



MANCHESTER ESSEX CONSERVATION TRUST

PERMANENTLY PRESERVING NATURAL BEAUTY, WILDLIFE HABITAT AND RESOURCES
FALL INTO WINTER 2025

Beautiful Bevy of Bats

Bats evoke so many emotions. Some people find them cute, or cool, while others find them downright creepy. To conservationists, they are an essential part of the ecosystem. This summer MECT piloted an acoustic listening device and software protocol to learn about the bats visiting our conservation area. The software can distinguish between individual species by their echolocation signatures and calls. To our surprise, based on preliminary information, several rare and protected species were identified. Are they living here beside Shingle Place Hill and Cedar Swamp Swamp or did we detect them migrating through to warmer climates. We plan to continue this investigation next year.



Long eared bat (*Myotis septentrionalis*)

Donation of Land in Essex

We are excited to announce that we signed a Donation Agreement in November with a land owner. After several years of title research, and mis-starts, we are completing our due diligence and we plan to close in December 2025. The Essex land has been noted as “Owner Unknown” by the assessors for decades. We expect the parcels to cover approximately 30 acres, which will be confirmed through a professional survey.

The land features many acres of wetlands in a critical watershed, and has many characteristics of an old growth forest including mixed-age trees, and a complex structure including many dead and decaying trees. While the ownership may have been hidden for years, there is evidence that this land is cherished by some for hiking and hunting. We look forward to exploring the biodiversity of this land and sharing this land with the community.



I see moss of green, wood ducks too, I see weasels, mink and rascal racoons ...

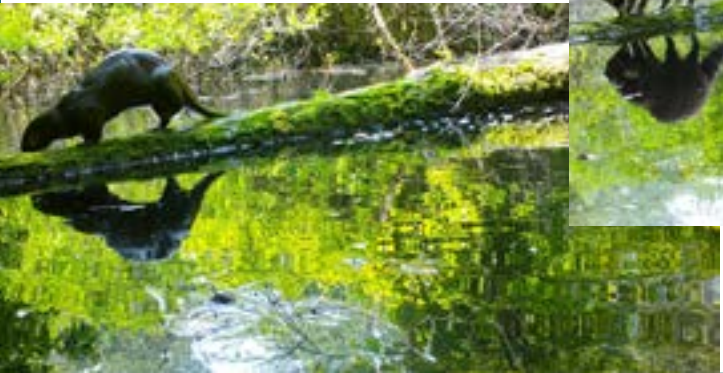
What a blessing it has been to work in the woods and deep in the wetlands this year in the name of conservation. The sights, sounds and even the smells of the wilderness bring me back to a childlike state of wonder and curiosity, and invoke a calm peacefulness and welcome balance to land defense and protection. As my staff and the MECT Board of Directors know, I love to squish through the wetlands and bogs, and consider my waders my power suit. This year in particular, as we surveyed for the elusive and endangered Blandings Turtles, continued our vernal pool certifications, monitored our own land and conservation restriction, and explored new prospects for conservation, the birds and mammals took centerstage in unexpected ways.

Did you know that the hermit thrush doesn’t sing its striking song while migrating? We saw many of these small curious birds in early spring as if it was our reward for penetrating the dense wetland thickets, and they were followed by invasions of palm warblers, pine warblers, and black and white warblers. What is the barred owl hunting in a vernal pool? How many wood ducklings can hide under the hen’s wings? (at least 9!) Green moss log “highways” link the outer pond shore to the safety of the thick tangle of blueberry and pepperbush shrubby islands. Red squirrels, stoat, shiny grackle, catbirds, wood ducks, painted turtles, racoons, fishers, coyotes all moving through wetlands on the logs or perching there to bask in the sun; cohabitating the space in ways we might learn from.

While our human logic usually drives us to “clean up” dead or downed trees, leaves and prickly havens, the natural inhabitants thrive in the wild and re-wilded state of our conserved lands. Rather than counting the acres of land, I find the life in those acres, and the ways they impact the human experience are immeasurable.

...and I think to myself, what a wonderful world.

With hope and gratitude, Patrice



MECT and Town Appeals heard in Superior Court December 4, 2025

While snow showers greeted the MECT’s representatives and legal team at the courthouse, the organization’s commitment to conservation was in full bloom at the recent hearing in defense of Shingle Place Hill. Matt Plum, President MECT summarized the events of the day, “MECT is here to make sure that the environment is a stakeholder in these proceedings, and we delivered on that objective today”.

Thomas Barrieau, MECT Board of Directors, commented “It was heartening to hear the strong case for overturning the Housing Appeals Committee (HAC) decision, presented by our attorneys at the hearing. We’ve known this is a marathon—not a sprint—from the beginning and it was great to see the ongoing commitment of the MECT board, as measured by their strong presence at the hearing. This fight takes tenacity and we have that in spades”.



Shingle Place Hill awaiting decisions on its fate.
Photo by Robyn Lafata Photography @instagram

It was interesting to hear the Court question the *prima facie* rule that the HAC invoked in their decision to overturn the Manchester ZBA denial of permit. He questioned where they got this *prima facie* rule since it's not in their regulations.

It might seem that the HAC effectively morphs its rules to continue to rubber stamp approval of housing developments regardless of the impact on the community and the environment. Since MECT was not allowed to intervene, the Town of Manchester engaged some of the expert environmental consultants that MECT had previously brought to the ZBA hearings - the HAC’s use of *prima facie*, (literally “at first glance”), considered only the developer’s evidence and effectively ignored all of the environmental consultants’ input.

Responding to HAC’s attorney’s criticism that the MECT failed to present evidence before the HAC, the Court observed that MECT was not allowed to do so at the HAC’s hearing. MECT’s request to intervene was denied by the HAC.

“To deny MECT as an intervener, and then to pass over the entire body of the environmental experts’ testimony is to silence the voice of the environment, and today, with the town of Manchester, we demanded that it be heard. “ said Alida Bryant, as a member of the Ten Person Group, and former staff at MECT. In this instance – the rich biodiversity of the abutting, extensive conservation land, rare species, natural habitat, ground water, vernal pools, cold water fisheries, and the uplands that impact their vitality are at stake.

Our MECT and the Ten Person Group attorney, Dennis Murphy, of Hill Law, made it crystal clear in his argument that not only does this development fail to meet local standards, it doesn't meet STATE storm water and surface water quality standards. The developer did not do the minimum of risk analysis or alternative analysis.

The enormous expanse of hard pavement will displace the shaded watershed, the mosses and rich forest floor, and, together with the heap of retaining walls, will undoubtedly raise the temperature of runoff water, and impact the sea run brook trout living in the cold water fishery stretching from Shingle Place Hill to the center of town, and out to the ocean.

The decision to remand back to the HAC is easy - two judges have already made that decision in very similar environmental cases cited by MECT counsel.

Gregory Crockett, Board of Directors, MECT noted, “What we saw at the hearing was four very good attorneys doing their best to convince the judge that their take on the issues at hand was the correct one. The judge was very well prepared and asked many thoughtful questions. Given the precedents, we remain hopeful that we will prevail.”

No decisions were expected, nor rendered at the hearing. The Court will proceed with a review of the records and motions for judgement that have been provided by the attorneys. Cases unrelated to Manchester, may provide additional precedent, and our counsel keeps a watchful eye. MECT is fortunate to have a strong ally in the Town of Manchester, and the steadfast encouragement and financial support of the community that makes this defense possible.



Big brown bat (left) and little brown Bat (middle and right) Photos from batcon.org and mass.gov

A Deep Dive on Bats

by Alec Woolf, MECT Conservation and GIS Data Manager

Bats in Massachusetts

In Massachusetts, all bat species belong to the family *Vespertilionidae*. Ecologically, these species fall into two broad groups: colony-forming bats that roost in caves—especially for overwintering—and solitary, tree-roosting species that often migrate or use alternative shelters during winter. Although bats are warm-blooded, they conserve energy through torpor—a physiological state characterized by significantly reduced metabolic rate and body temperature. During extended torpor in hibernation, cave-roosting bats can lower their heart rate from approximately 1,000 beats per minute (bpm) to fewer than 20 bpm, and reduce body temperatures to near ambient conditions, sometimes as low as 2–10°C.

Tree-roosting bats, by contrast, tend to use shorter bouts of daily torpor in response to cold temperatures or food scarcity.

Bat Biology

All bat species in Massachusetts are microchiropterans (microbats), meaning they use echolocation—a biological sonar system—for navigation and foraging. These bats emit ultrasonic calls, typically between 20 and 120 kilohertz (kHz), and use returning echoes to construct spatial awareness and locate prey. In addition to echolocation, bats rely on other sensory inputs, including keen night vision, a strong sense of smell, and highly sensitive hearing. Some tree-roosting species are even thought to use polarized light patterns in the evening sky for orientation during migration.

Bat Diet and Foraging Behavior

Bats, typically emerge around sunset and feed throughout the night. Their foraging strategies are highly efficient and rely on echolocation to detect, track, and capture fast-moving prey in complete darkness.

Foraging behavior is strongly influenced by habitat. Cave-hibernating bats—such as the Little brown bat and Tricolored bat—often forage near water bodies and forest edges where insect density and diversity are high. Tree-roosting bats, such as the Hoary bat, Eastern red bat, and Silver-haired

bat, tend to forage at higher altitudes, along forest edges, or over open fields. Urban-adapted species like the Big brown bat are frequently found hunting around streetlights or buildings, where artificial lighting attracts concentrations of flying insects. Migratory, tree-roosting

species like the Hoary bat and Eastern red bat may migrate thousands of kilometers between breeding and overwintering habitats, navigating complex flyways across eastern North America.

Roosting Ecology

Bats use a wide variety of roosts throughout the year to meet their needs for shelter, thermoregulation, predator avoidance, and energy conservation. Roosting behavior is influenced by species, sex, reproductive status, season, and environmental conditions. In Massachusetts, roosts fall into

two broad categories: natural roosts, such as trees and caves, and anthropogenic structures, including buildings, bridges, and bat boxes.

Tree-roosting bats—including the Hoary bat, Eastern red bat, and Silver-haired bat—typically roost solitarily or in small groups in foliage, under bark, or in tree cavities. These species often switch roosts frequently, sometimes daily, to avoid predators, parasites, or unsuitable microclimates. Eastern Red Bats often roost in tree canopies, hanging from leaves or twigs, where their reddish fur helps them camouflage among dead foliage. Hoary bats may roost higher in trees and often select coniferous forests, where dense foliage provides shelter from wind and predators. These species rely heavily on thermoregulatory behavior and frequently enter daily torpor during cool or inclement weather to conserve energy, particularly outside the breeding season.

Species like the Little brown bat and Big brown bat often roost in buildings, attics, barns, tree cavities, or rock crevices during the summer. During winter, they seek out cool, humid environments with stable temperatures and minimal disturbance—conditions typically found in caves, rock crevices, or abandoned mines. These sites provide the necessary microclimate for hibernation, a state of prolonged torpor used to survive months of food scarcity. Little brown bats often form large summer colonies in warm attic spaces and hibernate communally in caves during winter. Big brown bats, more tolerant of temperature extremes, may overwinter in buildings, wall voids, or small crevices and often hibernate in smaller groups.

Roost selection is guided by a combination of temperature, humidity, safety from predators, and proximity to foraging areas. Some bats exhibit roost fidelity, returning to the same area or specific roosts across seasons or years, while others are more nomadic in their roosting habits. Roost-switching may be driven by environmental changes, reproductive status, or human disturbance. In addition to day roosts, some bats use

night roosts—temporary, often exposed resting spots near foraging areas—where they may rest between feeding bouts or digest prey. These night roosts are typically less protected and thermally stable than day roosts.

Conservation Efforts

Massachusetts conservation agencies—such as Massachusetts Division of Fisheries and Wildlife and The Nature Conservancy—place a high priority on protecting critical roosting habitats vital for bat survival. These habitats include caves and mines used for hibernation, as well as large forest trees and snags that provide essential day and maternity roosts. Special emphasis is given to safeguarding known summer roost sites where reproductive females gather, often in buildings or barns, to ensure the successful rearing of their young.

Healthy wetlands and riparian zones are essential, as they support abundant insect populations—the primary food source for bats. Conservation actions focus on protecting these wetlands from development and pollution, maintaining natural vegetation buffer zones along water bodies, and promoting integrated pest management practices in agriculture to reduce pesticide use that can negatively impact insect prey availability.

What You Can Do to Help Bats in Mass

Bats face serious threats—but individuals, landowners, and communities can take many meaningful actions to support their conservation. Protecting and enhancing bat habitat is crucial; this includes leaving standing dead trees (snags) and retaining cavity trees when safe to do so, as these provide essential natural roosting sites. Installing bat boxes in yards, farms, and along forest edges offers safe alternatives where natural roosts have been lost. It is important to avoid disturbing roosts in attics, barns, or trees, especially during summer when female bats are raising their young. Practicing wildlife-friendly land management benefits bat populations significantly. This includes reducing or eliminating pesticide use, particularly broad-spectrum insecticides

(Bats continued on pg 6)

Alec Woolf Alec attended the University of Vermont where he obtained a Bachelor of Science in Wildlife & Fisheries Biology. During his undergraduate career, he worked on a number of different projects with the Vermont Fish & Wildlife studying turtle and bat species of conservation concern. Following his completion at the University of Vermont, Alec gained field experience studying threatened and endangered bird species. Alec attended Antioch University Antioch University, completing a Master of Science in environmental studies with a Conservation Biology concentration.

October Razzle-Dazzle

By Kimberly Collins Jermain, author of "Nature of Color: Your Field Guide to Exploring Color in the Natural World"

What could be more colorful than an October hike with local families along the Cedar Swamp Trail. Our group of children and adults, began a color trek by orienting themselves to the source of light. We created a sundial with stones and a straight stick in the center. A compass rose is a handy do-it-yourself timepiece and a visual guide to the path of sunlight revealing the hiker’s relationship to the energy source for color illuminating what we see along the trail.

Sunday morning’s clear sky lit up the Manchester Essex woods with views across the beaver’s play yard seen from the boardwalk in blazes of yellow aquatic grasses and swamp maples in reds and orange. As we entered the woodland, a more open canopy signaled the change of season. Our trail chatter was about found favorites and how some colors appear warm and others cool. And, some could be

best described by taste – like the deep green of the winter mint leaves that hug the forest floor. Evidence was everywhere that summer was fading - like the ferns that were no longer chartreuse, but ghostly pale. Colder temperatures and a lower angle to the sun’s rays was visible in the leaf litter, the seasonal mushrooms, and other color cues.

Our band of explorers had a mission to find something “interesting” and I gave them another clue - we would be making what ever they found disappear. As we looked and made careful selections, one silent hiker stood next to me waiting for my reaction; holding a tall oak limb along his body with ashen brown leaves still gripping tight to the branch. Despite his large eyes and bright smile, he was camouflaged with oak leaves perfectly matching his tousled hair and cool, blue clothing. Back at the boardwalk, hiker’s tore colored paper and used glue sticks to create a background blending in with the leaf, birch bark or other natural find from our walk in the woods; reminding us of one of the ways we can use nature’s color for our own needs.

(Bats continued from page 5)

that diminish bats’ food supply. Sustainable forestry practices such as avoiding clear-cutting during the breeding season and retaining roost trees and forest corridors help maintain critical habitat. Additionally, planting native vegetation supports diverse insect communities, providing ample foraging opportunities for bats.

Supporting local conservation efforts through donations or volunteering also contributes greatly to bat protection and recovery. These small actions, when taken collectively, make a big difference in protecting Massachusetts’ bat populations and the ecosystems they support.

Interested in building bat houses or monitoring roosting sites? Contact us! Conserve@MECT.org

Wilderness Conservation Area.
Photo by Robyn Lafata Photography@instagram



Got Dogs?

We do! We love dogs and we love to take them on hikes in the woods. Equally, your well-behaved dogs are welcome on our trails - with one caveat. Dog walking services are limited to three dogs at a time.

Do you use dog walking services? Do you know where your dog walker takes your dog(s)? Do you know how many dogs are taken out at once? Are you aware of what might happen if dogs are out of control - and a bite occurs? It's time to find out!

Please ask your dog walkers where they are going to run your dog(s), and how many doggie companions are included on the trip. MECT allows no more than 3 dogs, under



control on our properties, for the safety and enjoyment of the conservation trails *by all*. A visitor was bitten this fall by a dog in a pack of 10. We do not endorse this dog-walker behavior of bringing large numbers of dogs off-leash, and it constitutes a violation of

MECT’s rules. It would be a shame to have to restrict all dog walking services from our land.

Know before you go. Or before you let your dogs out the door. Where are they going? Are they on leash where leashes are required. How many dogs will be walked together?

All dogs are required to have rabies vaccinations. Dogs that bite an individual need to be quarantined for 10 days.

All dog bites must be reported to the local Animal Control Officer. Please note that dog owners are legally liable for injury or property damage, regardless of the dog’s past behavior or the owner’s knowledge of it. Legal damages can include medical expenses, lost wages, pain and suffering and emotional distress.

So get out there and enjoy the trails with your companions and help to keep every one safe by asking important questions.

Winter and Woodland Words

Dendrolatry: deep reverence for trees
Apricity: the warmth of sun in the winter
Subnivian: situated or occuring under the snow
Hoarfrost: A white, crystalline deposit of frozen water vapor formed on surfaces when the temperature falls below freezing





MANCHESTER ESSEX CONSERVATION TRUST

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Your gift to our Annual Appeal matters!

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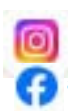
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With a passionate small staff, an enthusiastic volunteer board, and a laser sharp focus on local land conservation and protection, your gift to MECT has tremendous impact right here at home in Manchester and Essex. So much, so close.

Every donation matters. What is your commitment to conservation? MECT's board members have personally pledged a \$50,000 matching pool for donations from \$500 to \$5000.



That doubles the impact of your gift. Supporting MECT will accelerate our permanent protection of land in our communities before it's too late. Together, we are giving nature a chance.

Use the enclosed envelope or make a secure transaction at www.mect.org/annual-appeal

For more ways to give, go to: mect.org/ways-to-give/
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