



“Coming to a Suburb Near You”

**OPET Annual Meeting
Thursday, August 19th, 7 pm**

Sea Education Association
171 Woods Hole Road, Falmouth

Speaker: Ian Ives, Director of the
Massachusetts Audubon Society's
Long Pasture Wildlife Sanctuary.

Ian will explore the local increase in abundance of deer, coyote, fisher, turkey, bobcat and osprey on an increasingly residential Cape Cod. His talk will address the conflicts, management measures, and ethical considerations that arise as human and wildlife populations increase and come into more frequent contact. Come learn more about the natural histories of some of your “wild neighbors.”

Ian leads environmental advocacy and conservation projects across the Cape to help protect rare wildlife and the threatened natural resources they depend on. Formerly, Ian was a Field Biologist for Hyla Ecological Services in Concord MA, and was a zookeeper at the Franklin Park Zoo in Boston.



Photo courtesy of Ian Ives

A Message from Melinda Hall, OPET President



We hope you have been enjoying summer on and around Oyster Pond! It has literally been a breath of fresh air to stride out the door *sans* mask, greet neighbors with a smile, gather for cookouts, and visit with family and friends once again. To cap it all off, we invite you to attend our in-person annual meeting on Thursday, August 19, at the Sea Education Association to hear Ian Ives speak about the wide variety of wild animals that share the watershed with us (see article to the left).

If you have been following us through our emails, newsletters, or online, you might have noticed a theme of “rebuilding” this past year. Recognizing that four additional board members are scheduled to rotate off the board at the end of this summer, we reached out to neighbors on the pond and the wider community seeking interested parties, with great success! We added four new board members throughout the year, whose profiles you can read on page 4. Each new member brings a different background and skill set to the board, and we feel very lucky to have found four such qualified individuals, particularly inasmuch as they had to begin their tenure via Zoom meetings!

Our web site needed a complete overhaul, as it had become clunky and almost impossible to navigate. This tedious and exacting work actually began more than a year ago, and it came to fruition when the new site went live this past February. We couldn't be happier! If you haven't visited the new site, we invite you to spend a few minutes exploring it. (opet.org). There is a treasure trove of information to be found on topics ranging from invasive plant removal to Oyster Pond's herring fishery to best practices around your home and yard to maintain the health of the pond (or any other place you live!). On the OPET Facebook Page, check out the pictures and videos from our wildlife camera, on which we have captured everything from flying squirrels to the elusive fishers.

Speaking of herring, one of our new board members, Matt O'Connor, directed an informal effort this spring to count herring entering the Oyster Pond system via Trunk River. Next year, OPET plans to follow APCC guidelines to establish a more formal program meant to monitor herring fisheries all over the Cape (see page 2.) We will be seeking volunteers to help, so if you are looking for an opportunity to get involved with OPET, this might be your chance! Although the pond's salinity has been running higher than usual, around 6 ppt in recent months (see page 3), herring can survive in much higher-salinity environments.

Finally, you have already heard that our long-time Executive Director Wendi Buesseler decided to retire from that position to have more time to travel and spend time with family. Although we will miss her, we are thrilled to have Christine Brothers as our new Administrator, and we can't wait for you all to meet her at the annual meeting. So mark your calendar for Thursday, August 19, and plan to see your watershed neighbors once again!

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.

Officers & Directors 20-21

President - Melinda Hall
Vice President/Treasurer - Martin Monk
Clerk - Meredith Golden
Administrator - Chris Brothers

Directors: Stephen Leighton
Alfredo Aretxabaleta Teresa Macrae
John Dowling Matt O'Connor
Jennifer Goebel Dana Rodin
Richard Hale Jonathan Smith
William Kerfoot Mike Spall
James Wilson

Visit our web site at www.opet.org

Or send us an email at -
info@opet.org

OPET Board meetings are open to all OPET members. Meetings are at 4:30 pm on the second or third Sunday of the month at the Treetops Clubhouse.

We are a 501(c)(3) organization.
Contributions are tax deductible.
Tax Id number—04-3278142



2021 Herring Count on the Trunk River

by Matt O'Connor, OPET Board Member

In the spring of 2020, the annual assessment of the herring migration up the Trunk River to Oyster Pond was cancelled when the Town of Falmouth closed the parking lots at most town beaches at the beginning of the pandemic, including the parking lot at the Trunk River. Without parking, it was determined that it would be too dangerous for counters to otherwise get to and from the Trunk River at dusk or in the dark.

In the spring of 2021, with the pandemic winding down, it was decided to resume the annual herring count. However, for a variety of reasons only an informal count was possible, instead of a statistically sound effort allowing our counting data to be compiled and compared with other herring counts that were being done elsewhere on the Cape. So, this past spring a group of about six counters performed approximately 50 independent counting sessions over a 5-week period. This informal effort resulted in a count of about 800 herring making their way up the Trunk River toward Oyster Pond. This confirms that the herring run on the Trunk River is still a viable one! However, our results do not allow us to conclude if the run is increasing or in decline.

In the spring of 2022, OPET will join a Cape-wide herring count effort that is coordinated by the Association to Preserve Cape Cod (APCC). By aligning our counting practices with those of other herring counts on the Cape and throughout the state, the data can be used to compare the health of our herring run with others on the Cape. The data can then also be used to compare the Trunk River herring run year over year. If you are interested in learning more about the herring count or think you would like to participate in 2022, please contact Chris Brothers at Info@opet.org or Matt O'Connor at oconnorscape-cod@gmail.com.



*Hungry birds await the evening run of herring into Trunk River.
Photo by Matt O'Connor*

Gifts to OPET in honor of:

- ♥ Wendi Buesseler from Dick and Jodie Hale
- ♥ Cassidy Day from Kate Nace Day
- ♥ Sarah Flynn from Susanne Hallstein
- ♥ Meredith Golden from Andres and Julie Diaz
- ♥ Melinda Hall from Leslie Hall

- ♥ Melinda Hall from Susanne Hallstein
- ♥ Melinda Hall from Leonard and Patricia Johnson
- ♥ Mother Earth on Mother's Day from Pedro Sanchez and Cheryl Palm
- ♥ Cecily Selby from Paul Reed and Leah Schafer
- ♥ Lou and Lee Turner from Judith Ziss

Monitoring Salinity in Oyster Pond

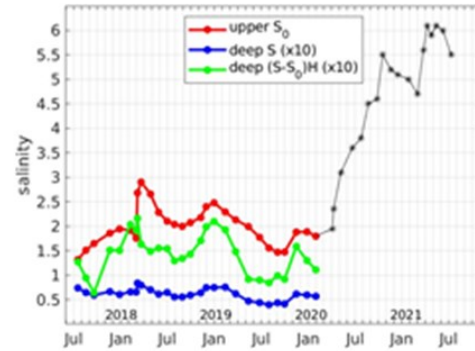
by Mike Spall, OPET Board Member

Because the salinity of Oyster Pond is crucial to the health of the ecosystem, we have been monitoring it closely since the toxic cyanobacteria bloom in the summer of 2016. This remains a threat as two ponds in Falmouth have had blooms of this bacteria already this summer. Salinity in the range of 2-4 ppt (parts per thousand) is optimal to support the brackish ecosystem suitable for white perch and spawning herring and to suppress cyanobacteria.

The salinity dropped to below 2 ppt in the fall of 2019, so the town of Falmouth brought in special dredging equipment and did a very thorough job of cleaning out the gravel and sand in Trunk River that had blocked the flow of salty water into the pond. Since that time the salinity has steadily increased, reaching over 6 ppt this past winter (black line).

The transition on the graph from colored lines to the single black line corresponds to when the Woods Hole Oceanographic Institution closed its buildings due to COVID-19. WHOI had generously been providing the measurement instrument and processing the data for OPET usage. The data since then has been collected with a simpler hand-held device, which is not suitable for measuring the volume of high salinity in the deep parts of the pond (the green and blue lines).

This past spring, we added a board to the weir to control the flow of salty water from Vineyard Sound into the pond. We are hopeful that the salinity will follow its usual seasonal pattern and drop during the summer months into the desired range.



Salinity in Oyster Pond since 2017



Three Bald eagles were seen for several weeks during January and February, 2021 in the trees along Oyster Pond and sitting in the osprey nest. Once the resident ospreys returned, however, the eagles left the area. Photo by Dave Lafreniere

Gifts to OPET in memory of:

- ♥ Richard Backus from Denise Backus
- ♥ Joan Casey from Kenneth F. Casey
- ♥ Helene and Gilbert Crofts from Jeffery Wisch and Cynthia Crofts-Wisch
- ♥ Shirley Durham from Thomas and Judith Durham
- ♥ Alice and Maurice Evans from Betsy Starr
- ♥ Irwin and Liz Golden from Meredith Golden and Robert Chen
- ♥ Barbara Lankow from Richard Lankow
- ♥ Barbara A. Lankow from Andy and Geri Wexler
- ♥ Robert Livingstone from Art and Booje Calfee

- ♥ Werner Loewenstein from Birgit Loewenstein
- ♥ Werner Loewenstein from Laurie Baefsky and Joel Martin
- ♥ Richard F. North from Gloria North
- ♥ Rear Admiral Edward M. Peebles from Ellen Peebles
- ♥ Rankins/Zinn from Joan Berman
- ♥ Dr. Norman M Starosta from Peter and Cynthia Starosta
- ♥ Dr. Artemas J. Stewart from Jean H. Stewart
- ♥ Virginia Valiela from Thomas and Virginia Gregg
- ♥ Dr. Myrna Weiss from Meredith Golden and Robert Chen
- ♥ Martin K. White, MD from Tanya White
- ♥ Dr. Roland L. Wigley from Nancy Wigley

Welcome to OPET's New Board Members

Jennifer Sanchez Goebel works for NOAA Fisheries in Gloucester, MA as the regional public affairs officer, where she handles media inquiries, web content, and outreach efforts. She joined NOAA as an endangered species biologist in 2011, and has worked with NOAA staff on habitat restoration projects, dam removals, cold-stunned sea turtle rescues on the Cape, fishery regulations, and responses to stranded marine mammals and sea turtles, among other things. She has a particular interest in restoring habitats for sea-run fish, and has taken part in annual herring run counts around New England. Prior to joining NOAA, Jen worked at the New England Aquarium and at Earthwatch, where she lured non-scientists into participating in hands-on science by joining research "vacations" around the world. Jen joined the OPET Board in April 2021 after years of exploring the pond and enjoying the local wildlife. Based in Arlington, MA, Jen spends as much time as she can at her family's home in Treetops where she enjoys playing pickleball and kayaking around Oyster Pond.

Terri MacRae has lived on Oyster Pond since 2013. She is a nature and community service enthusiast. She is currently on the board of directors for Falmouth Associates Inc., an organization established to maintain the Moors neighborhood community of Falmouth, as well as the Cape Cod Theatre Project, an organization in Falmouth and NYC that promotes the development of new American plays. She and her husband Bruce have raised three children who visit often and enjoy paddle-boarding on the pond and running the trails. She loves to garden!

Thank You to Outgoing OPET Board Members

OPET would like to acknowledge outgoing board members Mindy Hall, Martin Monk, Steve Leighton, and Dick Hale for their contributions to the organization and its growth. All joined the board in 2015, except for Martin, who joined in 2014. Mindy has served as the President of OPET since 2018; Martin served an extra year on the board taking over as Treasurer from 2020-2021; Steve kept the board informed about what the Town's Water Quality Management Committee has been doing; and Dick worked on membership development, fundraising and the extensive website redesign, and has been the informal OPET liaison to the Treetops community. Thank you! We hope you all stay involved!

Matt O'Connor and his family have been coming to Falmouth for almost 40 years as his wife's family has owned a house on Oyster Pond for over 70 years. Matt is in semi-retirement having spent four years in transportation lending at the Bank of Boston and then 25 years as a high school math teacher in Fairfax County Public Schools outside of Washington, DC. He and his wife moved to Falmouth permanently in 2012 to look after her aging parents. He is currently employed part-time at the Woods Hole Oceanographic Institution. Matt earned a BA at Fordham University, an MBA at Columbia University, and an Ed. M. at Harvard University. Matt enjoys hiking the trails in the OPET conservation lands and has participated in the Trunk River herring counts for the past eight years.

Jim Wilson is a principal member of the Wilson, Dawson and Brett law firm in Boston, Massachusetts where he counsels a wide range of clients on corporate, insurance and estate planning matters. After graduating from the College of the Holy Cross and Boston University School of Law, he spent much of his career working as General Counsel for a large company prior to opening his boutique law firm 15 years ago. He and his wife have had a home on Oyster Pond for over twenty years and he has been active in the community for much of this time, serving on the Board of Directors and, most recently, the past president of Falmouth Associates, Inc. His four children and 11 grandchildren spend many hours paddling and swimming in the pond every summer, and he is excited to work with the Board to ensure the continued viability and availability of the pond and its surrounding headwaters for all.



Sassafras seedlings at Oyster Pond. Sassafras is unusual in having three different leaf shapes: unlobed oval, bilobed (mitten-shaped with a left or right thumb), and trilobed. Photo by Chris Brothers

Cyanobacteria Monitoring in Oyster Pond

By Jennifer Goebel, OPET Board Member

Toxic Algae: What to Know

I love to paddle around with my eager and enthusiastic kayaking partners, Pancho and Gus. They both love to swim, too, and Gus loves the taste of pond water. Unfortunately, with increasing reports of blue-green algae (cyanobacteria) outbreaks, I have to be careful about where and when we all enjoy the water.

Actually, Not Algae

Blue-green algae is not actually an algae. Like green algae, blue-green algae contains chlorophyll and creates its own food through photosynthesis, but it also contains a protein that gives it a blue-green color. Because of its cellular structure, however, it is actually classified as a bacteria. There are two types of cyanobacteria common in Cape Cod ponds, and both produce toxins that can cause liver, skin, and neurological damage. One type, called *Microcystis*, produces high levels of a dangerous toxin that can cause severe liver damage and is a possible carcinogen.

What to Watch For

If you notice scum on the water surface, discolored areas, or a strong smell, avoid contact with the water. Generally, people exposed to cyanobacteria toxins experience skin rashes, eye irritations, gastrointestinal issues, and coughing or other respiratory symptoms, though more serious effects including liver or kidney failure, are possible if there has been prolonged exposure. Livestock, wildlife, pets, and birds are more likely to experience severe effects and death as a result of drinking the water. Signs of exposure include seizures, vomiting, panting, diarrhea, disorientation, excessive drooling, respiratory failure, and liver failure.

Blooming Algae

While all healthy Cape Cod ponds contain algae and bacteria, the problem arises when the algae and cyanobacteria “bloom” thanks to a combination of excess nutrients (nitrogen and phosphorus, primarily), sunlight, slow-moving or still water, and warm temperatures. Under these conditions, algae and cyanobacteria can grow quickly and overwhelm the ability of the fish and other pond animals to consume the excess growth. As the climate warms, these harmful algal blooms (“HABs” to those in the biz) are becoming more frequent. Cyanobacteria HABs are toxic, but non-toxic HABs also have negative effects, including reducing the oxygen in the water, clogging the gills of fish and invertebrates, smothering

aquatic plants, discoloring and contaminating drinking water, and forming smelly piles on shorelines.

Monitoring Underway

To monitor the cyanobacteria levels in Oyster Pond, OPET has contracted with the Association for the Preservation of Cape Cod (APCC) to test the pond from May 24 to November 5. APCC samples two locations in the pond every other week. If there appear to be increasing concentrations, OPET can contract for more frequent monitoring until a bloom subsides and conditions improve. We plan to continue monitoring to track changes, understand the pond’s cyanobacteria community, and help inform actions to protect the pond. We post the most recent test results on our website as they become available. You can also see the most recent cyanobacteria levels from ponds around Cape Cod on the APCC website: apcc.org.

What to Do

If you see scummy or discolored water or notice a strong odor on Oyster Pond, and think it may be a cyanobacteria bloom, do not come into contact with or ingest the water. Contact the Falmouth Health Department either by phone at 508-495-7485 (M-F, 8am- 4:30pm) or via email (health@falmouthma.gov) so it can be investigated. In addition, please send a photo with location, date, and time to the APCC (ciano@apcc.org). Cyanobacteria can be especially harmful to children and pets. If you, someone you know, or your animals may have had contact with cyanobacteria and experience sudden or unexplained sickness or signs of poisoning seek professional medical attention immediately.



Photo courtesy of Jen Goebel

Note: Life vests are required by Massachusetts law to be worn between September 15 and May 15 and to be accessible in a kayak or canoe from May 15 to September 15. Please keep yourself safe and wear or carry a life vest in your boat whenever you are on the water.

For its size, Oyster Pond is one of the best studied coastal ponds on Earth. It all started with K.O. Emery who in 1969 wrote the classic study of Oyster Pond titled ***A Coastal Pond Studied by Oceanographic Methods***. This important book traces the history of the pond from pre-European and early settler days to the middle of the twentieth century. It describes in detail the pond's topography, geology and biological characteristics. Numerous studies have followed since then. We are fortunate to be neighbors to many preeminent scientific institutions whose scientists find Oyster Pond can serve as a model site for investigating ecological processes. Learn more about research conducted in Oyster Pond at our website (opet.org).

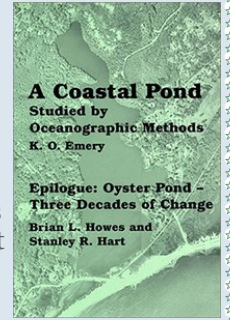


Photo courtesy of Ian Ives



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Presented by Ian Ives, Director
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**The Oyster Pond
Environmental
Trust**

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Woods Hole, MA 02543

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