



### OPET Annual Meeting

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**Thursday  
August 4th  
7pm**

featured talk

### **“From A to Zika, Mosquito Control on Cape Cod - What you Need to Know”**

Presented by Gabrielle Sakolsky, Assistant Superintendent and Entomologist of the Barnstable County Cape Cod Mosquito Control

### **Falmouth Main Library**

300 Main Street, Falmouth  
Light Refreshments

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Come listen to Gabrielle Sakolsky of the Barnstable County Cape Cod Mosquito Control talk about their efforts to trap, monitor and control mosquitos and their diseases.

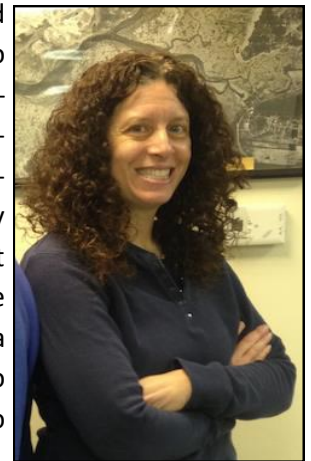
Zika is the primarily mosquito-borne disease that is linked to birth defects and Guillain-Barré syndrome, an immune system disorder. The risk of a Zika outbreak here is extremely low, as the two varieties of mosquito that carry the disease don't live on Cape Cod.

Of greater concern is West Nile and Eastern Equine Encephalitis (EEE). West Nile has been spotted in trapped mosquitos near Oyster Pond for the past two summers. West Nile causes flu like symptoms and in 1% of the cases, inflammation of the brain. EEE is one of the most severe mosquito-transmitted diseases in the United States. It can also cause brain inflammation that can lead to brain damage and death.

Ms. Sakolsky will also discuss what you

can do to reduce the numbers of mosquitos on your property and limit your exposure.

In 1993, Ms. Sakolsky was hired as the fulltime project entomologist at Cape Cod Mosquito Control Project where she serves as Staff Entomologist and Assistant Superintendent. She has conducted and directed the mosquito arbovirus surveillance program for Barnstable County over the past 23 years. She has designed a new trap to study mosquito populations



that is currently being tested in several Atlantic states, and has worked on several international studies in Canada and Africa.

## **The Headwaters of Oyster Pond - An Exciting Update by Wendi Buesslerer**

Thanks to your generous donations, OPET acquired the Headwaters property from WHOI last October! Over the winter, we explored this wonderful site and discovered some treasures. What a prize this property is. There is a great diversity in landscapes from wetlands to vernal pools to majestic beeches to a natural amphitheater to a white pine forest.

We've also started compiling a long "to-do" management list. As every property owner

knows, along with ownership comes the responsibility for maintenance and upkeep. Our mission is to provide public access while protecting fragile resources and the privacy of the abutters.

On our list is working with the Town to provide a small, three car parking area with a turnaround at the end of Fells Rd. OPET will also install a kiosk here with a trail map and a bike rack. Expanding and *continued on page 4*

## Join OPET Today!

**Your Donations** make it possible to continue our work to conserve and protect the natural environment and ecological systems of Oyster Pond.

Visit our web site at  
[www.opet.org](http://www.opet.org)

Or send us an email at  
[info@opet.org](mailto:info@opet.org)

OPET does not have an official phone, but you can leave a message at 508-540-3263.  
We'll gladly get back to you!

*We are a 501 c3 organization.  
Contributions are  
tax deductible.  
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### **Officers & Directors 2014–2015**

*President - William Kerfoot  
Treasurer - Keith Schwegel  
Clerk - Eva Nilsen*

*Executive Director - Wendi Buesseler*

#### *Directors:*

David Bailey	Robert King
Kate Bulygina	Steve Leighton
Tom Davenport	Martin Monk
Richard Hale	Lou Turner
Melinda Hall	

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### **OPET Board meetings are open to all OPET members.**

Meetings are usually held the 3rd Sunday of the month, at 4:30 pm in the winter and 5:30 pm in the summer at the Treetops Club-



## Flushing Oyster Pond to Improve Water Quality *by Bill Kerfoot*

Next to reducing the input of nutrients, maintaining an optimal flushing rate is the most important factor in maintaining a healthy Oyster Pond. Hidden from our eyes, groundwater provides the greatest water inflow to Oyster Pond. Mosquito Creek, located at the northernmost cove, provides only about four percent of the total. The pond empties through a weir before crossing through a culvert under Surf Drive and then into Trunk River and onto Vineyard Sound.

The importance of maintaining the flushing was shown in the 1980's, when the Surf Drive culvert collapsed, stopping normal water outflow and flushing. As a result groundwater inflow raised the water level in the pond and groundwater outflow increased around the southern shoreline, as the pond sides and bottom are somewhat porous. Water in the pond stayed longer, increasing its residence time, causing observed nitrogen levels to about double their previous levels. Submerged aquatic vegetation began to explode in growth, covering the northern cove and half of the middle cove. The density of the elodea and milfoil was so great that you could hardly paddle a canoe through them.

The solution to correct the condition was to enlarge and replace the culvert and control the inflow from Trunk River with the weir. A poll of the Oyster Pond neighborhood showed overwhelming support that the salt pond be kept at low salinity to benefit the herring. The design of the weir is controlled by boards which can be positioned to change the cross-section relative to pond level. Hydrodynamic modeling was conducted by John Ramsey of Applied Coastal Research and Engineering, Inc. to select the optimal outflow and salinity for Oyster Pond. Salinity levels were reduced to a brackish 2-4 parts per thousand (ppt), versus the Sound which is at 32 ppt. The operation of the weir allowed us to increase salinity to control any rapid growth of elodea in the northern cove.

Following the acquisition of 22 acres of land from WHOI to protect the pond's water quality, OPET looked carefully at the weir operation and found major problems. Water levels in the pond had risen to at least eight inches above normal static level. A transect survey from the weir through the lagoon to Trunk River, found the actual controlling "dam" to be situated just before the curve of Trunk River rather than the weir. An invasive plant, phragmites, had sent roots and root mats into Trunk River, acting as a barrier to flow.

After removal of the phragmites (see following page), flow increased three times and water dropped four inches in the lagoon. Within a week, the pond level also dropped four inches, uncovering some docks. The lesson learned was that you cannot take adequate outflow for granted. It will take effort to assure a secure outflow in the future.

OPET is studying the situation and may seek a grant to instrument the outflow and seek a permit to maintain the velocity of flow through the lagoon and Trunk River. Two years of monitoring water quality and tidal change would be necessary to calibrate the desired level of outflow.

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Environmental Trust**

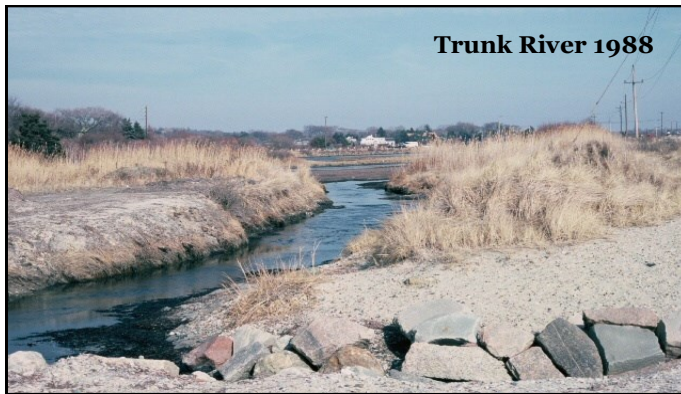
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## Fixing Trunk River and Oyster Pond by *Wendi Buessler*

Did you notice the level of the pond dropping at the end of May? The water had been usually high for months, much too high, covering docks and flooding backyards. All the spring rain we received was part of the reason, but the main problem was that the exotic, invasive reed phragmites was clogging the outflow from the pond into Trunk River and keeping pond levels high. Slowly over the years, the phragmites had crept in and filled Trunk River. Take a look at the pictures of Trunk River over time and you can see the dramatic differences in the river. Amazing!



**Trunk River 1988**

Blocking the river not only keeps the water levels high, but also slows the flushing of the pond. This means that nitrogen levels from septic systems can build up in the water column. Keeping the water flowing helps dilute the levels and preventing algal



**Trunk River Aug. 2015**

growths in the pond and lagoon. The blockage can also interfere with the migration of Oyster Pond's herring population.

In October 2015, OPET hired a licensed applicator to treat the phragmites. The herbicide kills about 70% of the plants in the first year of treatment. Cutting down the old growth makes it much easier to spot and treat the remaining stalks.



**AmeriCorps at work in Trunk River**

In May, OPET and Barnstable County AmeriCorps volunteers worked all day to cut down the dead, treated stalks and remove the GIANT phragmites root balls in the river that were responsible for most of the blockage. Thanks to their incredibly hard work Trunk River is a wider and freer flowing river. We literally could not have done this without their help!

Thanks also to the Falmouth Community Preservation Fund that paid for the plant treatments and the Woods Hole Foundation that helped offset our employee costs, supplies and lunch for the volunteers.

Water levels of the pond have dropped. The Ransom Road dock is now exposed after being under water for months. We hope you are also seeing the results of OPET's hard work! OPET is the ONLY watchdog for the pond and its environs. Please help us continue our work with a donation.



**Phragmites root ball**



*continued from page 1* improving the existing trails is also at the top of the list. Additionally, we need to remove pockets of invasive exotic plants before they spread any further. Of course, all of these plans require funding.

One of the first things we did, when it was easier to move around before the plants leafed out, was tag the boundaries of the property. (It is always good to know exactly what you own!) We also marked out the new trail system to create an additional 2/3 mile of trails to connect up and loop to the existing trails. Some of the existing trails are on the Zinn Park property OPET purchased in the mid-1990s. Others are informal neighborhood trails. The plan is to link all of these together into loop trails that will visit points of interest.

Some of the points of interests include the magnificent beeches scattered throughout the property. They are particularly beautiful along a high ridge on the southern edge of the land. Beeches also slope down to the natural amphitheater. The amphitheater is actually a dry “kettle hole” created by the glaciers that formed Cape Cod. Along the slope of the amphitheater are the remains of a small, pink granite quarry. Falmouth pink granite is well known as it was used to pave President John

F.

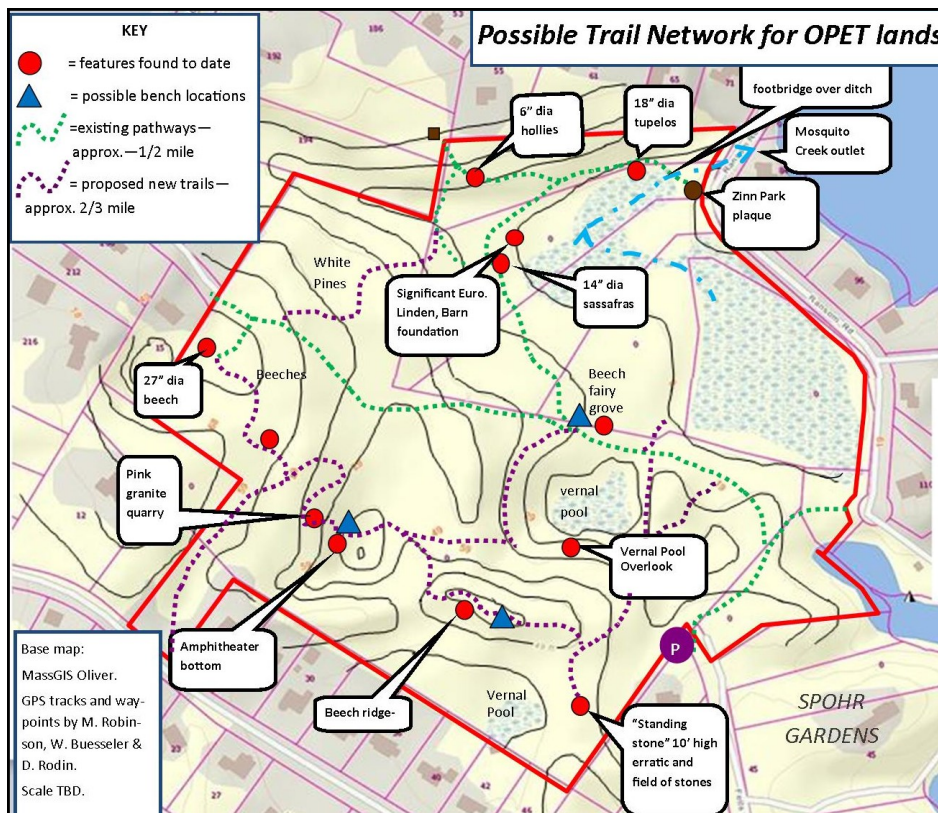


Dana Rodin, chair of the OPET Land Stewardship Committee, next to the glacial erratic on the Headwaters property.

Kennedy’s gravesite.

Glaciers were active in this area, not only forming the dry kettle hole, but also scattering other bits of pink granite and other stones across the

land. This includes a 10 ft tall “glacial erratic” that looks like an ancient standing stone. We have confirmed that the two isolated wetlands on the property are vernal pools. To be classified as a vernal pool, they had to contain at least five salamander egg masses. We found that and



more. It is wonderful that with this land purchase we can provide permanent protection to not only the pools, but also the surrounding woods where the salamanders live most of the year.

Removing the invasive plants on the property is a big “to-do” item for next spring. Bush honeysuckle, vine honeysuckle, English ivy, privet, oriental bittersweet, and the big nasty, Japanese knotweed need to be controlled before they spread any farther. Most of these are on the edges of the property. In particular, we need to stop the bush honeysuckle creeping down the slope to the amphitheater which will destroy the beauty of this special place. We want to catch all of these nasties before they invade much farther into the forest understory. They will overwhelm native plants creating a monoculture and limiting native food sources. A diverse and complex plant understory is important for a healthy forest. This is where the majority of birds and animals forage and nest.

We look forward to when the trails are complete and everyone can see these special places for themselves! To watch a video on what we are doing on the land and to see some of these beautiful places, go to our web site at [opet.org](http://opet.org) or scan the code on the back of this newsletter.



*A handful of yellow spotted salamander eggs.*



Have you seen OPET's interpretive sign that was installed last fall along the bike path? Our grant from the Falmouth Community Preservation Community to remove phragmites included funds for a sign to acknowledge their support. We took this opportunity to include information about OPET, our invasive plant removal and shoreline habitat preservation program. Take a look next time you are on the bike path.

#### **Gifts to OPET In Memory of :**

- ♥ **Friederun and Holger Jannasch** from Birgit Rose Loewenstein
- ♥ **Barbara A. Lankow** from Richard Lankow
- ♥ **Chip Morse** from Ken and Laura Morse
- ♥ **Dr. A. J. Stewart** from Jean H. Stewart
- ♥ **Freelon Morris** from Mary Lou Welch
- ♥ **Holly Zeeb** from Peter Zeeb
- ♥ **Jayne Starosta** from Norman Starosta
- ♥ **John Helfrich** from Sarah Helfrich
- ♥ **Richard H. Backus** from Denise Backus
- ♥ **Werner Loewenstein** from Birgit Rose Loewenstein & Maureen Smith

#### **Gifts to OPET In Honor of :**

- ♥ **Dr. Birgit Loewenstein** for all her past contributions from Andrew & Geri Wexler
- ♥ **Cecily Selby** from Jeanne Guillemin-Meselson & Matthew Meselson
- ♥ **John Dowling** from Stanley & Pamela Hart
- ♥ **Jonathan Smith** from Linda Sattel & Michael Fanger
- ♥ **Andrew Szent-Gyogyi** from Tom & Judy Sbarra
- ♥ **Lou and Lee Turner** from Alec & Judy Ziss



Scan this code on your phone to see a video update on the Management of the Headwaters. This quick repose code or QR code will take you directly to our web site. We will use this same technology when designing trail makers for the Headwaters. It is an easy way to update information and a great way to include videos and pictures.



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**The Oyster Pond  
 Environmental  
 Trust**

**P.O. Box 496  
 Woods Hole, MA 02543**

stamp

