

Mussel Farming in Rhode Island



An overview of our efforts to grow this tasty bivalve in the waters in and around Rhode Island

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Live farmed mussels in USA:

- Canada exports: 14,941 mt --\$38,500,165
- New Zealand exports: 65 mt -- \$304,000
- East Coast US production: 646 mt
- Southern New England production ≤ 5 mt



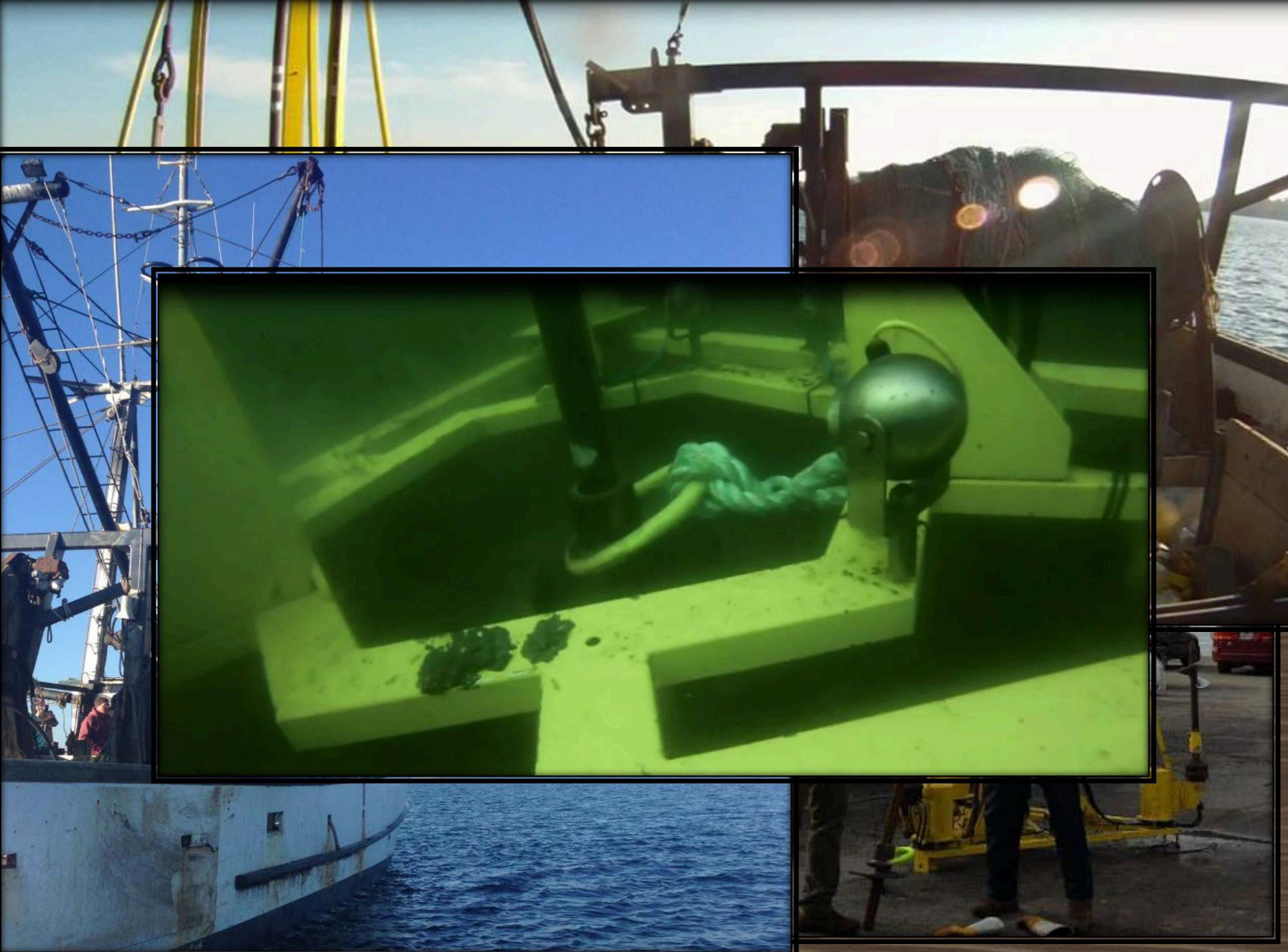
Farm Locations

- 20 acre lease in the east passage of Narragansett bay.
- 8 acre lease north of Dutch Harbor.
- 2 acre experimental lease off Newport.



Mooring System

- Start with a solid foundation!
- Concrete dead weight anchors move, are difficult to install, require maintenance.
 - However, most common anchor in use due to availability.
- Harbor Screw Anchors provide exceptional holding power with minimal bottom disturbance.
 - 4 m x 5 cm iron shafts with 25 cm discs.
 - Accurate anchor placement allows for full utility of farm site.
 - Once in place the anchors, and farm are stationary.
 - Proper longline tension achievable.
 - Designed for sites up to 100 meters depth, no diver required.



Seed Collection

- History
 - At our oyster lease, in the east passage of the bay, there is an abundant natural set of seed mussels.
 - In the past we considered them a fouling organism because they would weigh down the oyster gear.
 - More recently we have tried to capture this naturally occurring set, and use them as the seed source for our mussel farms.
- Pros
 - Free, reliable source of seed
 - Allows for seed harvest year round, therefore planting year round
- Cons
 - Limited space on our oyster farm for commercial scale mussel seed collection
 - Equipment limitations for a large collection

Gear Types

- Canada Socks
 - Short 8-10' lengths of plastic mesh socks
 - Fill with properly graded mussel seed depending on mesh size.
 - Mussels will migrate outside of the socks, but hold the plastic with their byssal threads.
- New Zealand Rope
 - Continuous loop rope.
 - Loop depth will vary with water body.
 - Put seed around rope, with biodegradable cotton sock.



Equipment

- Current vessel the New Hope
 - 35 ft. Novi ex-lobster boat
 - Hydraulic boom winch, pot hauler, star wheels
 - 8 knots
- Dream boat...
 - 50 ft. Larger deck space, faster, more stable
 - Knuckle boom crane
 - New versions of our current equipment, built more durable, and to handle a larger capacity.

Mussel Farming Equipment

- Pot hauler/rope stripper
- Seed grader
- Canadian mussel socker





Future

- What is the potential of this industry?
 - Farmers on NE coast producing hundreds to millions of pounds of mussels annually.
 - Job growth in seaside communities.
 - Corresponding industries such as boat builders, mechanics, metal fabricators, rope makers, etc..
 - High value food item for domestic, regional, or export market.
- What needs to happen?
 - Must learn how to efficiently grow a premium product.
 - How to make mussel farming economically sustainable in the current small scale operations.
 - Invest in proper equipment to handle larger scale farms.
 - More lease space for both grow out operations (off shore possibly), and seed collection operations (locations closed to shellfishing).
 - Feed the 9 billion people a healthy, low environmental impact, tasty protein.