

Mass Audubon *Protecting the Nature of Massachusetts*

Connections

OCTOBER–DECEMBER 2015

A Newsletter for the Members of Mass Audubon

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Creative Explorations

Ipswich River Wildlife Sanctuary, Topsfield



Crop Fields, Drumlin Farm, Lincoln

Art & Wildlife Sanctuaries: A NATURAL CONNECTION

By Amy T. Montague

For centuries, American artists have been irresistibly drawn to the allure of the Massachusetts landscape. Thomas Cole presented a glorious Connecticut River Valley in his 1836 panoramic vista *The Oxbow*, one of the iconic paintings of the Hudson River School. Martin Johnson Heade celebrated the saltmarsh hayfields near Newburyport in a series of paintings, revealing both the serene beauty of the quiet countryside and the carefully ordered results of agricultural practice. And American Impressionist Frank W. Benson rendered the shore and its birdlife with a deep appreciation for his subject born of countless hours spent outdoors.

Following in this inspiring tradition, artist Barry Van Dusen has embarked on an ambitious Artist-in-Residence project for the Museum of American Bird Art (MABA) at Mass Audubon. Over the course of two years, Barry will travel across the state, visiting many of Mass Audubon's wildlife sanctuaries and chronicling the rich and diverse wildlife, habitats, and landscapes.

Barry has a long association with Mass Audubon as an illustrator for our publications for nearly 30 years. But beyond his remarkable illustration work, he has established himself as an internationally recognized fine artist focusing on the natural world, and most often birds. At the invitation of the Artists for Nature Foundation, Barry has traveled to Spain, Ireland, England, Israel, India, and Peru, working alongside other wildlife artists to raise awareness and support

for the conservation of threatened habitats. Last year, he was awarded the prestigious Master Wildlife Artist Medal by the Woodson Art Museum in Wisconsin; previous awardees include many luminaries of the bird art world such as Roger Tory Peterson, Don Richard Eckelberry, Fenwick Lansdowne, James Coe, and Lars Jonsson.

Drawing and painting from direct observation has been an essential part of Barry's artistic practice since his student days. He brings this rich experience to the task of capturing compelling natural history moments at Mass Audubon's treasured sanctuaries. Fellow artist James Coe says, "Barry Van Dusen's paintings are among the most original works being created today. Every perfect gesture; each lively glint in a bird's eye is there because Barry observed that in nature."



Orchard Oriole
Ashumet Holly, Falmouth

"Field sketching is at the core of my work as an artist," says Barry. "It's an ongoing process of exploration and discovery that keeps me intimately connected to the natural world." He calls his sketchbooks his "science and art laboratories," adding that over three decades he has filled more than 80 sketchbooks with thousands of drawings of birds, other animals, insects, plants, and landscapes.

In the first four months of his residency project Barry visited 15 Mass Audubon sanctuaries, traveling more than 1,000 miles around the state from the foothills of the Berkshires to the Upper Cape. The residency will culminate in an exhibition at MABA in 2017, but he is already giving a sneak peek at his paintings and the stories behind them on MABA's Taking Flight blog on the Mass Audubon website. Faith Sandstrom, a Mass Audubon member and supporter from Florida who reads the blog, commented, "I was mesmerized by Barry's drawings of the field sparrow at Rocky Hill, one Mass Audubon sanctuary I am not yet familiar with. The finished drawing is splendid, but studying the page of quick notes and scribbles was like sitting behind him and looking over his shoulder."



Artist Barry Van Dusen

Although Barry is not literally residing at MABA during the residency, the Mass Audubon wildlife sanctuaries will be his home away from home while he works on this project. So when you hit the trails at your favorite sanctuary, be prepared to turn a corner and come upon Barry at work!

Visit blogs.massaudubon.org/takingflight to follow his art-inspired adventures.

Amy Montague is the Director of the Museum of American Bird Art.



Get Creative

Inspired by Barry's work? You can create your own masterpiece during one of our related programs or workshops. Throughout the year, our wildlife sanctuaries across the state teach adults and children of all skill levels about painting, photography, journaling, drawing, and more!

Here are just a few of our art-inspired programs for the fall. Find a full listing and register at massaudubon.org/artprograms.



Join professional photographer Greg Lessard for three **Fall Photography Field Workshops** sponsored by South Shore Sanctuaries.

On October 22 in Weymouth, October 29 in Hingham, and November 5 in Plymouth, fine-tune your skills in creative composition and exposure while observing the different stages of the fall season.



Arcadia in Easthampton and Northampton is hosting a six-session **Drawing and Painting** workshop on Mondays from November 2 through December 7. Learn the rudiments of drawing, design, and composition, and water-based painting techniques.



Every Tuesday at Broadmoor in Natick, local artist Sarah Alexander leads **Watercolors in Nature**. Each class explores the use of textures, lines, colors, and more. Participants then have an opportunity to exhibit their work in Broadmoor's annual Student Art Show.



Renowned nature photographer Shawn Carey of Migration Productions explains how to manage your digital photo files and how to process them for output to email or web as part of **Take Control of Your Digital Photos: Lightroom 5** at Ipswich River in Topsfield.



At Habitat in Belmont, children ages 5 to 9 can join **Animals & Art: Watercolors** on November 18 to explore the different shapes and colors of our local wildlife—including a live animal!



Broad Meadow Brook in Worcester is using history to inspire modern artists. Its three-part series **Art Reflecting Nature: An Historical Perspective** in October studies Cave Painting, the Art of John James Audubon, and the Hudson River School. Each session includes a lecture and nature walk, after which students work on their own creations.

Introducing Drumlin Farm's New Sanctuary Director

By Heather Cooper



We're pleased to introduce Mass Audubon's newest sanctuary director: Renata Pomponi at Drumlin Farm in Lincoln.

While the role may be new, Renata's work at Drumlin dates back to 2007, when she joined the staff as a part-time Teacher Naturalist. A year later, she became the sanctuary's Visitor Education and Interpretation Coordinator, in charge of exhibit design and daily visitor programming. She developed many interactive experiences, such as a Sensory Tree that welcomes visitors to climb and explore and a scale that gives a person's equivalent weight in pig sizes.

Most recently as Program Innovation Coordinator, Renata created two of the sanctuary's most innovative programs: the Digital Environmental Education Project (DEEP), which draws on mobile devices, online games, LEGOs, and engineering challenges to engage kids in environmental science; and Leaders in Environmental Access for All (LEAF), an initiative focused on developing sanctuary experiences for youth and adults with special needs.

As Sanctuary Director, Renata plans to emphasize the ways in which farm, nature, and people interconnect. Also high on the priority list: encouraging scientific thinking; using the sanctuary as a living laboratory to educate about sustainability, climate change, and ecological issues; and growing the sanctuary's commitment to accessibility and sustainable agriculture.

Says Renata, "The joy of being outside and sharing my curiosity about the science of nature with our visitors and program participants is still the highlight of each day."

To learn more about Renata, visit massaudubon.org/drumlin.

Heather Cooper is Marketing Manager.

Explore Wildwood Year-Round

By Welch Narron

Mass Audubon's Wildwood overnight camp is located in the Monadnock Region of southwestern New Hampshire. Every summer, more than 550 campers experience hands-on nature exploration with peers and staff who are passionate about the outdoors. They make new friends, develop independence and self-confidence, and choose from a variety of activities on land and water, from ropes courses to sailing.

Once camp is over for the season, Wildwood buzzes with a different kind of excitement. As temperatures cool, our year-round wildlife prepares for winter. Porcupines ready their winter dens while broad-winged hawks and bufflehead ducks stop over on their southward fall migration. Up until now, few people have experienced the beauty of Wildwood in the off-season—but that's about to change.

Starting in October 2015, we will be offering a suite of public programs. A Wildwood staff member will lead a Wednesday Naturalist Walk every other week. Activities may include tracking mammals, birding, and discovering the signs of changing seasons. Also, during weekend and after-school programs, participants can take bird walks, explore the pond, and learn about the wildlife in Annett State Forest, which borders Wildwood.

On your next trip to the Monadnock Region, be sure to join us. Although the sanctuary is closed for general visitation, we are offering these programs from October through April. We hope to see you there!

Visit massaudubon.org/wildwood for a full listing of programs.

Welch Narron is Wildwood Director.

Integrating Nature and Yoga

By Becky Cushing and Jessie Griffen

At Mass Audubon, we're always on the lookout for innovative approaches to connecting people and nature, which is why we recently partnered with the Kripalu Center for Yoga and Health in Stockbridge to offer natural history programming. The Berkshires-based, 125-acre retreat center features a mixture of forest, meadow, wetland, and cultivated ecosystems, as well as sweeping views of the "Stockbridge Bowl"—a great pond with six miles of shoreline.

Although this rich landscape has long been the backdrop of the retreat center experience, the collaboration, which also involves the University of Vermont's (UVM) Field Naturalist and Ecological Planning program, is helping to integrate the well-known benefits of interacting with nature with Kripalu's yoga, meditation, and wellness programs. UVM graduate student Jessie Griffen is conducting an ecological inventory of the retreat center property, mapping trails, and co-leading programs with Berkshire Sanctuaries Director Becky Cushing.

"We are thrilled at the prospect of truly integrating our magnificent natural setting into our contemplative view of the world, and our practice of yoga and meditation," says Kripalu scholar-in-residence, Stephen Cope. "In yogic philosophy, Earth is our 'larger body'; it requires the same care, attention, awareness, and love essential to our 'smaller [physical] body.' We're so grateful to be working with Berkshire Wildlife Sanctuaries and our new friends at UVM to create this visionary integration."

Find program details at massaudubon.org/pleasantvalley.

Becky Cushing is Berkshires Sanctuary Director. Jessie Griffen is a UVM Graduate Student.



Kripalu Center for Yoga and Health, Stockbridge



New Trail at Endicott

By Nathan Yeo

Nature lovers on the North Shore now have a new path to explore. Endicott Wildlife Sanctuary in Wenham has opened the half-mile-long Ellice Endicott Trail, which is named after the woman who bestowed the sanctuary's land upon Mass Audubon. This route passes through a mixed forest and climbs through a hemlock ravine before looping back to the trailhead. Along the way, visitors may hear or see numerous animals that call the wildlife sanctuary home such as great horned owls, pileated woodpeckers, ovenbirds, wood thrushes, broad-winged hawks, white-tailed deer, and gray foxes.

In addition to its the new trail, Endicott now serves as the home base for the Ipswich River Nature Preschool. This licensed preschool provides educational experiences that foster the development of the whole child and a lifelong relationship with nature. The children will enjoy the new trail as well as a welcoming classroom space and a nature play area. And the scientists and educators who currently work out of Endicott will continue to do so, albeit with some youthful new office mates.

Learn more at massaudubon.org/endicott.

Nathan Yeo is Marketing Assistant.

Mass Audubon's Annual Meeting

WHEN
November 12, 4–5 pm

WHERE
Mass Audubon Headquarters
208 South Great Road
Lincoln

RSVP to Ellen McBride
emcbride@massaudubon.org

Allens Pond's Donna Amaral



By Gina Purtell

For volunteer Donna Amaral, caring for Allens Pond is like caring for part of her family home—and her backyard in particular. Donna's mother, Doris B. King, lived in Westport for 40 years, but she regularly drove to Dartmouth to read her newspaper at a scenic seaside spot she called her "backyard." She loved Allens Pond Wildlife Sanctuary because its protection gave everyone access to that kind of peaceful space in perpetuity.

Family Legacy

When Doris passed away in 2006, Donna decided to honor her with a stone and a plaque at Allens Pond. She contacted Sanctuary Director Gina Purtell. As they spoke, Donna learned about the wildlife sanctuary's role in the community, and she began to see possibilities for her involvement beyond her mother's memorial.

A Place for Community

A nurse specializing in mental health, Donna has devoted her life to helping others. She and Gina discussed their shared belief that Allens Pond is a "sanctuary" in the sense that it offers people solace and peace. Donna has taken on various community-minded tasks, guiding youth volunteers, organizing fundraising events, and joining the Sanctuary Advisory Committee. She has played a pivotal role in ensuring the success of the annual Duck Derby fundraiser in August; she has sourced local food and auction items, greeted guests, and even led the charge to the dance floor.

Donna volunteers at Mass Audubon because she feels that Allens Pond is part of her home. During her eight years of service to Mass Audubon, her compassion and enthusiasm have helped many others find a home here, too—one with a beautiful backyard.

For more about volunteer opportunities at Mass Audubon, visit massaudubon.org/volunteer.

Gina Purtell is Sanctuary Director at Allens Pond.

Leadership Transition at Mass Audubon

This summer, Mass Audubon President Henry Tepper, a dedicated and hard-working leader for two and a half years, left the organization. Among his many accomplishments was leading the effort to create an exciting and impactful Strategic Plan that will guide Mass Audubon over the next five years. But upon reflection, Henry and the organization concluded that a different leader should implement its recommendations moving forward.

"Mass Audubon is truly grateful for his work, energy, and commitment to our mission," said Jared Chase, Chair of Mass Audubon's Board of Directors. "Henry left the organization in a very strong position to achieve the ambitious and exciting plans for the future." Mass Audubon wishes Henry well in his future endeavors.

The search for a new president is underway, and in the interim the Board has appointed Gary Clayton to serve as Acting President. Gary is the Vice President for Conservation Programs and a longtime Mass Audubon senior manager. His responsibilities have included managing Mass Audubon's Advocacy, Conservation Science, Land Conservation, Climate Change, and Education programs. He has also overseen the organization's statewide system of wildlife sanctuaries that welcome more than 500,000 visitors each year.

Over the summer and early fall, Gary has been visiting with members, supporters, and partners across the state and taking the first steps to implement our new Strategic Plan (view it at massaudubon.org/strategicplan). Gary notes "I feel privileged to lead Mass Audubon at this exciting time and am inspired by and grateful for the enthusiasm and commitment of our members. Together we are making a real difference in this wonderful state."



Creating Future Climate Leaders

By Kris Scopinich

On June 29, 15-year-old environmental advocate Xiuhtezcatl Roske-Martinez of Boulder, Colorado, addressed 190 world leaders of the United Nations General Assembly. Xiuhtezcatl described our collective need to take action against the effects of climate change as a moral imperative—"What is at stake right now is my generation...what is at stake right now is the future of your children, our children, our grandchildren."

As a long-standing leader in environmental education, Mass Audubon agrees that now is the time for all who care about wildlife, landscapes, and people to address climate change. And we believe that education is a critical component to finding solutions. Our goal is to help people understand the impacts of climate change today and increase climate literacy—an understanding of your influence on climate and climate's influence on you and society—specifically among young people.

Reaching Students

Working with our educators across the state in urban, coastal, and suburban communities, we are developing innovative programs that integrate climate literacy into school, afterschool, and community-based learning environments.

For example, Arcadia Wildlife Sanctuary in Easthampton is working with the Hampshire Regional School District to teach hundreds of middle and high schoolers "Life in a Changing Climate," thanks in part to funding by the Community Foundation of Western Massachusetts. Boston Nature Center is teaching elementary school students all about carbon. And with Endicott Wildlife Sanctuary in Wenham, students in Gloucester are mapping sea-level rise and its effects on their community. Students share what they have learned with local leaders, making a powerful connection between climate science and civic responsibility.

Teaching Teachers

At the same time, we work with classroom teachers to increase knowledge and skills to successfully integrate climate science and climate change into their classrooms. This past summer, Mass Audubon worked with Museum Institute for Teaching Science (MITS) and many partners on the North Shore to offer a course to middle and high school teachers—Research and Resiliency: Exploring the Ways Local Ecosystems are Responding to Climate Change.

Advocating for Change

While our efforts in individual schools are making a difference, systematic change at a statewide level is paramount. This is why we are collaborating with like-minded organizations to advocate for stronger learning standards in Science, Engineering, and Technology related to climate science, climate change, and sustainability, as well as a revised Massachusetts Energy and Environmental Literacy Plan.

All of these efforts combined will connect young people with the knowledge, skills, and values they need to take action against climate change, building a new generation of conservation leaders, voters, and innovators. As Xiuhtezcatl's speech came to a close, he asked, "Who will rise with me now for mine and future generations to inherit a healthy, just, and sustainable planet?"

Find out how we are stepping up and how you can too at massaudubon.org/climate.

Kris Scopinich is Director of Education.



Make the SWITCH

Be Part of the Solution: Find out why switching to green electricity is easy and impactful.

massaudubon.org/maketheswitch



Mass Audubon Earns Accreditation

This past summer Mass Audubon was awarded accreditation by the Land Trust Accreditation Commission (LTAC). The award validates our longtime leadership role in conserving significant lands and vulnerable habitats across the Commonwealth.

The LTAC is an independent program of the Land Trust Alliance, which supports more than 1,100 land trusts, a nationwide conservation community we are proud to be a member of.

Accreditation provides Mass Audubon with the benefit of an unbiased outside assessment from other land conservation professionals as the organization seeks to maintain its standard of excellence. The designation culminates a two-year process that included submitting extensive documentation and a rigorous

review of our land acquisitions and practices.

With more than 35,000 acres under protection, Mass Audubon is the largest owner of privately conserved land in the state. As such, it serves as one of the most influential land trusts in New England and helps engage the public in appreciating and supporting preservation of significant open space.

"This designation enhances Mass Audubon's reputation as a model for responsible land conservation and stewardship, not only in how we approach our own projects, but as a willing partner with other conservation groups and government agencies," said Acting President and Vice President for Conservation Programs Gary Clayton.

Go to massaudubon.org/land for more.

Conserving Princeton's Fieldstone Farm

By Charlie Wyman

If you drive west from the center of Princeton in Worcester County, you'll come to a fork in the road. Take the right fork and you'll come to Wachusett Meadow Wildlife Sanctuary. Take the left fork and you'll proceed through another special landscape—Fieldstone Farm, 300 acres of rolling hayfields, woodlands, ponds, streams, and marsh.

A former dairy farm, this classic New England agricultural landscape overflows with conservation value. It has high-quality agricultural soils, habitat for rare species, and a landscape rated by the state as among the most scenic in Massachusetts. Its streams are links in the chain that lead from a drop of water falling in Princeton to a drop coming out of a faucet in Worcester or Boston. It forms part of the beauty of Wachusett Meadow Wildlife Sanctuary as it frames the southern side of the large beaver meadow that greets you at the nature center.

The Smith family, owners of Fieldstone Farm for more than 60 years, have decided to sell the property. To secure it from development, Mass Audubon, in partnership with the Princeton Land Trust, has acquired a one-year option to purchase the land for \$3 million. If we don't raise the full amount, the property will be divided up and sold to developers.

To reach our goal, we'll need the help of conservation-minded individuals and partners. Alongside the Princeton Land Trust, we've reached out to make common cause with the town of Princeton, the city of Worcester, and state agencies including the Department of Conservation and Recreation and the Department of Agricultural Resources.

We also need the help of many generous individuals. We're in the early stages of a fundraising campaign that will run until spring 2016. We've launched a website, and we're offering tours and planning house parties. Together, we can succeed where any one of us alone would fail.

Follow our progress and consider supporting this incredible opportunity at savefieldstonefarm.org.

Charlie Wyman is Land Protection Specialist.



Saving Terrapins, One Acre at a Time

By Bob Wilber

Sometimes it's not the number of acres, but what's happening on the acres, that makes a project important for land conservation. Terrapin Cove on Cape Cod is a prime example. Located at edge of Eastham's Herring (Bee's) River salt marsh, this 1.6-acre site has become a critical nesting spot for a threatened turtle species, the diamondback terrapin. We're happy to report that the land will now be protected in perpetuity.

A Species Under Pressure

Nearly 15 years ago, you would have been hard-pressed to find a diamondback terrapin in Eastham. These turtles face a host of challenges. Uniquely adapted to salt marsh conditions, they have lost much of their habitat in recent decades due to waterfront development. Roads often bisect the remaining land. Predators such as raccoons, bolstered by food from residential trash, are also threats.

A Turtle Nursery

In 2003, a local resident and Wellfleet Bay Wildlife Sanctuary volunteer made an exciting discovery at what we now call Terrapin Cove: four nesting terrapins and eight nests. In conjunction with the landowner, Wellfleet Bay staff and passionate volunteers began managing the property

and protecting the nests with wire cages called exclosures. The result: 3,000-plus baby terrapins have hatched, representing more than half of all known hatchlings produced in the Herring River marsh area.

Partners in Protection

Earlier this year, Terrapin Cove's future was in jeopardy: the landowners needed to sell. They graciously agreed to a bargain sale for conservation. Mass Audubon partnered with the town of Eastham, the Eastham Conservation Foundation, and The Compact of Cape Cod Conservation Trusts to raise the funds. Town residents strengthened these efforts by voting in favor of Community Preservation Act (CPA) funds. Donations from generous individuals put us over the top.

Protection of this small spot is a huge win for turtles. It allows us to keep working on restoring the local terrapin population, giving these creatures a fighting chance for survival.



Bob Wilber is Director of Land Conservation.



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800-AUDUBON



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February 28–March 18, 2016

Belize

March 12–20, 2016

Costa Rica

April 7–18, 2016

Crete

April 9–19, 2016

For more tours and itineraries, visit
massaudubon.org/travel.
travel@massaudubon.org
800-289-9504

13 Sanctuary Inventory and Monitoring Program

By Robert Buchsbaum

Staff and volunteers at Mass Audubon are fascinated by the natural world, and they love to record what they observe. In 2004, the staff scientists decided to build on these observations by creating a Sanctuary Inventory and Monitoring Program. We've been collecting information on various groups of animals, such as amphibians, birds, and plants. We have two goals in mind: to compare the species found inside our wildlife sanctuaries to those outside of them, and to help paint a bigger picture of changes in the natural world over time. Here are just a few highlights. Learn more at massaudubon.org/inventorymonitoring.


Field Ecologist
Amber Carr
and an Eastern
Amberwing



Least Bittern



115
staff and
volunteers
have contributed to the
database, providing
25,537 total
records.



177
state-listed species
(those listed as endangered,
threatened, or of special
concern) were found at our
wildlife sanctuaries. Wellfleet
Bay had the most of any
wildlife sanctuary with 39.

162
bird species
were observed during
breeding bird surveys.
Wachusett Meadow in
Princeton has 15 species
of wood-warblers, the
highest number of any
wildlife sanctuary.



1,574
plant species
were found growing at our
wildlife sanctuaries. Broadmoor
in Natick had the highest
number of plant species: 655.

79
vernal pools
(temporary water bodies that harbor unique
wildlife, including amphibians) were monitored.
A whopping 313 spotted salamander egg masses
were found at Allens Pond in Dartmouth, and
250 wood frog egg masses were observed at
Broad Meadow Brook in Worcester.



53
ant species
were spotted at our
wildlife sanctuaries. Felix
Neck in Edgartown had
the most species, with 26.



147
dragonfly and
damselfly species
(or odonates) were observed.
The most odonate-rich
wildlife sanctuary was
Wachusett Meadow in
Princeton with 83 species.



Halloween Pennant, Arcadia,
Easthampton



A Snapshot of Seasonal Offerings

Preregistration may be required. Contact the host wildlife sanctuary for details or visit massaudubon.org/programs.

Wednesday Morning Birding
Every Wednesday, 9:30 am–12:30 pm
JOPPA FLATS, Newburyport
978-462-9998
Enjoy great birding, especially for shorebirds, at the Parker River National Wildlife Refuge and the Great Marsh.

Hey Day
October 3 (Rain date October 4),
11 am–5 pm
WACHUSETT MEADOW, Princeton
978-464-2712
Join us for hayrides, pony rides, and other farm-related demonstrations and activities for all ages.

Fall Festival
October 10–12, 10 am–4 pm
BLUE HILLS TRAILSIDE MUSEUM,
Milton • 617-333-0690
Celebrate autumn with crafts and food, and learn about native wildlife.

Travel & Taste: Birds of Cuba
October 15, dinner at 6:30 pm,
lecture at 7:30 pm
BROADMOOR, Natick • 508-655-2296
First in our seasonal series, the program features speaker and artist Nils Navarro and a Cuban buffet.



Boston Nature Center, Mattapan

Fall Color Canoeing on the Blackstone
October 17, 10 am–noon
BROAD MEADOW BROOK,
Worcester • 508-753-6087
A relaxing paddle through Grafton's Snow Marsh provides wildlife viewing in a beautiful, hidden spot.

Farm Day
October 17 (Rain date October 24),
10 am–4 pm
DANIEL WEBSTER, Marshfield
781-837-9400
Enjoy hayrides, hay mazes, farm animals, games, music, craft demonstrations and sales, local eats, and more!

Halloween Spooktacular
October 17, 5–8 pm
ATTLEBORO SPRINGS, Attleboro
Contact OAK KNOLL • 508-223-3060
This family-friendly event includes a walk, crafts, and a bonfire.

Halloween Prowl
October 23, 6:15–7:45 pm;
October 24, 5:30–7:45 pm;
October 25, 5:30–7:15 pm
MOOSE HILL, Sharon • 781-784-5691
Have a happy Halloween with a guided walk, campfire, and treats.

Lost Towns of the Quabbin: A Natural and Historic Field Trip
October 24, 9 am–4 pm
Contact ARCADIA, Easthampton and Northampton • 413-584-3009
Visit the town of Dana, one of four lost when the area was flooded to form the Quabbin Reservoir.

After the Frost
October 24, 10 am–noon
CANOE MEADOWS, Pittsfield
Contact PLEASANT VALLEY, Lenox
413-637-0320
Join us as we search for signs that cold weather is coming to the Berkshires.

Pumpkins, Pumpkins, Pumpkins
October 25, 1–3 pm
BOSTON NATURE CENTER, Mattapan
617-983-8500
Learn about pumpkins, try experiments and contests, and carve your own.



Yellow-rumped Warbler

The Nature of Imagination / Songs and Tales of the Earth
November 7, 10 am–2:30 pm / 3–4 pm
IPSWICH RIVER, Topsfield
978-887-9264
Singer-songwriter and storyteller Stephen Schuch presents an educators' workshop and a concert for families. Made possible by a grant from the Massachusetts Cultural Council and the Topsfield Cultural Council.

Night Hike
November 7, 6–7:30 pm
HABITAT, Belmont • 617-489-5050
Experience the wonders of the nighttime woods with an activity or two and a hike.

Herbs That Heal: Teas and Tinctures
November 14, 1–3:30 pm
DRUMLIN FARM, Lincoln
781-259-2200
Explore the history of herbalism around the globe and make your own teas and tinctures.

Fall Festival
November 27 (Rain date November 28), 11 am–3 pm
FELIX NECK, Martha's Vineyard
508-627-4850
Now in its 25th year, this event features hayrides, music, food, live animals, and much more.

Sea Turtle Open House
November 28, 10 am–2 pm
WELLFLEET BAY, Wellfleet
508-349-2615
Learn about sea turtles and why they strand on beaches, and get a behind-the-scenes look at rescue efforts.

Space Invaders!
December 13, 6–9 pm
STONY BROOK, Norfolk
508-528-3140
Warm up with hot drinks and snacks while observing the spectacular multicolored Geminids meteor shower.

Robert Buchsbaum is Southeast, Cape, and Islands Regional Scientist.

Bats: Legions of the Night

By Rosemary Mosco

As Halloween approaches, bat-themed decorations swarm store windows and homes, often in the company of black cats and other creatures synonymous with mystery and dread. Though bats have become symbolic of our spookiest holiday, they are benevolent, diverse, and fascinating throughout the year.

One out of every five mammal species on earth is a bat. They may look like flying mice, but bats are more closely related to the carnivores and hoofed animals. They are the only mammals capable of true flight, and their wings consist of four elongated fingers with skin stretched between them.

Nine species live in Massachusetts. All eat insects and hunt mainly from dusk to dawn. To find prey in low light, they make high-pitched sounds that bounce off their surroundings and return to their ears. By analyzing the way these sounds echo off of insects, they can discover their target's size, location, and direction of travel. A single bat can eat 600 moths and other insects in an hour.

Since prey is scarce in the winter, Massachusetts bats migrate south or hibernate. Four species overwinter in cold wet caves. In recent years these habitats have hosted a fungus—probably introduced from Europe—that causes a deadly illness called white-nose syndrome. As a result, these four cave-dwelling bats are listed as endangered in Massachusetts.

In May, scientists at Georgia State University and the US Forest Service announced that some bats had been successfully treated for the disease. But there's much more work to do. Help protect bats by making sure that you don't disturb their summer and winter roosts. Also, support the conservation of natural areas that keep insect populations in balance, allowing bats to continue flying our skies during the witching hour and beyond.

Learn more at massaudubon.org/bats.



Eastern Red Bat

(*Lasiurus borealis*)

Usually solitary, it roosts in trees, hanging from one foot and swaying slightly to resemble a dead leaf. The female gives birth to an average of three young in early summer. In autumn the eastern red bat migrates along the east coast using the same routes as many birds. Little is known about its migratory destinations.



Hoary Bat

(*Lasiurus cinereus*)

Our largest bat, this seldom-seen creature has striking fur with a frosted appearance. During the day it roosts alone in the dense foliage of a tree, preferably a conifer. It generally avoids human structures. The hoary bat has the most extensive range of any North American bat: it's found from Canada to Chile and Argentina. It is also partially migratory. Northern populations move to southern states where it is warm enough to roost in the open.



Little Brown Bat

(*Myotis lucifugus*)

This species was once the most common bat in Massachusetts, but the white-nose syndrome epidemic in its wintering caves has dramatically reduced its population. Females form large nursery colonies in the late spring and summer and may roost in buildings. For the first few days of its life, the young bat clings to its mother while she hunts for food at night.



Tricolored Bat

(*Perimyotis subflavus*)

Formerly called the eastern pipistrelle, this animal is named for its fur color: each hair is dark at the base, light in the center, and dark at the tip. It is one of the first bats to emerge and begin flying at night. This bat hibernates in caves and mines, where the white-nose syndrome epidemic has resulted in its status as being endangered in the state.



Big Brown Bat

(*Eptesicus fuscus*)

In summer, this glossy brown bat lives in buildings and trees. In the winter it may hibernate in a cave, but it typically inhabits a dry area such as an attic where the white-nose fungus cannot survive. This abundant species hunts for insects in a wide variety of habitats.

Rosemary Mosco is Marketing Coordinator.

Fall 2015

By Ann Prince

OCTOBER



2 Look for ripe wild grapes along old stone walls.

8 Larch trees, the only northern deciduous conifers, turn brilliant yellow.

10 Peek inside goldenrod flowers and you may find yellow crab spiders.

15 Look for miniature white parachutes floating in the air; they are milkweed seeds adrift after the pods have burst open.



27 Supermoon, the third and last of the year; this full moon appears lighter and brighter than most because it is closer to the earth than usual.

28 Rare three-planet conjunction. Before sunrise look for a tight triangle in the eastern sky formed by Venus, Mars, and Jupiter.



31 Halloween—don't be afraid of harmless daddy longlegs inhabiting your garage or basement.

NOVEMBER



3 Listen for woodpeckers drumming on tree trunks; they are not only foraging for insects but also enlarging their cavities as seasonal shelter.

7 Robins forage for berries in wild cherry, dogwood, sumac, and viburnum.



8 Woolly bears, bristly black and bronze caterpillars of the Isabella tiger moth, are now likely frozen solid and will thaw out in the spring. According to myth, the length of their central stripe predicts the duration of the coming winter.

12 Field, vesper, chipping, and Savannah sparrows depart this month for their wintering grounds.

NOVEMBER (cont.)

14 Yellow-rumped warblers are migrating through Massachusetts.

25 Full moon. The Dark Moon (Celtic).



28 Watch for wintering snow buntings and juncos in fields and open areas searching for seeds on withered golden grasses.

30 Observe wildlife tracks after snowfall—you may find prints left by foxes and skunks, or even fishers and coyotes.

DECEMBER

1 Witch hazel, the last flowering shrub, may still be blooming; look for its delicate light-yellow flowers in the forest.



6 Bluebirds and robins feed on Virginia creeper berries and crabapples.

14 Peak of the Geminid meteor shower—as many as 120 shooting stars are visible in the dark sky from midnight to dawn.

16 Nipped-off twigs with ragged edges on the branches of trees and shrubs are signs that deer are roaming about and finding food.

19 Crossbills, pine grosbeaks, and redpolls may be around by this time.



20 Most ladybugs are hibernating outside, often in clusters of hundreds or even thousands in tree crevices or under leaves or bark. But you may find a few overwintering in your home.

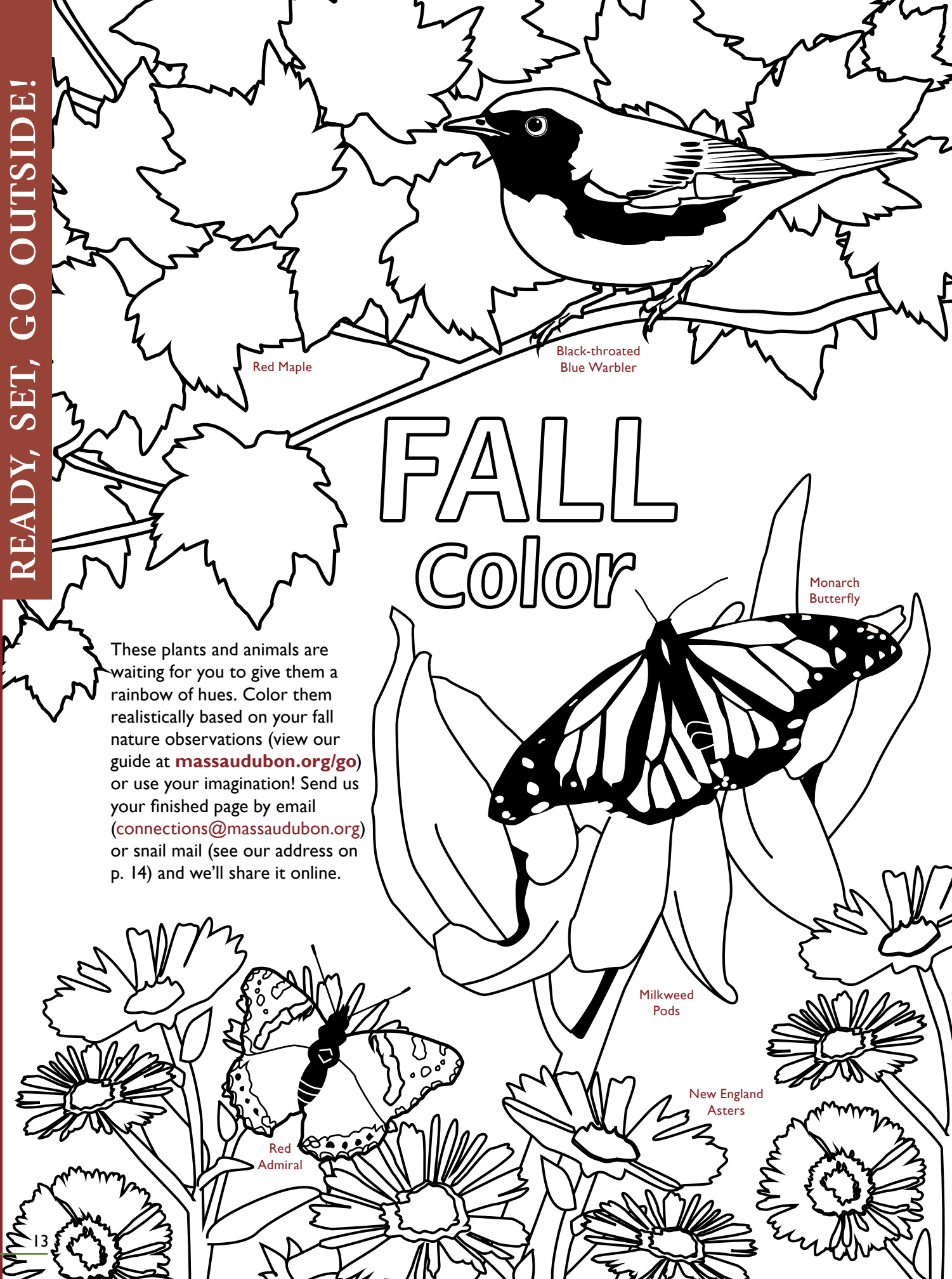
22 Winter solstice—shortest day and longest night.

25 Full moon. The Christmas Moon (Colonial American).



29 Mercury is at its highest point above the horizon for the best viewing. After sunset watch for the planet low in the western sky.

Ann Prince is Copyeditor.



FALL Color

These plants and animals are waiting for you to give them a rainbow of hues. Color them realistically based on your fall nature observations (view our guide at massaudubon.org/go) or use your imagination! Send us your finished page by email (connections@massaudubon.org) or snail mail (see our address on p. 14) and we'll share it online.

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The Natural Inquirer

By Marj Rines

Q. If I fill my bird feeder in the fall, will it stop birds from migrating south for the winter?

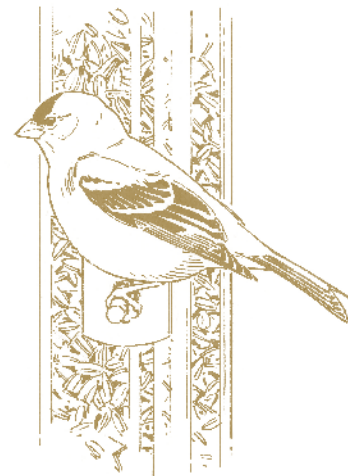
A. Most typical feeder birds such as chickadees, woodpeckers, and finches do not migrate. Although they feed on insects in warmer weather; they have adapted to eat seeds and fruit when insects become less available as cold weather sets in.

Migratory species such as blackbirds, grosbeaks, orioles, and hummingbirds may also visit feeders. In fact, you may see an increase in activity at your feeder as fall approaches. Migration takes a tremendous physical toll on birds, and before they embark on their journey they eat voraciously to put on weight.

There is no need to stop filling your feeders to encourage these species to move along. Their urge to migrate is hardwired, and it is largely driven by the change in the amount of light in the day, also known as the photoperiod. Bird feeders don't affect this powerful migratory drive.

Every once in a while a bird misses the migration "window"—perhaps because of a physical injury or because the migratory instinct failed to develop. Many of these individuals can survive a tough Massachusetts winter, often helped along by a feeder.

Marj Rines is a naturalist and fields calls for the Wildlife Information Line.



American Goldfinch
(*Spinus tristis*)

Have you seen any interesting wildlife? Share your sightings at [facebook.com/massaudubon](https://www.facebook.com/massaudubon).

Connections is published four times each year in January, April, July, and October.

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Heather Cooper, Kristin Foresto, Rosemary Mosco, Rose Murphy, Michael P. O'Connor, Ann Prince, and Hillary Truslow

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: Fall Fun at Ipswich River—Lisa Roberts®

p 1: Drumlin Farm—Barry Van Dusen®

p 2: Orchard Oriole—Barry Van Dusen®

Barry Van Dusen—Julie O'Neil®

p 3: Renata Pomponi—Mass Audubon®

Wildwood Paddling—Becky Gilles/Mass Audubon®

p 4: Kripalu Images—Kripalu®

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p 6: Students Studying Climate Change—

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p 10: Yellow-rumped Warbler—René Laubach/

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Boston Nature Center—Mass Audubon®

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p 14: American Goldfinch—Barry Van Dusen®

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 is now one of the largest and most prominent conservation organizations 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 massaudubon.org.


Celebrate Fall

at a Mass Audubon Wildlife Sanctuary Near You!



Conway Hills

Look for evidence of past agricultural use, such as stone walls and a large sugar maple "wolf tree" that was left standing to provide shade for livestock.

 = Wildlife sanctuaries with nature centers

Mass Audubon has 56 wildlife sanctuaries open to the public year-round. They provide important habitat for wildlife and opportunities for you to enjoy and appreciate nature.

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- 1 Pleasant Valley, Lenox
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CONNECTICUT RIVER VALLEY

- 4 Richardson Brook, Tolland
- 5 West Mountain, Plainfield
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- 7 High Ledges, Shelburne
- 8 Conway Hills, Conway
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- 10 Lynes Woods, Westhampton

- 11 Arcadia, Easthampton & Northampton
- 12 Laughing Brook, Hampden

CENTRAL MASSACHUSETTS

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

NORTH OF BOSTON

- 23 Rocky Hill, Groton
- 24 Nashoba Brook, Westford
- 25 Joppa Flats, Newburyport
- 26 Rough Meadows, Rowley
- 27 Ipswich River, Topsfield
- 28 Endicott, Wenham
- 29 Kettle Island, Manchester-by-the-Sea
- 30 Eastern Point, Gloucester
- 31 Marblehead Neck, Marblehead
- 32 Nahant Thicket, Nahant

GREATER BOSTON

- 33 Habitat, Belmont
- 34 Drumlin Farm, Lincoln

- 35 Waseeka, Hopkinton
- 36 Broadmoor, Natick
- 37 Boston Nature Center, Mattapan
- 38 Blue Hills Trailside Museum, Milton
- 39 Museum of American Bird Art at Mass Audubon, Canton

SOUTH OF BOSTON

- 40 Moose Hill, Sharon
- 41 Stony Brook, Norfolk
- 42 Attleboro Springs, Attleboro
- 43 Oak Knoll, Attleboro
- 44 North River, Marshfield
- 45 Daniel Webster, Marshfield
- 46 North Hill Marsh, Duxbury
- 47 Allens Pond, Dartmouth & Westport
- 48 Great Neck, Wareham

CAPE COD AND THE ISLANDS

- 49 Ashumet Holly, Falmouth
- 50 Sampsons Island, Barnstable
- 51 Skunknett River, Barnstable
- 52 Barnstable Great Marsh, Barnstable
- 53 Long Pasture, Barnstable
- 54 Wellfleet Bay, Wellfleet
- 55 Felix Neck, Edgartown
- 56 Sesachacha Heathlands, Nantucket



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