

# GREAT POND FOUNDATION

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ANNUAL REPORT 2017





# **GREAT POND FOUNDATION**

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Steve Ewing



## President's Letter

Dear Friends and Supporters,

In reflecting on the year 2017, I am most pleased to report that the health of Edgartown Great Pond is better today than it has been at any time in the past decade. Increasingly effective management of the Pond in recent years is producing meaningful and measurable results. One of the important management tools is periodic openings to the sea, flushing and refreshing the Pond with salty, oxygenated ocean water. A series of successful openings in 2017 were capped by a remarkable opening of more than eight weeks beginning in March of this year.

Openings of the Pond are made much more effective when the delta of sand which accumulates in the water north of the "cut" is relocated through winter dredging and prior to the spring opening. A decade ago, in 2008, the Great Pond Foundation, with strong support of riparian owners, took the ambitious step of investing in a dredge designed specifically to meet the unique requirements of Edgartown Great Pond. Beyond the initial purchase, the initiative involved a substantial long-term commitment to fund ongoing operations. The dredge (Nessie) was launched in 2009 as part of a public-private partnership with the Town of Edgartown, committed to restore and improve the health of the Pond. Nessie has proved to be a valuable tool in this effort.

To the casual observer, water quality and health of the Pond today are noticeable by the extraordinary clarity of the water and expanding eelgrass beds, a key indicator of estuary health. Assessing water quality and understanding the aquatic ecosystem of the Great Pond, of course, requires much more than casual observation.

Under the direction of Emily Reddington, Director of Science and Education, water quality testing and analysis are being performed in a comprehensive, consistent and insightful manner, leading to findings that are data-based and grounded in science. For GPF Interns supporting this work as well as that of the Martha's Vineyard Shellfish Group, this is not just a summer gig. Increasingly, their work is more substantive, and their experience is more relevant to their learning.

In addition to our partnership with the Town of Edgartown, we value our collaboration with other non-profit partners who share our interests. An interesting example, collaborating with Woods Hole Oceanographic Institution Engineer Megan Carroll and the Office of Naval Research on an innovative underwater robotics program, our science team engaged a number of students last summer to build underwater remotely operated vehicles (ROVs) at the Edgartown School Science Lab. The Martha's Vineyard YMCA allowed these students to make use of their pool to test the finished project. GPF has been using one of these ROVs to film underwater as part of an eelgrass stand survey.

Many of you are aware that this past winter the water level of the Pond rose to a dangerous height, posing a threat or causing actual damage to property and the environment. We are working with the Town and others seeking ways to avoid a repeat of such a situation.

Finally, as we celebrate the progress, let's remember that the challenge is ongoing, and unexpected threats can appear with little warning. Nature is not totally predictable.

We greatly appreciate the generosity of our donors, which has made this progress possible. With your continued support, we will do our best to be good stewards of Edgartown Great Pond.

With gratitude,

A handwritten signature in dark ink that reads "Thomas C. Wallace". The script is fluid and cursive.

**Thomas C. Wallace**  
**President**





## Dredge Report

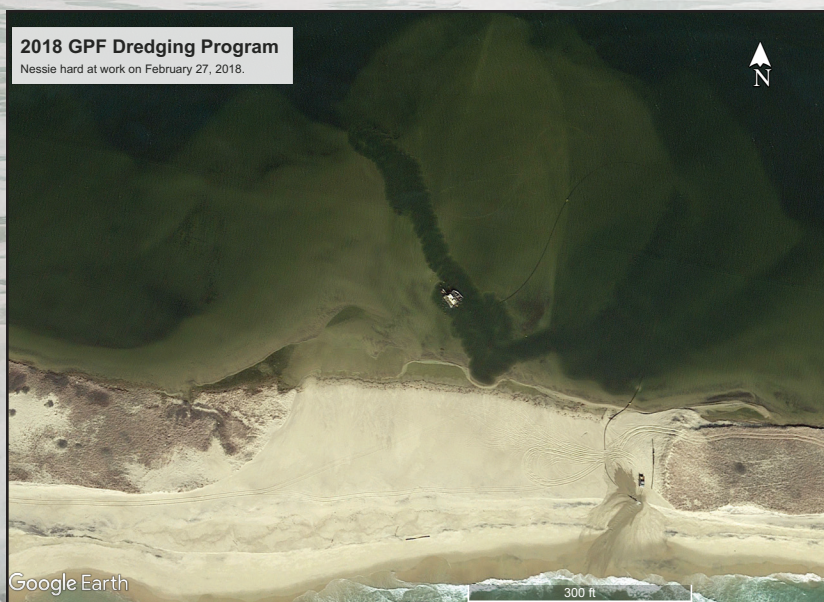
The 2017-2018 season was both challenging and successful for the Edgartown Great Pond dredge. As usual, weather played a dominant role, but our crew and equipment handled it well.

During a five-week period, the Island felt the brunt of four separate winter cyclones. Winds exceeded hurricane force during at least two of those events, at one point even exceeding those recorded during Hurricane Bob. Add snow and ice and you get the picture. In spite of those obstacles, Tracy and Russ managed to suck and pump the permitted amount of sand out of the delta, and the spring opening allowed more than eight weeks of exchange with the Atlantic—a successful attempt for sure.

The Pond has been experiencing a great supply of oysters, and the Edgartown commercial fishermen fell upon them with relish after the scallop season was over. The market price was low (20 cents per oyster), but the quality was good, and the stock exceedingly abundant. The commercial harvest, lasting a month or more, means a lot to our working watermen and women, and great credit goes to all who contribute to the Pond's wellbeing and the oyster propagation efforts underway since 2008. More information about the annual shellfish harvest can be found in the Edgartown Annual Report, or in talking to Shellfish Warden Paul Bagnall or his assistants.

Rick from Vermont Steelcraft joined Tracy in completing and launching a new stainless steel work skiff. This boat was instrumental in breaking through the thick pond ice that we dealt with last season. The fiberglass boats had been chewed up and repaired time and again. Now we have a skiff that by its innovative design rides up and crushes the ice as it moves forward. The stainless is thick and strong, and doesn't rust. The vessel also transports the fuel tank and pump needed to refuel the dredge daily. We look forward to many years of service from this fine craft.

Along with usual maintenance, cable replacement, fluid and filter changes (we use only biodegradable hydraulic oil), small-part repair and replacement, Tracy and Russ spent time installing new pins and bushings on the hydraulic arm of Nessie last fall.



The dredge has now removed many tens of thousands of cubic yards of sand from the Pond over the years. Imagine what the opening site would look like if all that material had been left to accumulate. How difficult would successful openings be to maintain? There are many people involved in making this program work, but special thanks to the Schwartz and Wild families, who allow us to stage equipment on the easement adjacent to their properties. Thanks also to Glenda Madeiras, who allows dredge and skiff storage during our down time.

On behalf of the crew, I wish you a safe and tranquil summer with a clean and vibrant Pond. Hopefully we'll dodge any big hurricanes this year.

**Steve Ewing**  
Dredge Manager





## Finance Report

The Great Pond Foundation had another productive year in 2017.

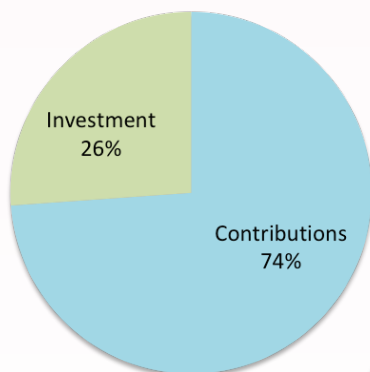
Following extensive dredging, we had three successful cuts at the barrier beach, notably a six-week opening initiated on March 25, and short openings in August and October. An excep-

tionally long eight-week opening was initiated with a cut on March 11, 2018. As Dredge Manager Steve Ewing notes on the previous page, our dredge, "Nessie," has removed thousands of cubic yards of sand from the Pond over the years, contributing immeasurably to the success of these openings.

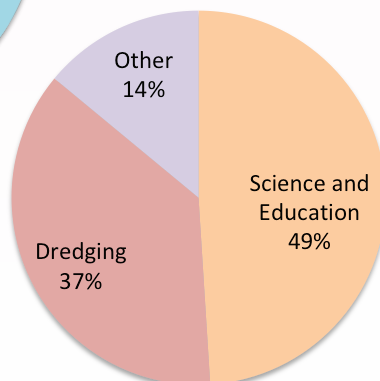
The Science and Education program under Emily Reddington's leadership substantially intensified activities to monitor and proactively enhance the condition of the Pond. The expanding array of fieldwork included monitoring and mapping eelgrass, participating in a study of tunicates at two locations in the Pond, systematic water sampling from May through December, and working with the Martha's Vineyard Shellfish Group on their long-term oyster restoration project. We also hosted a STEM Camp for Island youth.

At the core of these activities is the very good news that the water quality and ecosystem health of Edgartown Great Pond have dramatically improved over the last decade. However, embedded in this news is also the caution that we must not become complacent.

### Income



### Expenses



Our financial condition remains solid, though contributions declined 19% from the prior year. In 2017, total income of \$284,241 was nearly equal (-2%) to a year earlier, with substantially higher investment income of \$74,229 (+132%) offsetting lower contributions of \$210,012 (-19%).

Some contributions appeared to have been affected by our 2016 change in fiscal year from a June 30 to a December 31 year-end. Others may also have assumed, incorrectly, that the excellent condition of the Pond is the new normal and no longer requires full support. In reality, the effort to maintain and enhance a thriving pond has required aggressive investment in talent, equipment and maintenance. The challenges faced by other Vineyard estuaries are stark reminders that pond health is fragile.

Total expenses for 2017 edged up 4% to \$370,073, with the enhanced Science and Education program now accounting for nearly half (49%), and dredging 37%. The growth of Science and Education from 27% of the budget in 2012 reflects a much more proactive approach to maintaining and enhancing the Pond's health. Science and Education expense totaled \$181,040, up 31%, with the increase affected by timing and an offsetting grant. Dredging expense, which varies considerably from year to year depending on weather conditions during the permitted season (November-March) as well as maintenance needs, was \$135,255, up 21%. Depreciation was \$36,903, down 3%.

All 2017 financial data have been subjected to the auditor's financial review. For the prior year (when the Foundation changed its fiscal year), data is pro forma on a calendar year basis for comparability, and has not been reviewed by the auditor, but is believed to be correct. Some data has been reclassified to more accurately reflect its use.

For 2018, the Board has set a fundraising goal of \$273,000, including \$247,500 in direct public support. This would represent a 30% increase from last year, but direct public support budgeted is about equal to the amount raised in 2016.

It has been ten years since we raised more than \$800,000 to purchase Nessie, equip her for service and put her in operation. That investment has provided outstanding returns in the form of greatly enhanced pond health. To preserve and build on that success, we are counting on our wonderfully generous contributors to continue or resume their critical support.

**Bob Rukeyser**  
Treasurer and Secretary





## Science and Education Report

With two full years of intensive water sampling and thousands of observations in our dataset, we are able to report that the water quality and ecosystem health of Edgartown Great Pond have dramatically improved over the last decade. Many people have contributed

to our water sampling efforts, and we are especially grateful to our field sampling team members who have risen at dawn and spent endless hours meticulously collecting valuable data. Thank you, Natalie Scanlan, Sam Hartman and Dani Cleary. After a year of extensive water sampling in Island estuaries, Dani has joined the Martha's Vineyard Shellfish Group and continues to help Edgartown Great Pond through the group's oyster restoration program. Learn more about the rebound of our beloved estuary below in "A Brighter Day for Edgartown Great Pond."

One of the reasons we know that the health of the Pond is improving is that eelgrass, an indicator of the overall health of the ecosystem, is expanding in distribution and abundance. In 2017 we began looking at the distribution and health of eelgrass in Edgartown Great Pond along with Woods Hole Oceanographic Institution biologist Mary Carman. Learn more about our work with eelgrass and tunicates in an excerpt from Mary's report "Tunicate Fouling in Edgartown Great Pond Eelgrass Meadows." Our efforts to understand the health of eelgrass have just begun, and we are grateful to the **Edey Foundation** and **Gus Daniels Wildlife Trust** for supporting our ongoing research. The presence and expansion of eelgrass meadows in Edgartown Great Pond are like sunken treasure, as they provide an array of invaluable benefits. Read more in "Eelgrass: Blue Carbon & Environmental Gold."

If you are looking for ways to join Great Pond Foundation in our efforts to support the health of Edgartown Great Pond, please inquire about volunteer opportunities to map eelgrass by kayak, or send your students (grades 6–12) to our **Third Annual STEM Camp**, July 30–August 3 at the Edgartown School. Full details can be found at [www.greatpondfoundation.org](http://www.greatpondfoundation.org).

**Emily Reddington**  
Director of Science and Education



### **An excerpt from Sam Hartman's senior project at the Newman School:**

*Edgartown Great Pond is an estuary, which is defined as "a partially enclosed, coastal water body where freshwater from rivers and streams mixes with salt-water from the ocean" (EPA). This habitat is of vital importance to many species around Martha's Vineyard, not only as living space, but also as an area for feeding and other activities. However, these systems are very delicate and can be affected by changes in nutrient levels from fertilizers and other natural sources, an issue for estuarine health because of the possibility for an algal bloom. This would not only compromise the health of the Great Pond by decreasing required dissolved oxygen levels, but would also cause a decrease in water clarity and other aesthetic qualities.*

*During the summer, plant activity is at its peak due to the increased day length and elevated water temperature (both conditions would be conducive to an algal bloom). In an effort to avoid conditions that could drive the Pond towards an algal bloom, the Pond has been regularly cut to the ocean, lowering temperature and diluting nutrient levels to create a healthier environment. These efforts have been successful as dissolved oxygen and pH levels have stayed in a healthy range during the peak summer months, counteracting the effects of the summer heat and increased biological activity.*



Summer brings many wonderful things to Edgartown Great Pond, chief among them the people. This year the Great Pond Foundation is well-staffed with an enthusiastic and dedicated field team. It is our pleasure to introduce Spencer Goldsmith, Great Pond Foundation's High School Intern, and to welcome back Sam Hartman for his third summer. Congratulations to Sam on his high school graduation in June of 2018! Sam grew up along with our water sampling program and we are excited for him to assume a leadership role as our College Intern.

**Spencer Goldsmith** is a ninth grader at Falmouth Academy. His interests include space exploration, photography and travel, and he hopes to find a career that incorporates all three. Born and raised on the Vineyard, Spencer enjoys learning about and caring for his local ecosystems. He brings his attention to detail, and his experience with our summer STEM Camps, to the team.



**Sam Hartman** recently graduated from the Newman School in Boston, and will attend Clark University in the fall. His interests include marine biology, hiking and going to the beach. Now entering his third year with the Great Pond Foundation, he looks forward to taking on more responsibility as the Senior Intern, as well as increased eel-grass research. During his senior year, Sam analyzed data that he helped collect during his first two field seasons. Through his internship this year he hopes to more fully understand the wildlife and health of the Pond.





# *A Brighter Day for Edgartown Great Pond*

Data collected in 2016 and 2017 point to a remarkable turnaround for the health of Edgartown Great Pond, which now exceeds targets for dissolved oxygen, water clarity and temperature throughout the year. Perhaps most importantly, the Pond's total nitrogen levels have declined to just over the recommended limit set by the Massachusetts Estuaries Project in 2007, and recent observations suggest critical eelgrass beds are on the mend.

In its 2007 report on the health of the estuary, the MEP set a daily nitrogen threshold of 0.5 milligrams per liter, above which the system would be expected to suffer from algal blooms and other effects of increased nutrients. More than 10 years later, that goal appears well within reach. Summer water samples collected by the Martha's Vineyard Commission using the MEP protocols show a decline in nitrogen from 0.596 mg/L in 2007 to 0.523 mg/L in 2016. And a report by the MEP and MVC this April notes that total nitrogen levels were 0.447 mg/L, below the threshold in 2017. That's good news for the shellfish, eelgrass and other species that make up the Pond ecosystem.

Our own data gathering greatly expanded in 2016, when we launched a year-round water sampling program to quantify potential improvements and identify trends. Director of Science and Education Emily Reddington has been working with interns to collect data in all four seasons, including before and after the annual Pond openings (usually in spring, summer and fall), which flush out nutrients and help maintain the desired salinity and oxygen levels.

The openings have themselves improved, thanks to Nessie, our trusty dredge, which has operated since 2009, allowing us to relocate a delta within the Pond and make the openings more effective. In addition, the Martha's Vineyard Shellfish Group has repopulated the Pond with Dermo-resistant oysters that sequester nitrogen in their bodies and the surrounding sediment, further benefitting the ecosystem.

Less nitrogen, more dissolved oxygen and better clarity all confirm the effectiveness of our management strategies over the last 10 years. Dissolved oxygen in 2016 and 2017 rarely dropped below the standard threshold of 6 mg/L for





healthy estuaries, marking an improvement from 2002, when MEP measurements showed impairment along the bottom. Water clarity remained high for most of 2016 and 2017, also marking an improvement from the MEP study. Pond temperature during the same period peaked at 83.2°F, just under the standard threshold of 85°F.

Meanwhile, eelgrass beds in the Pond appear denser and more widespread than just three years ago, when the Shellfish Group reported a large increase in distribution. We have since observed the species in the upper basin and several of the northern coves, where there is no historical record of its presence. We continue working with the MVC to map the existing beds using drone surveys, and in 2017 we teamed up with Mary Carman at the Woods Hole Oceanographic Institution to begin exploring the density, distribution and overall health of eelgrass in the estuary. Over time, these efforts will allow us to confirm or refute the resurgence.

Given the various improvements since 2007, we believe it may be time to update the Pond's impairment status as

defined by the MEP. Doing this will depend on our ability to replicate the MEP methods, including continuous, long-term sampling of dissolved oxygen, algae and other key indicators. In the next year, we hope to purchase and deploy an autonomous sensor to begin the process.

Our work is far from done, but with your help we look forward to continued progress in the years ahead.

*For our full 2018 report on the improving health of Edgartown Great Pond, visit [www.greatpondfoundation.org](http://www.greatpondfoundation.org).*



# Eelgrass: Blue Carbon and Environmental Gold

Edgartown Great Pond is considered a jewel among estuaries for its clean water, natural beauty, and thriving ecosystem. Along with the bountiful crop of oysters and striped bass that fill Edgartown Great Pond, seagrass meadows provide another source of aquatic richness.

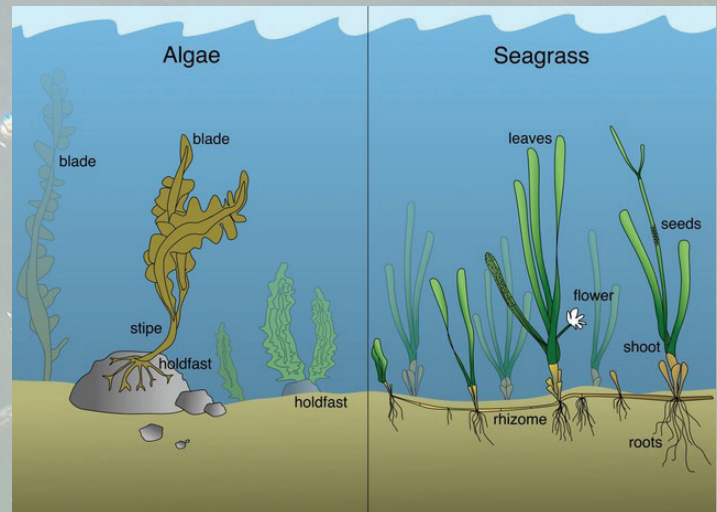
Eelgrass (*Zostera marina*) is a native seagrass that grows on the sandy bottoms of our local salt ponds and coastal waters. This natural resource provides immense ecological and commercial value by improving the health of our waters both locally and globally. Eelgrass serves as habitat for larval fish, produces oxygen, sequesters carbon, improves water quality, stabilizes shorelines, and is an indicator of the overall health of an estuary. Eelgrass meadows are nothing less than an environmental gold mine.

However, increasingly eutrophic and turbid coastal waters over the past 40 years have driven a massive decline in the global distribution and abundance of the species. The remaining meadows on the Vineyard provide essential habitat, although their health and abundance have decreased in most estuaries. Fortunately for Edgartown Great Pond, we have seen evidence that the distribution and health of our eelgrass is increasing along with an improvement in water quality.

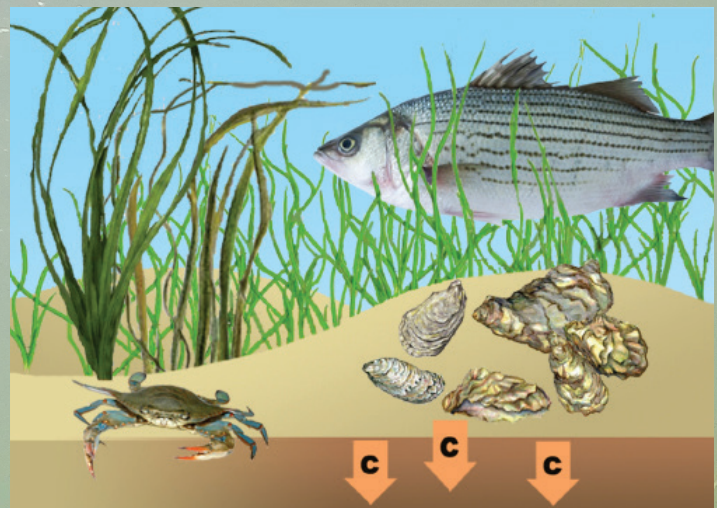
Eelgrass is an aquatic plant with roots, flowers and seeds. Macro algae, on the other hand, lacks these plant-specific features (top right). Algae have holdfasts instead of roots, and lack vascular tissues that transport nutrients from root to leaf. The roots of eelgrass stabilize sediments, helping to improve water clarity and decrease shoreline erosion. When eelgrass grows, it harnesses the energy of sunlight through photosynthesis, transforming carbon dioxide and water into sugar and oxygen. As with terrestrial plants, aquatic plants help improve the health of the environment by removing excess carbon and adding oxygen. Eelgrass also filters unwanted nutrients, uses them as fertilizer and incorporates the nutrients into plant biomass. With fewer nutrients in the water, eutrophication, or the buildup of excess nutrients that may lead to harmful algal blooms, is less likely.

In addition to improving water quality, eelgrass meadows also provide precious nursery habitat. Larval shellfish, including scallops, grow on eelgrass blades. And juvenile finfish that may spend their adult lives in more open ocean waters often start out in stable eelgrass meadows. Healthy eelgrass beds are rich in biodiversity and are essential habitat for many commercial fisheries.

Seagrass meadows, intertidal salt marshes and mangrove forests can store more carbon than a rainforest, and could potentially serve as a means to slow climate change. Seagrass meadows absorb atmospheric carbon dioxide and convert it to stable carbon that is stored in the sediment for hundreds or thousands of years. Recent studies demonstrate that large amounts of "blue carbon" are stored in Massachusetts eelgrass meadows. Seagrass meadows in general can store twice the amount of carbon as terrestrial forests. We notice when people cut down trees, but are we as aware of the human impacts on seagrass?



*The differences between Algae and Seagrass. Eelgrass is a native seagrass. Reproduced with the permission of Project Seagrass.*



*Eelgrass meadows are rich with biodiversity and can sequester large amounts of carbon for centuries or millennia. (ILLUSTRATION BY JOHN HOLLADAY)*

Increased nutrient pollution, physical disruption (such as anchors and misplaced footsteps) and other problems lead to large-scale declines in eelgrass health and distribution. And once we lose eelgrass, we lose the many environmental benefits it provides. To make matters worse, eelgrass meadows are fragile and take years to recover. If we can find ways to protect and grow this ecological treasure, we not only stabilize our coastlines, provide essential habitat and improve water clarity; we may also have a way to sequester carbon for centuries or millennia.

In 2017 we began documenting the distribution and health of eelgrass in Edgartown Great Pond in conjunction with Mary Carman, a research specialist in biology at the Woods Hole Oceanographic Institution. In order to truly understand the health of eelgrass meadows, we must understand their ecology. We turned to Mary for her knowledge of the ecological interactions between tunicates, commonly known as sea squirts, and the eelgrass blades they cover (see next page).





## Tunicate Fouling in Edgartown Great Pond Eelgrass Meadows (adapted) By Mary Carman

Shallow-water coastal habitats are delicate ecosystems and particularly susceptible to imbalances. A healthy coastal ecosystem is composed of a diversity of species that do not negatively impact each other, and that interact and contribute to produce a beneficial habitat for all members of the community. Tunicates are marine invertebrate filter-feeding organisms (also called sea squirts or ascidians) found primarily on hard substrate (rock, clam shells, docks, boat hulls, moorings), but increasingly on marine vegetation. Their abundance can negatively impact eelgrass habitat, including eelgrass and biologic members of the eelgrass meadow community.

In August 2017, Great Pond Foundation staff members and myself conducted standard eelgrass-tunicate surveys at Slough Cove and Mid-Beach in Edgartown Great Pond. Ten random quadrat (25 cm<sup>2</sup>) samples were collected at each site.

Results of the surveys indicate that:

- Eelgrass canopy height is consistent with eelgrass elsewhere on the Vineyard (healthy per-height standard)
- Eelgrass density ranged from 0–15 shoots per quadrat at Slough Cove (less than density standard)
- Eelgrass density ranged from 0–25 shoots/quadrat at Mid-Beach (equal to density standard)
- Tunicate diversity was limited to one species, native *Molgula manhattensis*
- Tunicate density on eelgrass ranged from 0–420 individuals/quadrat at Slough Cove to 0–25 individuals/quadrat at Mid-Beach
- *Molgula* was also common on nearby artificial substrates

Water quality was better at the Mid-Beach site, likely accounting for the greater eelgrass density there. The better water quality at Mid-Beach may explain why the tunicate population was less dense at that site, but this is unknown. We will begin to examine this potential relationship in the summer of 2018, through our work funded by an Edey Foundation grant.

Based on the results of our eelgrass-tunicate surveys, it appears that areas of EGP represent an ecosystem that is out of balance. The excessive density of tunicates on eelgrass in EGP in August is alarming, especially at Slough Cove. (*Molgula* is considered a fouling species, often seen in New England coastal habitats, including at harbors, aquaculture sites and eelgrass meadows. An abundance of the species is common elsewhere on Martha's Vineyard, but only in early summer.)



GPF staff measuring eelgrass blade length, a standard indicator of eelgrass health.

There may, however, be a positive impact. The relatively small tidal range and enclosed nature of EGP makes it susceptible to potential impacts from filter feeding activities. Curiously, the great abundance of *Molgula* in EGP may be helping to improve water quality by filtering phytoplankton and bacteria. But the potential impact of large quantities of tunicates filtering large quantities of water is not yet understood. Further work should be done to test this potentially positive impact of tunicates on EGP water quality.

Read Mary's full report at [www.greatpondfoundation.org](http://www.greatpondfoundation.org).



# *Megan Carroll Comes Full-Circle with Great Pond Foundation's STEM Camp*

Growing up on the Vineyard, Megan Carroll developed a passion for science and technology that has stayed with her ever since. In grade school, she loved working on projects for science class, and recalls some of the first experiences that put her on the road to becoming a professional engineer.

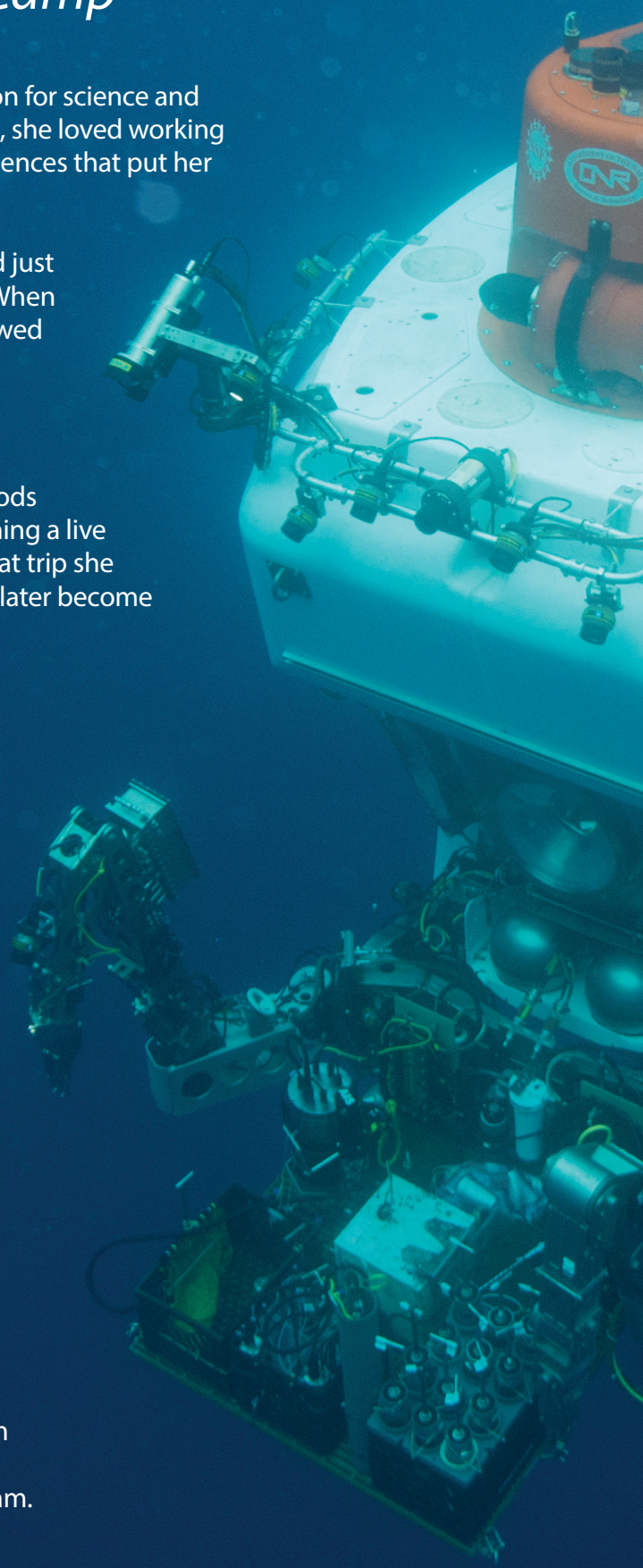
"We didn't have computers and internet, so it wasn't like I could just go to the computer and research something myself," she said. When she was old enough to create her own projects, she often followed in the footsteps of her three older siblings, but soon began to pursue more complex ideas: a solar cell to desalinate water, a solar-powered car built from a coffee can.

She remembers around fifth grade taking a field trip to the Woods Hole Oceanographic Institute, just across the sound, and watching a live video from a ship during the discovery of the Titanic. During that trip she also encountered some of the underwater vehicles that would later become her specialty.

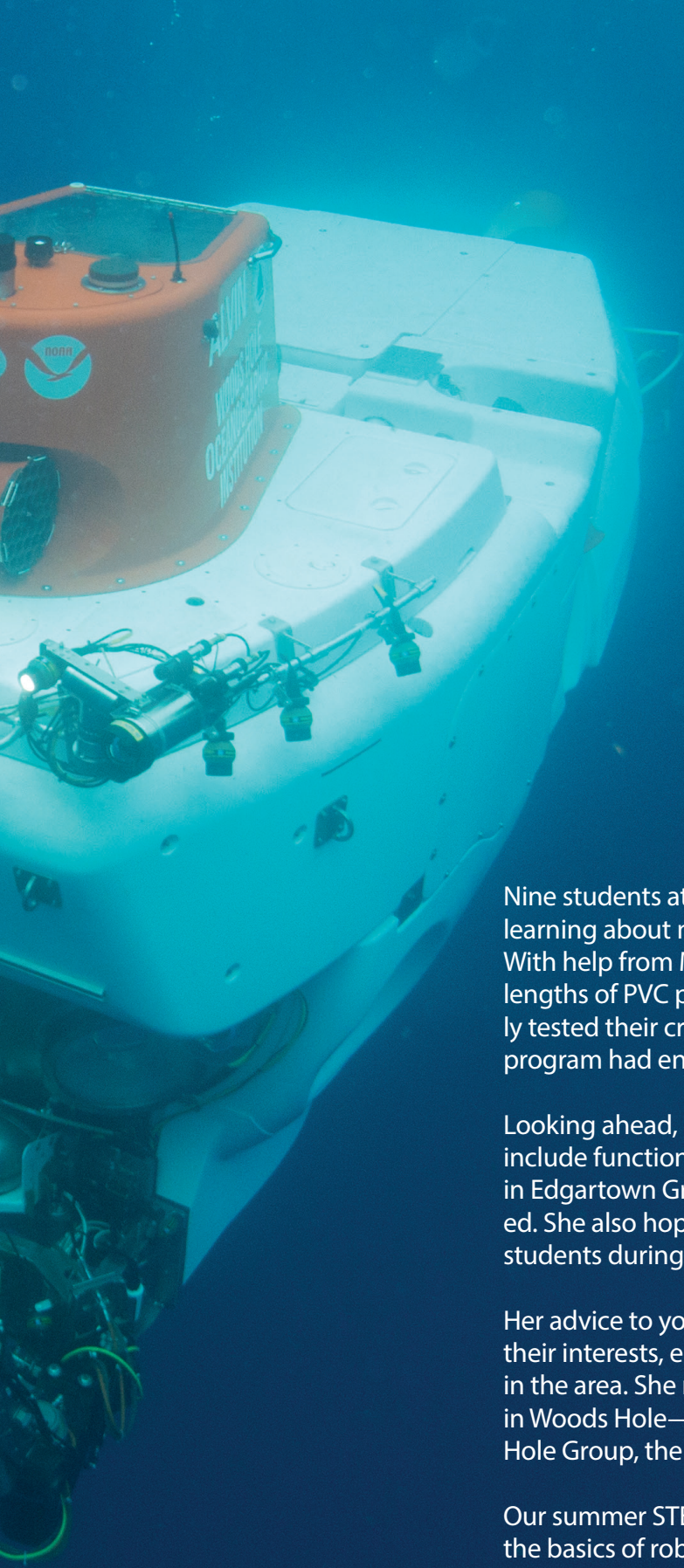
An older cousin encouraged her to look into mechanical engineering in college, which she did, eventually landing a job at WHOI in 1999. Since then, she has helped design some of the most advanced underwater vehicles in the world, including part of the DSV Alvin that explored the Titanic, and a new version of Jason Jr., a remotely operated underwater vehicle (ROV) that was tethered to Alvin and allowed researchers to see inside the shipwreck.

"To work with something physical and see it in action is very rewarding," Megan said of her work as a full-time research engineer. "Or to design something on the computer and be able to have parts made and put them together and then see how everything works—and know that it's contributing to science research."

In 2017, Megan teamed up with the Great Pond Foundation to launch our first ROV Camp (part of our summer STEM Camp), introducing students to basic concepts in science, technology, engineering and math; and guiding them through the construction of handheld ROVs. The camp follows a modified version of the national SeaPerch program (offered through the federal Office of Naval Research), which supplies the curriculum and materials. ONR and the Association for Unmanned Vehicle Systems International provided funding for the summer program.







Nine students attended the camp in 2017, assembling three ROVs and learning about more complex vehicles and the process of data collection. With help from Megan and our summer interns, they measured and cut lengths of PVC pipe, built their own motors and control boxes, and finally tested their creations in the pool at the Martha's Vineyard YMCA. (The program had ended on a rainy day.)

Looking ahead, Megan hoped to eventually expand the program to include functional samplers on the ROVs, which could then be deployed in Edgartown Great Pond to demonstrate how underwater data is collected. She also hoped Island schools might someday offer the program to students during the year.

Her advice to young people beginning to explore STEM fields is to pursue their interests, especially through summer jobs and educational programs in the area. She noted the abundance of world-class research taking place in Woods Hole—at WHOI, the Marine Biological Laboratory, the Woods Hole Group, the Woods Hole Research Center and elsewhere.

Our summer STEM Camp will continue helping kids get acquainted with the basics of robotics, engineering, science and math; and with the ample scientific resources a short ferry trip away. "There's a wealth of science that goes on right in Woods Hole," Megan said. "And not many people take advantage of that. So this is also a way to get that out there."

PHOTO COURTESY OF WOODS HOLE  
OCEANOGRAPHIC INSTITUTION



# Future Work

- Pond-Wide Eelgrass Monitoring
  - Drone Survey
  - Kayak Survey
  - Linear Transects
- Island-Wide Tunicate DNA Study
- Oyster Size Class Quadrat Survey

## Donation Dollars at Work



Fuel for Nessie  
\$8000 / year



H<sub>2</sub>O Quality  
Monitoring Reagents  
\$500 / year



STEM Camp Tuition  
\$400 / student



Summer Internship  
\$2500 / intern

ILLUSTRATIONS BY JOHN HOLLADAY



# ***Thank you for your generous support in 2017***

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