



Mass Audubon
Protecting the Nature of Massachusetts

Connections

MAY – AUGUST 2013

A NEWSLETTER FOR THE MEMBERS OF MASS AUDUBON

Maia Ben-Joseph explores
the strawberry patch at
Moose Hill Community Farm
in Sharon.



Linking Lives and Land

see page 2



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A NEWSLETTER FOR THE MEMBERS OF MASS AUDUBON

Volume 11, Number 2

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Moose Hill Community Farm

Linking Lives and Land

by Heather Cooper

Art and Stacy Newman enjoy spending time in the farm fields harvesting crops with family. Jeanne and Wayne Chambers feel better knowing their food is certified organic. And David Blocker relishes the experience of working on a small-town farm in New England.

As more people seek a connection to their food, CSAs, or Community Supported Agriculture programs, have become increasingly popular. Rather than wander the produce aisle at the supermarket, where food can be imported from halfway around the world, CSA participants purchase an annual crop “share” from local farms to be picked up at regular intervals throughout the growing season. Both shareholders and farmers benefit from this model. Participants know exactly where their food comes from and how it was grown, and farms—many of them family owned—receive much-needed capital up front to help with expenses.

It’s difficult to imagine that CSAs, let alone organic produce, were nearly impossible to find in eastern Massachusetts just ten years ago. Yet when Mass Audubon Wildlife Sanctuary Director Christine Turnbull started Moose Hill Community Farm in Sharon in 2005, it was a novel concept for the area. Today, the town’s very first CSA provides certified organic seasonal produce, herbs, and flowers to more than 400 local families each year.

“As shareholders and tremendous fans of Moose Hill Community Farm, we feel very fortunate to have our hands in the soil and local, organic produce in our bellies,” say the Newmans of Sharon. “Picking everything from beets and string beans to zinnias has

definitely helped our family better understand where food comes from.”

The fact that “community” is part of the farm’s name is no accident. A peek behind the scenes reveals a vibrant group of members who enjoy staying connected to each other as much as they do the land. In between harvesting and distributing crops, the shareholders regularly swap recipes, organize potlucks, and participate in specialty food prep classes offered by the sanctuary, such as canning, pickling, and cheese making.

“In many ways, community really is the essence of the CSA,” says Art. “We’ve enjoyed making new friends as much as we’ve enjoyed trying new foods and learning to identify crops.”



Moose Hill Community Farm CSA members share a laugh as they prepare crops for distribution.



Sharon resident David Blocker is all smiles at pickup.

True to the essence of “community supported” agriculture, Moose Hill Community Farm got its start by partnering with family-owned and operated Ward’s Berry Farm in Sharon. Brothers Jim and Bob Ward are responsible for planting all of the crops—which include everything from corn and kohlrabi to strawberries and spinach—while CSA members take charge of managing the farm.

In recent years, Moose Hill has taken the concept of eating local one step further, teaming up with farms in Norfolk and Gloucester to offer its members cage-free eggs, wild-caught fish, and organic honey. Turnbull believes that by supporting other local producers and modeling sustainable agriculture, Moose Hill can offer a way to connect future generations to the land—

a top priority at the farm. For this reason, it’s not uncommon to see shareholders and their families venturing into the fields to sample crops, or groups of campers and schoolchildren getting their hands dirty as they learn about ecology.

Jeanne and Wayne Chambers of Norwood consider this a major draw. “Harvesting in the field on a warm summer day rekindles the outdoor experiences of my childhood,” says Jeanne. “And the fact that the farm is organic is also important for us because we understand the relationship of what we eat to the land it is grown on. Thanks to the amount and quality of the fresh vegetables we receive, I never buy produce at the store between June and October.”

Now in its ninth growing season, Moose Hill Community Farm continues its core mission: creating a healthy and connected community beyond its fields. Because of this, shareholders work with Turnbull to transport thousands of pounds of produce to local food pantries and homeless shelters each year.

So what’s on tap this season?

“While we’ll continue to grow traditional crops, we’re planning to diversify significantly,” says Turnbull. “We’ll try new crops like sweet potatoes, fennel, and spring turnips. We’re also excited to be adding peach trees and berries!”

As it happens, Turnbull isn’t the only one who’s eager for what the 2013 season will bring.

“We’re looking forward to our sixth

year of joy and nourishment from Moose Hill Community Farm,” notes longtime member and local resident David Blocker. “We love the variety, the mixture of old favorites and new surprises; we love that the food is free of pesticides and chemical fertilizers; we love working in the fields with friends new and old. And we love the reality of this way of life: Sometimes you get a bumper crop and need to make room in the freezer or get out the canner, and sometimes the crop just doesn’t come in (oh strawberries, we pray for you this year!). Truth be told, we can’t imagine a summer without Moose Hill Community Farm.” ▲

Heather Cooper is Marketing Communications Coordinator.

▶ www.massaudubon.org/moosehillcsa

Experience local food at these other Mass Audubon sites across the state:

Arcadia, Northampton & Easthampton
CSA

Boston Nature Center, Mattapan
Clark-Cooper Community Gardens

Canoe Meadows, Pittsfield
Community Gardens

Drumlin Farm, Lincoln
CSA

Habitat, Belmont
Community Gardens



The Snyder family enjoys a morning in the fields.



DESTINATION:

Family Fun

by Sarah Woods

While the Flagg family enjoyed its typical summertime activities, mother Elizabeth craved a new and exciting outdoor adventure for her daughters, Lydia and Hadassah. So, when she and her husband Allen discovered Mass Audubon's Passport to Nature program last April, the family decided to give it a try.

Residents of Shirley, they had learned about the program when they attended a make-your-own "bat box" workshop at Mass Audubon's Pleasant Valley Wildlife Sanctuary in Lenox.



The Flagg sisters explore Long Pasture Wildlife Sanctuary in Barnstable.

Not long after, Elizabeth decided that a series of expeditions was just the thing to get the family out and about.

Passport to Nature encourages participants to experience our state's natural landscape by visiting 21 Mass Audubon wildlife sanctuary locations. Participants receive a stamp at each site they visit and collect a prize halfway through their travels as well as when their passport is complete. Along the way, they can discover the natural wonders of Massachusetts, observe wildlife, learn about conservation, and expand their appreciation for the outdoors.

Determined to complete their passports in record time, Lydia, 9, and Hadassah, 12, began their quest at Pleasant Valley. Elizabeth did most of the driving—sometimes visiting two sanctuaries in one day—while Allen, who was assigned to active military duty, joined the family whenever he could.

At Long Pasture in Barnstable, crabs, a beehive, and a groundhog captivated Lydia. "I learned that boy crabs wave their large claw back and forth in the spring during mating season," says Lydia. "It was really cool and I can't wait to see it again this year!"

The girls also enjoyed Wellfleet Bay, where they witnessed a nest of green heron chicks feeding and taking their first ventures out into the wild. Seeing salamanders at Wachusett Meadow in Princeton, chickadees

at Ipswich River in Topsfield, and a frolicking fawn at Oak Knoll in Attleboro were among other moments that the Flaggs treasured. "It really was a neat way to explore our state," says Allen.

Last November, while attending a Native American natural history program with her father and elementary school classmates at Drumlin Farm in Lincoln, Lydia received a prize for having completed her passport. The pride in Allen's face as he looked on was nothing short of touching. "It was a lot of work," recalls Allen, "but it is something that the girls will look back on with pride and joy."



Lydia Flagg and her parents at Arcadia Wildlife Sanctuary in Northampton and Easthampton.

According to Lydia, it was the journey that meant the most. "I want to do it again this summer!" she tells us.

Her enthusiasm for her accomplishment inspired her classmates to each take home their own Passports to Nature, and Mass Audubon wildlife sanctuaries look forward to stamping them all. ▲

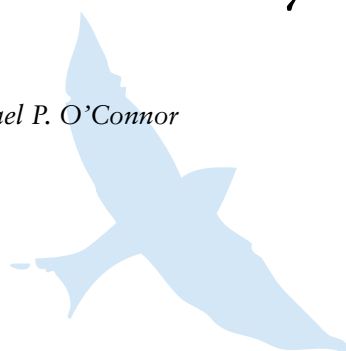
Sarah Woods is Sanctuary Marketing Assistant at Drumlin Farm in Lincoln.





Barns and Bridges and Birds—Oh My!

by Michael P. O'Connor



When Rockport resident Eric Hutchins learned that Mass Audubon was seeking volunteer “citizen scientists” to observe barn and cliff swallows as part of its new Big Barn Study, he wanted in.

“As a wildlife habitat specialist by trade, I was naturally drawn to the project,” explains Hutchins, who works with the National Marine Fisheries Service. “But anyone who’s interested in birds and enjoys spending time outdoors can participate.”

Launched in the spring of 2012, the aptly named study examines a possible link between the structures where these small birds primarily nest—barns and bridges—and their wavering numbers.

Why Are Swallows in Trouble?

Largely dependent upon man-made structures that abut open fields and water, swallows build their cup-shaped mud nests under the eaves and rafters of barns and under bridge overhangs. Over the past several decades, the number of barns in Massachusetts has declined dramatically due to aging construction and development of land once used for agricultural purposes. And while many view the loss of these eye-pleasing links to a rural, more bucolic past as a communal loss, the demise of barns may be resulting in more severe outcomes for swallows.

The federal Breeding Bird Survey data used in Mass Audubon’s 2011 *State of the Birds* report shows that, while barn swallow populations are currently stable in Massachusetts, their regional populations from New

England to the Mid-Atlantic states have been declining annually by 1.3 percent—a statistically significant drop. And the status of cliff swallows is even more worrisome. According to Mass Audubon’s soon-to-be-released Breeding Bird Atlas 2 (BBA 2), which documents breeding bird populations across Massachusetts, cliff swallows appear in less than half the locations they did in 1979 when the fieldwork for the first



Breeding Bird Atlas was completed.

“The disappearance of barns from our landscape, as well as the fact that not many barns and haylofts are left open during the breeding season, can have major implications for these birds, which rely on them for nesting,” explains Mass Audubon Chief Scientist and Director of Bird Conservation Kim Peters. “Loss of these breeding sites, coupled with other pressures, such as decreases in open spaces for feeding; pesticides and their effect on insect abundance; and changing conditions on the wintering grounds, such as habitat loss and drought, all appear to be working together to drive the alarming population



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declines we've been witnessing in swallows over the last 30 years."

Other factors may also be involved. For instance, both barn swallows and cliff swallows are long-distance migrants, flying as far south as Argentina in the winter. Such arduous journeys can result in high mortality and thus reduce the number of breeding pairs. Additionally, birds that compete for breeding territory, such as house sparrows—an invasive species introduced to America in the mid-19th century—have been known to take over nests, destroy eggs, and harm chicks.

And climate change may be playing a role. Swallows are "aerial insectivores," which means they primarily eat flying insects. Historically, these birds have timed their northward migration and breeding seasons to take advantage of traditional springtime insect hatches in Massachusetts; however, warming temperatures in the region

where these birds are breeding, at which sites they're thriving, and which sites they've abandoned altogether. Scientists will then use this data to better determine what is behind the swallows' decline.

"For me, the most enjoyable part is seeing the barn swallows up close while they're tending to their nests," Hutchins says. "Getting to observe them in this beautiful farmstead setting with cows and horses and fields is pretty amazing."

Of course, there are other ways people can participate. Property owners such as Mary Crowe of Lincoln have generously granted access to their barns, making it possible for volunteers to observe the birds in their natural setting.

"We had 13 barn swallow nests last year," Crowe reports gleefully. "The youngsters put on quite a show, all lined up on my fence, where the 'teens' practice flapping their wings."

Peters is encouraged by such



Juvenile barn swallows line up for dinner at Wellfleet Bay Wildlife Sanctuary.

may be triggering earlier hatch dates, meaning there is not enough food for these birds upon their return.

How Does the Big Barn Study Work?

The Big Barn Study, which recommences May 25, actively encourages people of all ages from throughout the state—no birding expertise required—to get involved. Participants agree to visit a barn (or bridge) three times during the swallows' late-May to early-July nesting season and record the birds' presence or absence. Recording observations over three visits helps Mass Audubon scientists determine with some statistical accuracy

enthusiasm and hopes that even more people will volunteer to become citizen scientists this year—especially in the central and western reaches of the state where data is greatly needed. She emphasizes the positive impact volunteers can have. "With funding for field research getting tighter, volunteers play a critical role in helping gather data on a scale that would otherwise be impossible," she says. "Having this data will allow us to examine broad-scale patterns and changes in breeding locations across the state and link them to changes in the landscape, thus helping direct future conservation efforts." ▲

Michael P. O'Connor is Public Relations Manager.

Become a Citizen Scientist

Citizen science at Mass Audubon covers a lot of ground—literally. Our volunteers are in fields, on mountaintops, and by the ocean capturing important data to help us better understand the nature of Massachusetts. In addition to the Big Barn Study, here are a few other ways to get involved.

Horseshoe Crab Study

What: Count spawning horseshoe crabs on the beach during new and full moons

When: May–June

Where: Wellfleet Bay & Felix Neck

Visit: www.massaudubon.org/wellfleetbay
www.massaudubon.org/felixneck

Inventory Monitoring Project

What: Monitor salamanders, odonates (damselflies, dragonflies), and breeding birds

When: Spring–Fall

Where: Statewide

Visit: www.massaudubon.org/inventorymonitoring

American Kestrel Project

What: Report kestrel presence and monitor breeding

When: May–July

Where: Statewide

Visit: www.massaudubon.org/kestrels

Spadefoot Toad Restoration Project

What: Conduct vernal pool surveys, and monitor and head-start toads

When: May–August

Where: Long Pasture & Ashmet Holly

Visit: www.massaudubon.org/longpasture

www.massaudubon.org/bigbarnstudy

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The Story Behind the Photo

by Hillary Truslow

People connect with nature in so many different ways. But perhaps one of the most vivid—and memorable—is through photography. That's why, back in 2010, Mass Audubon launched its Picture This photo contest. Each year, we continue to be amazed by the quality and diversity of the images submitted, and how each photographer (professional or amateur, young or "less young") interprets the beauty and diversity of Massachusetts wildlife, plant life, and landscapes.

The 2012 contest was no exception. Of the more than 2,000 images submitted by people from across the state, 18 emerged as winners. And of those 18, it was the photograph of the solitary sandhill crane taken by Ken Lee on the North Shore in Rowley that nabbed the coveted Grand Prize.

"This particular sandhill crane, typically one of two that stop here in November during their annual migration, had been spotted in the area," Lee recalls. "So a friend and I went to check it out. It was freezing, but I waited until all of the other birdwatchers left for the day. By that time, the subject was then more at ease, and the last light of the day was glowing."

Lee, who currently resides in Watertown, picked up photography as a hobby about six or seven years ago, starting with landscapes. More recently, he has turned his 600mm lens to snapping images of wildlife.

"Nature photography is a great stress reliever and an excellent reason to get outdoors," says Lee. "This winter, I went to Maine to check out a golden eagle that had been reported. By the time I arrived, I had just missed the flyby, but that was OK—it still provided an excuse to connect with nature."

It's one thing to take photographs, but another to share them with the world. "I entered this contest because I wanted to emphasize why it's important to keep



Picture This photo contest grand prize winner: Sandhill Crane at Sunset.

"By that time, the subject was then more at ease, and the last light of the day was glowing."

this fragile area and others like it accessible for these living beings," Lee notes.

Fortunately, sandhill cranes will always have this location as a resting stop. The area where Lee captured this breathtaking image is adjacent to Mass Audubon's Rough Meadows Wildlife Sanctuary—a recently protected landscape that is part of the Great Marsh ecosystem and a designated Important Bird Area.

With the 2013 contest officially underway, we can't wait to see more photos that tell a story. And with a variety of categories to enter—from birds and other wildlife to plants, landscapes, and people in nature—there are plenty of opportunities to get in on the action. ▲

Hillary Truslow is Internet Marketing Manager.



Photographer Ken Lee.

Calling All Shutterbugs!

Mass Audubon Photo Contest

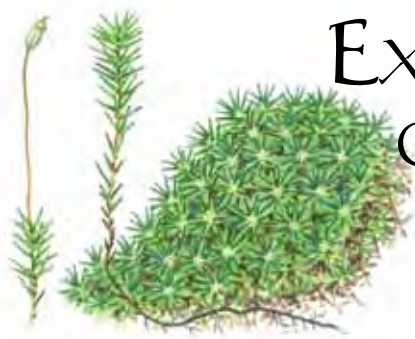
Picture This: 

Your Great Outdoors

We're seeking photographs of people in nature and those that highlight the beauty of Massachusetts wildlife and landscapes.

For complete rules, visit:
www.massaudubon.org/picturethis
Deadline: September 30, 2013

▶ www.massaudubon.org/picturethis



Haircap Mosses – *Polytrichum* spp

Growing in dense or loose patches on moist or dry soil, earth-covered rocks, old stumps, and upturned roots, haircap moss is aptly named, with a distinctively hairy hood protecting its spore case (a capsule that holds reproductive cells).

When naturalist E.O. Wilson said, “Mysterious and little-known organisms live within reach of where you sit. Splendor awaits in minute proportions,” he could have been speaking of mosses. Look closely into the miniature world of these fascinating plants, and you’ll discover an elfin forest growing atop a rock, tiny green rosettes clinging to a decaying log, or delicate bouquets of feathery leaves emerging from the forest floor.

Botanically, mosses are bryophytes, or nonflowering plants that contain no true vascular (transport) tissues. What resemble roots are actually rhizoids, which anchor mosses in place but do



Apple Moss – *Bartramia pomiformis*

Growing on lime-free rocks and in thin soils on rock clefts, apple moss prefers moist, wooded areas. This moss is often observed fruiting, with a capsule resembling a tiny apple that appears bright green before ripening to a reddish brown.

not usually absorb water or minerals. Instead, mosses take in moisture through their leaves and stems or by wicking it up from surrounding surfaces.

Since mosses need little in the way of nutrients, they grow in places where few other plants can, such as on tree bark; in heavy, compacted, or unfertile soils; and even on rocks. Lacking a vascular system limits their height as well as their ability to absorb and circulate water, so moss leaves, known as leaflets, grow on short

Pincushion Moss – *Leucobryum glaucum*

These familiar 4- to 8-inch-wide mounds are tightly packed with vertical stems, giving them the appearance of pincushions or velvety stones. The core of the mound is formed by dead stems that act as a moisture reservoir for the clump during periods of drought. The color of the moss varies between light green (dry) and dark green (wet) depending on moisture content.

EXPLORING THE NATURE OF MASSACHUSETTS

by Lucy Gertz

Mosses



Tree Moss – *Climacium dendroides*

So named for its distinctive structure, tree moss plants look like tiny trees with upward-pointing branches that grow all around their stems.

stems. Being smaller than other types of neighboring plants makes it challenging to compete for sunlight; hence, many mosses are adapted to flourish in shade.

An estimated 12,800 moss species are found worldwide, living on every continent. Here in Massachusetts, 356 species of mosses can be found across the state. Look for them on your next walk in the woods! ▲

Peat Mosses – *Sphagnum* spp

Peatlands, or bogs, are formed as peat moss grows outward from the shores of ponds and lakes and fills in shallower areas. Bogs also form as this moss blankets dry land and prevents water from leaving the surface. Because of its super moisture-absorbing qualities, peat moss was used by Native Americans as a diaper.



Illustrations by Barry Van Dusen

Lucy Gertz is Statewide Education Projects Manager.

Explore Mosses at Our Wildlife Sanctuaries Across the State.

Mosses are found at all Mass Audubon wildlife sanctuaries, with a greater diversity occurring in the farther northern and western reaches of the state. Wetlands, as well as mature hardwood forests with meandering streams, ledges, and shaded, rocky outcrops, provide the most interesting finds. Bring a magnifying lens to explore these delicate plants.

Felix Neck, Edgartown – Find peat moss along the Jessica Hancock Memorial (Green) Trail adjacent to our bog, where it hugs the edges of the wetland.

North River, Marshfield – Visitors encounter a mossy glen along the Woodland Trail leading to Hannah Eames Brook, where light green pincushion moss and shaggy haircap moss contrast starkly with the smooth bark of ironwood trees. Closer to the brook peat moss coats fallen logs, adding to this tranquil scene.

Broadmoor, Natick – Exposed tree roots in moist areas throughout the sanctuary feature mosses, and interesting specimens of haircap moss can be found along Marsh Trail.

High Ledges, Shelburne – A great variety of mosses are found here along moist woodland trails accompanied by streams. One of the best places to spot mosses is an open peatland that formed by water seeping from the surrounding woodland.

Skunknett River, Barnstable – The four-toed salamander, which sports a spotted enamel pattern on its belly, hides here in its wetland peat moss nest—a habitat that is returning to the area as old earthen dams continue to break down.



www.massaudubon.org/sanctuaries

7 Things I Learned at Camp

Compiled by Amanda Zoellner



"I've discovered how **exciting nature** is—it changes all the time!"

~**Liam**, 15, Camper and Counselor-in-Training at Broad Meadow Brook Natural History Day Camp in Worcester



"I learned how to find the beauty and joy of the little things in life. The **sense of wonder** expressed by campers on a daily basis quickly opens your eyes to such appreciation."

~**Conner**, Counselor at North River Nature Camp in Marshfield

"You can **become closer** to someone in a week than you are to someone you have known all your life."

~**Anyia**, 14, Camper at Wellfleet Bay in Wellfleet, and Leader-in-Training at Wildwood in Rindge, NH



"**Catching frogs** is an art."

~**Cara**, Counselor at Broad Meadow Brook Natural History Day Camp in Worcester



"Slimy critters like **slugs** can **win the heart** of even the most sophisticated seven year old, provided both you and the slug can do a few tricks."

~**Becca**, Counselor at Arcadia Nature Day Camp in Northampton



"I came home from camp with a **bag full of galls** and knew what they were."

~**Adam**, 7, Camper at Broad Meadow Brook Natural History Day Camp in Worcester



"**Adaptations** help animals survive and not get eaten."

~**Will**, 8, Camper at Boston Nature Center Summer Camp in Mattapan

www.massaudubon.org/camp

Amanda Zoellner is Wildwood Camp Administrative Manager.

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Field Notes

Building the Green Way

Belmont—Habitat Education Center and Wildlife Sanctuary in Belmont is proud to be part of the Western Greenway project, an ongoing effort to preserve and make accessible 1,200 acres of interconnected open space in Waltham, Lexington, and Belmont.

“Greenways” are corridors of open space, made up of riverways, forests, farms, and historic structures all linked together. By connecting otherwise isolated habitats, they preserve healthy and diverse populations of wildlife. Such valuable (and increasingly rare) tracts of land also provide natural, cultural, economic, and recreational benefits.

Initiated in 2001 and made up of 20 parcels in all, the Western Greenway is halfway to completion, with seven miles of well-marked trails, boardwalks, and bridges in place.

Habitat staff and volunteers have been working alongside the Waltham Land Trust, Citizens for Lexington Conservation, Belmont Citizens Forum, and New England Mountain Bike Association to create access to the greenway’s varied landscapes and wildlife—including wild turkeys, foxes, frogs, painted turtles, and great horned owls. ▲

For more information, visit www.massaudubon.org/habitat.



SPRING PROGRAM SAMPLER

A snapshot of seasonal offerings at our wildlife sanctuaries. Visit our website to find out if registration is required.

BEACH RAMBLES & PADDLES	AMPHIBIAN AMBLES	WINGED THINGS	FUN & FESTIVITIES
Salt Marsh Scavenger Hunt May 24, 10-11:30 am JOPPA FLATS, Newburyport	Pond Discoveries May 11 & June 8, 2:30-4 pm BLUE HILLS TRAILSIDE MUSEUM, Milton	Get Out & Go Birding May 18, 19, 25 & 26, 10 am-4 pm BOSTON NATURE CENTER, Mattapan	Spring Alive! May 18, 10:30 am-noon BOSTON NATURE CENTER, Mattapan
Kayak Family Paddle May 26, 10:30 am-2:30 pm JOPPA FLATS, Newburyport	Wild About Amphibians May 18, 1-2:30 pm BROADMOOR, Natick	Gone Bugging June 2, 2-3:30 pm DRUMLIN FARM, Lincoln	Bird-a-thon Birds and Breakfast May 18, 7:30-10:30 am WACHUSETT MEADOW, Princeton
Canoeing at Burncoat Pond July 11, 1-3:30 pm BROAD MEADOW BROOK, Worcester	Fabulous Frogs June 16, 1-3 pm ARCADIA, Northampton & Easthampton	Fireflies are Fun June 26, 8:15-9:45 pm HABITAT, Belmont	Turtle Day at Laughing Brook May 25, 10 am-1 pm LAUGHING BROOK, Hampden
Canoeing with Eagles July 20, 11 am-3 pm BROADMOOR, Natick	Art & Seek: Salamanders June 17, 10-11 am MUSEUM OF AMERICAN BIRD ART, Canton	The Secret Lives of Fireflies June 27, 8-9:30 pm NORTH RIVER, Marshfield	Turtle Festival May 25 & 26, 1-5 pm WELLFLEET BAY, Wellfleet
Seashore Discovery Mon, Wed & Fri, 10-11:30 am FELIX NECK, Martha's Vineyard	In Search of Diamondback Terrapins July 10, 10 am-noon LONG PASTURE, Barnstable	Twilight World of Bats July 5 & 16, Times Vary August 9, 6:30-8 pm PLEASANT VALLEY, Lenox	Native Plant Sale June 2, 10 am-3 pm NORTH RIVER, Marshfield
Seashore Rambles Weekdays, Times Vary WELLFLEET BAY, Wellfleet	Salamander Science July 13, 1-3 pm WACHUSETT MEADOW, Princeton	Early Morning Birds Tuesdays, 7-8:30 am STONY BROOK, Norfolk	Audubon Nature Festival June 2, 10 am-4 pm IPSWICH RIVER, Topsfield
Canoe the Housatonic River Dates & Times Vary PLEASANT VALLEY, Lenox	A Night at the Pond August 7, 6:30-8 pm HABITAT, Belmont	Winged Wonders Thursdays, 11 am-noon FELIX NECK, Martha's Vineyard	Family Campout July 13, 6 pm MOOSE HILL, Sharon
Kayak Cape Cod Dates & Times Vary LONG PASTURE, Barnstable	Turtle Trekkers: Pond Animals Saturdays in June, 10:30 am-noon STONY BROOK, Norfolk	Early Morning Birding Thursdays, 7-8:30 am OAK KNOLL, Attleboro	Barbara J. Walker Butterfly Festival August 10, 10 am-4 pm BROAD MEADOW BROOK, Worcester
			Annual Duck Derby August 17 & 18 ALLENS POND, South Dartmouth
			Evening Hayrides & Campfires Fridays, Times Vary DRUMLIN FARM, Lincoln

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Eagle Scout's Service Project Sings

by Michael P. O'Connor

Somewhere in between filling out college applications and determining what to do for his final Eagle Scout project, Oliver Mesmer recalled a family moment that would forever change the way he viewed things. It was a sad occasion—the graveside service for a beloved aunt—when his younger brother Justin, then just six, helped ease the sorrow of that day with a single observation.

"Do you hear the birds?" piped up Justin, a student at the Perkins School for the Blind in Watertown who lives with visual and developmental

"They've done so much for my brother and our entire family. I just wanted to give back, if even a little bit."

disabilities. Suddenly, there were smiles through the tears at the cemetery.

"From that moment forth, I began to see the world a little differently," wrote Oliver, now 18, in a college admissions essay.

Which is why, when the high school senior was considering his Leadership Service Project last year, he didn't

have to search far for inspiration—the decision to construct nest boxes on the leafy and lovely Perkins campus was one that came naturally.

"Oh, it was going to be something at Perkins, definitely," Oliver says. "They've done so much for my brother and our entire family. I just wanted to give back, if even a little bit."

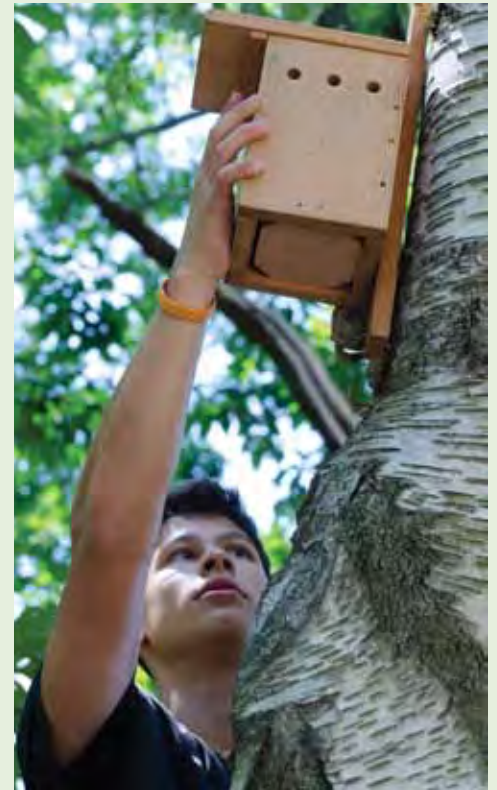
With his brother in mind and a desire to build something that connects people and nature in an organic, enduring fashion, Oliver set about his project. Encouraged by his mother,

Sue, and father, Greg (whose garage workshop at their North Reading home would come in handy), he took the first step: learning about nest boxes from people in the know.

"The call came in from Oliver, and the first thing I did was refer him to our website, where we have information about the different types of bird houses and how to construct them," recalls Linda Cocca, coordinator of Mass Audubon's Wildlife Information Line. "Then we talked about making sure the entry holes were too small for predators and aggressive birds such as house sparrows to gain access."

Soon after, Linda met Oliver and his mother at Perkins to confirm what species of birds can be found on campus (chickadees, wrens, and screech-owls) and determine proper locations for the boxes.

What happened next was remarkable: Working with fellow scouts and other friends, Oliver built seven boxes and two interpretive signs over a single weekend in July and took only a single day in August to install them across the campus. The signs, designed by Oliver, let Perkins students and visitors



Eagle Scout Oliver Mesmer installs nest boxes around the Perkins campus.

know where boxes are located, describe what species nest in them, and play audio recordings of their songs.

"It's easy for sighted people to take for granted the sounds of everyday life," notes Robert Hair, education director for Perkins' Lower School and Preschool, who was particularly impressed with the scout's accomplishment. "But for visually impaired children, natural sound—especially birdsong—can be the music of their worlds." ▲



The Mesmer family at Perkins School for the Blind in Watertown.

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Volunteer Spotlight: Room to Grow

by Ann Prince



Canoe Meadows' Master Gardener Diane Wetzel.

In 2002, Pleasant Valley Wildlife Sanctuary Property Manager Janice Cullen and Pittsfield resident Diane Wetzel were discussing the joys and frustrations of gardening. While both agreed that the positives far outweigh the negatives, they commiserated about pests, such as

the woodchuck that was helping itself to every choice vegetable in Diane's garden at home. This brought to mind various challenges at Mass Audubon's Canoe Meadows Community Gardens in Pittsfield.

The two women thought there had to be a solution, and that's when Cullen offered Diane the position of Master Gardener at Canoe Meadows.

Already a longtime Mass Audubon member, school group leader, and dedicated volunteer, Diane gladly accepted and began taking classes at UMass Amherst to study botany and organic gardening principles. After completing her coursework and a mandatory 60-hour internship, she earned a Master Gardener Certificate from the Western Massachusetts Master Gardener Association (WMMGA) and jumped into her newfound role.

In the decade since, Diane has helped to expand the community gardens, which now include 180 plots, raised

garden beds accessible by wheelchair, a shared herb garden, and a pavilion for shelter and gatherings. Each spring she leads a workshop for new gardeners who are eager to grow a variety of vegetables, herbs, and flowers. And she regularly provides consultation on all manner of organic gardening—from cultivation and seed saving, to handling insects and weeds naturally.

"Diane is the best thing to happen to the Community Gardens at Canoe Meadows," says Cullen, noting that she also serves on Mass Audubon's Berkshire Wildlife Sanctuaries Advisory Committee.

"The thing I'm most proud of is our weekly collection for the local food bank," says Diane. "It's a good feeling to be able to provide fresh vegetables and herbs to people who normally don't have access to them." ▲

Ann Prince is Associate Editor of Sanctuary magazine.



www.massaudubon.org/volunteer

ADVOCACY UPDATE

Protecting our Ancient Heritage

by Heidi Ricci

Forests cover nearly three million acres in Massachusetts. Though nearly all of this landscape has been cleared for agriculture, fuel, and/or development at one point or another, small patches of old-growth forest—undisturbed by humans since the Ice Age—still remain. These ancient groves, totaling fewer than 1,500 acres in all, survive on steep mountainsides, mostly in western Massachusetts and at Wachusett Mountain in Princeton.

Old-growth forests are important because they provide rich habitat for many plants and animals: standing snags (dead trees), fallen trees, live trees

with cavities, and ground covered in centuries of decayed leaves support many species. Perhaps of greater significance, they also serve as a biological library for studies of forest development, tree genetics, and climate change.

Currently, these special places are protected only by administrative policies that could be changed at any time; however, you can help preserve them by contacting your legislator to support bill H749, An Act Relative to the Protection of Old Growth Forests. This legislation, sponsored by Representative Stephen Kulik (D-Worthington), would establish permanent old-growth forest reserves on state lands. ▲

Heidi Ricci is Senior Policy Analyst for Mass Audubon's Advocacy Department.



www.massaudubon.org/oldgrowth



In memory of Gordon Brownell, who discovered the old growth at Wachusett Mountain State Reservation and was a dedicated advocate for its preservation.

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The Natural Inquirer

by Robert Buchsbaum

Q. Is a horseshoe crab really a crab? And why do they come ashore each spring?

A. Horseshoe crabs have been quietly going about their business along the bottoms of estuaries and coastal waters since before the time of the dinosaurs. Resembling armored tanks with spiky tails, they are not true crabs but are more closely related to spiders. Underneath their broad carapace (hard outer shell), six pairs of appendages—including a set of pincers—enable them to pick marine invertebrates out of the sand and mud.

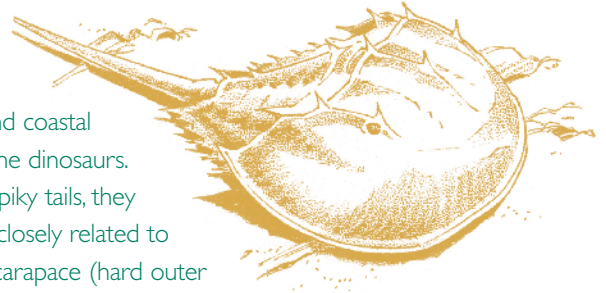


Illustration by Barry Van Dusen

Each spring, horseshoe crabs play a vital ecological role along the Atlantic coast of the United States. During the highest of high tides in late April through early June, horseshoe crab females—accompanied by a coterie of males—lay their eggs on the sandy beaches of the East Coast. These eggs are a crucial food source for migratory shorebirds such as red knots and ruddy turnstones that journey all the way from South America to the Arctic to breed.

Though initially considered “vermin” by clammers, horseshoe crabs are harvested to be used as bait for the eel and conch fisheries, and are collected and bled for the biomedical industry; their blood is the only known source of a particular screening agent used to detect bacterial toxins in surgical equipment and injectable drugs.

Primary threats to this venerable species include overharvesting for bait and loss of spawning beaches due to erosion, revetments (man-made seawalls), and other forms of coastal armoring. Thankfully, many coastal residents are concerned about these remarkable creatures and are helping scientists gather important baseline data about their current status. ▲

Robert Buchsbaum is Southeast and Islands Regional Scientist.

Have a question for the Natural Inquirer? E-mail inquirer@massaudubon.org.

The Final Word

We invite your comments, photographs, and suggestions. Please send correspondence to: Mass Audubon Connections, 208 South Great Road, Lincoln, MA 01773, tel: 781-259-9500, or e-mail: connections@massaudubon.org. For questions regarding your membership, contact: Mass Audubon Member Services, 208 South Great Road, Lincoln, MA 01773, tel: 781-259-9500 or 800-AUDUBON, or e-mail: membership@massaudubon.org.

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Cover: Girl in strawberry patch—Mass Audubon©
 p 2: Tomato harvest—Mass Audubon©
 p 3: CSA members—Mass Audubon©
 p 4: Flagg sisters—Elizabeth Flagg©
 Flagg family—via Elizabeth Flagg
 p 5: Barns and barn swallows—Richard Johnson©
 p 6: Barn swallows—Richard Johnson©
 p 7: Sandhill Crane—Ken Lee©
 p 9: Mass Audubon campers from across the state—Mass Audubon©

p 10: Western Greenway workers—Roger Wrubel©
 p 11: Mesmer family—via Sue Mesmer
 Oliver with nest box—Perkins School for the Blind©
 p 12: Diane Wetzel—via Diane Wetzel
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Mass Audubon works to protect the nature of Massachusetts for people and wildlife. Together with more than 100,000 members, we care for 35,000 acres of conservation land, provide school, camp, and other educational programs for 225,000 children and adults annually, and advocate for sound environmental policies at local, state, and federal levels. Founded in 1896 by two inspirational women who were committed to the protection of birds, Mass Audubon has grown to become a powerful force for conservation in New England. Today we are respected for our sound science, successful advocacy, and innovative approaches to connecting people and nature. Each year, our statewide network of wildlife sanctuaries welcomes nearly half a million visitors of all ages, abilities, and backgrounds and serves as the base for our work. To support these important efforts, call 800-AUDUBON (800-283-8266) or visit www.massaudubon.org.

Put some spring in your step at a Mass Audubon Wildlife Sanctuary Near You


Mass Audubon has 53 wildlife sanctuaries open to the public year-round. They provide important habitat for wildlife and opportunities for you to enjoy and appreciate nature.

- 6 Conway Hills, Conway
- 7 Graves Farm, Williamsburg and Whately
- 8 Lynes, Westhampton
- 9 Arcadia, Easthampton and Northampton
- 10 Laughing Brook, Hampden

- 38 Stony Brook, Norfolk
- 39 Attleboro Springs, Attleboro
- 40 Oak Knoll, Attleboro
- 41 North River, Marshfield
- 42 Daniel Webster, Marshfield
- 43 North Hill Marsh, Duxbury
- 44 Allens Pond, Dartmouth and Westport
- 45 Great Neck, Wareham

Great Neck Wildlife Sanctuary

Eastern box turtles find a safe haven at Great Neck, where berry-producing shrubs such as huckleberry thrive, and the aging forest gives rise to plenty of mushrooms and worms.

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- 1 Pleasant Valley, Lenox
- 2 Canoe Meadows, Pittsfield
- 3 Lime Kiln Farm, Sheffield

Connecticut River Valley

- 4 Road's End, Worthington
- 5 High Ledges, Shelburne

Central Massachusetts

- 11 Pierpont Meadow, Dudley
- 12 Burncoat Pond, Spencer
- 13 Broad Meadow Brook, Worcester
- 14 Eagle Lake, Holden
- 15 Rutland Brook, Petersham
- 16 Cook's Canyon, Barre
- 17 Wachusett Meadow, Princeton
- 18 Lincoln Woods, Leominster
- 19 Lake Wampanoag, Gardner
- 20 Flat Rock, Fitchburg

North of Boston

- 21 Rocky Hill, Groton
- 22 Nashoba Brook, Westford
- 23 Joppa Flats, Newburyport
- 24 Rough Meadows, Rowley
- 25 Ipswich River, Topsfield
- 26 Endicott, Wenham
- 27 Eastern Point, Gloucester
- 28 Marblehead Neck, Marblehead
- 29 Nahant Thicket, Nahant

Greater Boston

- 30 Habitat, Belmont
- 31 Drumlin Farm, Lincoln
- 32 Waseeka, Hopkinton
- 33 Broadmoor, Natick
- 34 Boston Nature Center, Mattapan
- 35 Blue Hills Trailside Museum, Milton
- 36 Museum of American Bird Art at Mass Audubon, Canton

South of Boston

- 37 Moose Hill, Sharon


Cape Cod and the Islands

- 46 Ashumet Holly, Falmouth
- 47 Sampsons Island, Barnstable
- 48 Skunknet River, Barnstable
- 49 Barnstable Great Marsh, Barnstable
- 50 Long Pasture, Barnstable
- 51 Wellfleet Bay, Wellfleet
- 52 Felix Neck, Edgartown
- 53 Sesachacha Heathlands, Nantucket

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