



Beautiful, Beneficial, Blameless Bats

By Maureen Heidtmann

Bats are among the most beneficial animals on the planet. More than 500 species of plants rely on bats for insect control, pollination and/or seed dispersal. If not for bats, many of the food items we take for granted would not exist. In the United States alone, bats are worth an estimated 50 billion dollars a year in agricultural pest control for crops including corn and cotton. Insectivorous bats also consume mosquitoes that spread diseases such as West Nile Virus and Malaria.

Yet despite the vital services that bats provide, they are feared and hated by many people around the world due to misinformation, myths, and sensationalized, erroneous articles claiming that all bats “carry” rabies, and that they are responsible for past and present pandemics.

Although any mammal can contract rabies, it is rare in bats. Only about 1/2 of 1% ever become infected, and they do not “carry” the disease. In other words, they do not fly around shedding the virus as they go. You cannot get rabies from simply seeing a bat, from bat blood, urine or feces. Transmission occurs through a bite or deep scratch, or if saliva from an infected animal gets into one’s mucous membranes. Simply avoid handling wild animals and you have nothing to fear.

Some Notable Facts

Bats are the only mammal capable of true flight. Bats are not blind, but many kinds use a sophisticated sonar, echolocation, to hunt for food while avoiding colliding with obstacles: a bat won’t get tangled in your hair! Large fruit bats use eyesight and sense of smell to find food. Bats are not “flying mice.” They are not rodents. The order is Chiroptera (handwing), because a bat’s skeletal wing

structure is the same as the arm and hand of a human. Also, like humans, most bats give birth to just one baby (pup) each year. However, in some species, twins and even quintuplets are born.



Juvenile Big Brown Bat
(*Eptesicus fuscus*)
ready to be released
into the wild
photo: Linda Powell

As for the zoonotic diseases that have jumped from wildlife to humans, it is we who are to blame. As humans increasingly destroy natural habitat and encroach on wild areas, we expose ourselves to viruses that wild animals might harbor. The wildlife trade, both legal and illegal, the foraging of domestic animals into wildlife areas, and the consumption of “bush meat” are examples of the bridges that allow viruses to cross from wildlife to humans.

COVID-19 started in a “wet market” in China from a yet unknown

wildlife source or sources, and then it spread to humans. Almost immediately, sensationalized news articles blamed bats as the source, and the backlash was horrific. Thousands of bats were slaughtered in the cruelest ways in a time when bats are facing many challenges to their survival including habitat destruction and a fungal disease, and white nose syndrome, which has killed millions of North American bats.

White Nose Syndrome

White nose syndrome has caused the steepest decline in wildlife in the past 100 years, and it has killed many of our local bats over the past twelve years. It was carried from Europe to New York by person(s) who unknowingly bore the fungus (*Pseudogymnoascus destructans*) on clothing or caving gear. The European bats coevolved with it, but the bats in New York had no resistance to the invasive fungus, and the result was devastating. It has now spread to 35

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Heidtmann entering an abandoned church to view a maternity colony of 20,000 little brown bats (*Myotis lucifugus*) before the devastation due to white nose syndrome.

states and 7 Canadian provinces, and it is still on the move. So far there is no cure. The hope is that young bats will acquire resistance from a mother who has recovered from the disease, and then populations will begin to recover. However, with the slow reproductive rate, it will take a very long time. The good news is that recovery does seem to be happening at some roosting sites.

Connecticut Bats

In Connecticut there are nine species of bats, all insectivorous. With the exception of the big brown bat (*Eptesicus fuscus*), all are on the endangered species list due to habitat destruction, eviction from roosting sites, predation from free-ranging domestic cats, and white nose syndrome. The Eastern small footed bat (*Myotis leibii*) is state endangered, and the Northern long eared bat (*Myotis septentrionalis*) is federally endangered.

It is now more important than ever to do what we can to protect bats: Spread the news about the free services that bats provide. Erect a bat house. Keep pet cats indoors. Plant a garden that provides food and shelter for wildlife. Tell legislators to strengthen and enforce existing environmental protection laws.

Each individual can change the world for the better.

Editor's Note: Master Wildlife Conservationist Maureen Heidtmann Maureen is a licensed wildlife rehabilitator, focusing on bats for over twenty years. Maureen has attended seminars presented by the founder of Bat Conservation International, Merlin Tuttle, and renowned chiroptologist Dr.



Very rare, endangered species Eastern small-footed bat (*Myotis leibii*)
Photo: Sean Stevens

Brock Fenton at the National Zoo in Washington D.C.

Anyone interested in learning more about bats, can check out the following websites: www.batcon.org and www.batweek.org

Essex Land Trust member and long-time supporter, Matthew Winkler, has a keen interest in promoting knowledge about bats. He is particularly interested in encouraging the installation of bat houses in appropriate locations. His passion is clearly evident in the following.

Bats are unique flying mammals, that can fly, but cannot take-off! Bats fall from their houses, to gain the needed velocity, for sustained flight. Bats also rely on the sun, and the thermal mass of their bat houses to maintain the temperature needed to support their nursery, to raise their young.

Bats are self-sufficient in many ways, except for the issue of housing and rearing their young, in a world where their natural environment is shrinking and endangered by toxic chemicals and pesticides. Think about these industrious, night flying mosquito killers (consuming 3,000 to 5,000 a night for each bat) and their nightly role as "Pollinators"! Yes, that is a fact; when the bees are in their hives resting, or hummingbirds are in their nests, or butterflies are sitting for the night, bats are out searching for nectar (and pollinating) vegetables and flowers in the process, all at night. All of this is made possible because bats can "see" in the dark, due to their highly developed "sonar" system where they can find and catch tiny mosquitos in total darkness. No pesticide needed!

The construction and siting of Bat Conservation International (BCI) Certified Bat Houses provides the one thing these bats need, beyond our existing protected, natural land trust properties. Since bats live, sleep, give birth, nurse, and rear their young "upside down", the internal design of the open bottom bat houses is absolutely critical. Bats will not use a bat house with the wrong internal dimensions, or located in a poor location, or not facing the correct direction.

The bat houses rely on the solar heating to maintain the warm conditions needed in their nursery. Bat house location needs to get several hours of sun a day to maintain warm, internal conditions. They need to be high enough to allow the bats to leave and gain successful flight. Unlike birds, bats dropout of the bottom of their open bottom house, gain velocity from gravity by falling, before they can develop flight velocity and fly away.

None of this is hard, it just needs to be built and installed correctly but it is mainly issue is to ensure bat occupancy, and to encourage bat families to grow and thrive on our protected, natural environment. It is Conservation, on top of Conservation!

Essex Land Trust & The Pollinator Pathway

By Pam Peters

For over 50 years the Essex Land Trust (ELT) has upheld its vision - “to preserve our community’s open space and natural resources for the benefit of future generations”. The conservation of wildlife habitats, forests, fields, rivers, wetlands, and scenic views by maintaining numerous greenspace properties throughout Essex, Centerbrook, and Ivoryton continues.

Over the past four years the ELT has expanded its focus to include establishing gardens to increase the support of native pollinators so critical to current and future generations. Currently we have two gardens on ELT properties established and maintained by a growing group of ELT volunteers. A third garden was established in 2020 at The Essex Historic Society’s (EHS) Pratt House through a joint, collaboration with volunteers representing EHS, ELT, The Essex Garden Club (EGC), River COG and individuals from our three villages.

Pollinator Pathway Northeast

These gardens are now part of the Pollinator Pathway Northeast – a collective of towns across Massachusetts, Connecticut, New York, New Jersey, and Pennsylvania which tie into the National Pollinator Pathway initiative. Essex is one of 28 towns in Connecticut creating local pathways to support migration and feeding habits of our native pollinators.



For more information on the Pollinator Pathway Northeast and its mission - “Establishing pollinator-friendly habitats and food sources for bees, butterflies, hummingbirds and other pollinating insects and wildlife,” log onto www.pollinator-pathway.org

While you’re out enjoying the Spring and Summer weather this year, you can find our gardens at the locations noted and described below. Aside from their beauty, the gardens can be a fun educational visit. How many of the plant species can you identify? Brochures at the Cross Lots kiosk and a legend of plants on the

side of the shed at The Pratt House can help. The types of bees, butterflies and birds visiting can change based on time of day. Who will you see while you’re there?

Cross Lots - 40 West Avenue

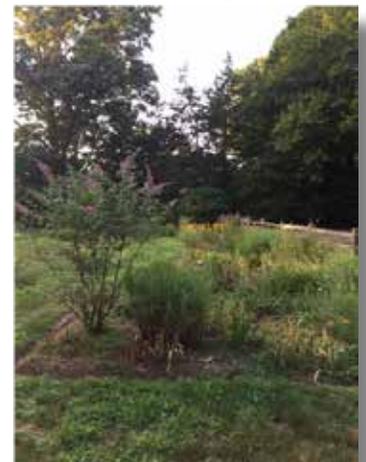
The Essex Pollinator Pathway got its start in 2016 when ELT in partnership with the EGC established the Pollinator Garden at Cross Lots. Now, a few seasons later, the Pollinator Garden with dozens of native nectar plants provides important food for birds, native bees, bats, and a variety of butterflies. Some of the flowering plants are Monarda (Bee Balm), Agastache (Giant Hyssop), Echinacea (Cone Flower), and Aster.

Brochures that identify the garden plants are available on the side of the Cross Lots kiosk. In addition to a list of the blooms, the brochure also indicates bloom times and the pollinators that favor each plant. The bloom cycle starts in mid-April and continues through September. The brochure can also be used as a planting guide if you want to establish your own pollinator garden to help support the food chain.

Osage Trails - Foxboro Road

In 2018 the ELT decided to revitalize the nearly 1,800 square foot perennial garden that was originally part of an eight-acre park like property donated to the ELT 20 years earlier.

The garden beds were cleared of years of debris to uncover what was left of Diz Callender’s original plantings. In 2019 things started to come



back to life revealing original plantings of Iris, Daffodils, Black-eyed Susan, Butterfly bush, Lilacs and Butterfly weed. More natives including New England Aster, Common Milkweed, Hyssop, Bee Balm and Penstemon were added to

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the original plantings by ELT Volunteers. In its second season, the garden is a buzz with an ever-growing population of bees, butterflies, and birds.

The Pratt House Pollinator Garden - 19 West Avenue

In 2020, the Essex Historical Society offered the use of an area on The Pratt House Historic Property for a new pollinator garden. A group of individuals representing the EHS, ELT, EGC, Essex Sustainability Committee and River COG came together and established a new pollinator garden.



Almost 200 plants creating a selection of 40 different varieties of natives and perennials known to benefit native bees, birds and butterflies were planted across 2/3 of the 1500 square foot space. The balance of the garden is targeted for planting in 2021. The project fits in with the growing concern to help support our food chain by providing pollinator pockets with the hope of establishing a pathway in the Northeast.

If you like to garden and would like to join our ELT Garden Volunteers, please email us at info@essexlandtrust.org.

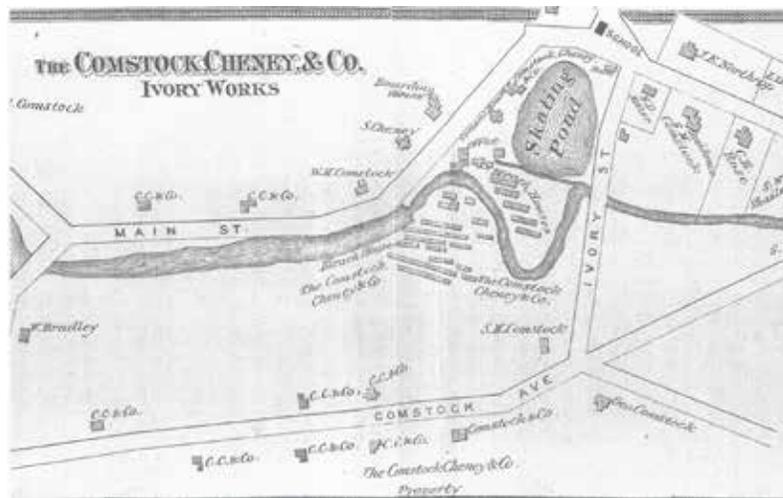
Searching for History

By Merle Drift

Walk along Main Street in Ivoryton. Even better, walk above Main Street on the grass, adjacent to the Ivoryton Theater, and look toward Main Street. Try to see as far as you can behind the buildings—beyond the library, Gather, the Pizza Shop, the Car Shop, the library. What do you see? A tangle of trees, vines, and invasive plants.

In the early 1800's the same view would have been mostly pasture. And a flowing river that was generally considered the lifeline of Essex—the Falls River. In the mid 1800's Samuel Comstock and his brother Joseph bought most of the land you can see from your theater vantage and they ultimately established what today we would call an industrial park.

Back then the land between Ivory Street and Main



Street was expensive property. Home to a renowned piano works factory, later a prestigious pharmaceutical manufactory, a golf club factory, instrument makers and more.

In 2010 the Essex Land Trust received 5 acres of this land as a gift from Herb & Sherry Clark. By

that time the land was no longer prime real estate. It was no longer an industrial park. The world had changed, the land had changed. But it was a wonderful gift to the land trust and the town. And it still bestows gifts—after every hard rain a golf club shows up in the riverbed, as do small glass vials made to hold medicines and of course, white keys made to fit pianos.... all evidence of a prosperous past. See insert on page 6.

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shape. Just as an example!

Spoiler: We didn't find even a hint of an elephant's tusk. But we did search several hundred square feet of ground and found a number of "subsurface patterns suggestive of soil disturbance.....and other anomalous features of potential interest."

I bet we could all live a happy and productive life and never once have the occasion to use the word "anomalous." It means "deviating from the regular arrangement." Kind of like the Beatles in 1962.

The Ivoryton Archeological Dig

In November, Dr. Sportman, wrote that "the only way to ground truth the GPR" is excavation. Which is Ph.D. speak for "if you really want to know what is down there, you have to dig it up". And she offered to bring a group of experienced volunteers to set up an excavation grid and record excavation locations. And then dig with all the forms, bags and equipment necessary to do it properly.

So, it is doubtful we are going to unearth a lost city. But we are going to have a real dig at the Millrace along the banks of the lifeline of Essex--smack in the middle of Ivoryton!

We aren't certain when—winter, COVID, spring rains—there are a bunch of considerations. We'll let you know when the digging starts!

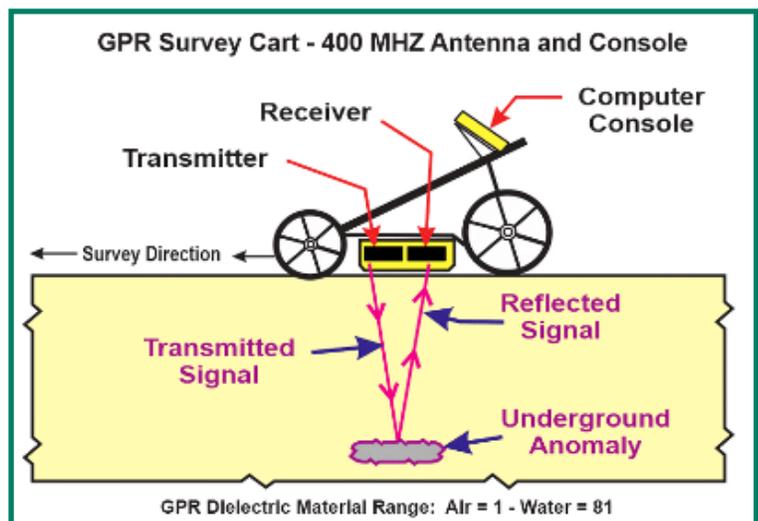
What's Under There?

That made the land trust stewards think about the history of the land and what might lie beneath the surface. An 1873 map of the Comstock Ivory Works suggests a bustling enterprise around the Falls River. There are 17 long rectangular buildings that cover the land as the Falls River curls from Main Street to Ivory Street. These are the bleach houses where sawed-up strips of ivory were laid on racks and bleached by the sun. Could there be evidence of these structures, below the surface, covered by the years? Maybe we could find something of our history?

Ground Penetrating Radar

A wonderful friend of the Essex Land Trust, Juliana Barrett, was walking the property last spring with ELT's Bob Nussbaum. They were talking about how to restore the land—bring it back to something close to its 18th century self. Juliana is an educator in the Connecticut Sea Grant College Program at the University of Connecticut.

During the walk she mentioned that Sarah Sportman, Connecticut State Archaeologist, often partnered with the US Department of Agriculture's Natural Resources Conservation Service to utilize ground penetrating radar (GPR) at sites where interesting history may reside in the ground. GPR works by sending a pulse of energy into the ground and measuring its strength when it returns. When the pulse of energy enters the earth, it reflects back in a fairly uniform way if the soil is undisturbed or there are no foreign objects. But if it hit say, an elephant's tusk, which is pretty hard, it would reflect more quickly. And it may reflect in a way that suggests the



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Millrace artifacts: The Millrace is an amateur archeologist's dream come true. The great flood of 1982 tore thru the town and many of its businesses. Golf clubs found their way into the waters as did a variety of measuring devices made by Moeller Instrument Company. An important pharmaceutical company occupied the industrial area from 1930's until 1959 and plastic piano veneers were applied to wooden works in the 1970's, at least. Other firms occupied the area as well and may have left behind what they were about.....

So, if you take a walk along the river at the land trust's property called the Millrace Preserve, keep a keen eye. You may find history.



Bischoff Pharmaceuticals



Plastic Piano Veneers



Souder Golf Clubs



Moeller Instruments

Volunteer Spotlight - A Pioneering Steward: John Matthiessen

Every property in the Essex Land Trust has a steward, some have two. When the trust acquires a new property, a steward is assigned. It hasn't always been that way. When the Essex Land Trust was a young organization, people just worked. There were no steward assignments. When a new property was acquired or donated, as often happened, everyone pitched in to post signs, clear trails. But somewhere along the way, the land trust got bigger and needed organization.

The steward we are honoring today helped make the land

trust big—not just more forests and fields, but a stronger organization with a larger role in the community.

We ought to linger here a bit. And recall history. The Essex Land Trust was born in 1968 when parts of Thatchbed Island were donated to the Essex Land Conservation Trust. The organization was very small back then and didn't have much of a bank account. But it had a galvanizing mission.

Over the next 30 years, from 1968 to 1998 the

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organization was managed carefully, and it grew slowly as generous people donated land - property at Great Meadow was gifted, at Canfield Meadow, and Cross Lots. The company that built homes around Windswept Ridge deeded 24 acres to the land trust, and, of course, Diz Callender gave all of us Osage. And then in 1998 everything changed.

Twenty-two acres of Falls River shoreline became available. The land trust team saw an opportunity to preserve the “largest stretch of natural Falls River frontage left ...” After 20 years of accepting gifts and donations to its portfolio of open space, here was a challenging opportunity to buy a large parcel if it could find a way. It may seem no big deal, but the land trust had a large mission and a small bank account.... it had been that way for 30 years.... still, they stood up and changed everything. They made their case, they organized, asked for donations and help.

The people of Ivoryton, Centerbrook and Essex responded. Everybody gave something. The town

government unanimously approved an award of \$125,000 of town funds. The Griswold Inn hosted an evening where all the proceeds (not just profits) from its Tap Room and Dining Rooms were donated to the campaign. In all, over \$450,000 was raised. And the Board of the Essex Land Trust led their organization into a new era.

And today as we drive down Main Street in Centerbrook and look across Stanley Park, acres of a beautiful forest reflect in the Mill Pond's waters. And that will continue as long as there is a land trust.

Today we honor a man that was in the thick of this wonderful enterprise. Certainly, he was part of an incredible team and we should rightly honor them all. But today we are honoring one steward and this guy is still on the job.... John Matthiessen was the first steward of the Falls River Preserve back in 1998 and he still tends the property today. In 1998 he raised his hand and said, “let's do it!” He helped raise the money and, when it was done, walked into the woods and put up the boundary signs - “Land Trust Property.”

It must have been a relief to be in the forest alone. After all the meetings, fundraisers and worry, to walk the paths by himself. He's still at it - over 20 years later. He was at the center of a sea change for the land trust in 1998. A pioneer. Today he must look back with a pioneer's pride.

If there is such a thing as seniority among land trust stewards, John Matthiessen is senior. Thank you, John, for your work in the last century.... and this one too.



Coming Events – Mark Your Calendar!



We are hoping to resume our schedule of events. The programs we are announcing will take place if Covid pandemic regulations allow. If you have any questions, please check our website for updates or contact us at: info@essexlandtrust.org.

Vernal Pools and Emerging Life in The Preserve

Saturday March 27, 10 am - East Preserve parking lot, Ingham Hill Rd.

Bob Russo, ecologist and Ivoryton resident, is once again leading a hike in the Preserve to help you search for salamanders, frogs and plants emerging from the long winter. He will describe the biological and geological features that make the vernal pool areas unique and bountiful. Meet at the first/east parking lot. 1½ hours duration. Easy to moderate terrain. Bring tall waterproof boots and nets if you have them. Open to all ages. Bad weather cancels. Covid regulations will apply (use of facemasks and social distancing).

Essex Land Trust Annual Meeting

Thursday, May 20, 5 pm - Cross Lots

A bare bones ELT annual meeting will take place to comply with land trust bylaws. Non-members are welcome. Covid regulations will apply (use of facemasks and social distancing).

Canoe/Kayak Trip to South Cove

Saturday June 12, 1 pm - Public Boat Launch, Essex Town Park

Meet at the public Boat Launch below Essex Town Park. Bring your boat for an early summer kayak/canoe trip to South Cove, led by ELT's Jeff Croyle. Participants should register on site and launch their own boats prior to the 1 pm departure. A safety boat will accompany. Bad weather cancels. Covid regulations will apply (use of facemasks and social distancing).

Annual Concert in the Park

Saturday June 12, 5 pm - Main Street Town Park

Join us at the Essex Main Street Park for a summer BYO picnic and concert. Bring chairs, blankets. Relax or Dance! Bad weather cancels. Covid regulations will apply (use of facemasks and social distancing).



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