2014)

Dr. Sammy Ray and Charlotte Ray (NSA 2012)



Texas House Bill 1300

Sponsored by Representatives:

Todd Hunter

Eddie Lucio

Dade Phelan

John Cyrier

Geanie Morrison

William Metcalf

Ina Minjarez

Leo Pacheco

John Raney

Texas Senate Bill 682

Sponsored by Senator:

Lois Kolkhorst





The background of the slide is the Seal of the State of Texas. It features a five-pointed star in the center, surrounded by a wreath. The words "THE STATE OF TEXAS" are written in a circular border around the star.

Legislation:

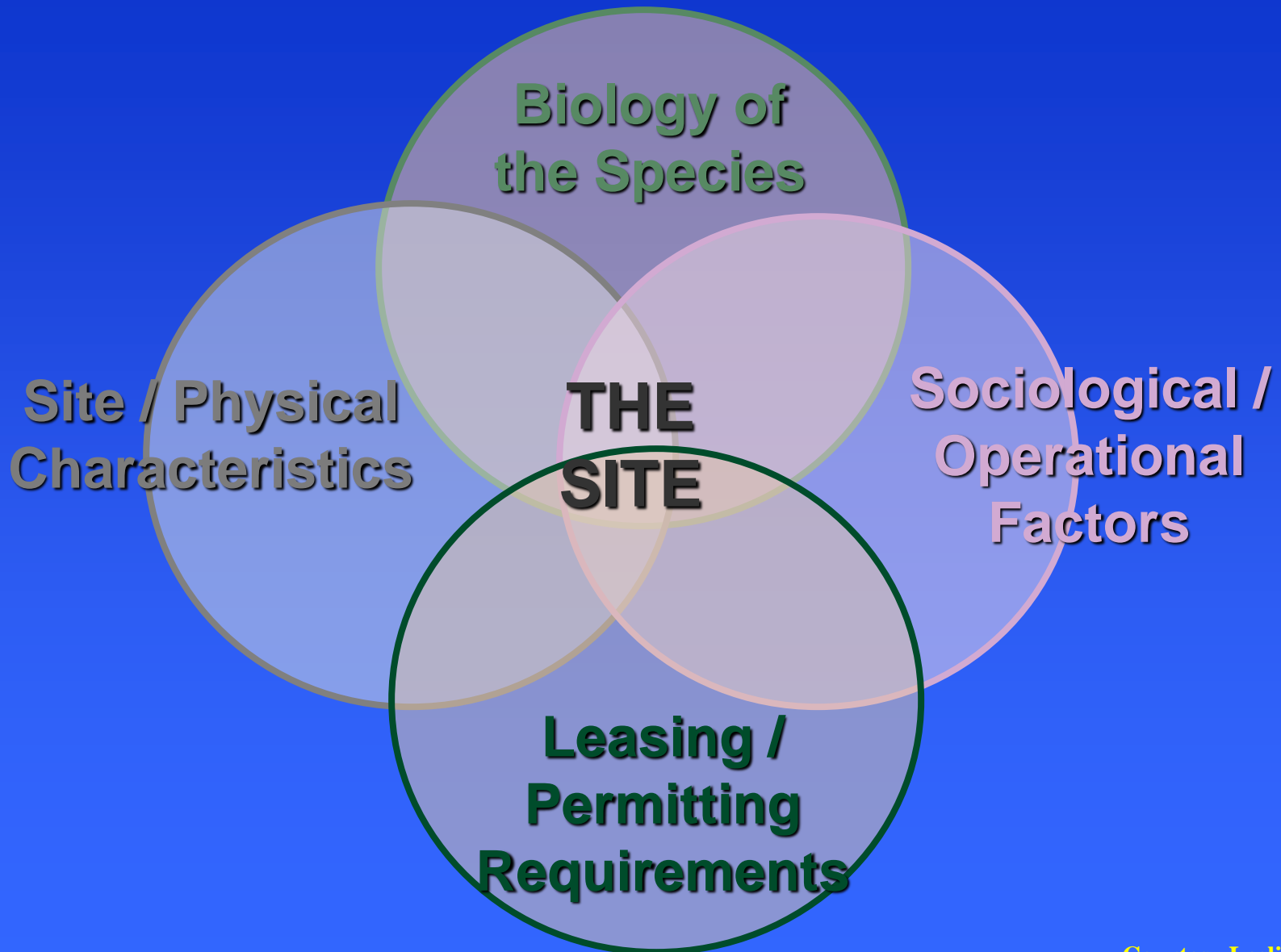
Cultivated Oyster Mariculture

- ◇ **HB 1300 and SB 682**
 - ◇ **Authored by Rep. Todd Hunter (District 32) and Sen. Lois Kolkhorst (District 18), et al.**
 - ◇ **Partners: TPWD, CCA, Texas Restaurant Association**
 - ◇ **Supportive resolutions in most coastal counties**
- ◇ **Basic enabling legislation**
 - ◇ **Empowers TPWD Commission as regulatory body**
 - ◇ **Oyster farming starts?**
 - ◇ **Coastal oyster aquaculture task force**

Cultivated Oyster Mariculture Legislation

- Introduces a **new chapter** within the Code:
Ch. 75 Cultivated Oyster Mariculture
- Allows wholesale and retail fish dealers to purchase oysters from producers holding a “**cultivated oyster mariculture permit**”
- **Defines terms** associated with it (e.g., “broodstock oyster”, “cultivated oyster”, etc.)
- Stipulates that oysters that are part of a cultivated oyster mariculture operation is not a natural oyster bed or a private oyster bed and is **not subject to location requirements** under Subchapter A, Chapter 76
- The **TPWD Commission** will adopt rules related to establishing a cultivated oyster mariculture program
- **Requires shellfish aquaculture permit**

Where to site your shellfish farm?



Thank You

Questions?

