



The Watershed

Vol. 15, No. 1

The Oyster Pond Environmental Trust Newsletter
OPET, P.O. Box 496, Woods Hole, MA 02543-0496

Summer 2011
www.opet.org



Osprey in flight, with fish - Oyster Pond Lagoon, April 2011 by Craig Gibson

Please join us for the
OPET Annual Meeting
Tuesday, July 19th

at Highfield Hall
(please note the new location!)

56 Highfield Drive
Falmouth

7 pm

Featured Speaker:

Craig Gibson

OPET is excited to announce that Craig Gibson, noted local bird photographer, is our featured speaker at this year's Annual Meeting. He will present a talk on *The Birds of Oyster Pond and the Falmouth Coast* featuring his popular local flight and perched bird images in a relaxed and informal presentation. The meeting will be held Tuesday, July 19th at 7pm. This year the Annual meeting will be held in a new venue, Highfield Hall, on top of the hill behind the bus station. Light refreshments will be served following the presentations. The public is welcome to attend.

Craig Gibson has been a lifelong amateur photographer and an active birder for over ten years. About six years ago, he combined both interests and started taking photographs of ospreys in Falmouth. This fueled his passion for watching and photographing ospreys as well as other birds in Falmouth and elsewhere on Cape Cod.

In his presentation, Craig will showcase images of both resident and migrating bird species and discuss when and where they can be found around Oyster Pond and local marshes throughout the year. He will share his straight forward techniques and encourage questions from the audience throughout the entire presentation.

Craig is working on a better understanding of bird identification and behavior, camera techniques especially for flight shots, proper exposure and lighting conditions, as well as effective field work to capture and present the most pleasing images. He is a popular and dynamic speaker and is noted for his energetic yet simple approach as well as his ability to engage audience members.

Craig is a member of the Cape Cod Bird Club, a contributing photographer for the Mass Audubon Society and Birds of North America, an online project for the Cornell Lab of Ornithology. His images have been published weekly over the last two years in the Falmouth Enterprise. He is also a regular photographic contributor for Salt Pond Areas Bird Sanctuaries and The 300 Committee. He has also photographed birds along the southwest coast of Ireland, Western Australia, and during a recent expedition to the Falkland Islands, South Georgia and Antarctica. Craig serves as a trustee for the Quisset Harbor Preservation Trust in Falmouth.

Please join us to welcome Craig and enjoy his photography at our Annual Meeting.



Yellow Warbler - Oyster Pond Lagoon, May 2011 by Craig Gibson

Fish News



Members of OPET and the Falmouth Fishing Association joined forces in March to prepare the way for adult herring to migrate to Oyster Pond to spawn.

loaded with herring, and the total run would surely have exceeded the numbers reported above. In addition, that was the last year that hundreds of herring could be seen on more than one occasion at the end of the jetty waiting their turn to enter the river.

The fry should begin to leave Oyster Pond sometime this month. The last three fry migrations were estimated to be about 400,000. Hopefully the same number will be estimated again this year. The last fry usually leave the Pond in early December.

The white perch population of the Pond is thriving according to John Dowling, Bill Kerfoot, and Lou Turner.

By Lou Turner

The first herring was seen heading up the Trunk River on February 28. A month later we had counted only 42 herring. The run did not begin in earnest until the middle of April, and we had seen 1,251 migrate by the time counting ended on May 10. This compares favorably with the 1,019 herring counted in 2009 and the 1,350 counted last year. The 1,350 do not include the estimate of 800 herring seen by a late night fisherman. The Trunk River is small enough, and the herring migrate in small enough numbers that it is possible to count them one by one. The largest run occurred on May 5 when 281 herring were counted. The Coonamessett River has the largest run in Falmouth, but this year we saw more herring in the Trunk River than were seen in the Coonamessett which had the smallest run in 5 years.

Many thanks to this year's counters: **Al Allenby**, Greta and Karl Audenaerde, Carl Breivogel, **Ron Breteler**, **Steve Leighton**, Jill Keating, Charlie Peterson, Hanna and **Rudi Rottenfusser**, **Lou Turner**, and **Peter Valtin**. The bolded people are members of the OPET Board.

However, there are two reasons to be disappointed with our numbers. Three years ago, before our organized counting began, there were four nights when the Trunk was seen

The Mysterious Big Fish

Barbara and Steve Leighton spotted this large, dead striped bass a few feet offshore in early February while walking along the bike path. It was 46 inches long and weighed 42 pounds. Mike Bothner, a United States Geological Survey (USGS) scientist (shown above) collected it to include it in his study of mercury in Oyster Pond. By counting growth rings on its scales, he was able to determine that it was 12 years old. The mercury concentration was 0.5 ppm in wet muscle tissue, not unlike many striped bass of this size caught in local waters. This is above the 0.3 ppm guideline set by EPA.



How did it get there? Perhaps it excitedly followed a school of herring into the pond? Or it entered the pond years ago during a storm surge as a small fish? Mike Bothner is waiting for access to a mass spectrometer that will allow him to determine how long it had been in the Pond.

Officers & Directors 2009—2010

President - Steve Leighton	Michael McNaught
Vice Pres. - Ron Breteler	Martin Monk
Treasurer - Bill Rowe	Dana Rodin
Clerk - Peter Valtin	Rudolf Rottenfusser
Directors:	Jonathan Smith
Alfred Allenby	David Sykes
Ekatrina "Kate" Bulygina	Executive Director - Wendi Buesseler
John Dowling	Hon. Board Member - Robert Livingstone
William Kerfoot	

OPET Board meetings are open to all OPET members. Meetings are usually held on the third Sunday of the month, at 4:30 pm in the Treetops Clubhouse.

We'd love to have you come!

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

Or email: info@opet.org

Please visit our website www.opet.org.

Thank You , Falmouth!

Good News! On May 17th, the voters of Falmouth overwhelmingly approved \$2.7 million to mitigate the impacts of nitrogen pollution to Falmouth's estuaries. Proposed in this funding package is \$300,000 to develop a Comprehensive Wastewater Management Plan (CWMP) for Oyster Pond. This is a very important and historic step towards improving and restoring the habitat of Oyster Pond!

- Develop & Screen Alternatives – identify and evaluate alternative treatment options
- Evaluate Alternatives - detailed review of alternatives for feasibility and cost
- Identify Recommended Plan – produce a preliminary engineering plan



Excess pond vegetation in Oyster Pond in 2000.

Beginning in the 1980s Oyster Pond residents noticed changes to the Pond. This was due to excess nutrients -- nitrogen and to a lesser degree, phosphorus - impacting Oyster Pond. Just as nitrogen feeds your garden plants, it also feeds the plants or algae in the pond. The excess nitrogen increases the amount of aquatic vegetation growing in the pond which in turn decreases the amount of oxygen available to fish and other aquatic dwellers. It also increases the turbidity or cloudiness of the pond. In the mid 1980's the impacts of nitrogen caused

such a profusion of aquatic vegetation that it was difficult to swim or boat, causing some neighbors to sell their homes.

Wastewater from septic systems is the primary source of this nitrogen (71%) according to the Massachusetts Estuaries Report. Removing this source will be the key to restoring Oyster Pond to a healthier ecosystem.

There are many ways to treat wastewater – BUT what will be the most economical and efficient method? That will be one of the many questions that consultants hired by the Town of Falmouth will explore when developing a CWMP for Oyster Pond. Sometime within the next year, the Town will issue a Request for Proposals (RFP) for an Oyster Pond CWMP.

What can we expect the Oyster Pond CWMP to include? First off, the purpose of a CWMP is to consider all wastewater treatment alternatives for a watershed region and then develop a preliminary plan to meet the water quality goals for a water body. A CWMP usually includes the following elements:

- Needs Assessment – a study of current and future nitrogen sources

The final CWMP product is a long term plan for nutrient control not only for wastewater, but also for storm water runoff and fertilizer, which also contribute nitrogen, but to a lesser degree than wastewater.

Since Oyster Pond is a small watershed of mainly residential uses (approximately 170 houses) with some institutional uses, it will be an attractive watershed for testing alternative treatment ideas. The final CWMP may propose a variety of treatments around the pond -- Innovative Alternative Denitrifying Systems, alternative “eco” toilets, Cluster Systems or Satellite Systems or perhaps even tie into the Centralized Sewer system. It will be interesting to see what the consultants propose and which technologies will be selected.

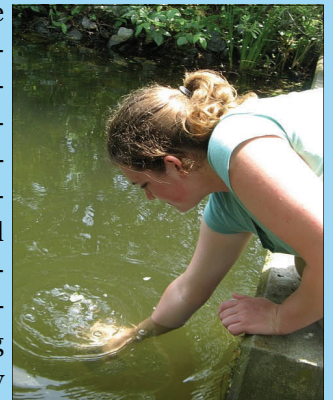
Check our web site www.opet.org for more information about possible options for wastewater treatment.

By Wendy Buesseler

Summer Students Study Oyster Pond

Don't be surprised if you see a lot of activity on Oyster Pond this summer.

We are fortunate that two groups of student interns are using Oyster Pond as a study site. The Woods Hole Partnership Education Program (PEP), is a program designed to promote diversity in the Woods Hole science community. Fourteen college juniors and seniors are partnering with Woods Hole scientists from a variety of disciplines to gain practical hands-on experience in marine and environmental science. They will be studying Oyster Pond's water quality and fish populations.



Emily Olmstead, WHRC summer intern, taking water samples at the weir.

There will also be an intern from the Woods Hole Research Center working with OPET to do an in-depth study of Oyster Pond's water quality.

Battle of the Invasives—2011

Phragmites and Japanese Knotweed Control



Bill Kerfoot, OPET Board Member, and AmeriCorps volunteers gathering phragmites from the shoreline.

“Thank you!” “Wonderful!” “Thanks so much!” “Great Job!” These were just some of the many comments and hearty thank yous we received from passersby on the bike path as we cleared out a large patch of Japanese knotweed that had blocked views of the Pond.

Americorps was once again an invaluable help in our ongoing invasives removal project. In late May, Americorps volunteers helped us remove dead stalks of phragmites along the shoreline via boat. We also for the first time removed Japanese knotweed, a truly nasty invasive that makes phragmites look tame by comparison. It is listed by the World Conservation Union as one of the world’s 100 worst invasive species. In the United Kingdom it is illegal to spread knot weed and it must be disposed of as a “controlled waste”.

While phragmites limit themselves to wet areas, Japanese knotweed has no such restrictions, it seems to grow *everywhere* – wet, dry, shady, or sunny conditions, it prefers growing along rivers and roadways.

Last fall when Polantin Ecological Services was treating the remaining stragglers of phragmites, we also had them spray the knotweed patch. We have extra funds in our grant monies from the Town of Falmouth Community Preservation Committee for our phragmites work. Unfortunately, one of the land owners along the Oyster Pond shoreline will not give us permission to remove phragmites from their land, thus we have extra monies.

(see next page)

Purple Loosestrife Eating Beetles Update



Purple Loosestrife dominating the Osprey platform marsh.

Last June, 1,000 purple loosestrife eating beetles (*galerucella californiensis* and *galerucella pusilla*) were released in the small marsh at the southwest corner of Oyster Pond. Both species of beetles are loosestrife specific bugs meaning they only eat, mate, lay eggs on, and their larvae only feed on loosestrife. The USDA rigorously tested using *galerucella* before approving their use in 1992. Since then they have become an extremely important “biocontrol” against purple loosestrife, a plant that completely dominated acres and acres of wetlands in North America.

OPET partnered with the Town Wetlands Invasive Steering Committee (WISC) in this effort and contributed towards the purchase of the beetles. This marsh (also the location of the OPET osprey nest platform) has been overrun with loosestrife in recent years. The hope is that the beetles will happily reproduce in this area and then spread out across the pond to other loosestrife infested areas such as the marsh at Treetops and the marsh near Spohr Gardens.

Experience has proven that the beetles do work. In 2006 1,500 *galerucella* were released in the marsh adjacent to the Trunk River parking lot. A survey of the release area late in the summer of 2009 showed much leaf damage and decidedly fewer loosestrife blooms than previous years. Earlier that summer the beetles were visibly active and feeding on the loosestrife.

Now, let us hope that biocontrols will be approved for knotweed and phragmites sometime soon!

Treetops Condominiums Transition to Organic

Excellent news – The Treetops Condominium Trust is converting to organic lawn care. Linda Calmes Jones, Board Chairman of Heritage Museums and Gardens, and member of OPET, facilitated the selection of Maffei Landscape to implement a transition of the Treetops grounds to organic lawn care over the next three years.

Maffei is taking the Treetops' grounds through several steps. First it was testing the soils to insure that appropriate soil amendments are added throughout the year to develop healthier soils. This has been completed and the soil enhancement and nutrition needs were identified. This is always a critical first step in developing and maintaining a healthy garden. Chemical fertilizers are only used in a very limited way during the transition, giving way to all organic fertilizers in the future.

One of the first steps Treetops is taking is cutting the lawns to a minimum of 3 1/2 inches high. Maintaining the grass at a this height does several things, it shades out weeds so they are less vigorous, it allows the turf root system to develop, and less watering is needed as the grass doesn't dry out as quickly. Until the full transition has been made to organic, clippings are being partially removed so as not to reintroduce chemicals into the soil. Clippings are an excellent (and free!) source of slow release nitrogen and provide 50% of a lawn's nitrogen needs.

Other important steps during the transition include only spot treating problem areas with pesticides rather than broadcasting them over all the grounds. For just this spring, an application of pre-emergent herbicide was applied to specific areas with crabgrass problems to help during the transition period. Broadleaf weeds will only be spot treated with herbicide throughout the season rather than treated on a schedule. It is anticipated that these treatments will be minimized or negated as the turf becomes healthier. Grub control pesticide applications are also being limited to two small areas that have had systematic trouble and only if breakouts occur and severely impact the turf.

An active Landscape Committee at Treetops sees to it that the promising beginnings of this transition will continue, until the final goal of "organic lawn" is reached. In addition, more environmentally friendly plants around the Treetops part of Oyster Pond are in a long-term planning process.

Many of the new Treetops lawn care guidelines can be looked up in the brochure "How to Grow a Falmouth Friendly Lawn" which can be found on the OPET web site at www.opet.org.

By Rudolph Rottenfusser



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(Of course, we made sure we had permission from the Falmouth Conservation Commission before we gave Polantin the go ahead).

It is rather a curse if you are able to identify knotweed, because then you will see how the Town of Falmouth is being over run with it! Fifteen years ago, it was not seen in Falmouth and now....! Although it looks like bamboo, it is not related. Japanese knot weed can grow 10 feet tall and its rhizomes can grow 40 feet horizontally and 10 vertically! Not only does it spread via rhizomes like phragmites, it also can also reproduce by seeds, making it spread much faster and easier. Buried rhizomes have even grown through 2 inches of asphalt. Even the smallest pieces can regenerate – as small as a piece of fingernail; therefore it is critical that every piece is disposed of properly and burned. Composting will not break it down.

The treatment last fall with Rodeo helped knock back the knotweed, but we will have to remove and control the still actively growing rhizomes and shoots over sev-

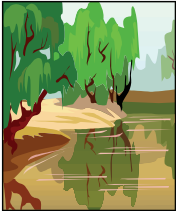
eral seasons, otherwise the knotweed will just take over once again.

Many thanks also to the Woods Hole Foundation for their many years of funding support!

By Wendi Buesseler

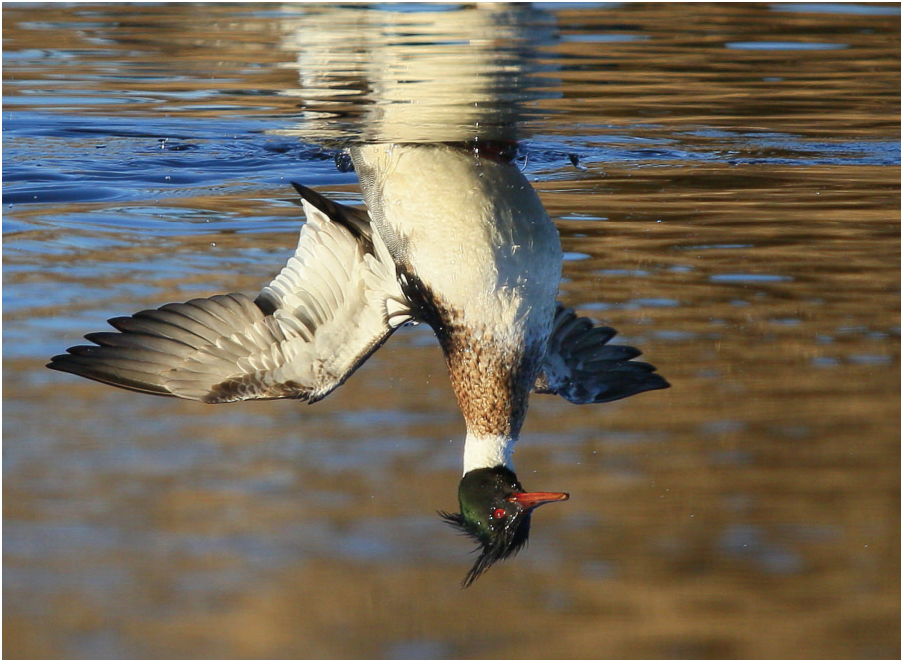


Wendi Buesseler and Americorps volunteers remove dead knotweed stalks from along the bike path.



Maintaining vegetated buffers — undeveloped areas of shrubs, trees and plants — along the shoreline is important to sustain a healthy ecosystem around Oyster Pond. Buffers intercept fertilizer & pesticide runoff, stabilize soils, prevent erosion & provide habitat and shade to birds and animals in this important zone between land and water. In contrast, lawns provide little habitat value. Consider growing native plants to replace lost natural buffer. The Falmouth Conservation Commission has a list of native plants that do well in our climate. Remember to contact the Con Com prior to any work along the banks, shoreline or within 100 feet of the edge of the Pond, even vista pruning.

Red-breasted Merganser - Oyster Pond Lagoon, Feb 2011 by Craig Gibson



**"The Birds of Oyster Pond
and the Falmouth Coast"**

Craig Gibson

Featured Speaker:

7 pm

Falmouth

56 Highfield Drive

(please note the new location!)

at Highfield Hall

Tuesday, July 19th

OPET Annual Meeting

Please join us for the

Light Refreshments to Follow



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Trust**

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