



Local Students Explore the Robert F. Smith Cold Brook Preserve



Learning about Land, Water & Wildlife

“We survived!” one fifth grader exclaimed as she jumped up and down. Her class at Monomoy Regional Middle School was playing a game about the life cycle of the American eel, taught by Mass Audubon Wellfleet Bay Wildlife Sanctuary School Programs Coordinator Spring Beckhorn (at right) with curriculum in part created by 30-year veteran science teacher Valerie Bell. The students from Harwich and Chatham were learning about the Robert F. Smith Cold Brook Preserve owned by Harwich Conservation Trust (HCT) in the heart of Harwich Port.

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HARWICH CONSERVATION TRUST

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HCT's Mission

HCT preserves land to protect woods, water, wildlife and our shared quality of life in Harwich.



Stay Informed

Visit www.harwichconservationtrust.org for updates on HCT's wild happenings from walks & talks to land stewardship and land-saving success to innovative volunteer citizen science projects.

Cover photos courtesy of Wellfleet Audubon

Top: Students study macroinvertebrates from Cold Brook and the bordering wetlands.

Inset: Students investigate the differences between upland and wetland plant species.

AmeriCorps Cape Cod member, Ben Cockrell, joins HCT team

We are pleased to announce that Benjamin (Ben) Cockrell will be the new AmeriCorps Cape Cod member serving with Harwich Conservation Trust (HCT), the Town of Harwich's Conservation Department, and Chatham Conservation Foundation (CCF) from October 2018 to July 2019. This partnership represents continued collaboration that began last year among HCT, CCF, Town of Harwich, and AmeriCorps. AmeriCorps Cape Cod members serve 1,700 hours over approximately 10 months, focused on natural resources management, disaster preparedness and response, environmental and community education, and volunteer engagement.

Ben is 22 years old, from Camp Hill, Pennsylvania. Last May, he graduated from Ouachita Baptist University in Arkadelphia, Arkansas where he double majored in International Relations and Social Justice. He describes himself as passionate about caring for the earth. Over the years, he has had the privilege of working in various outdoor occupations across the world related to mountain biking, rock climbing, backcountry backpacking, organic farming, and sustainable engineering. AmeriCorps Cape Cod presented a perfect opportunity for him to expand his environmental interests.

At HCT, Ben will be primarily assisting with land stewardship projects as well as engaging and coordinating volunteers. These projects will include land management activities, property monitoring, stewardship file updates, assisting HCT's Boundary Quest Team with finding, marking and mapping property boundaries, and organizing the annual "Tour de Trash" town-wide clean-up event. Ben is very excited to "get things done" alongside his fellow AmeriCorps members. Please join HCT in welcoming Ben to Harwich.

photo of Ben Cockrell by Amy Usowski,
Town of Harwich Conservation Administrator



Newsletter Contributors:

Alva Chaletzky, Ben Cockrell, Janet DiMattia, Stephanie Foster, Chris Joyce, Michael Lach, Tyler Maikath, Mark Robinson, Lee Roscoe, Nancy Viall Shoemaker, Amy Usowski, Mark Wilson, Zygote Digital Films

Newsletter design: West Barnstable Press

Home Stretch: Cornelius Pond Woodlands Project

We're in the home stretch with \$115,000 left to raise by December 31, 2018 to reach our project goal of \$850,000. Many of you have already pledged or donated and we thank you. Please spread the word that we still have \$115,000 to go. Together we can preserve this diverse landscape of forest, wetland, meadow, and more than 1,000 feet of pond shore.

Project Background:

In May 2015, this 15-acre landscape was listed for sale at \$1.15 million. The Harwich Conservation Trust (HCT) negotiated a purchase and sale agreement for \$800,000. The Robert B. Our Company generously donated demolition services to remove a building. However, an additional \$50,000 is needed to cover legal and survey costs, create a trailhead off Queen Anne Road, establish a walking trail, install signs and a bench, and pay for other stewardship expenses. Therefore, the total project cost is \$850,000.



Cornelius Pond photo: Mark Robinson

To jumpstart fundraising early on, an anonymous donor issued a challenge gift of \$425,000, thereby encouraging HCT to find matching funds in order to reach the \$850,000 goal. Raising the last \$115,000 is a part of that matching effort. With your help we can reach our land-saving goal!



Cornelius Pond is called a "coastal plain pond," and coastal plain ponds represent some of the most vulnerable natural areas of the Northeast. Created by the receding glacier that left massive melting blocks of ice in the coastal meltwater plain of Cape Cod about 18,000 years ago, these special ponds have since filled with groundwater and now support a variety of species, including rare plants and animals.

Aerial photo: Zygote Digital Films

Students Explore Cold Brook Preserve (cont'd from cover)

Students from Harwich and Chatham were learning about the Robert F. Smith Cold Brook Preserve owned by Harwich Conservation Trust (HCT) in the heart of Harwich Port. HCT and Wellfleet Audubon are partnering to connect Monomoy students to local conservation land, water, and wildlife, thereby educating future generations about the importance of being sensitive stewards of Cape Cod's natural heritage.



Students study a stream sample, which included aquatic sowbugs, caddisfly larvae, and the always popular freshwater leech! These species can serve as reliable indicators of water quality.

The game led students from eel larvae hatched in the Sargasso Sea to elvers to “glass” (nearly transparent) eels to adults; on the way learning that not every eel survives their early life stages since eel can be on the menu for shorebirds as well as marine fish including striped bass and bluefish. Beckhorn showed what makes a fish a fish with features such as gills and fins. She asked the students if, in fact, the serpentine eel is a fish, which it is.

Spring Beckhorn helps students identify a cutting of northern highbush blueberry.

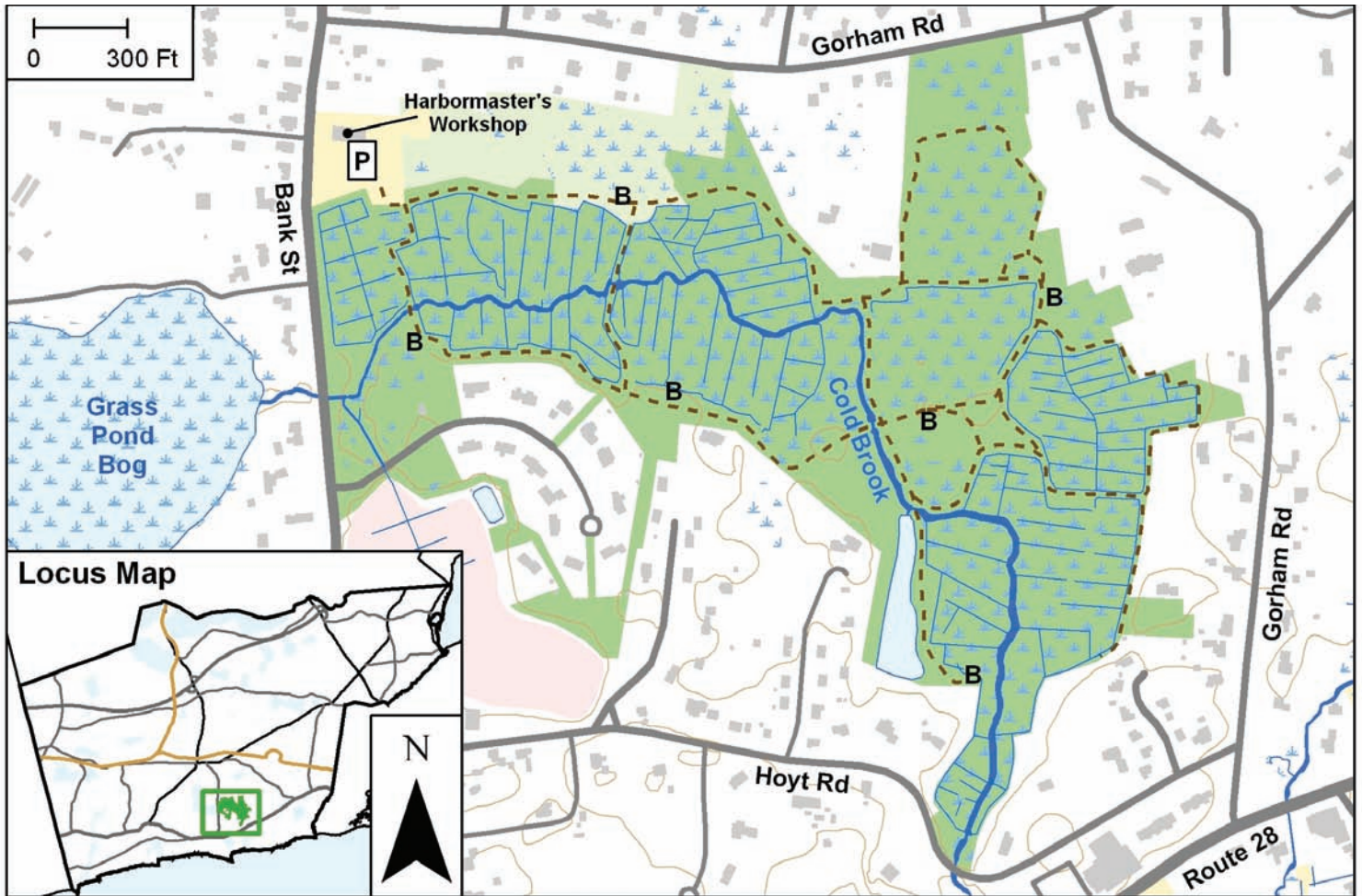
Interestingly, the American eel (*Anguilla rostrata*) is a unique fish species on the Cape in that it migrates as a young elver from salt water through streams like Cold Brook to freshwater ponds for maturation into adulthood. The young of river herring and alewives go the other way, traveling from our ponds in the late summer downstream to the sea where they reach maturity after a few years before migrating back to the Cape to their spawning ponds each spring.

Water temperature affects what sex eels will become and when they return from fresh water as adults to the sea to spawn. Females may linger 30 years in local ponds. Males may return to the ocean sooner. Like most fish, their body temperature adapts to the temperature of the surrounding water.

One student guessed that eels may be endangered. Indeed American eel has been under consideration by the federal government for formal listing under the Endangered Species Act. Beckhorn showed the class a graph of eel populations over recent decades with peaks in the 1970s-80s and dramatic declines today, dropping by 90%. Showing the height and precipitous percentage decline of the eel population is just one of the ways the study of HCT's Cold Brook Preserve aligns with teaching to state standards of Science, Technology, Engineering, Math also known as S.T.E.M. The downward trend on the graph also clearly conveys that the time for habitat preservation and species conservation is here and now.

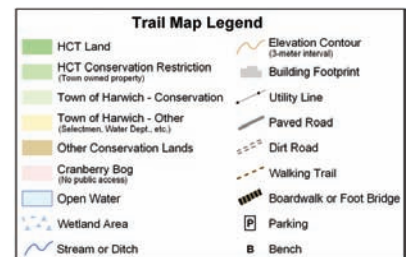


Students Explore Cold Brook Preserve (cont'd from page 4)



Map of the Robert F. Smith Cold Brook Preserve

Finishing the eel life cycle game, about seven thrilled student “eels” survived to adulthood to become fully mature “yellow eels” (called “yellow” because of the brownish-yellow bellies and sides). Some can grow over the years to as much as four feet long. The eels that the students were pretending to be are the ones which migrate as young elvers at just a few inches long from the Sargasso Sea up the East Coast into Harwich’s Saquatucket Harbor through HCT’s Robert F. Smith Cold Brook Preserve then under Bank Street and ultimately into Grassy Pond.



Long before a field trip to HCT’s Cold Brook Preserve, the children were excited about visiting the site during the spring to see the actual eels. “It will be really fun to see how many eels go up the brook,” one said. Another said, “It’s fun to learn about eels because they’re not that common.” “It will be fun to help the eels,” another exclaimed.

During one science class held at the regional middle school in the weeks before the Cold Brook field trip, fifth graders had learned about some of the human induced consequences for the stream and wildlife amidst the landscape of long since retired cranberry bogs, right-angle ditches, and steep straight channels. One student said, “that erosion of sand along the way can mess up the stream,” and that erosion is only one of the human impacts on the watershed. Students also learned that dams, changes in water temperature, pesticides, pollution, and over-harvesting can also disrupt eel migration and the life cycles of other creatures dependent on natural ecosystems.

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Students Explore Cold Brook Preserve (cont'd from page 5)

Understanding human impacts on the environment for good and for ill is another part of the state teaching framework, and a big part of why HCT has partnered with Wellfleet Audubon and Monomoy Middle School educators to teach children about restoring an ecosystem on their local Cold Brook Preserve turf, a place many have enjoyed visiting. On the spring field trip in addition to more eel musings, the students netted for macro invertebrates (insect larvae) the presence of which can indicate ecosystem health. The fifth graders also engaged in water quality sampling and compared the features of upland and wetland plant species. Classroom teacher Kathleen Widegren explained that each student would create a slide show expressing what they learned throughout the school year about their Cold Brook experience.

“This kind of hands-on, outdoor education in their own Cape Cod backyard helps the students see and experience the connections between land, water, and wildlife. Over time the kids form a framework of knowledge and understanding from which to make future decisions as community leaders about how to protect and manage our natural resources,” said Michael Lach, HCT Executive Director.

Cold Brook as with so much of our natural environment has undergone changes through time due to humans. Farming changed it from meandering stream and hummocky wetland replete with possible Atlantic white cedar trees to cranberry bogs in the 19th and 20th century. Agriculture changed the course and flow of Cold Brook, altered the flora and fauna in and around it, and over more than a century layered sand across the original wetlands, sometimes 2-3 feet thick in places. To repair and restore the sinuosity of Cold Brook and natural topography of the bordering wetlands, HCT is partnering with the State’s Division of Ecological Restoration, U.S. Fish & Wildlife Service, and the Town of Harwich to enhance wildlife habitat health and diversity, improve water quality, and beautify the visitor experience.

The partners have made progress in the planning stage of the Cold Brook Ecological Restoration Project. Eco-restoration design elements could include removing failing culverts, peeling back the over burden of sand that sits atop the original wetland surface, forming open water habitats, re-creating the curvature of Cold Brook, and enabling salt marsh migration in the southerly portion of the site as sea level rises. The design phase will transition to the permit phase and then eventually restoration construction to implement design elements across the site in 2019 or 2020.

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Students use turbidity tubes, thermometers, and pH test kits to take measurements from a sample of stream water.

Dilapidated flumes are remnants of the site’s past use.
photo by Bill Giokas

Students Explore Cold Brook Preserve (cont'd from page 6)

As the design process unfolds, the project partners still find room to take action when needed. For example, one big step forward was the removal of a downstream dam called the Wheeler Dike. It was discovered that the abandoned dam was about to collapse and potentially block stream flow. HCT and partners including the Town Highway Department organized an emergency response to clear the stream obstruction. "Town Highway staff were quick, efficient, and just in time before the spring eel migration," said Lach.



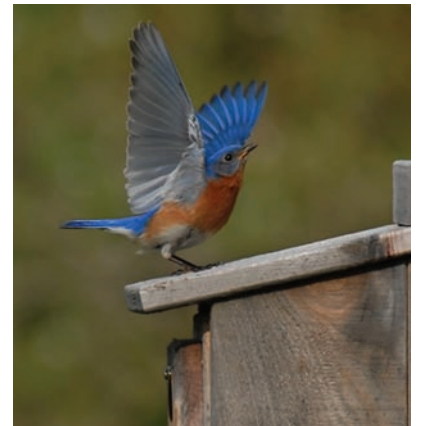
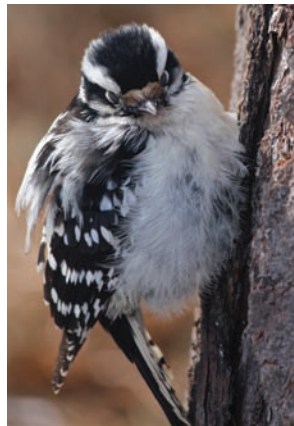
Joel Wagner of Wellfleet Audubon demonstrates the use of turbidity tubes to compare the clarity of drinking water with a sample of water from the stream. Excessive turbidity, or cloudiness, can affect the animals that live in a body of water.

A variety of birds inhabit the Cold Brook Preserve. Downy woodpecker and bluebird photos by Janet DiMattia



"It's not just about the land, it's about the people who live here on the Cape," Bell explained. "HCT wants donors to see where their money goes, not just to the physical restoration, but also to helping children understand the eco-restoration process." As the children follow the restoration over time it will be fascinating to see what unfolds, grows, returns to life; swimming in the brook and flourishing in the lands it nourishes and to experience the biodiversity which a healthy ecosystem creates like the increase in interdependent plants and animals. This way the students become engaged citizens, involved with their own neighboring land and water. In a way the children help educate their parents, too. "Through partnering with Harwich Conservation Trust, we were able to use the outdoors as a classroom to introduce students to land conservation in their own community and the concept of eco-restoration. Doing field work in special, ecologically important sites not only provides a hands-on educational experience. It also connects students with places that we hope they'll appreciate and want to protect as they get older," said Spring Beckhorn.

Story by Lee Roscoe



"We're excited to partner with Wellfleet Audubon and Monomoy teachers on this new educational venture that connects kids and their families to the natural world," said Michael Lach.

Owls: Sometimes Heard, Seldom Seen



Snowy owl photo by Mark Wilson

Sometimes heard on still nights, rarely seen except for maybe an overhead silhouette in quiet twilight flight, our local owls keep a discrete profile across lands preserved by HCT. The great-horned owl with golden irises and earth tone mottled plumage, the smaller screech owl that sometimes sports gray and other times fiery orange feathers, and the soda can sized saw whet owl could inhabit conservation land near you on the Cape. A newer arrival, the barred owl with deep charcoal colored eyes and dark gray mottled feathers, has also been making an appearance. There are a few other less common, intermittent owl species that are spotted here and there on the Cape.

Owls have large eyes (some have yellow irises, some brown) that are fixed in their sockets, hence an owl's need to turn or rotate its head up to 270°, which they can do, bobbing and tilting. Sometimes an owl will look straight over its own back. They move their heads and turn their necks not just to see, but to hear with asymmetrically placed ears of powerful acuity, while

facial feather disks focus sound in. Their primary outer wing feathers are fringed, locked together by barbules, and are buttery soft in texture which makes them almost silent in flight. Their talons, with an outside front toe which can swivel backwards (also known as a zygodactyl trait) to grip prey can exert pressure at hundreds of pounds per square inch.

The Cape's more common resident owls are great horned and screech. Other owls which pass through and occasionally winter here and which may or may not reside year round are saw whets (mostly the outer Cape), long eared (once rare breeders on the Cape, and now likely not reproducing here, state listed as a special concern meaning its population is suffering low numbers), and barred owls (recently breeding on Cape including in Harwich). Barn owls now occur and breed only on the islands. And the short eared owl, more diurnal than the others, once an occasional visitor, is becoming almost an anomaly to see in winter or in migration. While the saw whet breeds here occasionally,

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Owls: Sometimes Heard, Seldom Seen (cont'd from page 8)

the long eared last bred on the Cape and Vineyard in spring of the 1970s, and short-eareds may still be breeding only on Tuckernuck Island off Nantucket.

Then there are winter influxes of snowy owls on the Cape, which owl expert Norm Smith says come south when lemmings breed well in the Arctic. With the abundance of prey up north, the snowy owl population swells, which pressures the juvenile owls to disperse south.

Great horned and screech owls find foraging, nesting and sheltering opportunities in woodland areas as well as on the edge of fields and other open areas. Though the first can have a wing span about the same as your open arms, the second has a span of about your fingers to your elbow. No wonder screech owls

don't like to share the woods with great horneds (which can eat them) choosing damper woodlands like red maple swamps instead. Preferring mixed woods and even cedar swamps, saw whets are doing better than we thought, according to studies by Smith.

Long-eareds, which look like smaller, scrawnier great horneds, are an elusive species about which not a lot is known. They like dense coniferous woods such as on Pochet Island. Those areas and the open expanses over which they hunt are fewer so they're listed on the North American Bird Conservation watch list. "Today, the mixed conifer thickets and fire-maintained grasslands of the Cape and Islands offer the last, best hope for the regular breeding long-eared owls in Massachusetts," writes the Massachusetts Breeding Bird Atlas. Reforestation and development have expunged fields limiting barn owls and short eared owls. The latter need broad expanses of marsh. Pesticides, cars, aircraft, and wind turbines have adversely affected these low flying birds.



Eurasian Eagle Owl photo by Nancy Viall Shoemaker

The best way to know some owls is by their calls and since some court and/or breed from winter to early spring, that's a good time to listen. Great horneds hoot a low deep series of calls. Screech owls trill like a tree frog and whinny. Saw-whets sound like a squeaky wheel or give a repeated dull whistle.

Long eareds emit weird witch's coven noises; chuckle, moan, yip and banshee scream in deep night. Barred owls call the famed "Who cooks for you? Who cooks for you *alllll*." Short eareds are best found by sight, a more diurnal owl patterned like a pale Navaho blanket.

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Snowy owl photo by Janet DiMatteo

Gray screech owl photo by Mark Wilson





This spring you will have a chance to see many species of live owls up close and personal. Sponsored by Harwich Conservation Trust, “Live Owls From Near & Far” will be presented on Saturday, March 9th! You’ll see and hear owls, including species common to the Cape as well as those found in other countries when owl naturalists Marcia and Mark Wilson land at the Harwich Community Center. See great-horned, snowy, barred, screech, and saw-whet owls as well as spectacled owl from South America & Eurasian eagle owl, largest owl species in the world.

The Wilsons are permitted by state and federal agencies to tour with the owls. Each owl has a permanent disability that prevents release into the wild, so the owls instead have an opportunity to live out their natural lifespans with the Wilsons and become educational ambassadors during these unique live owl programs. Mark, a retired professional photographer with *The Boston Globe*, will lead an introductory slide show. The duo then walk around with the owls tethered to their gloved hands to highlight the raptors’ habits, biology, and beautiful feathers. Volunteers from the audience even get a chance to hoot alongside the owls. Please see below for reservation details.

Story by Lee Roscoe and Michael Lach

LIVE OWLS from near & far

*See Great-horned Owl, Snowy Owl, Screech Owl,
Saw-whet Owl, Barred Owl, Spectacled Owl & more!*

March 9, 2019

TWO SHOWS: 11 a.m. & 2 p.m.

Harwich Community Center

Tickets are \$5 for ages 5 to 11 and \$10 for ages 12 to adult.
The programs are not recommended for under age 5.

Reserve at:

www.harwichconservationtrust.org



Saw-whet owl (top) and screech owl (bottom) photos by Mark Wilson

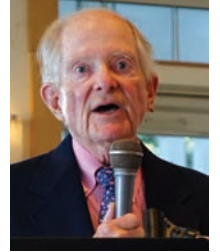
30th Anniversary Annual Meeting



Michael Lach, Jane Harvey, Seth Doane, and Tom Evans

At Harwich Conservation Trust's (HCT) 30th Annual Meeting, held on August 6 and hosted by the Wequassett Resort on Pleasant Bay, HCT announced its 2018 Conservationists of the Year. Featured speaker Seth Doane, CBS News Correspondent and Harwich native, delighted the audience with his presentation.

In announcing Jake and Barbara Brown and family as HCT's Conservationists of the Year, HCT President Tom Evans offered these thoughts: "Jake and Barbara's generous support of the Harwich Conservation Trust and the town where they live is remarkable, but they also fully understand that town lines are historical and don't always make sense for our water table which pays no attention to town boundaries. The Browns know it's important to work not only for the good of Harwich, but also for the good of Cape Cod."



Jake Brown



Seth reflected on his news coverage experiences around the globe and the many environmental challenges faced by communities worldwide. He emphasized the importance of local action like the land-saving work of the Harwich Conservation Trust (HCT) that can make

a big difference in the quality of life on Cape Cod by protecting sensitive natural lands, water resources, and wildlife. Seth was happy to be in his home town of Harwich and with family (above) on this beautiful August evening. The view of Pleasant Bay never disappoints.



In support of the effort by HCT to purchase 15 acres with more than 1,000 feet of shoreline on Cornelius Pond, Bob Warneke (right), President of the Malcolm C. Damuth Foundation, presents a check in the amount of \$10,000 to HCT's Michael Lach at the Annual Meeting. HCT has \$115,000 left to raise by Dec. 31st to reach its \$850,000 land-saving campaign goal (see project update on page 3).



HCT supporters:
L-R, Barbara Tomasian,
Noel Rebello, Jean Barker,
Helen Doane, and
HCT Trustee Patti Smith



Compact of Cape Cod
Conservation Trusts Exec.
Director, Mark Robinson
and intern Bridget Re
with HCT's Tyler Maikath



Photos by Nancy Viall Shoemaker

Fall Rhythms

Fall excites the senses with clear crisp air, topaz reflections, glimpses of migrating birds soaring on blustery winds, and of migrating fish sliding under choppy waters. While fall weather sometimes stirs up the earth with rain and gales, the season also slows down the summer tempos of animals and plants alike. Summer has done her job and now harvests are ready and trees can begin to laze and to flare out in color. For humans, it's a cozy time of new wood fires, of peaking abundance and of preparing to hunker down for winter.

It's a time of dispersal, leaving, shutting down, cooling off. But within that sparseness burns its beauty. In the past, farmers would put food by after harvest, whalers would be getting ready to sail below the equator; before colonists, natives would turn inland to live by sheltered ponds, hunting venison and waterfowl, drying and caching corn. Now nature tells us the season, not our hands' tasks.

Technically the equinox is September 21 or 22. But with climate change it takes longer for the earth to cool down enough to let the wind mix it up with the ocean and ponds, bringing cold water beneath the thermocline up to the top, pressing warmer water down, and in a system feedback loop, further encouraging the water to cool.

It begins with early signs, from July through early September. Shorebirds, including plovers, sandpipers, yellowlegs, willets, and dunlins, have finished nesting. Some migrate through or begin to leave the Cape, dragging summer behind them as the earth spins into season following their wings. Terns begin to prepare for migration, their moon crescent wings and chirring are gone by fall's start.



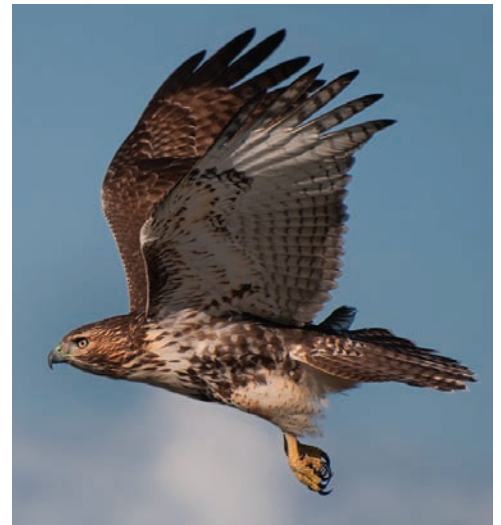
Willet with fiddler crab

Simultaneously as summer ripens into early fall, yellows, oranges, and reds tint gardens as apples, pears, corn and pumpkins plump.

The air is clearer, drier, smells fresher. Towards September, as fall proceeds and nights chill, chard and spinach begin to leaf again while many mammals' fur begins to thicken for winter. Fox and coyote will court in fall, mate in winter, raise young from spring to summer which disperse in fall. Chipmunks cache food in their many chambered, long tunneled dens before retiring to them. Skunks eat like bears, before living off fat in their winter dens below the frost line.

Hawks and falcons are now in smaller numbers than in spring and small songbirds are now devoid of breeding color.

These birds migrate in air currents, some high in the sky. Juvenile fish, such as herring and alewives, return down river runs to the sea's currents. Stripers swim closer to shore.



Red-tailed hawk

Rainbow trout in ponds surface for flies and can be found throughout the water column in winter, but may slow down a bit. Some fish such as small and large-mouthed bass may swim deeper as fall chills.

By October shorebirds have gone, the last nesting ospreys usually leave (although I've seen some tardy birds in November). And the winter ducks begin to come in, black and white eider on the bays mix with somber colored scoter; on the inland waters (especially on Monomoy), teal, buffleheads, mergansers, scaup, and rarer pintails, shovelers, canvasbacks merging with our more common mallards and black ducks, dip and dive.

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All spring and summer the sun pounds into the tissues of the plant world, nurturing growth. Now in fall the energy is released in color and seed and fruit. Aster, boneset, ragweed print fall's pages, as joe-pye weeds' knee high purple clusters write the text for our meadows. Many kinds of goldenrods punctuate the back dunes to the forest edges and fields. Sumac's leaves and conical fruits redden. Tomato-like salt spray rose hips ripen on dune faces.

Marsh grasses turn hawk-tail russets and brandy-gold, while fairy-like sea lavender turns purple alongside the garnet of samphire in the marsh pannes. Throughout our woods, blueberry and huckleberry in the understory often rouge up brilliantly. On bayberry shrubs grey lead-shot fruits begin to set. Cranberries' rubies glow.

And of course the trees do fall's most flamboyant magic. Trees shift lifestyle, changing starch to sugars. These act like anti-freeze throughout their vascular system as deciduous trees shut down while evergreens photosynthesize and move water through their bodies somewhat, even in winter. (At one of my classes, a writer said that the stiff sound of the wind on the brittle leaves let her know just by listening that it was fall; that you do not hear the wind in the leaves the same way at other seasons.)

The water-loving tupelos' oval leaves flare crimson, the twigs making perfect crosses with the branches. Then the nearby swamp red maples begin to turn red, butterscotch, and two-toned mauve. Usually between October 8 and 15, the Cape leaf color peaks. Domestic sugar and Norway maples on our streets illuminate grey worlds with yellows shining like earthbound suns.

It's kind of like etching off the black paint on a kid's scratch-art game to see the colors underneath the leaves as the green chlorophyll stops production, uncovering

other colorful pigments which help in photosynthesis and may protect leaves from harmful sun rays.

But the Cape's flora is sometimes shy in its displays, often antiqued, rusting, rather than exploding to show as many of the wanton colors of maples and aspens farther north. It's partly the way fall comes on: it takes a flash of cold to make the hottest burn of fall's fiery colors. The Cape is a slow burn. It's also partly the plants we have—mostly oak, red, black and white—and pitch pine.

While scarlet oak does turn its eponymous color, those other jagged, lobed oak leaves tend to stain up later, subdued, like home-made wool dyes, or the polished leather brick reds, maroons and tans of good boots with some parchment brown, clutching to their branches through winter. Pine and cedar stay mostly green of course. From a distance it's like seeing the prised spectrum within an emerald. Close up the light can come fluttering through the leaf with the wind, clarifying the soul, almost pulsing in contrast with a cloudy sky.

Before those first frosts some butterflies, such as painted ladies and the famed monarchs, migrate away along with some dragonflies such as Green Darners.

Wood frogs and some salamanders hide under leaf litter, or in animal burrows. Under bark, crawl peepers and tree frogs; toads burrow into soil. Green and bull frogs begin to winter in ponds, their blood containing a kind of anti-freeze so they don't freeze solid; it's the turtles, painteds, snappers, that bury themselves in mud for winter, not the frogs. Wetland spotted turtles' young disperse and may overwinter in nest holes in the earth, while adults tuck away in mud beneath water.

Technically fall lasts until the winter solstice around Dec. 21, but by then the things we define as autumnal, the long shadows which the almost leafless trees cast under a full beaver moon, may have changed shape under freezes and snows. Enjoy the seasonal changes in all of their Cape Cod splendor.

Story by Lee Roscoe Photos by Janet DiMattia

Gifts to HCT

in memory of and in honor of

GIFT DEDICATIONS April 12, 2018 to September 20, 2018

Codium at coast photo by Nancy Viall Shoemaker

IN MEMORY OF:

In Memory of Evie Armbruster
Ronald Armbruster

In Memory of Sara & Calvin Ayer
John and Cathy Ayer

In Memory of George C. Baldwin, Jr.
Gail Hancock
Colin and Jane Stevenson
Kevin T. Sullivan
Catherine Hill Tapia

In Memory of Tom Barker
Jean E. Barker
Kathleen Gallo

In Memory of Charles "Babe" Barrett
Robert and Joanne Green

In Memory of Irene Bielakowski
Irving David Weiner

In Memory of Huck Borman
John and Kathleen Anne Welch

In Memory of Ethel "Eddy" Brown
Edward W. Brown

In Memory of Carole Campbell
Arthur Campbell

In Memory of Daniel B. Carroll, Jr.
Daniel and Mary Carroll

In Memory of Dennis Case
South Harwich Shore Association (SHSA)

In Memory of Caleb Chase
Virginia and Robert Doyle

In Memory of Douglas Cole
Virginia M. Lucil

In Memory of Richard & Ruth Connaughton
Margaret and Robert Klehm
Donna Gibbons & Mark Peterson
Margaret Fox-Tully

In Memory of Ruth Connaughton
Colleen Allen
(and special accommodations from: Molly,
Sophia & Wendy in GEP)
Florence B. Lofberg
Kathryn Sabellico
Christopher & Nancy Sweeney
Eleanor (Ellie) Winslow

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Ursula K. Corbett

In Memory of Judith Small Corkum
Colin and Jane Stevenson

In Memory of David G. Coupal
Margaret A. Coupal

In Memory of Megan M. Daley
Beryl & Kevin Daley

In Memory of Albert Dalmolen
Eve Dalmolen

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Zoe Malluzzo

In Memory of Donald H. Martin
Mary G. Martin

In Memory of Timothy McCauliff
David & Jane Murray

In Memory of Scot McClain
Henry & Donna Peterson

**In Memory of my Parents,
George & Amy McDonald**
Carolyn E. Hirshberg

In Memory of my Mother, Celina Mendible
Rebecca J. Mendible

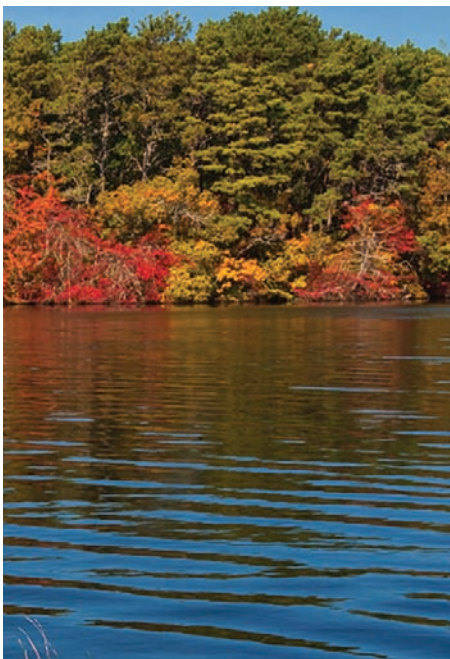


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NYS

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Brian N. Michaelan

In Memory of Dr. Robert J. Moore M.D.
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Lois Anne Pelletier

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Ira & Debbie Hufford
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In Memory of Peggy & George Whitehead
Richard & Maryjane Whitehead

In Memory of Bruce Young
John & Cathy Ayer

IN HONOR OF:

In Honor of the Baldwin Family
Kevin T. Sullivan

In Honor of George Baldwin
Catherine Hill Tapia

In Honor of Marilyn S. Barry
Noel B. Stella

In Honor of the Boundary Quest Team
Clayton (Tony) and Mary Jane Ryan

In Honor of Peter Buffington
Joanna Buffington

**In Honor of HCT and
the Natural Wonders it has saved.**
Jane A. Pedersen

**In Honor of Nancy Hipp
who volunteers time at HCT**
Nancy Wigley

In Honor of Christina Joyce
Carol & Jack Joyce
Joseph & Lynne Lavieri

In Honor of Donald H. Martin
Mary G. Martin

In Honor of Matt & Chris
Andrea (Taffy) Aldrovandi

**My Newfoundland Dog, Oliver, loves his
Conservation Areas. Please continue.**
Maryrose Reynolds

**In Honor of my Grandchildren
who love Harwich as I do!**
Lynn Schweinshaut

In Honor of "Rocky"
Robert & Dianne Payne

In Honor of Isabel Smith
Charles & Barbara Birdsey
Elizabeth Bierbower & David Crestin

In Honor of Link Thacher
Raymond & Beverly Thacher

In Honor of Thompson Field
John & Ingrid Peak



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Leave a Legacy to Save Special Places

Placing HCT in your will (also known as a bequest) is a forward-thinking way to support our land-saving work. If you are interested, please call Exec. Dir. Michael Lach at 508-432-3997 or email mike@harwichconservationtrust.org. Thank you for considering a legacy that will save special places. Find more information at: www.harwichconservationtrust.org/planned-giving.



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