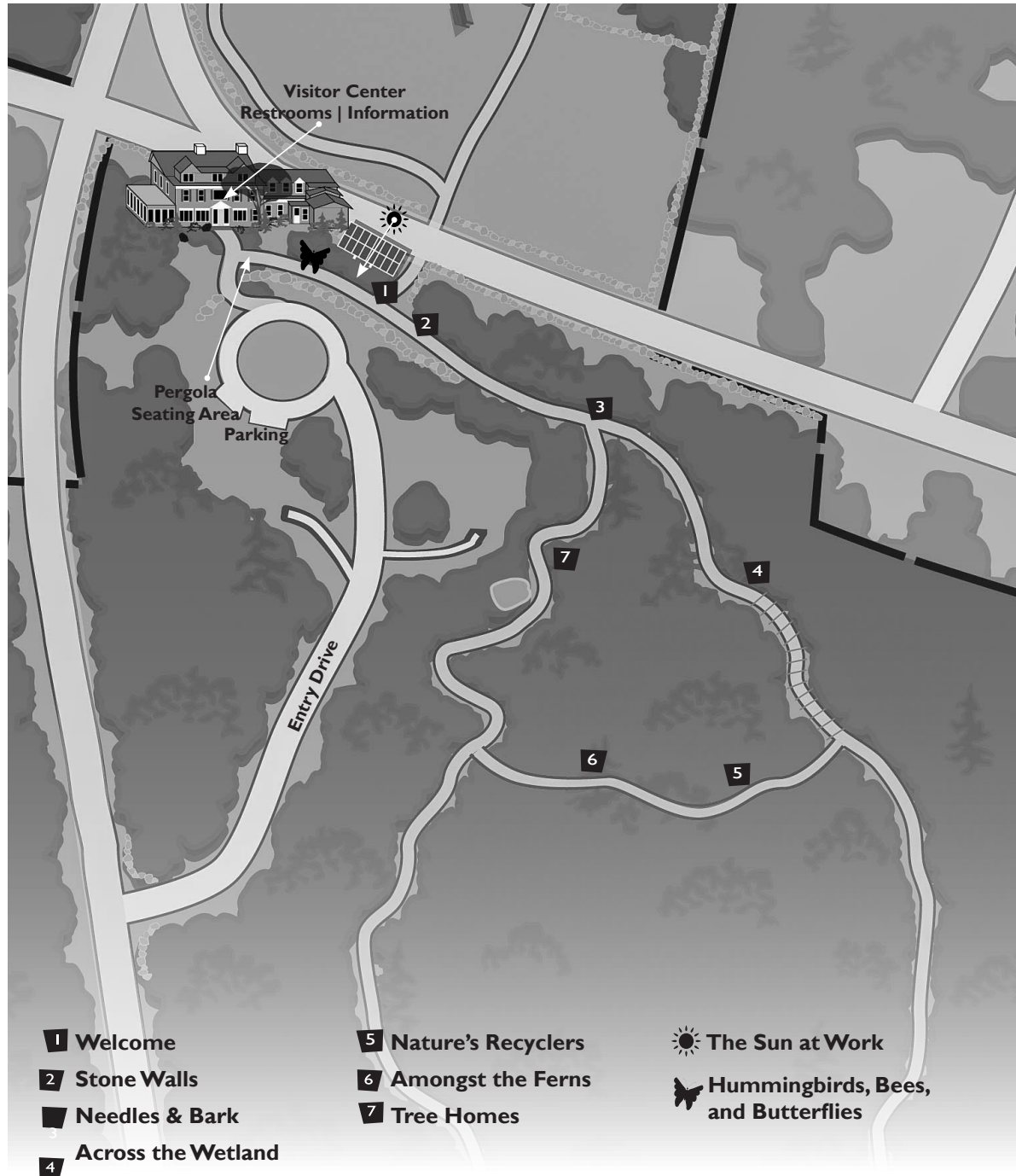


North River Wildlife Sanctuary

Sensory Trail

FOR ALL SEASONS, ALL PEOPLE



This tour is also available in audio format. You can access the audio tour year-round at www.massaudubon.org where you can download it to a personal audio player. The audio tour is also available on audio players that you can borrow during Visitor Center hours.

I Welcome to our Sensory Trail

Welcome to Mass Audubon's North River Wildlife Sanctuary, where connecting people to nature is our mission. This Sensory Trail is here for your enjoyment. Please take only pictures and leave only footprints. Enjoy your visit.

North River Wildlife Sanctuary is part of Mass Audubon's South Shore Sanctuaries network, which also includes Daniel Webster Wildlife Sanctuary in Marshfield and North Hill Marsh Wildlife Sanctuary in Duxbury. Serving as the hub of Mass Audubon's nature programming and education on the South Shore, North River protects 225 acres of field, forest, and salt marsh. The sanctuary features a total of 2.5 miles of trails. One of the sanctuary's highlighted trails is a grassy trail that goes through the field to an overlook at the North River on the northern boundary. Another highlighted trail is this ½ mile all persons accessible trail.

If you could travel back to the 18th century, you would find a family farm on this site and open fields surrounding the modest farm house. In the early 1800's, the land became a "gentleman's farm" of about 180 acres and, in later years, extensive remodeling took place at the house. Two sisters owned the property until their passing in the 1970's, at which time Mass Audubon was the recipient of their generosity and the North River Wildlife Sanctuary was born. Today, with farming no longer practiced at the site, much of the land has returned to forest. One large field on the north side of Summer Street is managed as field habitat through annual mowing, a reminder of past land use and important pollinator habitat.

The post and rope guide will take you along the trail with several seating areas and a boardwalk that allows you to travel over wetlands. The entire trail is shaped like a lollipop, with a short "stick" section then a loop that brings you back around to the stick and out to the exit. Starting off on a level gravel path with the guide rope on the left side, you will travel through woodland, and then to a wetland boardwalk. All narrated stops along the trail are clearly marked by three-foot tall signposts with a stop name and number in print and in Braille. Round fishing floats on the rope indicate 7 stops along the trail. Square floats indicate the locations of benches either on the opposite side of the trail or just past the float.

An audio tour is available to listen to or download from our website onto your personal audio player. The audio tour is also available on audio players that you can borrow at the Visitor Center during office hours.

Individual copies of the trail map are available in printed and tactile formats. Copies of trail maps and the printed trail guide, which is available in regular print, large print, and Braille, are available at the Visitor Center.

On this trail, you can listen for songbirds and chipmunks, visit a wetland and forest habitat, and learn about the animals that make North River Wildlife Sanctuary their home. We hope you'll enjoy your visit and that this trail will enrich your senses.

2 Stone Walls

Smooth and rough, stone upon stone, this wall was built in the early 18th century to mark field boundaries. Back then, Marshfield Hills was mostly open field with the sounds of cows, sheep, and haying equipment floating through the air. The field on our sanctuary is a small remnant of the grasslands of the past. Present day sounds include the high-pitched "chip" call of a chipmunk scurrying along the wall, or the trill of a Carolina Wren. Chipmunks collect acorns and other nuts and seeds for winter, hoarding a large food supply in underground burrows where they remain dormant for much of the winter. Today, stonewalls provide shelter for many kinds of animals at the sanctuary and throughout New England.

A word of caution before you proceed: poison ivy is quite common along the edges of the trail. Poison ivy has three shiny green leaves that turn a gorgeous crimson or yellow in autumn. Sometimes the leaves have a thumb-like lobe. The stems are always smooth, with no thorns or prickles, and the berries are greenish-white. Poison ivy can grow as a low plant, a small shrub, or a climbing vine. The vines are hairy with aerial roots and can give you a rash even if they have no leaves. Poison ivy is a native plant whose berries are eaten by a wide variety of birds.

You may see children laughing in the Nature Play Area on your right. This site is set up with building blocks, tunnel, and shelter for children to explore and use their imaginations. A sitting area is located directly across from the square float at the far end of the Nature Play Area along the trail's edge.

3 Needles and Bark

New England's forests host a variety of tree species, from the majestic oaks and maples, to the smaller witch hazels and ironwoods. The most common pine is the huge white pine. This 5-needle pine is the most common and largest evergreen tree in New England. It was not unusual for early colonists to find trees growing in excess of 150 feet tall. The white pine's impressive size was complemented by its importance in early history. The massive trees were used to make masts for sailing ships, a thriving industry on the adjacent North River in the 1700 and early 1800's. At one point, the King of England decreed ownership of all white pines larger than 24 inches in diameter for His Majesty's Royal Navy! Although the largest white pines are long gone, the tree's contribution to the New England landscape has not diminished. Today white pines support animals that eat the seeds and take shelter in the evergreen boughs and trunks. Here at North River Wildlife Sanctuary, great horned owls are often found nesting in our white pines.

This stand of large white pines and their smaller seedlings provide food and shelter for mixed flocks of resident songbirds during every season. Listen for the “chick-a-dee-dee” call of the black-capped chickadee. Chickadees are the most obvious and noisiest birds in mixed flocks, but other small birds are often calling nearby so listen carefully for the nuthatch’s nasal “yank-yank” sound or the white-throated sparrow’s clear “old Sam Peabody, Peabody, Peabody”.

Besides white pines, there are several other interesting tree species at this sanctuary. To the right of the sign is a tactile display with tree bark from several common local tree species. Feel the furrowed bark of the oak and the smooth rosey bark of the ironwood.

As you move along the trail, you will come to a boardwalk. The boardwalk itself is approximately 200 long and 4 feet wide. The rope and post guide system continues but moves to your right hand as you come to the boardwalk which has a short curb, approximately five inches high on both sides. There is a seating area near the end of the boardwalk for rest and contemplation. Please take time to walk at a pace that is comfortable for you. Stop and explore anywhere and everywhere you are curious.

4 Across the Wetland

This boardwalk takes you through a thicket of shrubs, trees, and ferns adapted to a wet environment. The wet soil is also prime skunk cabbage habitat. Skunk cabbage, one of the first plants to emerge in late winter, relies on flies for pollination because most other pollinators haven’t emerged yet. What attracts flies? The smell of rotting meat and garbage. Can you detect the skunk cabbage’s unpleasant odor? You will also find sweet pepperbush with its summer-time spikes of fragrant flowers, and red maples thriving here. In winter, sweet pepperbush has many small seedpods that look like tiny peppercorns. Winterberry is another common plant that likes this wet community. Like other members of the holly family, only the female plants produce berries. Stop for a moment and feel the coolness rising from the damp earth all around you.

The surrounding forest and thick wetland shrub habitat provide food and shelter to a wide variety of birds here at North River. Vocal as well as visible, birds can often be recognized by their songs. Listen to the calls of some of our most common woodland birds. Two migratory birds that are still here in late fall are the American robin and the catbird. The catbird mimics other species, but can be recognized by the scratchy “meow” interspersed in its song.

The trail will soon lead to a fork. There is a seating area on the left side just before the trail divides. Bear right to continue along the sensory trail. The guide rope continues along your right side at this point. The left branch of the trail leads onto the Woodland Loop. The Woodland Loop does not have a guide system and does have roots and stones along the way that need to be navigated. If you feel “bumps” in the boardwalk, you have ventured onto the left branch.

5 Nature's Recyclers

At this stop, reach out and feel for a tree trunk that is just behind this stop marker. Use your senses to tell the tale of the tree. Run your fingers over the bark. Is it rough or smooth? Can you feel moss or lichen on the trunk? Knock sharply on the trunk and listen. Does this tree sound hollow or hard?

By now, you've probably deduced that this tree is dead. Fungi, bacteria, insects, and rain are all working to decompose the wood. Nature is the original recycler. Although the tree is no longer green and growing, it still teems with life and continues to share nutrients and provide shelter. In approximately twenty years, this dead wood will be soil from which new plants will sprout. For now, it still plays an important part in the ecology of the forest. Birds, squirrels, and raccoons take shelter in cavities that are easily excavated in the soft, dead wood. Bark beetles, termites, and carpenter ants colonize the rotting wood. Woodpeckers make large uneven holes in the wood to get at the insects – you may hear them working away on other trees in the forest. Eventually, a dead tree becomes so hollow and riddled with rot that it falls to the ground where it continues to decompose.

As you leave the boardwalk, you will travel down a slight decline. The gravel path will continue as you begin to travel through a green, leafy fern grotto.

6 Amongst the Ferns

This low-lying area remains damp for most of the year, a perfect habitat for a variety of ferns. Ferns are ancient plants that produce spores instead of seeds to reproduce. The placement of these spores on the fern fronds or on special stalks are one way biologists can tell the different fern species apart. When mature, the spores float off in the wind and hopefully, land in an area that is suitable for growth. The path in this area may feel softer underfoot due to the damp soil. While ferns do not provide much habitat for birdlife, the cool feel is welcome relief on a hot summer day.

7 Tree Homes

As you leave the fern grotto, you may notice that the ground feels different underfoot. You are now on higher ground, in a drier woodland with a mixture of white pines, oaks, and beech trees.

Many animals make their homes in trees. The most familiar is probably a bird's nest – the robin's nest secured on the branch or a woodpecker family nestled into a tree hole. But many other animals rely on trees for shelter. Raccoons search for larger holes in which to raise their families, squirrels make huge leafy nests known as a "drey" in the forks of trees. During cold winter months, squirrels may share a drey to stay warm.

Just right of the marker, there is a sample of a bird's nests. Can you feel the size and shape? What do you think the bird used to construct this nest? Does it feel rough and twiggy? Or smooth like mud?

You have completed the rope-guided section of the Sensory Trail. To exit the trail and return to the Visitor Center, bear to the left, with the rope on your right side. As this section of the trail ends, you can visit 2 additional stops that are not part of the guided trail. They are located along the gravel path leading back to the Visitor Center. The first is at our nectar garden on the left side of the gravel path, the second discusses our solar panels and can be found on the right side along the split rail fence, just before you reach the pergola seating area.

Hummingbirds, Bees and Butterflies

Stretched out along the stone wall, the nectar garden is a collection of native perennial plants that provide food, water, shelter, and a place to reproduce for many butterflies and pollinators. The rich soil and full sun provide a perfect space for this lush garden. From June to October, the garden bursts with color, from the white and pinks of native phlox to the golden petals of the black-eyed Susan. Creeping along the stone wall, the orange flowers of the trumpet vine and native honeysuckle vine attract hummingbirds in search of nectar.

As you pass, there is a tactile display about 3 steps past this marker. Explore the life cycle of a monarch butterfly. Feel the monarch chrysalis, which is the shape of an oval grape. The chrysalis protects the caterpillar as it goes through its wonderful transformation. Although a butterfly is nearly silent as it flies, you might be able to hear bees buzzing or the whirl of the hummingbird's wings. Don't worry – the bees are much more interested in the flowers than in you!

Other plants in the garden provide habitat for pollinators, who perform an essential function in an ecosystem. Over 80% of plants need pollinators in order to produce fruit and seeds. By creating this habitat, we also provide a peaceful place where people can spend time surrounded by some of nature's most lovely and mysterious creatures.

The Sun at Work

You are near a large solar panel structure, the size of two school buses. Electricity for North River Wildlife Sanctuary's Visitor Center and offices is provided by large, ground-mounted solar panels known as a photovoltaic or PV array. Installed in 2008, this array converts the sun's energy into electricity via its 52 reflective solar panels raised on metal posts and tilted at an angle toward the sun. An important part of Mass Audubon's commitment to reducing our carbon footprint, this system provides 9,360 watts of electricity when running at its peak. To reduce the threat of climate change, we support measures that increase energy conservation and efficiency, along with policies that result in the responsible production of

renewable energy resources. Mass Audubon leads by example statewide; we have cut our carbon emissions by more than 50% since 2003.

If time permits, stop in at the Visitor Center also and explore our Discovery Room. Large windows look out over a bird garden featuring native shrubs and perennials along with a small water fountain that provides water for our feathered visitors. A microphone has been set up near the bird feeders to bring the sounds of nature indoors.

The adjacent rain garden is planted with native shrubs and flowers that like to get their “feet” wet. Bright scarlet cardinal flower, purple spiked liatrus, ferns, and swamp azalea all thrive here. The rain garden is set up to capture runoff from our roof. This water then flows into the rain garden, which has a large gravel pit beneath, and slowly percolates through the gravel and back into the groundwater instead of rushing over the surface and causing erosion or flooding.

We hope you have enjoyed visiting this wildlife sanctuary. We want to thank you for taking the time to experience this trail and hope you enjoyed learning more about the sanctuary, its habitats, and the creatures that live here.

Please give us your feedback on how this trail worked for you. To provide feedback now, please speak with one of our staff or volunteers. To provide feedback at home, you may visit us at massaudubon.org/southshore to complete a questionnaire online.

If you borrowed any of our publications or equipment, please return these items to the Visitor Center before you leave. Thank you for visiting the North River Wildlife Sanctuary and we hope you will come back again to experience our trails in another season.

This project is made possible by a generous grant from the Salah Foundation, who embraced our vision for a trail where everyone could enjoy and learn about nature.

North River Wildlife Sanctuary

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northriver@massaudubon.org

Nature Center

Mon-Fri, 9 am-4 pm

Sat (April-December), 10 am-3 pm

Trails

Open every day, dawn to dusk.