

Orleans
Conservation
Trust

**Members Approve
Amended Declaration
of Trust**
page 3

The Gift of Youth
page 6

■ **ON THE COVER: Healing Habitat during Green Week** page 4

**What's Happening
to the Oaks?**
page 7

**From Private Preserve
to Lasting Legacy**
page 10

Partners for Boland Pond

Page 4



Join us for a kayak trip to Little Sipson's Island! See **Talks & Walks**, pages 8-9

Board of Trustees

Bob Prescott, *President*
Meff Runyon, *Vice-President*
Beth Minear, *Treasurer*
Judy Scanlon, *Clerk*

Mon Cochran
Sharon Davis
Kevin Galligan
Stephanie Gaskill
Karl Goldkamp
Steve Koehler
Diana Landau
Patty Platten

Staff

Kris Ramsay, *Director*
Elizabeth Migliori, *Incoming Director*
Frank DeLeo, *AmeriCorps Individual Placement*
Stephen O'Grady, *Dorothy Rowe Boyle Intern*

OCT is a recognized 501(c)(3) nonprofit organization. All contributions are tax deductible to the full extent of the law.

Orleans Conservation Trust
P.O. Box 1078
East Orleans, MA 02643
Phone: 508-255-0183

E-mail
oct@orleansconservationtrust.org

Website
orleansconservationtrust.org

from the president

Dear OCT members and supporters,

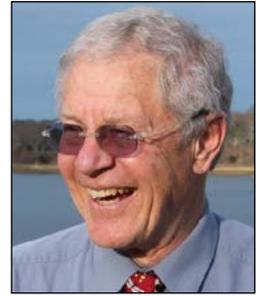
After one of our harshest winters in a long time, it looks like spring has finally arrived. I hope you all managed to make it through without much damage.

One of the benefits of a snowy winter is that vernal pools fill with water when the snow melts. In the 1980s, Vince Olivier, then the Trust's property manager, identified and certified more than 80 vernal pools in the Town of Orleans—some of which are on Trust property. Trustee Karl Goldkamp, along with interested members and trustees, has begun revisiting those pools to see how they are doing: are the salamanders, fairy shrimp, and wood frogs still present? They will also be looking for yet-to-be-certified vernal pools on our newer properties.

This year, OCT will launch the Dorothy Rowe Boyle Internship Program, made possible by donations in Dorothy's memory from her family and friends. Thanks to their generosity, this will be a paid position that should provide much-needed help with property and trail work. Our first intern, Stephen O'Grady, will begin work later this spring; he may be a familiar face to some of you as this is his second tour with OCT. His first was as an unpaid intern.

We can't publish this issue without marking two big events, even though the news may have reached you already. First, as you know, Director Kris Ramsay is leaving the Trust to begin a career in the private sector. Kris was OCT's first full-time staff person; together we learned and grew into the successful land trust we are today. I wish I could say it was the trustees who led the way, but most of the time it was Kris. With

his intuitive sense of how to get things done, remarkable humility, and outstanding people skills, Kris dragged us all along. He will be greatly missed, but we wish him much success in his new endeavor. His successor will have big shoes to fill.



The other news is that members have voted to approve the revised Declaration of Trust—the first complete update of our original charter. The revisions, modernization, and clarification began several years ago under the leadership of President Jim Trainor and trustee Lynn Bruneau. Several boards wrestled with the document, and several public meetings were held to solicit input from members. You'll find more details on the process in the story on page 3, and I add my thanks to all of you for your support of this important effort.

With this project completed, we're ready to embark on another big and important task: an updated strategic plan. You'll be hearing more about it as we move forward, and we hope that interested members will participate in developing this vision of where we should be in five years. In this, as in all our work, we need your help, support, and insight so we can continue to protect land, carefully steward the lands we own, and help educate our fellow residents.

A handwritten signature in blue ink that reads "Bob Prescott".

Bob Prescott
President

On the cover: AmeriCorps Cape Cod member Frank DeLeo and student Ashton Dolby putting together one of fifteen bluebird boxes, now installed at the Nauset Regional Middle School and Orleans Elementary School.

Orleans Conservation Trust Fast Facts

92 percent of the Trust's land holdings have come in the form of gifts, most of them before 2000.

Membership Vote Caps Two-Year Effort to Amend Declaration of Trust

May welcomes the newly revised OCT Declaration of Trust! In an extraordinary show of support, OCT members voted electronically, by absentee ballot, and in person to approve an amended Declaration of Trust for the organization, as announced at a special members meeting on April 26.

Nearly two years in the making, this new governance document for Orleans' only nonprofit conservation trust not only revises outdated language but, more importantly, creates a "living" document that offers greater flexibility as we move forward.

The process of building a document that would represent best practices for land trusts today was intense. Trustees and the Governance Committee hammered out a draft, after which three Special Meetings were held so that members could share their views. Then the committee went back to work incorporating this feedback. "The committee spent a great deal of time discussing the best governance practices to include in the articles, working toward consensus on how best to help the Trust in its mission," notes committee member Sue Meisinger. "Of course, we also spent many hours on the tedious process of reading and editing the articles to ensure clarity and coherence throughout the document," she adds.

The new document reaffirms our long-standing purpose, which is to acquire and hold land in its natural state for conservation purposes forever. But the amended DoT also adds some important new procedures: for example, it establishes an independent



Outgoing Director Kris Ramsay welcomes new Director Elizabeth Migliori.

Trustees and members of the Governance Committee celebrate the revision of the Declaration of Trust.

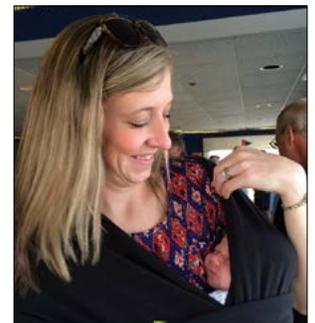
nominating committee process, whereby all new trustees and Nominating Committee members will be elected by the membership.

One of the most important changes involved quorums. Approving the amended document required a very large number of yes votes due to the high quorum levels specified in the original document. The new DOT also separates the meeting quorum from voting requirements, ensuring that we will be able to conduct business at our Annual Meeting each year.

"Working on the revisions to the DoT was truly a wordsmith's dream job," says committee member Jeanne Berdik. "It was a privilege to be part of such a talented, dedicated, and hardworking team." She adds,

"I believe our end product will help ensure a terrific future for the OCT."

Thanks and congratulations go to all who led and participated in this long-range effort, including Director Kris Ramsay, former trustee Lynn Bruneau, current trustees Beth Minear and Sharon Davis, members of the Governance Committee, and all who spoke and listened at the special members meetings.



Anna Ramsay and brand-new conservationist Ruby Ramsay.

Find the complete, amended Declaration of Trust document at our website.

Partners in Healing Habitat

OCT, AmeriCorps, Town, and Schools Team Up for Green Week



“**B**oland Pond always had an educational potential, but not much had ever been done,” says Maxine Minkoff, principal of Nauset Regional Middle School. “To see the trail and outdoor classroom completed is a dream come true, not only for the students but for the teachers as well.”

When all the stakeholders in a prized community resource join forces, amazing things happen. From April 13 to 17 this year, 360 students from Nauset Middle School and Orleans Elementary School were

“This event demonstrates how all restoration projects should be approached: with broad community collaboration.”

— John Jannell, Orleans Conservation Administrator

immersed in a week of outdoor learning around Boland Pond in Orleans, which lies mainly on school property. Water quality, environmental integrity, and access to the land around the

pond have been the focus of much recent concern, and the Boland Pond Restoration Project was conceived to address the whole picture during National Volunteer Week—while providing unique educational opportunities for the students.

The students joined the Trust, town employees, and volunteers of all stripes to help create an outdoor classroom and trail system, install bird and duck boxes, remove invasive species, plant natives, and construct a shed adjacent to the newly completed greenhouse at the Middle School.

A key partner in the effort was AmeriCorps Cape Cod, which is passionately dedicated to conserving the Cape's precious environment through natural resource management. In 2013, OCT, the Town of Orleans, and AmeriCorps Cape Cod collaborated to create Orleans Green Week to meet an environmental, community need within the town. Since then, Green Week has become a signature annual event.

Taking the lead in organizing the Boland Pond project were our local AmeriCorps Individual Placements for 2015: Matt Rusnak (for the town) and Frank DeLeo (for OCT). Town officials had already expressed interest in improving water quality and restoring forested lands around Boland Pond, so they were very receptive to OCT and Ameri-

“The trail and the outdoor classroom are a dream come true for students and teachers as well.”

— Maxine Minkoff

Corps's proposal to create a week-long service event.

Soon everyone was getting on board: the Orleans Tree Department, the Orleans Pond Coalition, and many other community groups and volunteers. Besides the activities noted above, volunteers and AmeriCorps staff led nature walks and



environmental education lessons for the students. Their teachers were appreciative.

Although the constellation of projects around Boland Pond was remarkable, week-long community-service projects in Orleans are nothing new. A strong partnership among Barnstable County AmeriCorps Cape Cod, the Town of Orleans, and the Orleans Conservation Trust has been growing for some time. Now, with a trail and outdoor classroom installed, and educational programs launched, the schools have a foundation to build on. All of the participating organizations can use the event as a case study for how to create and collaborate on future restoration and education projects. And this year's Green Week has laid the groundwork for the next wave of AmeriCorps placements to extend the legacy of hosting a week-long project in Orleans to tackle significant environmental challenges. Because the habitat that can be healed through community partnership is endless.



Top: Thirty-two AmeriCorps Cape Cod members came together to help make Green Week a success. Above: AmeriCorps member Kelly Barber removes a dangerous stump along the newly created walking trail around Boland Pond.

Partners in the Boland Pond Restoration Project

- Barnstable County AmeriCorps Cape Cod
- Cape Cod Regional Technical High School
- Landline Design
- Nauset Regional Middle School
- Orleans Conservation Trust
- Orleans Democratic Town Committee
- Orleans Elementary School
- Orleans Highway Department
- Orleans Improvement Association
- Orleans Pond Coalition
- Orleans Tree Department

The Gift of Youth

New Internship Fund
in Memory of
Dorothy Rowe Boyle

“Dottie had a mind that was inquisitive and always questioning. She loved to learn, she loved to know. She adored being outside and all things related to nature.” That’s how Kevin Boyle describes his late wife, Dorothy Rowe Boyle of Concord and East Orleans, who passed away on May 27, 2014. With this in mind, the family decided at the time of her passing that, in lieu of flowers, memorial donations should be made to the Orleans Conservation Trust.

In the months since then, OCT has received 65 generous gifts in Dorothy’s memory. In discussions with the Trust, Kevin expressed interest in seeing those funds used for an educational program or initiative. Given its rising needs and expectations for land management, the Trust therefore decided to create the Dorothy Rowe Boyle Internship Fund—our first paid internship position.

The annual internship will bring in young professionals



with youthful enthusiasm and energy, diverse talents, and a willingness to take on unfamiliar challenges. The intern will work directly with staff to advance OCT’s mission through a variety of land management and stewardship activities, including property inspections and maintenance, long and short-term land management planning, land management grant research, investigating property boundaries, educational outreach, and volunteer engagement. The resulting internship experience will be valuable both for the interns as well as for OCT staff and members, and the wider Orleans community.

After reviewing numerous applications, we’re happy to announce the hiring of Stephen O’Grady as the first Dorothy Rowe Boyle Intern. Twenty-one-year-old Stephen has just



Stephen O’Grady

completed his junior year at Colby College in Waterville, Maine, pursuing an environmental

science degree with a focus in conservation biology. He grew up in North Andover and has spent many summers in Orleans; in fact, he interned at OCT in the summer of 2013. That experience helped

form his career direction in conservation—specifically in helping to solve human-wildlife conflicts and working to preserve critical habitat. “I’m looking forward to more experience with OCT in the real-life problems that arise as human development jeopardizes the future of the environment,” says Stephen, “and I’m grateful to the Boyle family for giving me this chance.”



Top: Interns Stephen O’Grady and Ben Lyttle work to prevent soil erosion along the Twinings Pond trail system in 2013. Above: Stephen and Ben removing yellow iris, an invasive aquatic species, from Ice House Pond.

What's Happening to the Oaks?

By Ken Gooch

“The gall wasp is a growing issue that needs to be addressed immediately,” says Dan Connolly, Tree Warden for the Town of Orleans. “All across Orleans we are seeing our oldest and largest roadside trees dying off, and there is no straightforward solution.”

Aerial photos taken by officials at the state Department of Conservation and Recreation tell the tale: In 2014, hundreds of thousands of black oaks covering more than 1,500 acres in southeastern Massachusetts—mainly on Martha’s Vineyard and Cape Cod—showed signs of infestation by the cynipid gall wasp. This rising number amounts to nearly 400 more acres than in the preceding year.

With the spread of the gall wasp, we could lose a lot of habitat, food for wildlife, and shade. Black oaks account for about a

To learn more about the gall wasp and other threats to our oaks, be sure to attend Ken’s presentation on Thursday, October 15, 2015, 6:30 pm, at the Orleans Yacht Club.



quarter of all the deciduous trees on Cape Cod and the Vineyard. Only pines are more numerous.

How can an insect roughly the size of a sesame seed be causing so much harm, and why is their population apparently on the rise? Over the past few years, as the wasps have slowly killed vast swaths of black oaks from Providence to Provincetown, little has been discovered about them. This much we know: the cynipid gall wasp is an asexual insect that burrows chambers into twigs, where it deposits eggs that hatch larvae. The larvae eventually bore tiny holes in the branches that can sever a tree’s vascular system. This damage encourages fungal growth, and over several years produces structural weakness, which ultimately kills the tree.

But the insect’s origin, life cycle, and sudden surge in numbers remain a troubling mystery. Currently it’s unclear whether the gall wasp is a native species or a migrant, like the Asian long-horned beetle, which has claimed tens of thousands of maple trees around Worcester. Like other scientists, I believe that the population spike in gall wasps can be attributed to the rise of winter moths, a nonnative pest that has defoliated tens of thousands of acres of trees across the state in recent years. The oaks weakened by moth infestations lose some of their ability to produce tannins and other chemicals that protect them from herbivores like the gall wasp, and thus have become good hosts for the wasps.

So far no one has been able to identify a natural predator to fend off the wasp, and the various pesticides used have not been particularly effective. For now, the best hope for the oaks is that the gall wasps will vanish as quickly as they emerged.

Ken Gooch is Director of Forest Health for the Massachusetts Department of Conservation and Recreation.

Gall Wasp Fast Facts

- There are more than 1,250 species of gall wasps worldwide and about 600 species in the United States and Canada.
- Some gall wasp species have been used as a source of tannic acid in the manufacturing of inks or dyes.
- Finding male gall wasps is incredibly rare due to their asexual nature.



- The galls you see forming on plants develop directly after the female insect lays the eggs.



- Salivary secretions from the wasp larvae stimulate the plant to produce galls. The insect actually modifies the plant’s normal response to injury, creating food and shelter for the larvae.
- The galls provide resources and refuge for many other creatures as well, including parasites of the gall wasps themselves, weevils and their parasites, solitary bees and wasps, spiders, and other small arthropods.

Spring/Summer 2015 Lectures

Join us at the **Orleans Yacht Club** for the latest in our **series of entertaining and informative talks** by local and regional experts. **Time, 6:30 – 7:30 pm.**
Admission is free (cash bar); doors open 30 minutes before the start of each lecture.



Natives Are Nice! Using Native Plants in Landscape Design

Thursday, September 17, 2015

Speaker – Barbara Conolly
Owner, Gardens by Barbara Conolly

In this program for both homeowners and professionals, Barbara will share her landscaping expertise; the focus is on using native species while accomplishing design goals.



What's Happening to the Trees?

Thursday, October 15, 2015

Speaker – Ken Gooch
*Director of Forest Health,
Massachusetts Department of Conservation and Recreation*

Ken will share his insights about the health of our forests, and some of the threats and protection strategies being used across the state. (See story on page 7.)



Sea-Run Fish of Cape Cod

Thursday, November 19, 2015

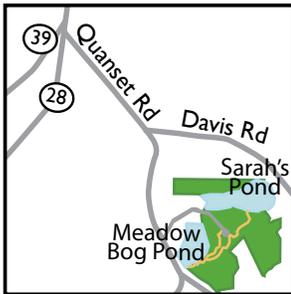
Speaker – Brad Chase
*Senior Marine Fisheries Biologist,
Mass. Dept. of Fish & Game, Division of Marine Fisheries*

Marine fisheries biologist Brad Chase will discuss the diadromous fish of Cape Cod—these are fish that have evolved to migrate between freshwater and marine habitats for a survival advantage. Brad will give an overview of historic and present fish-run conditions, and highlight what's going on in Orleans.

To help support the Trust's educational programs, please make a donation at our website,
www.orleansconservationtrust.org

Spring/Summer 2015 Walks

Get to know the **open spaces** of Orleans on our **popular educational walks**. They're **free, fun, and appropriate for all ages**.



Meadow Bog Conservation Area

1.25-mile walk along the edge of two freshwater ponds and a former cranberry bog.

Meet at 197 Quanset Road, South Orleans

Saturday, May 30
9:00-10:14 am

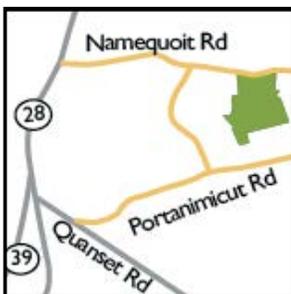


White's Lane Conservation Area

Short walk through open meadows along The River. Up-close look at turtle gardens.

Meet at 33 White's Lane, Orleans

Saturday, June 20
3:00-4:00 pm



Christian Property Conservation Area

1-mile walk through open meadows, wooded forests, and along the edge of a cedar swamp.

Meet at 80 Portanimitic Road, Orleans

Thursday, July 16
9:00-10:15 am

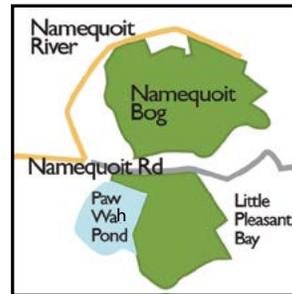


Kayak Little Sipson's Island Conservation Area

In total, a 2 mile paddle to Little Sipson Island and back. Pack snacks or a small lunch.

Meet at the Town Landing at the end of Quanset Road in South Orleans

Monday, August 17
10:00—12:30 pm

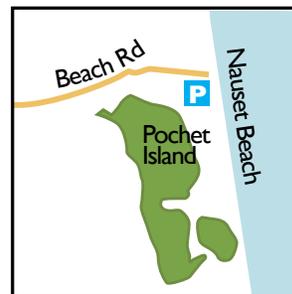


Namequoit Bog Conservation Area

0.75-mile walk through a transforming wet meadow community.

Meet at 160 Namequoit Road, Orleans

Thursday, September 10
10:00-11:30 am

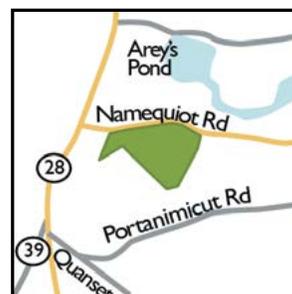


A Walk to Pochet Island

Long but casual walk to Pochet Island.

Meet at the southern ORV trail head.

Sunday, September 20
9:00-1:00 pm

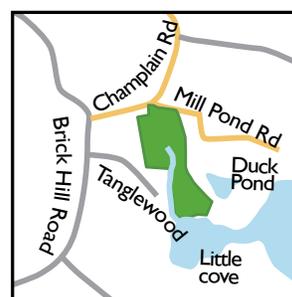


Kenrick Woods Conservation Area

Unique walk through large stands of White Pine and the very rare American Chestnut.

Meet at 35 Namequoit Road, Orleans

Tuesday, October 13
9:00-10:30 am



Mill Pond Valley Conservation Area

1-mile walk with unique topography, kettle ponds, vernal pools, and much more.

Meet at 13 Champlain Road, Orleans

Saturday, October 31
9:00-10:30 am

See map above



Kayak to Little Sipson's Island!

In 1991, when an October gale swept away the three-season home on privately owned Little Sipson's, the Trust spotted a unique opportunity to acquire the island. In less than a year, OCT managed to raise \$150,000 for the purchase—the first land purchase in the Trust's history.



Above: Osborne Earle on his 1928 wedding trip to the Kenrick house on the west side of Route 28. Below: Timothy Earle's daughters, Caroline Cotter and Hester Earle, are carrying on the Earle tradition of land preservation. Bottom: The Snowfields estate overlooking Pleasant Bay, off Tar Kiln Road.

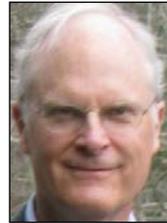


From Private Preserve to Lasting Legacy

An OCT Founding Family in South Orleans

By **Tim Earle**

The Earles are an old New England family, but their strong ties to Cape Cod came late. In the 1920s, my grandfather, Daniel Osborne Earle, lived in Cambridge with his wife, Grace. An avid birdwatcher, she had initiated their son, Osborne (my father) into what became his lifelong passion for birding. In December 1921, my grandfather, a great sailor and lover of country life, drove the family to the Cape in their Model-T (even though he was a Packard salesman) in search of wintering ducks: eider, scoters and the like.



They fell in love with Orleans, then a small rural town but with a growing cadre of summering folk. They began looking for a place—not the usual water-view summer house but one with history and land—and in the spring of 1923, they purchased the abandoned Kenrick house on the west side of Route 28, a remarkably well-preserved full Cape house built in 1792 on land that the Kenricks had bought from the Indians

early in that century. Over the next ten years, my grandparents restored the old home, maintaining its original architectural form and details, and in 1928, my father brought his new bride, Eleanor, there for their honeymoon.

The Earles were among many Americans in the late nineteenth and early twentieth century who became increasingly charmed by natural beauty and bought up tracts of land to create rustic private preserves as a refuge from hectic urban life. Around the Kenrick house, we purchased more fields and regenerating pine-oak forests extending west to the edge of Wash Pond and east across Route 28 to the extensive Sparrow-Kenrick property. The idea was to form a protected natural zone, for which could not be ruined by development. Such thinking, I believe, was the basis of many families' commitment to conservation.

With the birth of my older sister, Nancy, the Kenrick house seemed too small. Rather than remodel and enlarge that perfect building, my grandfather looked for another place, and in 1940 he bought Clarington and Jenny Snow's old Cape-style farmhouse off Tar Kiln Road, with land extending down to Tar Kiln marsh toward Pleasant Bay. When war broke out and the commercial car industry shut down, my grandfather retired to Snowfields, as we call it.

As an English professor, my father had summers off from teaching. So we would all move down to Snowfields, and my grand



father would move up to the Kenrick house—near his family but not too near. My sisters, Nancy and Ellie, and I spent every childhood summer sailing and swimming in Pleasant Bay. We all birded with my father, but I seem to have been the one most caught by his obsession. With birding came our family's focus on conservation and our desire to hold and maintain wildlife habitat.

Gradually my family expanded its holdings around Snowfields. We purchased an abandoned chicken farm to the north, and after a scare that Emma Rogers' home on Pleasant Bay might be destroyed for a parking lot and marina, we provided lifetime support for her to stay in her home, in return for receiving her old house and land upon her death. At that point we held substantial land around both our houses in South Orleans, and our primary goal was to preserve their combined historical and natural importance. But what should we do to guarantee preservation into the future?

Although my father knew the value of private initiative in land conservation, he was also a realist. Through the 1960s he watched as one family after another sold land for development or to settle family disputes. As the Cape was progressively built out, he became an avid supporter for larger conservation efforts. He eagerly sold our land west of the Kenrick house to the Town of Orleans to create the present watershed, and he supported the National Seashore and Massachusetts Audubon in Wellfleet.

As plans unfolded for the Orleans Conservation Trust, he was intrigued. Here might be a way to unite his family-based conservation commitment with that of other families. Keen to see its mission succeed—to maintain the rural character of the Orleans he loved—he enthusiastically signed up in 1970 as a founding trustee.

Unfortunately, he developed early-onset Alzheimer's before he could contribute much more than enthusiasm to the OCT project. My mother then began to wrestle with what to do with all the Earle land. She decided that I should inherit the Snowfields and Kenrick house properties, and, to fulfill my father's conservation objectives, in 1986 she gifted what we owned of the Tar Kiln marshland to OCT. Subsequently the Town purchased for conservation an adjacent piece of land owned by the Poor family; together with the Earle donations and another OCT gift, this created a significant contiguous area of fourteen acres of uplands forests and marshland. I hope to be able to work with neighbors and the Trust to preserve the remaining undeveloped land between Tar Kiln Road and Winslow Drive, thus ensuring that a prime natural and historic part of South Orleans remains that way.

My immediate family—my wife, Eliza, our two daughters, Caroline and Hester, and myself—is carrying on the Earle traditions. After I inherited the Kenrick property, we spent each summer there from 1980 on. We have vivid memories of exploring the

View of the preserved Tar Kiln Marsh from Route 28.

watershed, walking around the Wash Pond, listening to pine warblers and thrushes, and harvesting blueberries.

And we have continued on my father and grandfather's conservation path. Talking with the Town and OCT, our family developed a plan: when the Town purchased the large Sparrow–Kenrick parcels in 2002–2003, we agreed to transfer our adjacent eight acres across Route 28 in a “bargain sale” to expand the Town conservation area. Kenrick Woods is now one of the nicest walks in Orleans. Our daughters regard this conserved land as their legacy. “Spending so much time on the Cape as children and adults instilled a love of nature, the Cape's specialness, and an intense desire to protect it for future generations.”

The history of our family's involvement with land conservation echoes what many land-owning Americans have experienced over the last hundred years. Private families have bought land to create a legacy of conservation, and the Orleans Conservation Trust and the Town became our partners in preserving what makes Orleans so special for us all.

Tim Earle is a lifelong summer resident of South Orleans and an active member of OCT. He is the former Chair of the Anthropology Department at Northwestern University.

An Evolving Wetland

Planning the Future of Namequoit Bog

By Kris Ramsay



AmeriCorps members work to thin the dead woody vegetation in Namequoit Bog, enabling the native wet-meadow vegetative community to thrive.

As the glaciers that formed Cape Cod receded more than fifteen thousand years ago, they scooped out a depression on the eastern edge of what is now South Orleans. Today Namequoit Bog remains a vegetated freshwater wetland occupying two-thirds of Namequoit Point, which juts into Pleasant Bay at the end of Namequoit Road.

Once dominated by Atlantic white cedars, in the late 1800s this land—like so many other wetlands across the Cape—was cleared for its valuable wood and then turned into a cranberry bog. Associated drainage ditches

and a sluiceway regulated water flow between the bog and adjacent Paw Wah Pond (which leads to Little Pleasant Bay), causing the soil to become drier. Around the mid-1950s, farming ceased and the bog was allowed to revegetate, but most of the remaining native wetland plants were muscled out by an incredibly dense mat woven of briar vine species.

Even though the bog's hydrology had been altered, its size, unique wetland features, and proximity to Pleasant Bay made it a high priority for Orleans and the Orleans Con-

A Wetland in Transition

With the goal of restoring the bog as a healthy freshwater wetland populated by native species, the Trust began to actively manage the land between 1999 and 2009—mowing and up-

Once dominated by Atlantic white cedars, in the late 1800s this land—like so many other wetlands across the Cape—was cleared for its valuable wood and then turned into a cranberry bog.

rooting the dominant briar root mass to expose a diverse group of wetland rushes, sedges, and grasses. While this was partly effective, the soil remained very dry, inhibiting the growth of native vegetation. It became clear that the existing sluice could not control the water levels in the bog as needed; by installing a new sluice in 2010, we could, for the first time, adjust the water level at will.

In the spring of 2012 we were pleased to see that the new sluiceway seemed to be working: native vegetation was sprouting in the managed areas. But we

also observed with concern that native trees in parts of the bog appeared to be dying—especially the Atlantic white cedars. On further investigation we realized that a major plant-community transition was occurring in the bog: from a wetland forested community to a wet-meadow community primarily made up of rushes, sedges, and low growth shrubs.

At this point the Trust recognized that we needed a long-term plan, subject to approval not only by the Town's Conservation Commission but also by the state, that would set goals for the bog's future. In the summer of 2013, at the Trust's request, restoration ecologists from the state made a site visit. They suggested that we install hydrometers and salinity meters in three different locations to get a better understanding of the average tides in Paw Wah Pond, just across Namequoit Road, and to determine whether or not salt was entering the bog during any given tidal change—and to what extent.

What the Data Showed

Data collected from these instruments over months indicated that there is some tidal influence in the bog, and that its water level fluctuates about a half a foot with each tidal cycle. But this tidal effect was limited to the manmade bog channel and its immediate margin.

So while the typical tide does appear to infiltrate the bog, it does not drastically affect the freshwater vegetation.

Taking things a step further, the Trust decided to work with



Photos show evolution of the bog vegetation from 2009 to 2014, following the cutting and removal of briar species and the installation of a new dike.

the Cape Cod Commission's GIS (geographical information system) Department to use LiDAR (Light Detection and Ranging) mapping, which yields layers of data that could help us understand the bog's topography and changes in elevation. Combining the LiDAR mapping data with the hydrology data led us to conclude that Namequoit Bog lies above the influence of predicted tides. Therefore it should continue to be managed as a freshwater wetland, until some future time when the tides reach high and consistently enough to create salination at the average water level of the entire bog.

Taking Action

All this information enabled OCT to design a management plan that was approved by the Town and state in spring 2014. The plan's objectives include

restoring the fresh-water wet-meadow habitat and to encourage the growth of the remaining Atlantic white cedar trees and saplings in Namequoit Bog.

As part of the approved plan, OCT has been carefully culling small sections of dead woody vegetation in the bog, which helps open up a closed canopy so that sunlight can produce a positive response in the plant community—especially the wetland herbs that require sunlight at the surface to germinate and grow. Furthermore, mowing back briars and other invasives, and removing dead vegetation, have benefited reptiles and amphibians that utilize the additional sunlight to help regulate their body temperatures.

Looking ahead, we'll use various kinds of biological mon-

itoring to document and evaluate the more subtle habitat improvements. Will the proposed work help establish a matrix of diverse wet-meadow plants in areas currently dominated by dead vegetation or briar species? How will restoration efforts aid in managing the encroaching briars and state-listed invasive species? Wildlife will also be surveyed at intervals during and after restoration work. If we can document that desirable wetland habitats become successfully established, and that the numbers of certain state-targeted, at-risk wildlife species increase, we can consider the project a success.

Kris Ramsay, *outgoing Director of the Orleans Conservation Trust, personally supervised and executed much of the restoration work in Namequoit Bog.*

Walking Through Time in Kenrick Woods

By Karl Goldkamp

Whenever I walk on conserved land, I'm looking with two sets of eyes: for how it appears now and for how it got that way. But I know of nowhere else on the outer Cape where one can walk out of the present and into the past so completely as in the John Kenrick Woods Conservation Area of South Orleans. This landscape calls you to imagine another era—a time before the Europeans left their tracks on the nearby beaches, when the neck of land between the Namequoit River and Little Pleasant Bay was called Potanumaquut.

The sachem of the Monomoyicks allocated this area to two neighboring tribes: the Sauquatuckets and the Nausets. By the 1600s, European settlers were calling it Potanumicut Village and the Christianized natives who lived there the “praying Indians,” because they attended Sunday services at their “Indian meetinghouse.” This building no longer exists. But the hillside where it stood—just north of the Namequoit River, on what is now known as the Peck property—bears many unmarked graves, a silent congregation. Just across the

river, south of Arey's Pond, is an unusually high mound where the last sachem of the Nausets, John Simpson, built his last wigwam.

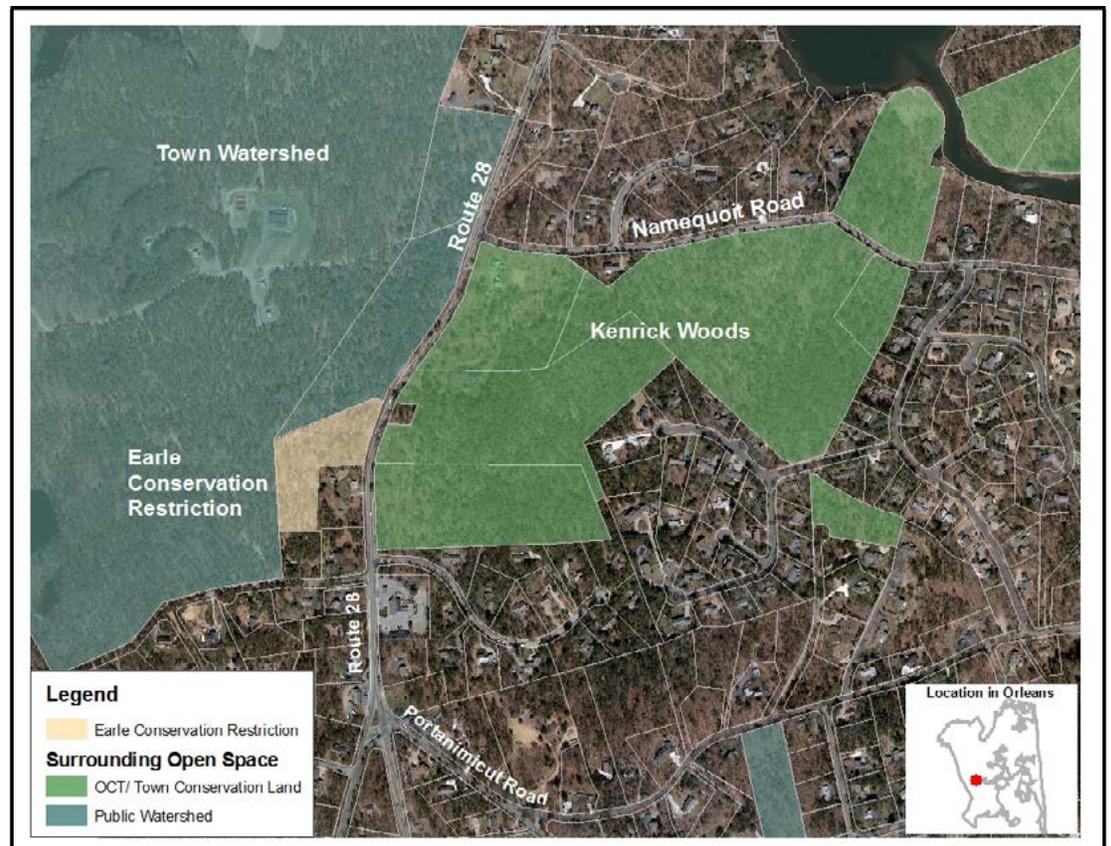
In 1711, Simpson sold his property to a Welsh weaver from New Hampshire named Kenrick, purportedly a descendant of England's Alfred the Great. That Kenrick's great-grandson was the first American to circumnavigate the globe and named the Columbia River



in the Pacific Northwest after his ship. And his son, John Kenrick II (1819–1898) planted white pines extensively for ship building. “The tall, straight lumber from ‘Kenrick Woods’ was coveted for flagpoles as well as spars and planks for sailing

vessels of the 1800s,” wrote Norton Sears Nickerson. The descendants of those trees form one of the largest white pine forests on the Cape.

Today's trail through the Kenrick Woods stretches a mile and a quarter roughly



This aerial map shows the Kenrick Woods Conservation Area, the adjacent 500-acre Town Watershed, and the Earle Conservation Restriction. Top: The now-rare American chestnut can be found in Kenrick Woods.

northward from the trailhead near the Hess/post office complex, making a few loops and eventually jumping Namequoit Road to end at the south bank of the Namequoit River, near John Simpson's mound. At first it passes through the usual scrub oak and pitch pine, with huckleberry and blueberry bushes in the understory and wintergreen underfoot. As it gently rises, you experience a gradual transition to evergreen woodland, oak-leaf mulch giving way to a forest floor thick with pine needles and a scent of Christmas in the air. The trail peaks as a broad plateau amid huge white pines that in an earlier era would doubtless have been cut for flagpoles, spars, or deck planking.

Not far along, at the north end of the first loop, you come to a wooden bench deep in the woods, where the pine needle carpet quiets everything except thought. You are encouraged to sit, observe, and disappear into the moment. Below you,



the slope drops off sharply. At the bottom, both delineated and concealed by clumps of sweet pepperbush and meadowsweet, lies a 1.5-acre, state-certified vernal pool. Every spring, on a few warm, rainy nights, hordes of amphibians awake from their winter dormancy in response to some mysterious signal. Small armies of spotted salamanders and wood frogs surge down this hillside from all directions in a blind passion. Nothing deters them: into the seasonal pond they charge to mate and lay eggs, then slither and hop back to where they came from.

We can take this walk through nature and time because of the varied ways this landscape has been conserved over the centuries. First the



Spotted salamanders are common around vernal pool habitats.

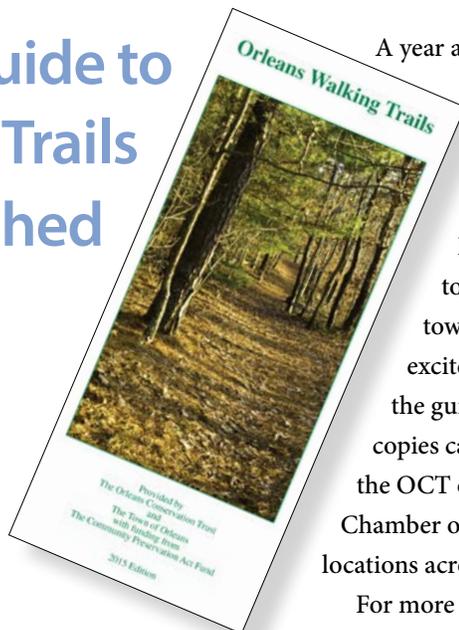
sachems set Potanumaquut aside for their neighbors. Then the Kenricks chose to maintain big swaths of pine forest; later landowners found other values in keeping their properties undeveloped (see "From Private Preserve to Lasting Legacy," page 10). Finally the Town and the Trust made preservation of Kenrick Woods official. The salamanders and I are grateful to them all.

Karl Goldkamp is a retired naturopathic doctor living in South Orleans.

More on Kenrick Woods

You'll find more information on our website about how Kenrick Woods Conservation Area was created, as well as reports on OCT educational walks there, a trail description, and a map.

Guide to Orleans Trails Published



A year ago, the Orleans Conservation Trust was awarded a \$15,000 Town of Orleans Community Preservation Act grant to create and print a town-wide trail guide. We're excited to announce that the guide has been published; copies can be picked up at the OCT office, Town Hall, the Chamber of Commerce, and other locations across town

For more than 40 years the Town

of Orleans and the Trust have worked collaboratively to preserve our open space and natural resources. The guide is symbolic of that cooperation, and the fruit of it. The 12 conserved lands traversed by these trails not only constitute valuable wildlife habitat and protect our water quality, but they also provide Orleans residents and visitors with recreational opportunities, including hiking, walking, birdwatching, nature study, photography, and kayaking.

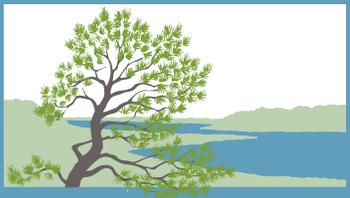
To receive a copy by mail, call 508-255-0183 or e-mail OCT@OrleansConservationTrust.org.

Orleans
Conservation
Trust

P.O. Box 1078
East Orleans, MA
02643-1078



NON PROFIT
US POSTAGE
PAID
CURLEYDIRECT.
COM



Orleans
Conservation
Trust

There is only so much land, water, and time.

To talk with us about a gift of land or
a conservation restriction, please call

508-255-0183

oct@orleansconservationtrust.org
www.orleansconservationtrust.org

