The Auburn University Shellfish Lab

Off-Bottom Oyster Farming Program
The eastern oyster industry in the United States produces 23 million pounds of oysters annually, valued at $82.5 million. The Gulf of Mexico accounts for 89 percent of harvest by volume, but represents only 73 percent of the total dollar value. Experts at the Auburn University Shellfish Lab in Mobile County, Alabama are working to change that.

Despite the dramatic growth of oyster farming across the U.S., in the Gulf of Mexico region, oysters are only farmed extensively on bottom leases with the vast majority of production concentrated in Louisiana. Subject to environmental variability, the supply and quality of extensively farmed oysters differs widely. In contrast, oyster farmers using intensive, off-bottom methods focus on producing a steady supply of consistently premium oysters for the lucrative half shell niche market.

Off-bottom oyster farming, where watermen raise hatchery-reared oyster ‘seed’ in various containers, is an opportunity for a viable nearshore domestic aquaculture industry that can provide a large economic boon to the coastal communities along the Northern Gulf. It can sustain the producers and support local industries, improve the environment, and preserve working waterfronts. While substantial industries (over $100 million/year respectively) have been established on the U.S. East and West coasts, a number of hurdles kept this industry from being established along the Gulf coast, including Alabama.

Beginning in 2009, Auburn University’s Marine Extension and Research Center and Auburn University Shellfish Lab’s Dr. Bill Walton partnered with Alabama Cooperative Extension System and Mississippi-Alabama Sea Grant Consortium to tackle the hurdles to this industry in Alabama, conducting research to identify the most cost-effective methods of raising oysters best suited to the region. Auburn partnered with a number of industry members to share the results and identify research priorities moving forward. This led to additional research into culture methods, marketing aspects, permitting questions, and food safety. In addition, Auburn University permitted a 32-acre oyster farm “business park” and conducted a hands-on training program where participants established commercial oyster farms within this park.

Building off this one business park, nine new commercial oyster farms have been established in Alabama, with a 2014 harvest value exceeding $500,000, which is expected to exceed $1 million
in 2015, increasing incomes and generating local jobs (at least 20 on-farm jobs). At least five wholesalers in Alabama also profited from the sales of these oysters.

Two new oyster equipment companies were established in Alabama with total sales since inception over $200,000. Several applications for new commercial farms are pending the results of the Alabama governor’s review board (on which Dr. Walton served) mandated by Alabama House Bill 361. In partnership with Organized Seafood Association of Alabama (OSAA), Auburn has conducted a hands-on training program on oyster farming fundamentals in this park. The 16 adult students have collectively raised 350,000 oyster seed. Auburn is currently developing a vocational-technical program for training high school students to be oyster farmers. Additionally, this park serves as a regional template and a valuable collaborative research testing ground, producing published research, theses, and Extension publications.

Looking ahead, and in partnership with Auburn’s School of Fisheries, Aquaculture and Aquatic Sciences, the Department of Biosystems Engineering and the Auburn University Radio Frequency Identification Laboratory, experts at the Auburn University Shellfish Lab plan to establish and manage, in cooperation with industry associations such as OSAA, three 100-acre oyster aquaculture parks in Alabama. Each park will support a hands-on training area and sixteen 5-acre oyster farms, allowing lanes among the farms for passage. Each 5-acre oyster farm is projected (conservatively) to harvest 500,000 oysters per year, grossing $250,000 per year, netting $125,000 per year, and supporting at least three full-time positions per year. Each park will gross $4 million per year and create 48 full-time positions, without considering any supporting industries (gear sales, wholesalers, etc.).

The planned network of oyster farm parks is projected to create 144 full-time positions, with an annual harvest value of $12 million. Furthermore, trainees from each park may opt to establish independent operations outside the oyster farm parks, creating additional jobs and income (as has been observed in the initial oyster farming park).

Collectively, this network of oyster farm parks have the potential to create numerous ‘blue-green’ jobs within coastal communities that have struggled to prosper while preserving their traditions of working on the water. Beyond the direct jobs and income created, this network of parks is expected to benefit a number of ancillary industries, including boatyards, commercial fishermen suppliers, wholesalers, truckers, restaurants, and more.

Alabama is historically the #1 processor of oysters in the U.S. This new oyster farming technique, fostered in a unique business park environment, will serve to increase the economic impact of an industry that already accounts for hundreds of millions of dollars per year in Alabama.
For related websites including presentations and publications, visit:

The Walton Lab
http://www.auburn.edu/~wcwoo03/Home.html

The Auburn University Shellfish Lab
http://www.aces.edu/dept/fisheries/aumerc/AuburnUniversityShellfishLaboratory_000.php

The Auburn University Marine Extension & Research Center
http://www.aces.edu/dept/fisheries/aumerc/

For university-generated articles, visit:

Timely Information: Off Bottom Oyster Farming
http://www.auburn.edu/~wcwoo03/files/offbottomoysterfarmingexten.pdf

Alabama Oyster Social is a Party with a Purpose

Office of Sustainability: Off Bottom Oyster Farming Group
http://wp.auburn.edu/sustainability/off-bottom-oyster-farming/

For non-university articles, visit:

Oyster Farming Gets Revolutionized on the Gulf Coast: Offshore Innovation: How Point aux Pins Highlights the Alabama Oyster
http://eatalabamaseafood.com/articles/point-aux-pins-oyster-farming/

Boutique Bivalves—Business Alabama Magazine
http://www.businessalabama.com/Business-Alabama/August-2013/Boutique-Bivalves/

For Social Media, visit:

The Auburn University Shellfish Laboratory
https://www.facebook.com/AUShellfishLab?fref=ts

Point Aux Pins Oysters
https://www.facebook.com/PointauxPins