

# Allens Pond All Persons Trail Tour



This interpretive tour typically takes 45 minutes to one hour.

We invite you to use this printed booklet to enjoy the trail tour. When you are finished, please return the booklet to the publication holder in the entrance alcove of the Stone Barn so it can be available for other visitors.

This tour information is available in several formats:

- You can borrow a copy of the booklet printed in braille, with a tactile map.
- You can download and print your own copy of this booklet from our website, in whatever font, size, and color combination you prefer.
- You can take the tour using an audio recording. The audio files are available to download from our website to your own audio device. Or, you can borrow a Victor Stream Reader audio player by contacting us in advance at 508-636-2437 or allenspond@massaudubon.org.

# Mass Audubon thanks the following organizations and individuals for their generous support:

Jerry Berrier, Perkins School, Allens Pond volunteers, TerraCorps Service members, Sylvia Guthrie, Alvarium Foundation, Lang Elliot, Chris Arsenault, and Ted Franklin.





#### <u>Welcome</u>

This All Persons Trail is a self-guided, universally accessible trail that takes you through three different habitats. This 0.5-mile roundtrip trail goes from the parking area to a platform overlooking a vernal pool and consists of a combination of mixed stone surfacing, a grass paving material, and some boardwalks. There are no stairs, and the surfacing, width, and slope are ADA-compliant.

Experience this trail in your own way, or follow the interpretive tour, which is available as an audio recording or in a printed booklet in regular, large, or braille formats. The trail tour booklets, as well as a tactile trail map, are available in the entrance alcove of the Stone Barn just up ahead. The entire tour typically takes 45 minutes to one hour.

Attached to a post adjacent to this sign is a navigational rope guide. This rope guide is within arm's reach and is 32 inches above the ground. Initially, the rope guide will be on your right, until you reach the "Managing Fields" stop where it then changes to the left side. In a few spots along the trail, the rope will end briefly to provide access to stops, such as a stone wall and a boardwalk. Along the rope guide, you will find three types of beads: a sphere, a cube, and a disk. A spherical bead means an interpretive stop sign is located within reach. A cube indicates there is a seating area nearby. And a disk signifies a place to stop and take in the sights, sounds, and smells of Allens Pond.

We hope you enjoy your time on this All Persons Trail. To learn more about Mass Audubon's work to make nature accessible to all, please visit massaudubon.org/accessibility.



#### Stone Walls

A quintessential New England feature is the stone wall, an archaeological relic of this area's agricultural past. These walls were used to divide fields, separate livestock, and serve as property boundaries. Stone walls are found in a number of communities all over Massachusetts, revealing a rich history that ties natural processes to human resourcefulness. There will be a brief break in the Rope Guide at the stone wall.

Feel the shapes and textures of the stones that make up the wall. Where do you think they came from?

Imagine what this area was like 20,000 years ago at the height of the last Ice Age. A large glacier nearly a mile-high rested right where you are now. The average temperature was only 5 to 10 degrees lower than it is today. Yet, this small difference allowed for a massive glacier to develop. As it formed, it scraped the ground, carrying rocks from Canada and northern New England down to Westport and Dartmouth. Some rocks were the size of a fingernail, while others were gigantic. Just imagine standing next to a glacier as it holds a massive boulder above your head. How would that make you feel? Over time, the world warmed and the ice receded; those rocks that were once held in the ice were simply left behind.

Now, imagine you are a pioneer living in the 1700's. You are clearing land to start your farm when you start pulling up rock, after rock, after rock. What would you decide to do with them? 18<sup>th</sup> century New England looked vastly different than it does today. Nearly 70% of the land was deforested and used in agriculture. Lumber, when present, was needed mostly for shipbuilding. Building materials were in short supply, so pioneers used the abundant stones from their fields. This stone wall was built by hand, with rocks placed in such an intricate fashion that they stayed together without glues, mortars, or nails. But times change, and as the local economy shifted from farms and ships to factories, these stone walls were eventually abandoned to nature.

To this day historical stone walls are still being used. Instead of fencing livestock or marking fields, they are now home to local wildlife. During the colder months a Garter Snake may spend the winter inside, protected from the cold and elements. A chipmunk might den here to raise young. There are insects who spend their entire lives inside small sections of stone walls. Even an elusive fisher cat might scamper along a stone wall hunting for a meal. Take a moment to listen for a chipmunk chirping, a small animal rustling through dried leaves, or an insect buzzing or clicking its wings.

To continue to the next stop, follow this rope guide until you come to the next spherical bead.



#### Stone Barn

With the rope guide and spherical marker on your right, the Allens Pond Stone Barn will be on your left, about five yards away at the ten o'clock position. This historical building, constructed during the mid-1800's, is now an educational space. Inside, accessible bathrooms are available during program times and special events, with an entrance located on the front facing wall, towards the left-hand side.

This building is of a pale off-white color with large, historic, sliding doors on the front. These same doors would have allowed haycarts and livestock to enter and be housed within. There is also a small silo on the far side of the building, one which used to hold grain and animal feed. Take a moment to touch and examine the outside of the barn, also made with stones left over from the last Ice Age. Unlike the stone wall, these stones are covered with a protective cement-like coating called "parging." This building is believed to be the only 2-story, parged field stone barn located in the area.

The land that encompasses Allens Pond has a rich and storied history, but the Stone Barn is of particular interest. It was built around 1860 by Israel Brightman on land purchased by his father in 1805 from Margaret Allen. The original intent of the barn was for homesteading, but over the years, and through changes in ownership, it found life as part of a dairy farm, an equestrian complex, a multipurpose support during the Great Depression, and even as a home base for conservation initiatives led by Gilbert and Josephine Fernandez in the 1960's. Now, the Stone Barn continues to support environmental stewardship as the home for Mass Audubon's environmental education programming.

Take a moment to consider the entire history of this land, the people who subsisted here, and who stewarded this land for thousands of years prior to the construction of the Stone Barn. Before colonial settlers, this land was a vibrant community, home of the Wampanoag. We invite you to spend a moment in quiet reflection to honor the history of this land and the many people who have called it home.

The next stop is located a short distance away. To reach the next stop, follow the rope guide until you reach a spherical bead.



#### Sensory Garden

You have arrived at the Sensory Garden. The rope guide ends here to allow access to the garden. You may follow the 30-inch-high edge of this raised-bed garden until the rope guide resumes.

During the spring and summer, and into the fall, this garden features a variety of native and cultivated plants, chosen to provide food and shelter to butterflies, bees, birds, and other animals. The species of plants found within the garden bed will change from season to season and year to year, based on our conservation initiatives. We invite you to touch and smell these plants. Take note of the textures of the leaves and the scents of the flowers. How do the textures and scents make you feel? A listing and map of seasonal plants can be found online at MassAudubon.org/allenspond. Many of these plant species can be purchased from local farm and garden centers for use in home gardens and landscaping.

All of these plants aid in pollination, the process by which plants reproduce. Pollination occurs when pollen granules are transported from the male part of the plant called the Anther, to the female part of the plant called a Stigma. This reproductive process enables a plant to form the seeds that will germinate into the next generation. Plants have different strategies to facilitate pollination; some will self-pollinate, others will use the wind, while still others rely on animals to carry the pollen for them. Throughout the world, a variety of different animals pollinate plants, besides bees and butterflies, plants are pollinated by birds, bats, rodents, lizards, primates, and even cockroaches.

Monarch Butterflies are important pollinators here at Allens Pond. They are aptly named for their large size and beautiful orange, black, and white coloration. Climate change and habitat loss are having an adverse impact on monarchs and other pollinators. Scientists and volunteers track monarch populations to determine the effects of climate change and other environmental factors.

Our next interpretive stop is located 182 feet away. You will pass a brief break in the Rope Guide where it will be replaced by a bench. The rope guide resumes after this bench. To reach the next stop, follow the rope guide until you reach a spherical bead.



# <u>Field Habitat</u>

Welcome to the Allens Pond field, an open area of low grasses with only a few trees and shrubs sprinkled around the edges. The field is located on the right. To the left will be a small space filled with Sumac Trees and other short bushy plants. Fields are a type of grassland. Throughout the world there are a variety of grassland habitats; the prairies of the American West, the Pampas of South America, and the Steppes of Europe and Asia. These are some of the most biologically rich and efficient habitats on Earth; places that provide homes to familiar megafauna like bison, elephants, rhinoceros, and zebra. Here in New England, grasslands provide habitat for deer, coyote, turkey, box turtles, and on rare occasions the elusive Short-Eared Owl. Mass Audubon scientists, staff, and volunteers, work to protect these rich habitats so that plant and wildlife populations can thrive and be appreciated by future generations.

To the right, directly above this interpretive sign, is a replica of a bird box. We invite you to touch and explore it. There is a doorknob on the front panel that can be lifted open to reveal more replicas inside. Within the nest box there is a 3D replica made of resin of an Eastern Bluebird, a species which commonly uses similar nest boxes at Allens Pond. There is also a replica of an Eastern Bluebird egg located to the right of the bird replica. These replicas can help us understand the biodiversity found within the fields of Allens Pond. When you are finished exploring, please make sure the door is closed.

Similar bird boxes are found all throughout the nearby fields; they are all part of a community science project sponsored by Cornell University called Project NestWatch. During the spring and summer, Mass Audubon staff and volunteers monitor these bird boxes and record what species they see, how many eggs were laid, and how many eggs survived to adulthood. This data helps scientists understand the health of local bird populations and establish initiatives that support local species. These nest boxes have been used by Bluebirds, House Wrens, Tree Swallows and Bobolinks.

Bluebirds are insectivores. You might hear their song, a melodious series of 3-4 gurgling notes, sometimes with a dry chattery quality. Their most common call is a note given when perched or in flight, a soft, almost sweet, "*tur-a-wee* or *chur-wi*." We install these nest boxes to encourage Eastern Bluebirds to nest in this grassland habitat.

Tree Swallows, another insectivore, also use these nest boxes. They are amazing acrobatic flyers with bright iridescent coloration on their backs and a white belly. The song they give when perched is a liquid twitter that sounds like "**weet**, **trit**, **or weet**." Call notes given in flight are a rich "**chi-veet** or **cheet**."

Sometimes these nest boxes are used by non-native and invasive species like House Sparrows. Their song is a short, hoarse two or three-part phrase "*chirup chireep chirrup.*" Or, they might call in a single "*cheleep*" note.

Understanding the types of birds who use these nest boxes, including non-native and invasive species, can provide valuable insight into the ecological health of this field habitat.

To reach the next stop, follow the rope guide until you reach a spherical bead.



#### <u>Managing Fields</u>

We strategically manage this field to provide a valuable breeding habitat for birds like the American Woodcock. This small brown and black bird with a very long bill has a legendary mating display and is nicknamed the Timberdoodle. While Woodcocks primarily live in forest habitats, they rely on fields to find a mate within special areas that scientists call "Singing Grounds." The American Woodcock's call is a nasal, buzzy "**peent**" (at close range preceded by a soft hiccup "**tuko**." Located atop this sign's post is a replica of an American Woodcock. We invite you to explore this replica which is about two-thirds the size of an adult Timberdoodle.

This field is cut once a year, in late summer, using the ecological management practices of haying, grazing, and maintaining the breeding habitat for bird populations. Such sustainable practices ensure the health of local wildlife and the production of safe agricultural crops and livestock. This includes minimizing or eliminating use of toxic chemicals to provide long term viability for the soil. Strategic timing allows for the harvesting of hay after ground nesting birds have finished raising their chicks.

Throughout the country, many farmers utilize similar sustainable practices, which control unwanted pests and protect pollinators. Some farmers set aside habitat for wildlife, and Government agencies help farmers develop nutrient management plans to ensure the health and safety of the soil, water, and greenspaces.

More than 12,000 farms were lost in the United States between 2017 and 2018. Buying from local farms can help community businesses, support valuable wildlife habitat, and help address climate change. By purchasing local farm products, you support the local economy and reduce the amount of carbon emissions that would result from these goods being transported from distant locations. Less waste is produced when you support your local farm, as many loads of heavily transported farm produce are often discarded. Food waste is one of the leading causes of methane emissions, a greenhouse gas twenty-eight times more potent than Carbon .

Here the rope guide changes sides, switching from the right side to the left side of the trail. You will also find a seating area here at this midpoint of the All Persons Trail.



#### <u>Changes</u>

As you arrive at the next interpretive sign, you may feel like you have entered a tunnel. The habitat has changed from a field to a woodland. With the rope guide on the left, a large Silver Maple tree is located to the right about eight feet away. We invite you to feel the texture of its bark. During the warmer months, you may experience the cool shade provided by its leaves. The trees in this woodland may seem quiet and still, but there are numerous processes taking place. One process happens as the tree grows; plants take in sunlight, carbon dioxide, and water, to create glucose and oxygen in a process called Photosynthesis. This process enables trees and other plants to act as a "Carbon Sink." by absorbing and storing Carbon. This means that these plants help to address climate change. Carbon sinks not only include forests, but green spaces of all types throughout the world.

The growth of trees and their utilization of carbon may seem like a slow process, but there is an even slower process occurring nearby. On the ground to the right of the Silver Maple is a boulder of Puddingstone. Puddingstone, the state rock of Massachusetts, is also called a conglomerate rock, one which is made up of many much smaller rocks. We encourage you to compare the textures of the Silver Maple and Puddingstone. How do you think this boulder got here?

Rocks, like Puddingstone, are a part of the "Slow Carbon Cycle", another way that Carbon moves through our environment. Where we may see a change in a tree over the course of our lifetimes, the changes within rocks take multiple generations as they erode from wind, rain, snow, and ice. As rain falls it mixes with Carbon to form a mild acid. Over time this "acid rain" wears down rock, the erosion of rock, along with other geologic processes, help to bring Carbon deep underground. This Slow Carbon Cycle is aptly named, while it may take Carbon 100-200 years to move through plants within the Fast Carbon Cycle, it can take 100-200 million years for Carbon to move through the Slow Carbon cycle. The Fast and Slow Carbon Cycles are both important concepts to understand in regards to climate change.

To continue, follow the rope guide on the left for another 20 yards until you reach the next spherical bead. Along the way the surfacing of the trail will change from gravel to a boardwalk. The rope guide will continue to the next stop.



#### <u>Owls</u>

As you reach the boardwalk, the habitat changes from forest a wetland. There are two Screech Owl boxes about 10 feet up in the trees overhead. These nesting boxes are much like the ones in our field, placed here to provide valuable nesting space for Eastern Screech Owls. Screech Owls vocalize in a mournful horse-like whinny that is tremulous and *descending* in pitch, and also a tremulous monotone given on one pitch. Eastern Screech Owls are seen and heard throughout Allens Pond.

Directly above this sign is another nest box for you to explore. This one is much larger than the one you encountered previously. Within the nest box are three replicas for you to explore. On the left is a replica of the Screech Owl egg. Next to that, in the middle, is a half-size replica of a Screech Owl. On the right is a replica of an Owl talon. Notice the shape of the owl, the sharpness of the talon, and the shape of the egg.

Screech Owls are formidable hunters, and they help control the populations of small animals such as rodents. Their eyes are fixed in place with a neck that can turn 270 degrees, enabling them to more easily focus on their prey. Their enhanced eyesight and keen hearing enable them to hunt successfully, even in the dark. Owl feathers have small "fringes" on the edge that help minimize sound. Their wings are also larger than their bodies, allowing them to fly at slower speeds, further reducing the amount of sound they produce. Owls are efficient stealth hunters. Even an owl's egg shape is an adaptation for survival. Many owls nest in tree cavities, so the round shape of their egg ensures that it can safely move if accidentally kicked or jostled. Oblong shaped eggs, like those of many songbirds, belong to eggs found within nests located on tree branches. The oblong shape of songbird eggs prevents them from rolling out of the nest.

To reach the next stop, follow the rope guide for forty yards until you reach the next spherical bead. Disregard a disk-shaped reflection marker you will encounter on the way. This is intended to indicate a stop on the way back.



# <u>Vernal Pool: Part One</u>

Smell the air. Depending on the time of year, it may smell sweet, musty, or pungent like Sulphur. What does it smell like now? If it's the spring, it probably smells sweet or damp. In the summer, it may smell musty. While in the fall it may smell like decaying plant matter. If you are visiting in the winter, you may not smell anything at all. These smells clue us into what is beyond this sign, a very special kind of wetland habitat called a Vernal Pool. During spring and early summer this area fills with water, creating a woodland pool. In any given year, it may be a small pool of water, or nearly the size of a pond. Vernal pools are temporary wetlands that dry up by late summer or early fall. A variety of interesting plants can be found here, adapted to life in this seasonal wetland; teardrop-shaped Skunk Cabbage flowers, pleasant smelling Sweet Pepperbush, even the trees are tolerant of wet conditions.

Vernal pools are aptly named, meaning "of spring." They fill during the spring in areas where the topography allows for snowmelt and rainwater to collect. By the end of the summer or in fall, these pools completely dry up. The transitory nature of Vernal Pools makes them perfect homes for some animals. For example, Fairy Shrimp lives exclusively in vernal pools. These macroinvertebrates look like tiny brine shrimp. Brine Shrimp are better known by their nickname, "Sea Monkeys." Fairy Shrimp are crustaceans related to crayfish, lobsters and crabs. Their entire lifespan happens during the brief season when a Vernal Pool holds water. When the water dries up at the end of the season, their cyst-encased eggs will quietly wait, hatching when enough water and the right conditions are once again available. At the next stop, we'll dive deeper into the species found in Vernal Pools.

Wetlands act just like giant wet sponges, permitting water to collect in one place, protecting nearby areas from flooding and soil erosion. Wetland habitats are vital to helping our communities become more climate resilient.

Continue to follow the rope guide for 10 yards, there the gravel path will be replaced with a wooden path, continue on towards the next stop, Vernal Pools: Part Two. Continue to follow the rope guide until you reach the next spherical bead.



## <u>Vernal Pool: Part Two</u>

This platform overlooking the Vernal Pool is the terminus of the All Persons Trail. The same guided rope leads back to the start of the trail. The railing is located on the left-hand side of the platform, there are no railings towards the front or right-hand side of the platform.

Standing on this overlook, you are several feet above the Vernal Pool. Take a few moments to quietly listen and experience this setting. What do you feel? What do you hear?

Depending on the season, you might hear the sound of spring peepers, wood frogs, or even the deep guttural sound of a bullfrog.

In early spring, usually a spring peeper chorus of shrill peeps comes from the wetland, sometimes stopping abruptly when you approach. In fall, spring peepers are sometimes heard as individual peeps coming from moist woodlands.

Wood Frogs also call in early spring, usually heard in woodland vernal pools. At a distance, many find wood frog calls to sound similar to the soft quacking of ducks.

American Bullfrogs have a deep, low, classic "jug-o-rum" call. They are seldom heard in a large chorus, and are most often in early summer in open wetlands.

Vernal pools are vibrant habitats and nurseries for many species. Above this sign, and to your right, are three replicas of species that rely on wetland habitats. From left to right are a Spring Peeper, Spotted Salamander, and American Bullfrog. As you touch and examine these replicas, consider why some animal species are only able to thrive in wetlands.

Spring Peepers, Spotted Salamanders, and Bullfrogs lay their eggs in wetland habitats. The entire life cycles of many amphibians occur in wetlands; metamorphosis from egg, to tadpole or larvae, and then to adulthood, is completed within the short few months in a wetland habitat. Their gelatinous eggs develop in water, so long as they are not eaten by a predator or lost due to habitat changes.

Wetland habitats need our help. Habitat degradation is reducing the water quality found in many vernal pools, or simply destroying them outright. This particular Vernal Pool is protected because it is on Allens Pond Wildlife Sanctuary property, but many wetlands are unprotected, located on private land that may be sold for development or located very close to areas with polluted runoff, like roads. We can help wetland habitats by being aware of their presence and value, by helping protect conservation land, and by limiting our use of toxins that might drain into nearby soils and waterways.

To begin your journey back, with the railing and then rope guide on your right, continue onward until you reach the first Reflection stop. This stop will be indicated by a disk-shaped bead.



## **<u>Reflections: Part One</u>**

At the first reflection spot, you will find a wooden bench directly across the trail from the sign post. Take a moment to relax, take in the space, and contemplate what you have experienced.

Think about what we have explored, a grassland, woodland, and a Vernal Pool. Wildlife populations depend on different habitats to breed, raise their young, find food, locate others of their kind, and seek safety. Every species on Earth relies on having suitable habitats. The actions we take are important to ensuring the ecological wellness and function of wildlife communities. Mass Audubon works every day to protect vital green spaces for people and wildlife. What are some things you could do?

Is there a choice you could make that could help protect local habitats? Here are some ideas. You could use less water and take pressure off local water treatment plants, which in turn protects wetlands. You could limit your use of fertilizers and pesticides in your home and garden, protecting local soils and wetlands. Or, you could learn more about habitats in your area and help support local land use planning that will benefit all communities.

When you are ready, continue following the rope guide for approximately forty yards. On the way, you will encounter some of the previous interpretive signs. Remember, our next reflection stop will be indicated by a disk-shaped bead.



#### **<u>Reflections: Part Two</u>**

As you face the sign post, seating is available a couple of feet to your left.

As you sit and relax, consider how our actions affect the environment.

Climate change is something we can combat every day, by protecting habitats and carbon sinks, taking small actions can help address climate change. Some simple, everyday actions might include turning your Air Conditioner up a few degrees in summer and turning your heat down a few degrees in winter, reducing the amount of energy used in your home.

You could purchase produce from local farms when possible. Supporting local green initiatives in your community also helps bring about positive environmental change.

Think about one simple action you could take focused on addressing climate change. What would that action be?

When you are ready, continue on. Please note that the rope guide changes sides at this point. it will now be on your left.

Follow the rope guide until your reach the final disk-shaped bead.



#### **Reflections: Part Three**

At this final reflection stop, a bench is available beside the sign post.

Stay here as long as you wish, to contemplate and enjoy the beauty of nature at Allens Pond.

Dr. Jane Goodall, the world-renowned scientist and environmental activist, once said;

"I do have reasons for hope: our clever brains, the resilience of nature, the indomitable human spirit, and above all, the commitment of young people when they're empowered to take action."

In many of her writings Dr. Goodall speaks of the necessity of hope, especially when it comes to environmental concerns. Hope for a better future is what drives many of us to take everyday actions to help the climate, wildlife habitats, and the flora and fauna found throughout the world.

We encourage you to spend a few moments thinking about how we can find hope in response to environmental concerns. Is it in how scientists monitor bird chicks? Is it in the number of farmers using sustainable practices? Or, is it in knowing there are groups and organizations like Mass Audubon protecting spaces for wildlife?

Think of one thing that gives you hope about our planet, our green spaces, and our plants and wildlife, and that is meaningful to you.

When you are ready to end your visit, continue with the rope guide on your left until you reach the welcome sign.

We hope you have enjoyed your visit to Allens Pond Wildlife Sanctuary. Please visit again in other seasons, and also visit some of Mass Audubon's other All Persons Trails. For more information on our All Persons Trails, or to provide feedback about your visit to this trail, please visit <u>www.massaudubon.org/accessibility</u>.

Please return any trail materials you borrowed. Thank you.

