

The background of the slide is a close-up photograph of various seashells and clams. The shells are in shades of grey, white, and light brown, with some showing distinct concentric growth lines. The lighting is soft, highlighting the textures of the shells. The text is overlaid on a semi-transparent dark grey circular area in the center.

Gathering of Shellfish Commissions

Saturday, January 21, 2017

Welcome!



Connecticut's Shellfish Initiative

Setting a Course for the Future of Connecticut Shellfish

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Connecticut Shellfish Initiative

Environment
Jobs
Recreation
Awareness



Shellfish Tradition



Shellfish Economy

46

Aquaculture Businesses
and Family Owned
Operations

300

Jobs

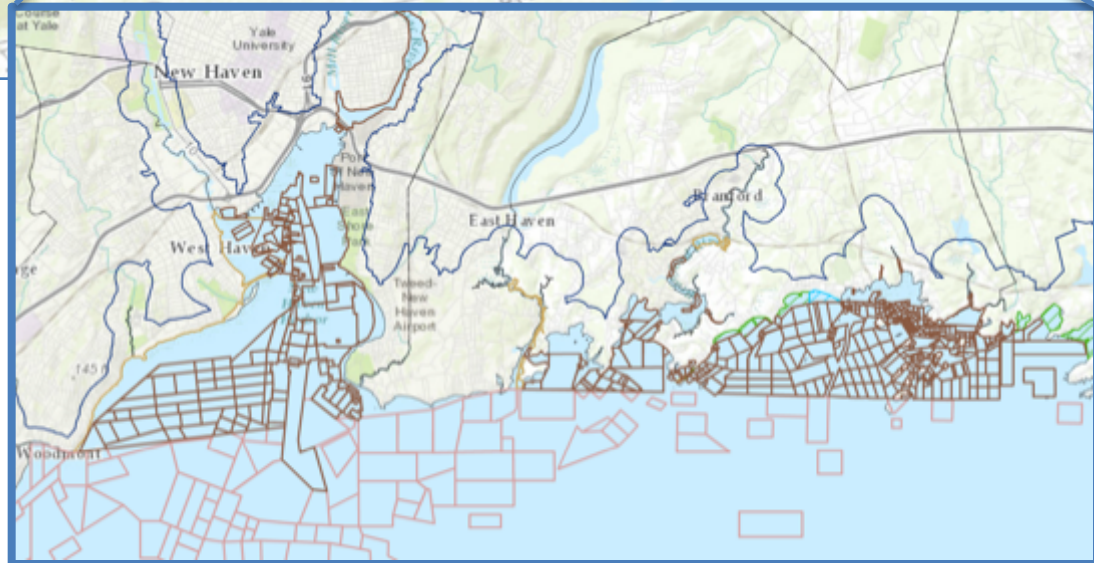
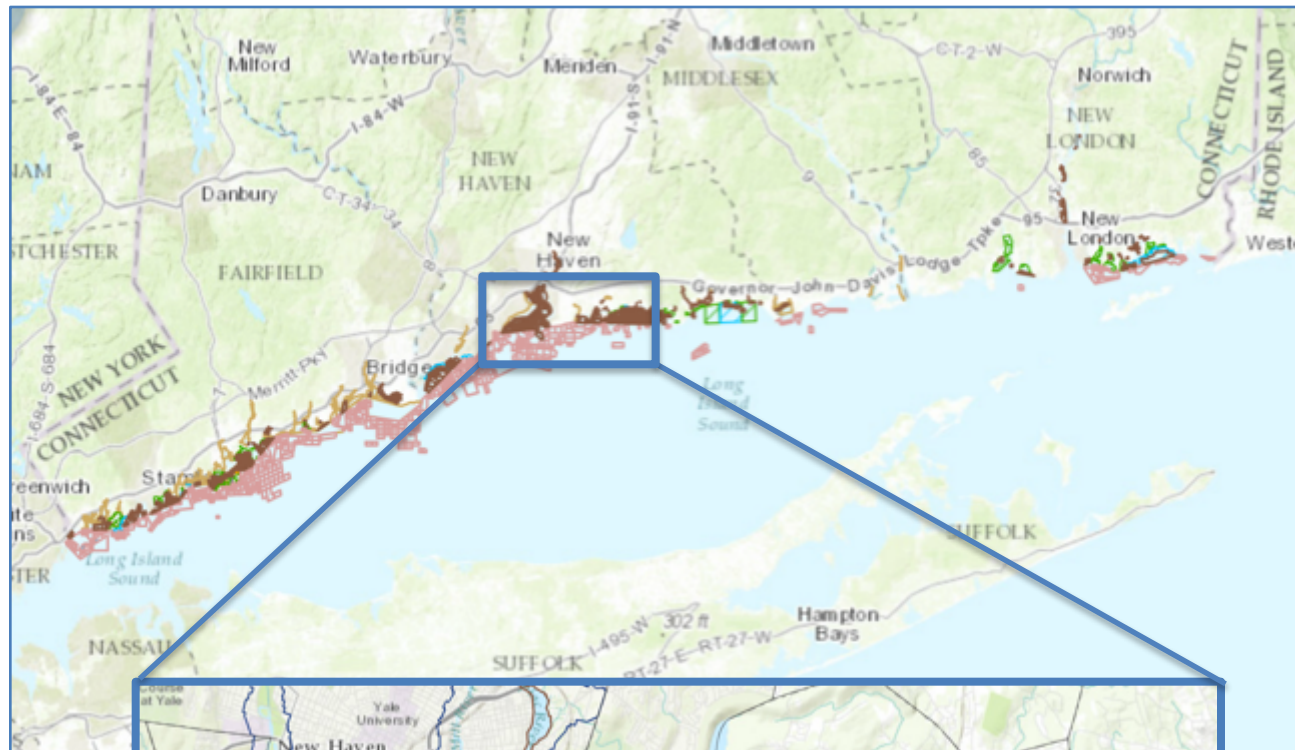
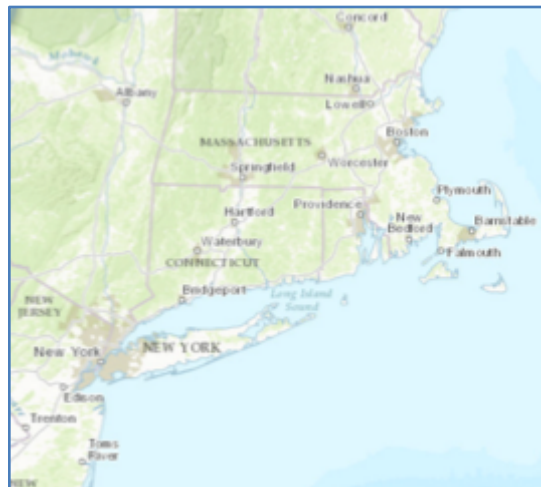


Norm Bloom and Son

Shellfish Species



T. Getchis, A. Concepcion



Legend

-  Commercial (state)
-  Commercial (town)
-  Recreational
-  Natural

Shellfish Recreation



\$100K Permit Sales Annually

Safe Harvest

800 Stations





Safe,
Healthy
Food

\$30M

Farm-gate
value

Ecological Benefits

Clean water
Homes for marine organisms
Shoreline protection

Planning for Growth



1. Issues and Context

- What?
- Why?

2. Recommendations

- Management
- Research
- Outreach

Connecticut Shellfish Initiative Vision Plan

Part 1. Overview and Recommendations

Executive Summary
October 2016

15. Facilitate the establishment of in-state hatcheries to provide local shellfish seed for recreational, restoration and commercial purposes.

16. Identify and implement strategies to expand recreational shellfishing opportunities where desirable and appropriate.*

17. Establish a reliable and efficient means of transporting water and meat samples from recreational shellfish harvest areas to state laboratory, establishing this as standard protocol within the

23. Identify strategies to reduce development impacts and conflicts between recreational and commercial uses of shellfish harvest areas.

Theme 4. Streamlining Regulations and Management

24. Ensure the Connecticut Department of Agriculture/Bureau of Aquaculture has the laboratory staff, capacity and equipment to meet existing needs and allow for future growth of shellfish sectors.

Ensure the Connecticut Department of Agriculture/Bureau or Aquaculture has the laboratory staff capacity to meet existing needs and allow for future growth of shellfish sectors.

20. Improve understanding of the effects of ocean acidification on shellfish survival and growth in Long Island Sound.*

21. Improve understanding of the effects of hypoxia (low dissolved oxygen) on shellfish survival and growth in Long Island Sound.*

22. Ensure that coastal resiliency plans address the impacts of climate on infrastructure, water quality and shellfish resources.*

29. Develop permitting guidance and application forms for projects involving shellfish habitat restoration, shoreline protection, and bioextraction projects that utilize shellfish.

30. Improve mapping capacity, geographic coverage and public access to and use of spatial, biological, chemical and physical data sets used for shellfish resource management.*

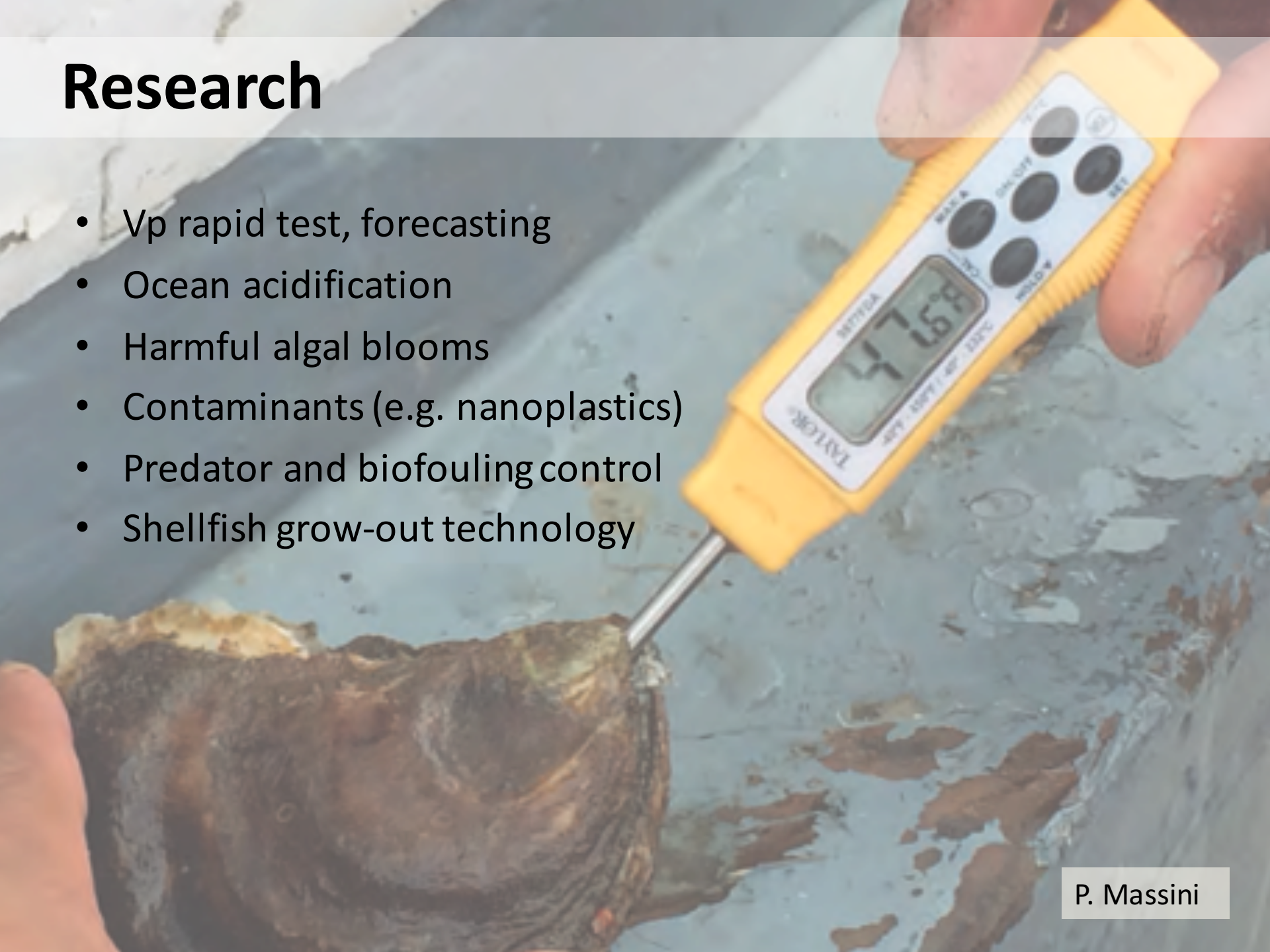
Management

- Water sampling, transport, analysis
- Leasing process
- Gear permit review process
- Minimum oyster harvest size



Research

- Vp rapid test, forecasting
- Ocean acidification
- Harmful algal blooms
- Contaminants (e.g. nanoplastics)
- Predator and biofouling control
- Shellfish grow-out technology



Outreach



Public Engagement and Awareness



- Celebrates tradition
- Builds community support

Connecticut Shellfish Initiative



Public Awareness Pilot study

- Four multiple choice questions
- Responses= 695
- Zip code identifier

Pilot Survey Results

Group	Percent Correct					
	Q1	Q2	Q3	Q4	Score (%)	Grade
All (n=695)	85.5	85.1	41.9	40.5	64.5	D
CT residents only	86.9	85.2	42.6	40.5	64.3	D
Towns (commercial)	95.3	96.8	47.6	100	85.7	B
Towns (recreational)	90.5	86.5	45.2	43.6	66.9	D+
Towns (coastal)	90	86.3	43.8	40.6	65.5	D
Towns (inland)	80.9	81.4	39.5	39.5	62.5	F

Q1. About shellfish ID

Q2. About ecological benefits

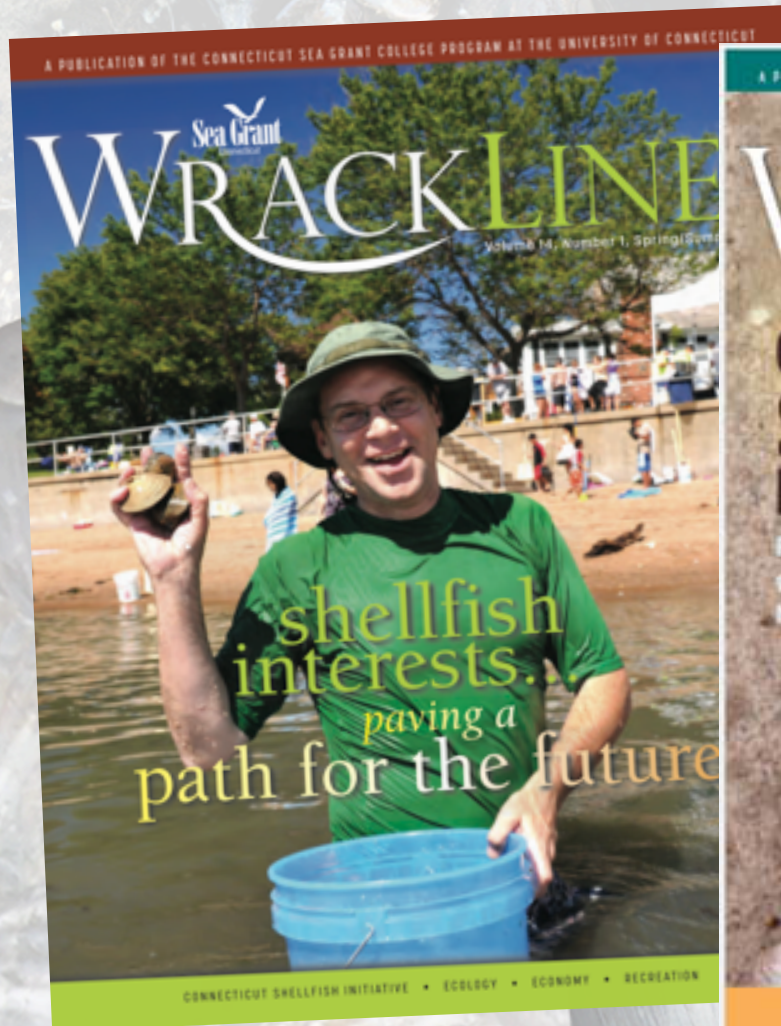
Q3. About recreational harvest

Q4. About commercial harvest

Infographics



Themed Magazine Issues



Summer 2014



Summer 2016

Art Competitions



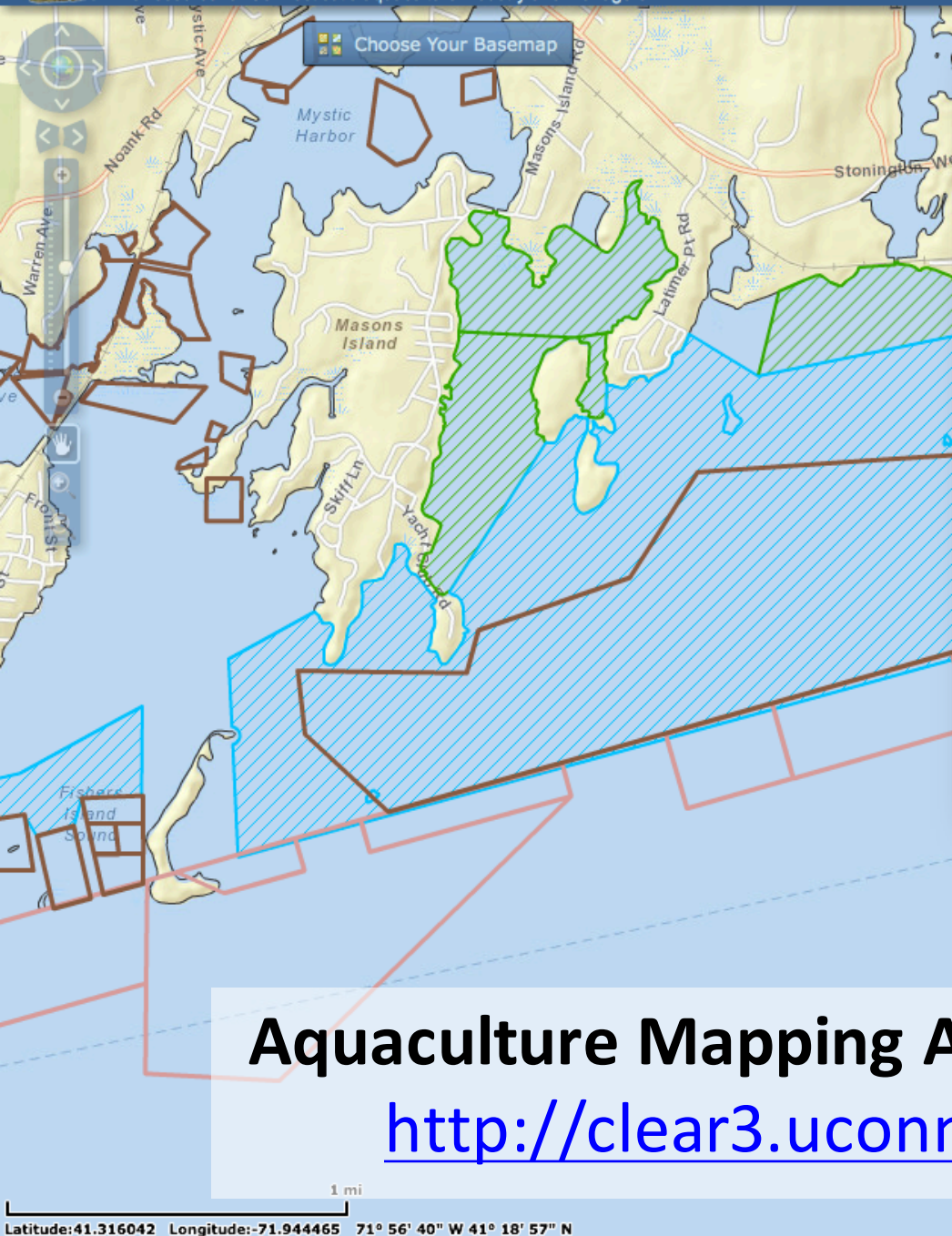
Oyster

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Celebrating Connecticut Shellfish
<http://shellfish.uconn.edu>



Clams

© Mary J. McKenzie. 2016. All Rights Reserved.
Winner of Connecticut Sea Grant Art Competition
Celebrating Connecticut Shellfish: Past, Present and Future.
<http://shellfish.uconn.edu>



View the Legend

Commercial Shellfish Beds (Municipal Waters) - 2014



Commercial Shellfish Beds (State Waters) - 2014



Recreational Shellfish Beds (2014)



Approved



Conditionally Approved



Open-Seasonal

Designated Natural Shellfish Beds (2014)



Aquaculture Mapping Atlas (v5 coming soon!)

<http://clear3.uconn.edu/aquaculture>



2016 Guidance for Recreational Shellfish Harvesting in Connecticut

SHELLFISH SIZE and DAILY LIMIT RESTRICTIONS

TOWN	QUAHOG CLAM		SOFT SHELL		RAZOR CLAM		EASTERN OYSTER		BLUE MUSSEL		BAY SCALLOP	
	size restriction (variable)	harvest limit	size restriction (length)	harvest limit	size restriction (length)	harvest limit	size restriction (length)	harvest limit	size restriction (length)	harvest limit	size restriction (length)	harvest limit
Branford	*	½ bushel	2 inches	¼ bushel	3 inches	⅛ bushel	3 inches	½ bushel	2 inches			
Darien	1.5 inches	½ bushel	1.5 inches	½ bushel	4 inches	½ bushel	3 inches	½ bushel	2 inches			
East Lyme	*	¼ bushel	1.5 inches	¼ bushel	4 inches	¼ bushel	3 inches	¼ bushel	2 inches			
Fairfield	*	½ bushel	1.5 inches	½ bushel	4 inches	½ bushel	3 inches	½ bushel	2 inches			
Greenwich	*	¼ bushel	1.5 inches	¼ bushel	4 inches	¼ bushel	3 inches	***	1.5 inch			
Groton	Groton 2 inches ½ Bushel											
Guilford		½ bushel	1.5 inches	¼ bushel	3 inches	⅛ bushel	3 inches	½ bushel	NR			
Guilford (non-resident)	*	¼ bushel	1.5 inches	¼ bushel	3 inches	⅛ bushel	3 inches	¼ bushel	NR			
Madison	*	¼ bushel	2 inches	¼ bushel	3 inches	¼ bushel	***	***	2 inches			
Milford	*	½ bushel	1.5 inches	½ bushel	1.5 inches	½ bushel	3 inches	½ bushel	NR			
Norwalk	*	½ bushel	1.5 inches			½ bushel	3 inches	½ bushel	NR			
Stamford	*	½ bushel										
Stonington	*	½ bushel	1.5 inches	½ bushel	1.5 inches	½ bushel	3 inches	30 count	NR			
Waterford	*	½ bushel	1.5 inches	½ bushel	4 inches	½ bushel						
WELSCO (Niantic River)	*	¼ bushel	1.5 inches	¼ bushel	4 inches	¼ bushel	3 inches	¼ bushel	2 inches	NR	***	***
Westport	*	½ bushel	1.5 inches	½ bushel	4 inches	½ bushel	3 inches	½ bushel	2 inches	½ bushel	-	-



- * May not pass through a ring of one and one-half inches internal diameter and may not be less than one inch in thickness.
- ** Must not pass through a two inch ID ring & must be an adult with a clearly defined growth ring.
- *** Seasonal harvest only, check with town for more information.
- NR Not restricted

Conversions

1 bushel (U.S., dry) = 8 gallons (U.S., dry)

1/4 bushel = 1 peck (U.S., dry) = 2 gallons (U.S., dry)

1 inch = 2.5 centimeters

The Future Looks Bright!

- **Public Awareness Outreach**
 - Increased demand for Connecticut seafood
 - Increased support for aquaculture development
- **Management Approaches**
 - Creative leasing strategies
 - Resolving hurdles with water sample collection, transport, analysis
- **Targeted Research Program**
 - Aquaculture is a key area in 2017 CTSG RFP
 - Vision Plan used to justify future research projects

Acknowledgments <http://shellfish.uconn.edu>

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EXTENSION