



Great Pond Foundation

Newsletter

Volume 4, Issue 1

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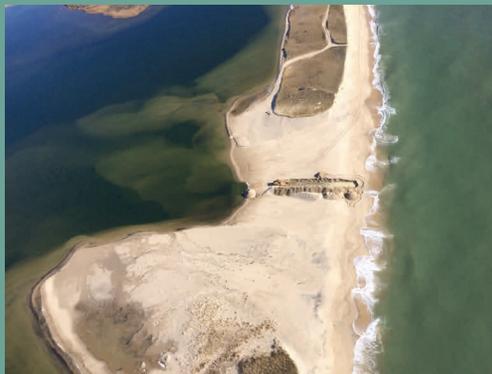
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Winter opening of Great Pond barrier beach is a huge success



November 26, 2014 barrier beach not open yet.



The barrier beach of Edgartown Great Pond was successfully opened on December 3, 2014 and remained open for ten days.

On December 13th, Edgartown Shellfish Warden Paul Bagnall reported that the Pond was still open. Bob Woodruff, GPF Science & Education Director, noted that there were "large combers reaching well into the Pond on a broad front, suggesting the cut is unusually wide and that the most recent storm surge may actually have helped keep the flow going. Pond is at about half full."

And on December 15th, Chris Carroll emailed us: "Looks like we had quite a storm. Lots of wash over along barrier beach at blowouts. Cut looks pretty well filled in and slush is being pushed in from light NW breeze. I spooked a snowy owl when I first got to cut. First one for me this year!)"



Below, wash over filling in opening December 15, 2014.



A message from GPF President Tom Wallace: It's going to be a challenging year!



Greetings friends and supporters of Edgartown Great Pond,

As I look forward, I see that this year will be full of challenges and opportunities for the Great Pond Foundation.

After over seven years of successful dredging operations, our dredge "Nessie" has reached the age when significant repairs, beyond the routine maintenance, must be performed. This year, the impeller needed to be replaced [see box for how the impeller functions.] Fortunately, thoughtful financial planning enabled us to cover the cost of this piece of equipment

These operational costs pose yet another challenge. While raising the funds for Nessie's purchase was hard work, it was also exciting and extremely rewarding. Raising funds for repair and maintenance, on the other hand, is far less exciting but just as important. After all, it would be a disservice to our donors and to

Nessie not make every effort to care for this valuable dredge. We urge all our past supporters to continue their support to help us protect their investment and encourage all those who care for the Pond to join with us to support our efforts.

Lastly, this year expansion of our Science and Education program offers some exciting opportunities. For the past six years the Great Pond Foundation interns have worked with the Martha's Vineyard Shellfish Group on the Oyster Restoration Project. Their efforts have succeeded not only in restoring the oysters to a healthy population but also in helping improve the water quality of the Edgartown Great Pond. (A single oyster can filter up to 15 gallons of water a day!) Naturally, we shall continue to work on the Oyster Restoration Project. But this year we have identified a number of projects – big and small. – which will effect healthy changes for the Pond. Furthermore, we are inviting our Pond neighbors and friends to get involved and join us in these worthwhile activities.

So, all in all, this year presents the Foundation with a variety of worthwhile challenges. With your support and interest, this year also promises some stunning successes. Please join us, get involved, let us know what you think! The Edgartown Great Pond is a treasure deserving of our care.

Great Pond Foundation gives support to long-time partner MV Shellfish Group

The Great Pond Foundation has enjoyed a wonderful and productive relationship with fellow Island nonprofit organization – MV Shellfish Group – for over six years. Our interns have worked under MV Shellfish Group Director Rick Karney and alongside local oyster expert "Boo" Bassett in the Oyster Restoration Project. The knowledge and experience our interns have gained each year are priceless. So, too, is the improvement in water quality of the Pond that has resulted from the restoration of the oyster population.

When the GPF learned that the restoration project had suffered some budget cuts, the Board voted to offer support by way of a \$1,000 gift. The restoration of oysters in the Edgartown Great Pond is a major element in achieving our water quality goals. We are delighted to be able to contribute to this worthwhile project and continue a most valuable partnership.



Boo Bassett, left, works with MV Shellfish Group Director Rick Karney on Oyster Restoration Project

Photo by Mark Lovewell, courtesy of The Vineyard Gazette

What does the impeller do?

The dredge is equipped with a cutter head or auger which rotates and mixes water with the material to be dredged.

A dredge pump suctions this material, known as slurry, into a pipe just behind the cutter head. The rotating impeller of the dredge pump uses centrifugal force to draw the slurry to the front of the pump and divert it out of the pump discharge.



The resulting suction creates a vacuum that puts pressure at the discharge of the pump forcing the slurry along the pipe until it is discharged at the exit point.

Great Pond Foundation biologist reports on aquaculture conference



On January 14 – 16, 2015, Samantha Chaves and I attended the Northeastern Aquaculture Conference and Expo/Milford Aquaculture Seminar in Portland, Maine. I was excited to bring Sammi to this meeting because the conference is one of my favorites; I hoped she could get a better idea of all that is encompassed by the idea of aquaculture. [Editor’s note: Sammi was one of the GPF interns this past summer.]

We traveled with Rick Karney and Amandine Hall from MV Shellfish Group, and there joined roughly 400 people from the aquaculture community, from around the country. Attendees ranged from undergraduate students, to state and federal employees, professors, researchers and shellfish farmers. I was very happy to see a wonderful mix of people including a lot of students. I love the energy that comes alive as people get to share with colleagues what they’ve been doing. I also enjoy witnessing young minds expand with the seeming overload of information available at the conference. I love attending conferences because these meetings give us the chance to learn about topics that are slightly out of our everyday realm of focus and give us the chance to ask the researcher for more details over coffee or a cocktail.

The conference offered talks on shellfish nutrition and use of probiotics, mussel farming, scallop culture, oyster breeding and many more. There were also entire sessions on marine mammal entanglement (which Sammi enjoyed a lot), green crab population dynamics, alternative uses for green crabs, *Vibrio* management (shellfish sanitation), eel culture, and ocean acidification. I gave two talks in the first day, both of which were well received. One talk was entitled: “Demonstration of living shoreline technology on Martha’s Vineyard, MA” and the other titled: “Treatments to eradicate invasive tunicate fouling from blue mussel seed and aquaculture bags”.

The session on how to repurpose green crabs into a valuable product was one of my favorites. I think the concept of utilizing our nuisance species in a responsible manner is important and one that we will have to embrace as resources become more limited on this planet. The session on ocean acidification (OA) was also important to me because we will have to adapt to and attempt to combat this issue in our local pond systems. Although the science behind OA can get intense, the series of short talks on the subject proved to be a good format for me from which to learn.

Reported by Emma Green-Beach, Marine Biologist



Samantha Chaves , left, and Emma Green-Beach at aquaculture conference in Portland, Maine.

Sammi added her own comments on attending the conference:

I had a great time at the conference. I greatly enjoyed being able to be around so many people involved in the aquaculture world. I found all of the sessions I attended to be interesting. My favorite presentations were the ones focused around entanglements of animals such as birds and whales. I find those types of studies to be important as other animals can be affected by aquaculture as well. This conference was a great experience and it helped me gain better insight on aquaculture projects in different locations. I appreciate being given the opportunity to go on this trip.

Great Pond Foundation outlines 2015 Science & Education Projects

We are delighted to offer this list of potential projects that offer exciting opportunities not just for our interns and resident biologists but also for interested volunteers. This year we would like to encourage anyone interested in the Pond to volunteer in any of these projects. What better way to appreciate and learn about coastal ponds than through the hands-on experience of working with local field experts in a truly spectacular setting!

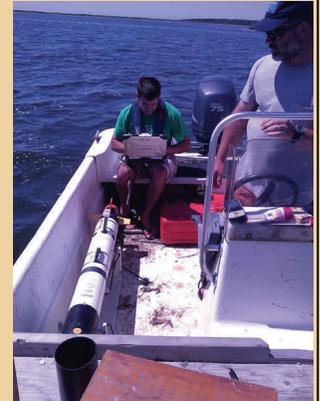


Oyster Restoration Projectwith Project Field Manager Boo Bassett

- ◆ craft baskets for oyster sets
- ◆ set lines in the Pond
- ◆ monitor sets

Water Qualitywith hydrologist Craig Saunders

- ◆ Install monitoring wells on barrier beach and in Pond
- ◆ Assist in monitoring and gathering data from wells (August)



Flora and Fauna Inventorieswith marine biologist Emma Green-Beach and MVC cartographer Chris Siedel

- ◆ *Phragmites* – up-date survey of stands; determine native or invasive biotype
- ◆ Fish species – up-date (under guidance of MA Division of Marine Fisheries)
- ◆ Invertebrate species – up-date; compile digital catalog; record relative abundance

Collections and Surveys..... with marine biologist Emma Green-Beach

- ◆ Plant and macro algae – compile digital catalog; record relative abundance
- ◆ Mute Swan breeding population –bi- weekly counts of pairs and offspring
- ◆ Canada Goose breeding population – bi-weekly counts of pairs and offspring
- ◆ Ribbed/hooked mussels – map presence; record species; note sediment and associated fauna



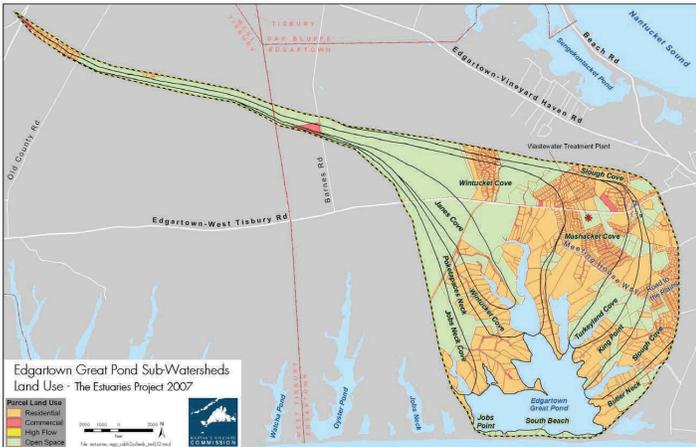
Species Population Monitoring..... With marine biologist Emma Green-Beach

- ◆ Mute Swan molting/feeding behavior & the effects on Pond plants and water quality
- ◆ Dermo disease in oyster population – bi-monthly samples June -August

Please contact us if you, or someone you know, would like to participate this summer in any of these projects. Email us at:

postmaster@greatpondfoundation.org

Protecting the watershed: what all Edgartown property owners need to know



As stewards of the Edgartown Great Pond, we are committed to keeping our friends and neighbors informed of all matters concerning the Pond, particularly those matters important to the health and well-being of this unique natural resource. Several items are of particular interest at this time.

Fertilizer regulations for Edgartown took effect January 1, 2015

The town of Edgartown Board Of Health has passed Board of Health Regulation, Section 17: THE CONTENT AND APPLICATION OF FERTILIZER FOR TURF ON MARTHA'S VINEYARD, TOWN OF EDGARTOWN. The regulations limit the months in which fertilizer may be applied, weather conditions when fertilizer may be not applied, the application rate (pounds of nitrogen per 1000 sqft), percentage of slow release nitrogen, and phosphorus content.

It is important to note that the regulations apply to all turf, including residential lawns and commercial golf courses. Exempt from the regulation is the application of fertilizer to residential vegetable and flower gardens, landscape ornamentals, shrubs, trees, bushes, and container plants. Click here to read the entire regulation for specific information on rules and any applicable exceptions: http://greatpondfoundation.org/copy/53_2015_Fertilizer_Regulations_for_Edgartown.pdf.

Water quality of the Pond directly impacts property values

Last November Paul Niedzwiecki, executive director of the Cape Cod Commission spoke as a guest of the Martha's Vineyard Conservation Commission on his strategies to deal with nitrogen runoff, which is a major threat to the health of coastal waters. He talked about the correlation between decreasing water quality of coastal ponds and estuaries and decreasing property values of the surrounding coastal properties, noting that a one percent decline in water quality due to nitrogen translated to a 0.7 percent drop in value of properties within 1,100 feet of the water.

Citing the Edgartown watershed as an example, he noted that watersheds often span town lines. Thus, towns must work together to solve their watershed issues. Interestingly, the Commission has developed a software tool that can compare the cost of a project taken on cooperatively among townships with project cost done by individual towns. According to Mr. Niedzwiecki, wastewater issues go beyond education and engineering. "We know plenty about strategies to remove nitrogen. It's really a design issue. How do we piece together on a local level so we can build consensus around a solution that will work as a whole?"



The Vineyard Gazette published an eye-opening article on Mr. Niedzwiecki's presentation Click to read the full article: http://greatpondfoundation.org/copy/52_Protect_Coastal_Ponds.pdf

StormSmart Properties website is a great resource for coastal property owners

As part of the StormSmart Coasts program, StormSmart Properties was developed by the Mass. Office of coastal Zone Management (CZM) to provide owners of coastal properties information on how to reduce erosion and minimize storm damage while protecting shoreline ecosystems.

Factsheets cover such topics as artificial dunes and dune nourishment, coastal erosion reduction, vegetation to reduce erosion and storm damage, bioengineering using coir rolls and natural fiber blankets on coastal banks, and sand fencing. Also included on the site are related articles on coastal landscaping, assessing vulnerability of coastal properties, erosion and shoreline change, building and rebuilding, barrier beach management guidelines, and local floodplain management.

<http://www.mass.gov/eea/agencies/czm/program-areas/stormsmart-coasts/stormsmart-properties/>

Web Cam or Drone?

Everybody's doing it! The Great Pond Foundation is thinking about using a web cam or drone to record valuable year-round information about the Edgartown Great Pond and its barrier beach. We are still in the preliminary stages of researching costs, locations, operations, and logistics. Stay tuned for up-dates on what could be a very exciting and informative project! Meanwhile, we welcome input from our readers. Please email us your comments and ideas at postmaster@greatpondfoundation.org.



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Edgartown, MA 02539

OUR MISSION:

The Great Pond Foundation was formed to enhance the health and beauty of Edgartown Great Pond by supporting solutions to environmental problems affecting it. Our goals are to educate the public to the pond's value and condition, and assist the town of Edgartown in enhancing its recreational and ecological features. We work with the town to promote the pond's management.

Make an even bigger splash by doubling your donations to GPF!

Many employers have matching gift programs in which they will match your donation to a charitable organization. The process is simple:

1. Find out if your employer has a matching gift program. Ask your Human Resource Officer or visit www.doublethedonation.com, click on "Search Programs", and enter your company name.
2. If your employer has a matching gift program, ask for a Matching Gift Form, fill out your portion, and include it when you send in your tax-deductible donation.

Please send your tax-deductible donations to:

Great Pond Foundation
PO Box 2005
Edgartown, MA 02539

Thank you!

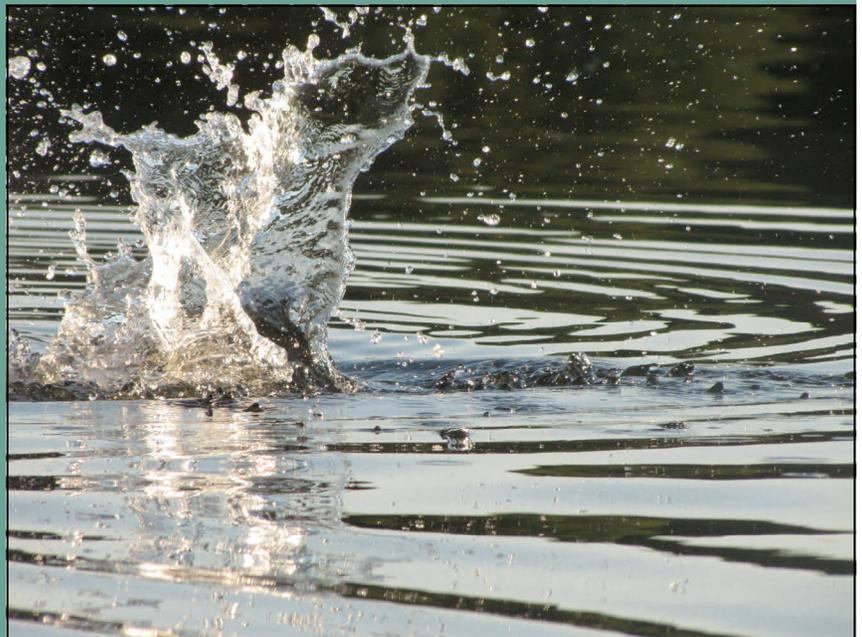


Photo by Anne Mazar

Thank you for supporting us!

