



MARTHA'S VINEYARD
SHELLFISH GROUP

1976

EELGRASS RESTORATION PROGRAM

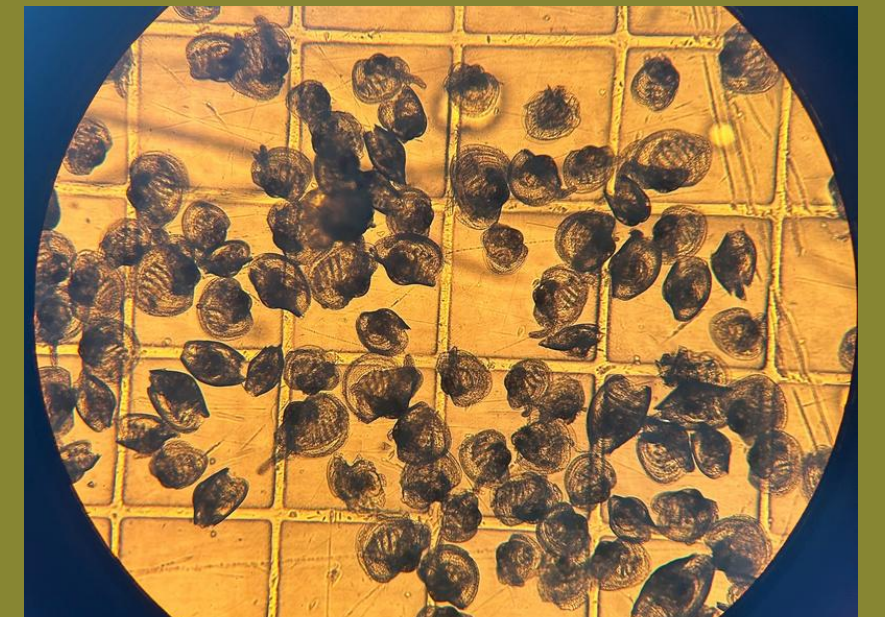
EMMA GREEN-BEACH & ALLEY MCCONNELL

2026 MARTHA'S VINEYARD COASTAL CONFERENCE

WHO WE ARE:



- 501 (c)3 nonprofit providing for the island since 1976 (50 years!)
- grow quahog, oyster & bay scallop seed for all island towns
 - ~30 million every year
- educational events and school programs
- collaborative research
- **shellfish habitat restoration**





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EELGRASS RESTORATION

ongoing at MVSG since 2018



PHOTO: RAY
EWING

WHY EELGRASS?

HABITAT & BIODIVERSITY

Nursery and refuge for
juvenile bay scallops, fin fish
& other marine life

SHORELINE & SEDIMENT STABILITY

eelgrass meadow root structures
stabilize sediment while the blades
dampen wave action

WATER QUALITY & NUTRIENT CYCLING

processes nitrogen & other
nutrients, traps suspended
particles to keep water clear

CARBON STORAGE

Uptakes carbon through
photosynthesis and sequesters
carbon in sediment



OUR MOTIVATION = BAY SCALLOPS

1

**Essential habitat
for juvenile bay
scallops -**
economically and
culturally valuable

2

Measurable
**eelgrass loss =
loss of shelter** for
bay scallops that
we grow

3

**Foundational
ecosystem services**
that classify this
seagrass as a
keystone species



**APPROACH EELGRASS AS AN
ESSENTIAL HABITAT FOR
SHELLFISH:**



**USING NONTRADITIONAL
LAB SPACES:**



**COLLABORATE WITH ISLAND
MUNICIPALITIES:**



**OUR
ROLE**



Eelgrass decline on Martha's Vineyard

(From MassDEP Eelgrass Mapping Project)

LOCATION:		ACREAGE 1995:	ACREAGE 2013:	ACREAGE 2020:	% LOSS SINCE 1995:
1	Cape Poge	1,067.8	480.19	288.86	-72.95%
2	Menemsha Pond	428	322.55	312.65	-26.95%
3	Sengekontacket Pond	46.7	28.82	6.57	-85.93%
4	Lake Tashmoo	91.17	44.7	75.91	-16.7%
5	Lagoon Pond	178.5	65.31	Unknown area - small patch in southernmost part	-90+% estimate

RESCUING SHOOTS FROM HARBORS AND BEACHES:



REPURPOSING HATCHERY SPACE FOR EELGRASS:



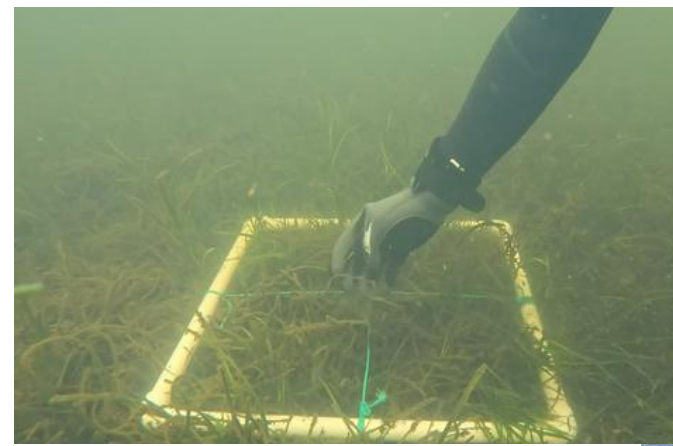
USING QUAHOG RAFTS FOR FIELD NURSERY SPACE:



HOW WE STARTED

RESEARCH & MONITORING

- Annual flowering/seed surveys
- Lab & field propagation experiments
- Population & restoration monitoring



SHOOT + SEED BASED RESTORATION

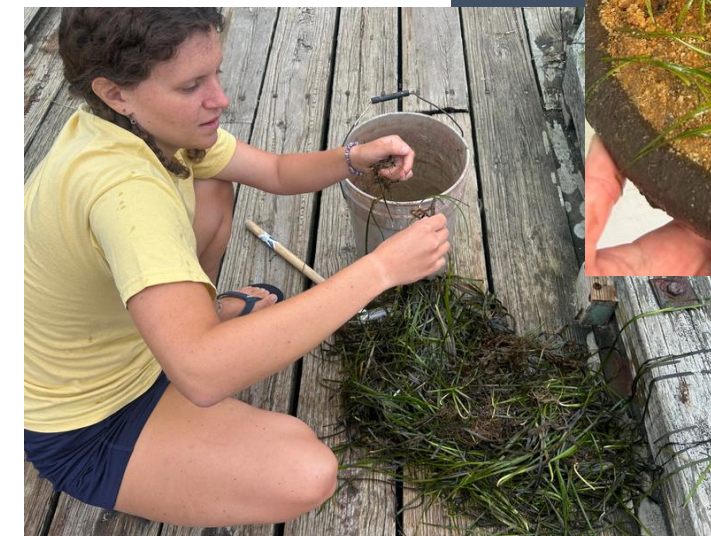
- Refining seed collection & care
- Hatchery systems for shoot propagation
- Comparing methods from colleagues
- Collaborative restoration projects



TODAY

STEWARDSHIP & COLLABORATIONS

- Involving towns, NPOs, researchers & volunteers
- Eelgrass shoot/seed rescues with the community
- Community education



RESTORATION METHODS

SHOOTS AND SEEDS



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SHOOTS:

- **Rescued** from harbors and beaches
- Viable shoot criteria developed
- Hatchery **rehabilitation**
- **Tortilla Planting Method** (adapted from Cornell Cooperative Extension)
- NO harvesting from donor beds



SEEDS:

- Flowering surveys determine **when** to harvest and from **where** (MA DMF)
- Hatchery seed processing (Virginia TNC)
- “Winterization” in the fridge
- **Teabag Planting Method** (Alyssa Novak)
- **Quahog Planting Method** (Rob Vasiluth)
- NO broadcast planting



FULL SEED-TO-FLOWER LIFECYCLE IN THE LAB

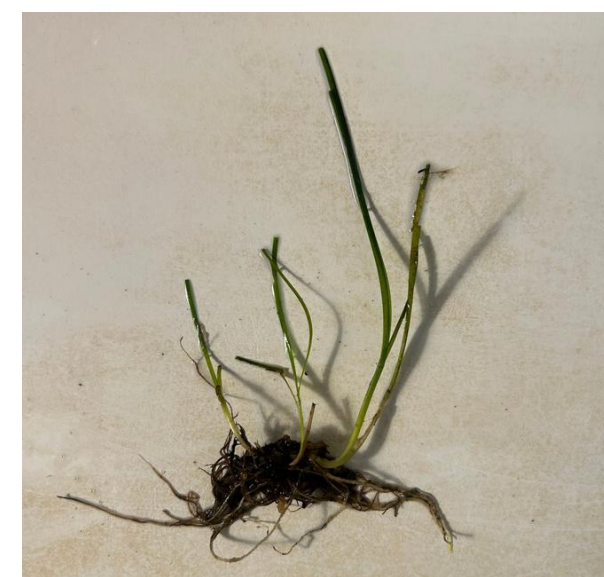


SHORT-TERM SUCCESS WITH SEEDS AND SHOOTS IN THE FIELD

SUMMER HEAT- STRESS REMAINS A CHALLENGE



CONTINUOUSLY REFINING METHODS TO FIT CONDITIONS



**MANY
SMALL
WINS**



Recent Growth of the Program

YEAR	# SEEDS PLANTED	# SHOOTS PLANTED	# MONITORING SITES	# PLANTING SITES
2023	2,000	850	3	2
2024	12,000	1,000	2	3
2025	38,000	0	4	3
2026	61,000	1,850	6	3



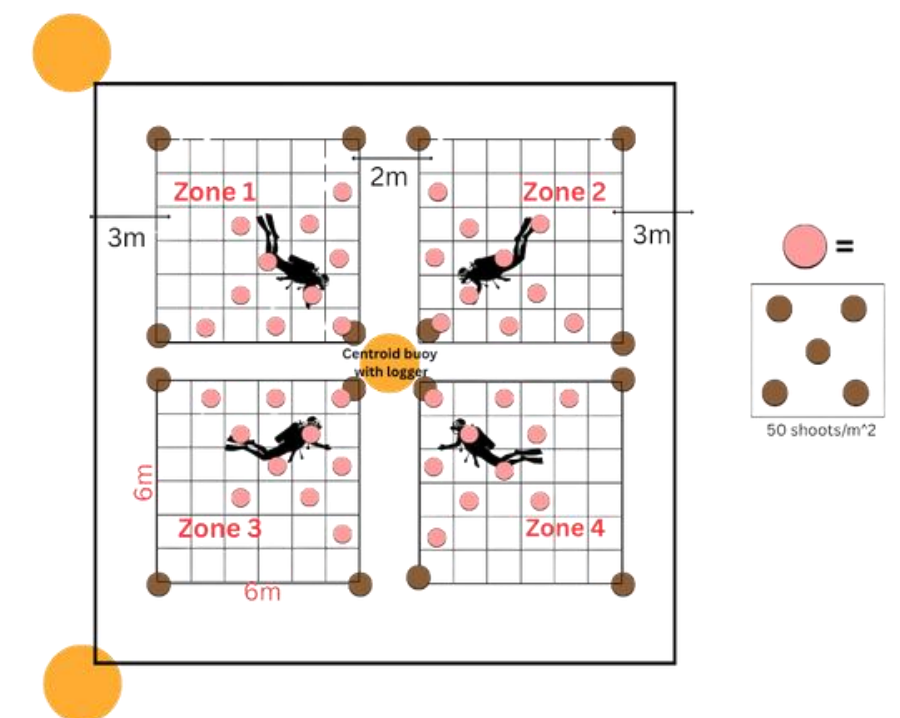
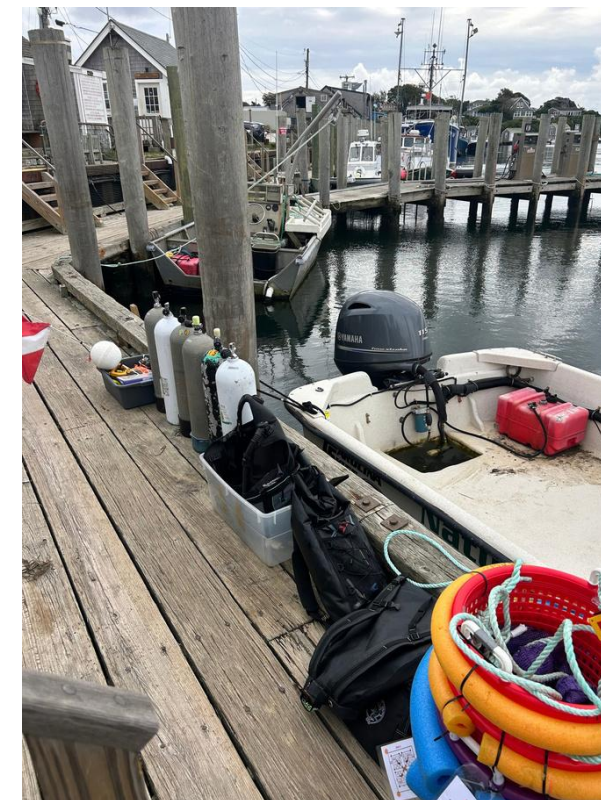


MOST RECENT PROJECT

Collaboration with Wampanoag Tribe Natural Resources Dept, Aquinnah and Chilmark Shellfish Depts

September 2026

- 0.1 acre restoration area in Menemsha Pond (Aquinnah)
- No fishing area through 2029.
- Collected, rehabilitated, & planted **over 1,800 shoots**
- Tortilla planting method
- 15 staff and volunteers





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CHALLENGES

TIMING



WATER QUALITY



SITE SELECTION



LABOR INTENSIVE



NEXT STEPS = CONTINUE + REFINE + BUILD

- **Continue** monitoring, observing, and documenting our eelgrass beds on Martha's Vineyard
- **Continue** building relationships & collaborations
- **Refine** & improve seed and shoot holding methods in the hatchery
- **Build** an eelgrass restoration template for island salt ponds





Email us with questions and thoughts!

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www.mvshellfishgroup.org

**THANK YOU to too many partners and
collaborators to name!**