

# Great Pond Foundation

Quarterly Newsletter

First Quarter 2011

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*Photo by Carter Fleming*

## Greetings Friend of Edgartown Great Pond,

Over the past few weeks, we have seen signs of winter beginning to loosen its grip on the Vineyard. As we slowly make our way into the much welcomed spring season, we want to give you an update on what the Great Pond Foundation is doing to improve the health of Edgartown Great Pond.

In this issue, John Coskie reports on Dredging - what was accomplished last fall and the dredging that is currently underway. Burt Fleming summarizes the Foundation's important Science and Education initiatives and outlines plans for another busy summer on the Pond.

As you may know, last summer, we launched a campaign to raise the operating and capital funds necessary to carry out the work of the Foun-

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March 19, 2011  
*Photo by Tom Wallace*



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dation for the current fiscal year (2010-2011). With an overall goal of \$320,000, donations received thus far total close to \$230,000. While this is a good start, it is not sufficient to continue dredging and to carry out other critical programs.

The work being done to save the Pond would not be possible without the generous contributions our donors. Our thanks go out to those of you who have made donations to support our efforts. As you will see in John and Burt's updates, your contributions are truly making a difference around the Pond. Together we will pass on the lasting legacy of a healthy Pond for generations to come.

For those of you who may not have made a donation to the current campaign, its not too late! You can join your neighbors in supporting the Pond by making your tax deductible donation to:

***Edgartown Great Pond Foundation***

***P.O. Box 2005***

***Edgartown, MA 02539***

You have our thanks in advance for your much needed support. We encourage you to stay informed by visiting our website at [www.greatpondfoundation.org](http://www.greatpondfoundation.org).

Sincerely,

*Tom Wallace*







Photo by John Coskie

## EYE ON THE POND

In an effort to improve circulation and address decreasing pond depth, the Great Pond Foundation has embarked on a long term dredging project in Edgartown Great Pond with our dredge "Nessie."

## Dredge Update

By John Coskie

Winter has its lock on the Island; and while we have not received the snows that have battered the East Coast, wind, rain and cold temperatures have made winter on the Island a bit less pleasant than last winter.

Nessie was launched the last week of October, just after the Fall opening which lasted almost three weeks. She began dredging activities in the Pond on November 1<sup>st</sup>. While the plan was to operate for at least four weeks, Mother Nature had other ideas. Within several days, the first storm blew in and caused two days of wash-over at the recently closed opening. Nessie retreated to the protection of Slough Cove. This was more the norm during this dredging season as one storm after another hit the Island. The biggest problems were the winds. Nessie is able to operate in winds up to 25-30mph before the team moves to the safety of Slough Cove. However, not all winds are created equal. The barrier beach provides some protection from south, southwest and southeasterly winds. The storms this Fall delivered strong northerly winds, and there is no protection for the dredging area. Unlike the previous dredging activities

where we may have missed a few days due to weather, this Fall we lost 14 days due to weather. We pulled the dredge from the Pond on December 12<sup>th</sup> as the Pond began to ice-over. This early icing also caused the Town to cancel the December opening for fear of the water level becoming too low at a time when the temperature was also low, resulting in a negative impact to the Oyster habitat.

Steve Ewing and his crew launched the dredge during the first week of March after the ice in the lower pond has broken up. The hope and expectation is that we'll dredge for another three to four weeks. This time, we are using a different tool for the removal of material. Historically, we've used a cutter head that rotates, biting into the mate-

rial, and then vacuuming it through the pipe and onto the beach. The cutter head works well when the material is compacted. Now that the dredge has operated twice within the past twelve months, most of the material is new, loose and not tightly compacted. The new tool we'll use is like a vacuum cleaner that replaces the cutter head and works best with loose material. Unlike the cutter head, there are no moving parts and it requires less fuel to operate. The theory is that it will reduce operating and maintenance costs for specific applications such as this.

Bob Arnold from Keene Engineering, the dredge manufacturer, was here for four days in March to observe our dredge operations. Bob is Keene Engineering's lead operator for their own dredges. He was impressed with the competency of Steve's crew given their relatively low number of operational hours. Bob was also able to offer some fine tuning suggestions for operations and maintenance.

The weather has cooperated this March with no days lost due to weather, although ice did form at the shoreline. This allows us to continue the work that has resulted in the unprecedented quality and duration of openings we experienced in 2010.



Photo by John Coskie

# Science & Education Update

By Burt Fleming

Over the past several years, Foundation initiatives have proceeded on two parallel tracks: 1. Scientific Studies of the Pond, (including support for restoration programs) and public education; and 2. Direct Remedial Action to improve water quality in the Pond.

The latter, involved the acquisition of a dredge designed for specific use on EGP (and possibly other Island ponds), has consumed a major portion of our resources, but, as actual dredging has demonstrated, produced *significant improvement* in Pond openings.

With the help of its Science and Education Director, Bob Woodruff, and Sci-

Massachusetts Estuary Project. Recommendations from the 2008 report await action by the Town. This will involve complex and potentially controversial and expensive issues including zoning changes, and expansion of sewerage, in order to reduce long range nitrogen loading to Edgartown Great Pond and other water resources in the Town.

N<sub>2</sub>, i.e. nitrogen, is the principal limiting nutrient for algal growth in the pond: the greater the N<sub>2</sub> level, the greater potential for algal growth = an undesirable consequence.'

Measurement of pond water nitrogen levels, both as an index of N<sub>2</sub> increase (plume, septic groundwater, acid rain and runoff) and reduction (dredging and oyster restoration), has continued this year. Along with conductivity tests, an indicator of increase in saline content, the Water Quality Testing program will continue in 2011 as in the past decade and a half.

## OUR MISSION:

*The Great Pond Foundation was formed to enhance the health and beauty of the 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.*

As noted in the dredging report, priority is being given to creating a better channel for pond openings, including widening of the delta. To better understand where to direct future dredge efforts, Great Pond Foundation with support from The Permanent Endowment for Martha's Vineyard, has designed a comprehensive Study of Pond Circulation to be implemented this spring. The study will also provide important support to applications for dredging at sites identified as critical.

Of special note is the success of the Oyster Seeding Program, now in its third year. N<sub>2</sub> removal from some 15 gallons of water per day per oyster, this program is vital to pond health, not to mention health of an important shellfish supply. Under the direction of the MV Shellfish Group (MVSG), GPF-funded summer interns physically introduced literally millions of new "seed" into the Pond in 2010. This past year, previously seeded oysters had grown to over 2", a welcome marker of success of the MVSG Oyster Restoration Project, now in its third year.

Phragmites, an invasive plant species, poses a threat to native plants and established pond-shore ecology. GPF continues to work in cooperation with The Nature Conservancy and Sheriff's Meadow Foundation in programs to reduce, control, and possibly eradicate this invasion.



Photo by Carter Fleming

ence Advisors Bill Wilcox, Water Quality Planner at the M.V. Commission; Geohydrologist Craig Saunders of Saunders Associates; and Paul Bagnall, Edgartown Shellfish Biologist/Warden, the Foundation has been able to make important gains in understanding of Pond ecology and identification of effective remediation measures. As a result of its long record of Pond study, EGP was the first of the Island ponds to be studied by the



Photo by Carter Fleming

*Thank you for  
your continued  
support!*

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*Without the support of  
our benefactors and a  
concerned public, our  
efforts would not be pos-  
sible.*

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**GPF Newsletter  
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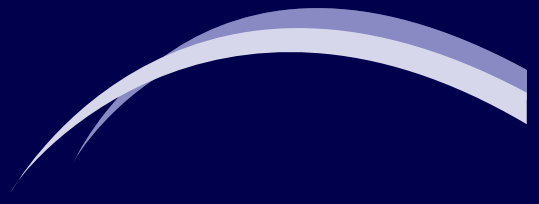
## Science & Education Update

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Through its program of Public Education, the Great Pond Foundation will continue to:

- \* Post up-to date information regarding pond health and GPF programs on its website, [www.greatpondfoundation.org](http://www.greatpondfoundation.org).
- \* Submit news and feature articles for publication in Island newspapers.
- \* Through it's *Michael Wilde Award* ,named in memory of one of the Pond's greatest advocates and also one of the original GPF directors, the Foundation fosters awareness at the high school level, and helps stimulate interest in Pond health. Proposals for student-designed projects are being sought for the coming season.

In summary, the Foundation has set forth an ambitious agenda for the coming season and the future, requiring an extensive commitment to the goal of restoring and maintaining pond health. Without the support of it's benefactors and a concerned public, these efforts would not be possible.



**GREAT POND FOUNDATION**

***CHECK US OUT ON THE WEB!***

[www.greatpondfoundation.org](http://www.greatpondfoundation.org)

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