

C Mass Audubon *Protecting the Nature of Massachusetts*

Connections

APRIL-JUNE 2016

A Newsletter for the Members of Mass Audubon

The Buzz About Pollinators

and how to attract them

Winning Photos

Our Picture This: Your Great Outdoors contest

Kestrels Flying High

Celebrating nesting successes

Spring Peeper

Tiny frog, big voice



Celebrating 100 years of Wildlife Sanctuaries



MASS AUDUBON

Back in 1916, the Moose Hill Bird Sanctuary was established in Sharon when Dr. George W. Field offered his estate to Mass Audubon to attract birds and people interested in birds. Fast forward to 2016 and there are 56 wildlife sanctuaries to explore!

You can be part of the celebration! Find out how at massaudubon.org/sanctuaries100.



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123 Bird-a-thon and Bird Migration

By Wayne Petersen

Every year at the height of spring bird migration, teams of birders around the state compete in Bird-a-thon, a 24-hour birding extravaganza. Their goal is not only to see the most bird species in Massachusetts, but also to raise essential funds for Mass Audubon's wildlife sanctuaries and programs. They perform incredible feats of birding and fundraising—trying to rival the feats of navigation and endurance demonstrated by the birds they seek to find. Here's a look at Bird-a-thon and bird migration by the numbers.

Wayne Petersen is Director of Important Bird Areas.



BY THE NUMBERS

1 species,

the difference in number of species seen by the first- and second-place teams during last year's Bird-a-thon. Drumlin Farm won the Brewster Cup prize with 221 species, followed closely by Moose Hill with 220.

86 hours

of nonstop flying, the amount of time it takes a blackpoll warbler to reach its wintering grounds 2,300 miles away.

12

Young Birders (under 18) who each raised at least \$200 for Bird-a-thon 2015.



12,000

feet, the height at which some shorebirds regularly travel during migration.

\$220,000

raised during Bird-a-thon 2015 in support of wildlife sanctuaries and programs.

325

species on the official Bird-a-thon checklist, including 29 warblers, 18 sparrows, and 11 gulls.

1982,

the year of Mass Audubon's first unofficial Bird-a-thon. A group of staff members headed out at 2:30 am for 24 hours to raise funds for Bird Conservation. They recorded 160 species, including a black-necked stilt, a species sighted only 10 times previously in Massachusetts.



50 mph,

the upper limit of flight speed for most birds during migration. Some waterfowl and shorebirds may exceed this with favorable tailwinds.



44,000

miles traveled each year by the Arctic tern, which migrates from the Arctic to Antarctica and back—possibly the longest migration of any bird.

READY.
SET.
BIRD!



Join us for
bird·a·thon
May 13-14

massaudubon.org/birdathon



RUBY-THROATED HUMMINGBIRD
 This bird needs a great deal of food to keep energized, so it visits flowers that provide a lot of nectar, such as the cardinal flower. Pollen sticks to the feathers around the bird's bill and face and is carried to the next flower.

The *BUZZ* on Pollinators



By Sean Kent
 Picture yourself standing in a meadow bursting with wildflowers, seeing the first cherry blossoms after a long winter, or enjoying a ripe, juicy blueberry. These delights and many more wouldn't exist without a group of animals called pollinators.
 Pollinators are creatures that help plants reproduce by spreading a powdery material called pollen among flowers of the same species. Animals, primarily bees, pollinate a majority of fruits and vegetables (nongrain crops) used in agriculture. Pollinators don't just help plants; they rely on the rewards plants provide, such as energy-rich nectar and protein-rich pollen, to survive and reproduce.

Meet the Pollinators

There are many different types of pollinators in Massachusetts, from native bees to beetles to hummingbirds.



FLIES
 Some flies such as flower flies and bee flies are important pollinators. They visit flowers to consume pollen and nectar; in the process, sticky pollen becomes attached to their bodies.

Many flies mimic wasps and bees in their shape and coloration, partly so that predators will avoid them.



BEETLES
 The fossil record suggests that beetles were the first pollinators of flowering plants. Adult beetles feed on pollen and the flower itself. Pollen becomes trapped on their bodies and spreads between flowers.



BUTTERFLIES AND MOTHS
 Butterflies and moths lay eggs on or near the vegetation they eat as caterpillars; these food plants are known as "host plants." As adults, they consume nectar from flowers and sugar from sap and fruit. Most butterflies and moths pollinate flowers that produce lots of nectar, such as native milkweed and columbine.



BEES AND WASPS
 Besides European honeybees, there are more than 365 bee species documented in Massachusetts. Adult bees eat nectar; they feed their young a mix of pollen and nectar. Wasps visit flowers to consume energy-rich nectar and sometimes pollen. As predators, wasps spend most of their time looking for insects to feed their young while foraging at flowers.



Pollinators at Mass Audubon

Experience the wonder of pollinators at our wildlife sanctuaries. Here's a sample of what we offer; for more, visit massaudubon.org/pollinators.

Gardens
 Many of our wildlife sanctuaries with nature centers have special gardens designed to entice birds, pollinators, and other wildlife. Felix Neck in Edgartown, for instance, has three, including a butterfly garden. Allens Pond in Dartmouth and Westport features a garden that is a certified MonarchWatch.org waystation. Drumlin Farm in Lincoln has several gardens, including a pollinator-filled garden at the Audubon Shop.



A Place for Bees
 Several of our wildlife sanctuaries have special homes for bees. View honeybee hives on exhibit at Long Pasture in Barnstable and Blue Hills Trailside Museum in Milton—can you spot the elusive queen? Broad Meadow Brook in Worcester has a native bee nesting box, or bee hotel, installed near the visitor center. Ipswich River in Topsfield has solitary bee and wasp nest boxes built by Boy Scout Matt Lebel and his troop as part of his Eagle Scout project.

Creating New Habitat
 We're always working on adding places for pollinators. For example, South Shore Sanctuaries received a grant to turn an old field at North River in Marshfield into ideal native pollinator habitat. The project is sponsored by the US Department of Agriculture's Natural Resources Conservation Service. The Museum of American Bird Art in Canton is converting a mowed lawn into a native plant meadow, and the pollinator ecology homeschool class is taking the lead in designing, planting, and conducting ecological experiments.

Native Plant Sales
 On May 7, Habitat Education Center in Belmont offers an Herb Sale, with native wildflowers as well as vegetables and herbs. Purchase pollinator-attracting plants at Moose Hill in Sharon's Native Plant Sale on June 4 and 5, or visit North River in Marshfield for a Native Plant Sale & Open House on June 5.

Help Pollinators Thrive

Many species of pollinators are experiencing dramatic declines. For example, populations of three bumblebee species in the eastern United States have declined by over 90 percent in the past 30 years. Populations of native bees and other pollinators are threatened by climate change, pesticide exposure, habitat degradation and agricultural intensification, declining populations of native flowering plants, and introduced pathogens.

Fortunately, there are ways to help. Small changes can make a big difference. Try mowing less of your lawn and converting the rest to a garden, or raise your mower to a higher setting to let violets and other small flowers remain. Minimize the use of pesticides and herbicides, which can kill pollinators and the plants they rely on. Buy or build a bee hotel, a structure for bees to nest in; many garden centers are starting to carry them.

One major way to make an impact—and beautify an outdoor space—is to plant a native pollinator garden. Native plants are well adapted to our local conditions and support many pollinators; some species rely on them exclusively. Also, some plants, like tomatoes and blueberries, won't release their pollen unless they experience the wing vibrations of particular bees.

Even small outdoor spaces can provide quality habitat. A pollinator garden can range from a decorative planter with native flowers on your porch or small flowerbeds to larger vegetable gardens interspersed with flowers.

When you are deciding how to create a native plant garden, keep in mind that pollinators have the same basic needs to thrive: plants that offer food such as pollen or nectar, places to lay eggs (butterflies and other insects) or nest (bees), and an area that is free of pesticides.

Tips for Creating a Native Plant Garden

1. Plan on the type of garden—do you want to convert a lawn into a garden, create a flowerbed, or make a container garden?
2. Choose a set of native plants that will have some flowers in bloom in the spring, summer, and fall (see our list of suggestions at above right).
3. Choose a diversity of native plants that attract different types of pollinators such as hummingbirds, bees, and butterflies. Plants offer more to pollinators than pollen and nectar; the caterpillars of butterflies and moths, for example, need leafy food to eat.
4. Prepare your site for planting. Depending on your project, this could include putting down soil, removing sod, etc. If you're using seeds, start seeds inside or sow seeds in loose soil according to the requirements for each kind of plant.

Sean Kent is Education Coordinator at the Museum of American Bird Art at Mass Audubon.



Six Native Plants to Grow for Pollinators

Wild columbine (*Aquilegia canadensis*)
Attracts hummingbirds and butterflies
Blooms in spring



Wild geranium (*Geranium maculatum*)
Attracts bees and is excellent for attracting bumblebees—especially spring queens
Blooms in spring to early summer



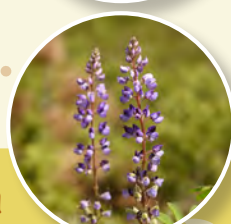
Bird's foot violet (*Viola pedata*)
Attracts bees and butterflies
Blooms in spring to early summer



Smooth swamp-milkweed (*Asclepias incarnata*)
Attracts bumblebees, butterflies, and other insects, and is a host plant for the monarch butterfly
Blooms in summer and early fall



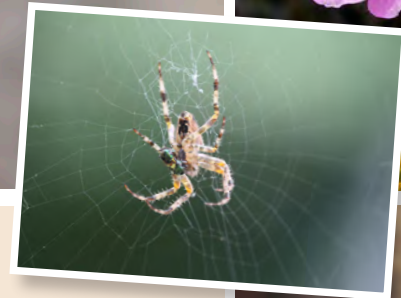
Goldenrods (*Solidago species*)
Attract bees and other insects; extremely important fall plants for pollen
Blooms in late summer to late fall (depending on species)



Wild lupine (*Lupinus perennis*)
Attracts bees and butterflies
Blooms in spring to early summer




GRAND PRIZE WINNER



Mass Audubon Photo Contest

Picture This: 

Your Great Outdoors

Photo Contest Winners

Each year, we are in awe of the images entered. And each year, we embark on the challenging task to select the images that best represent the beauty and diversity of nature in Massachusetts. The judging process for 2015's contest was no easy task, but we're thrilled share some of the winners of last year's contest. See all of the winning images and find out when the next contest begins at massaudubon.org/picturethis.

Clockwise from top left: Short-tailed weasel © Steve Flint • Smooth greensnake © Patrick Randall • Plymouth gentian © James Duffy • Spider © Brett Melican • Red squirrel © Davey Walters • Mount Greylock © Roni Chastain • Virginia rail © Evan Lipton



ART EXHIBIT

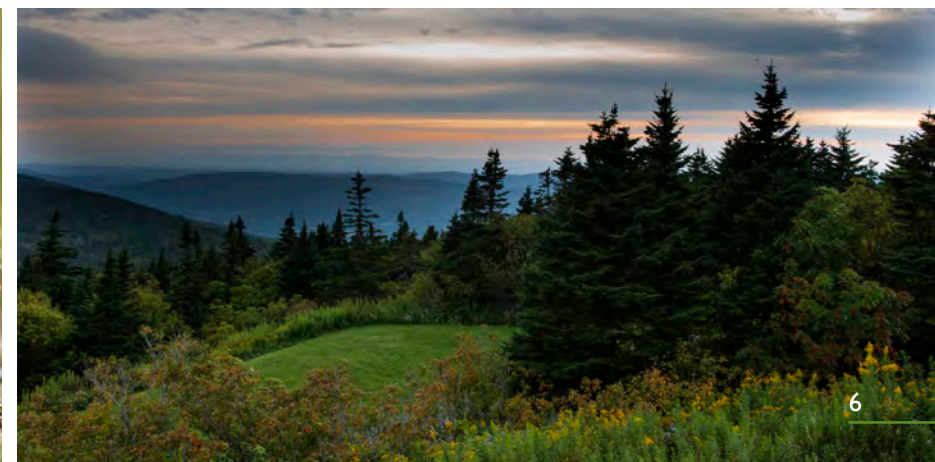
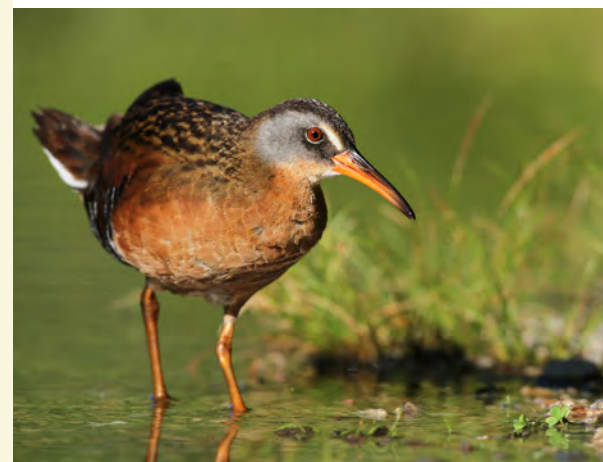
Baby Birds: An Artist Looks into the Nest

Watercolors by Julie Zickefoose



April 30-September 18

Museum of American Bird Art
massaudubon.org/maba



American Kestrel Fledgling, Daniel Webster, Marshfield



American Kestrel Chicks, Arcadia, Easthampton & Northampton



Kestrels Flying High

By Lindall Kidd

The American kestrel, our country's smallest bird of prey, was once a common sight over Massachusetts fields. But kestrel numbers have plummeted in the past 30 years. One reason is habitat loss: this bird nests in preexisting cavities in trees, such as holes excavated by woodpeckers, and suitable cavities have become scarcer as a result of development. A loss of grasslands—where kestrels hunt—has also had an impact.

The Kestrel Project

To take action, Mass Audubon initiated the American Kestrel Project, a citizen science program in which volunteers report sightings of kestrels. The resulting findings have informed us about what sort of nesting habitats kestrels prefer, and we used the information to strategically place wooden nest boxes throughout the state; many of these are on our wildlife sanctuaries.

Success on our Sanctuaries

Last year, six American kestrels successfully fledged at two of our wildlife sanctuaries: four at Arcadia in Easthampton and Northampton and two at Daniel Webster in Marshfield. A prospective parental pair also visited a nest box at Drumlin Farm in Lincoln last spring, though they did not choose to raise young there. We look forward to seeing more fledglings this year, and for kestrels to become a common sight in New England once more.

To learn more about kestrels and report your sightings, visit massaudubon.org/kestrels.

Lindall Kidd is Bird Conservation Associate.

New Sanctuary Director for Joppa Flats

By Michael P. O'Connor



In January, David Moon became sanctuary director at Joppa Flats Education Center in Newburyport, succeeding longtime Director Bill Gette. A career science educator and environmental administrator, Moon most recently taught at

The Putney School in Putney, Vermont, and prior to that was founder/executive director of the Ashuelot Valley Environmental Observatory in Keene, New Hampshire.

Moon first saw Plum Island and the Merrimack River estuary, home of Joppa Flats, as a college intern. "As I took in everything around me—the salt marsh, the birds, the water, the sky—it was a dream come true," recalled Moon. "It would be an understatement to say it made a significant impression on me."

Now, working with Joppa Flats staff, Moon is intent on helping the popular wildlife sanctuary make an even stronger impression across the greater North Shore community and beyond.

Mass Audubon President Gary Clayton said that Moon brings the right mix of experience and energy. "We were impressed by David's extensive background as a nature educator and as an innovative administrator at nonprofit organizations with strong ties to the communities they serve," Clayton said. "Joppa Flats welcomes him, and we're sure Mass Audubon members and everyone who enjoys the Education Center and its growing array of programs will as well."

Visit massaudubon.org/joppaflats for more on Joppa Flats Education Center.

Michael P. O'Connor is Public Relations Manager.

Help Drumlin Farm Grow

By Renata Pomponi

It's always hard to see a treasured part of a sanctuary change. But with some thoughtful design work and the help of many generous supporters, Drumlin Farm is hoping that the end result will become a new favorite.

In early January the swing of the wrecking ball into the beloved but aging burrowing animal exhibit known as Drumlin Underground was softened by the promise of the New England Wildlife Explorations exhibit to come. The project, an interactive exhibit highlighting the native wildlife species that thrive where the forest meets the field, is part of the Landscapes for Learning capital campaign

Breaking Ground at Broad Meadow Brook

By Shelley Rodman

On a busy Wednesday morning at Worcester's Broad Meadow Brook Conservation Center and Wildlife Sanctuary, the Visitor Center is packed. Students, educators, trail volunteers, and many others are planning their projects for the day in the center's single program room. Fortunately, they'll have a lot more space this coming June.

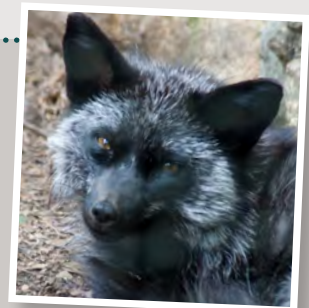
Last October, Your Sanctuary in the City: A Campaign for Broad Meadow Brook went up and over its goal. The result: a new entrance and storm-water friendly parking area are complete, and a deep energy retrofit—a renovation designed to achieve net zero energy use—of an on-site house that will become the Barbara Elliott Fargo Education Center (named for the campaign's honorary chair) is underway.

"This campaign has been so energizing," says Sanctuary Director Deb Cary. "The community has embraced our goals enthusiastically, and we are truly grateful. Our new facilities will be a wonderful boost to our year-round programs."



You can see the new facilities for yourself at Broad Meadow Brook's 25th Anniversary Celebration on June 18, 2016. And it's not too late to join in and help fund a few more important items, such as interpretive signage and outdoor furniture. Find out more about the campaign at massaudubon.org/bmbcampaign.

Shelley Rodman is Development Director at Broad Meadow Brook.



that has already resulted in a new root cellar and two additional classroom spaces.

Up next: a new Environmental Learning Center that will help us teach even more kids about the wonders of nature. But, with approximately half of the \$2.2 million budget raised so far, we need your help to get us to the finish line.

Learn more and join the Landscapes for Learning campaign at massaudubon.org/drumlincampaign.

Renata Pomponi is Sanctuary Director at Drumlin Farm.

Fish that Swim from Sea to Stream

By Rosemary Mosco

Some fish live in freshwater, and others live in saltwater. But certain species straddle these two worlds, traveling from one habitat to the other to reproduce. Called diadromous fish, from the Greek words for “running across,” their lifestyles reveal deep connections among the varied landscapes of Massachusetts.

There are nine native diadromous species in the state (we’ve chosen five representative species to feature here). Most of them spend their adulthood in the ocean and return to freshwater to spawn. The one standout is the American eel: it heads downstream to reproduce in the open ocean. But switching between saltwater and freshwater is no easy feat.

Like people, fish need just the right amount of salt in their bodies. Sodium is important for all kinds of processes—nerve function, for example—but too much can cause dehydration and other problems. Because oceanic fish live in salty water, they must get rid of excess salt. Freshwater species, on the other hand, need to prevent salt from leaching away. Diadromous fish can do both. When they travel between sea and stream, they usually spend time in a semi-salty place, such as an estuary, where their bodies make adjustments including changing how much salt is released in urine.

But these adaptations are no match for outdated dams and culverts and other obstacles that prevent fish from traveling. Additional threats include pollution and overfishing. People once enjoyed abundant harvests of species, such as Atlantic salmon; today populations are just a small fraction of their past numbers. To protect remaining stocks, we must consider our landscape as a whole—reconnecting streams by removing old, obsolete barriers, and keeping freshwater and saltwater environments healthy.

Rosemary Mosco is a Naturalist and Marketing Coordinator.



Alewife

(Alosa pseudoharengus)
The Alewife T station and Alewife Brook bear the name of this fish. A type of herring, it swims into freshwater lakes and ponds annually to spawn. The young make the journey to the ocean when they’re only about a month old. To help alewives and other fish travel past dams, people have built fish ladders, special structures that vary in construction and success rates.



Atlantic Salmon

(Salmo salar)
This large salmon once migrated in rivers all along the Northeast coast, but because of dams and other threats it now only spawns in Maine. Decades of efforts to restock Massachusetts rivers did not create a self-sustaining population, and stocking activities ceased in 2013. When salmon spawn, the female lays thousands of eggs in a gravel nest, and the male fertilizes them with sperm. The adults then return to the sea and may spawn again.



Sea Lamprey

(Petromyzon marinus)
The adult sea lamprey is a parasite. It uses its round, jawless, tooth-studded mouth to extract nutrients from other fish. This species usually isn’t a threat to inland fish—adult sea lampreys don’t feed as they swim upstream to spawn, and young aren’t parasitic. However, populations introduced to landlocked waters, such as the Great Lakes, have harmed fish populations.



American Eel

(Anguilla rostrata)
When it’s ready to reproduce, the American eel swims from freshwater to a part of the North Atlantic called the Sargasso Sea. The female lays millions of floating eggs, then dies. Hatchling eels, or leptocephali, are transparent and leaf shaped, and they drift on ocean currents, transforming into more recognizable but still transparent “glass eels” as they prepare to enter freshwater.



Atlantic Sturgeon

(Acipenser oxyrinchus oxyrinchus)
This slow-growing, long-lived animal is part of an ancient family. Instead of scales, it has bony plates called scutes. It’s a bottom-feeder, sucking mollusks and other prey into its toothless mouth. The Atlantic sturgeon is listed as state endangered and federally threatened as a result of pollution and overfishing. These threats mean that few individuals today are able to live long enough to reach a large size, but some once grew to a length of 14 feet!



A Snapshot of Ways to Get Outdoors

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
Enjoy excellent spring birding in the Newburyport/Plum Island area.

Outdoor Art Adventure
April 2, 10:30 am–noon
OAK KNOLL, Attleboro
After a hike, take a sketching lesson with artist Abby Rovaldi from the Attleboro Arts Museum.

Drawing from Nature: An Introduction to Scientific Illustration
Six-part class: April 3, 10, 17, & 24, May 1 & 8, 6–8:30 pm
BROAD MEADOW BROOK, Worcester
Explore nature while learning traditional drawing techniques used by natural science illustrators.

Martha’s Vineyard Sustainable Book Club: *The Sixth Extinction* by Elizabeth Kolbert
April 6, 6–7 pm
Sponsored by FELIX NECK, Martha’s Vineyard
Read and discuss books that examine our relationship with nature. Sponsored by Felix Neck and all six island libraries.

Amphibians After Dark
April 9, 5:30–8 pm
STONY BROOK, Norfolk
Go on an outdoor tour featuring skits about vernal pool animals. Try crafts, activities, and more.

100th Day Celebration
April 9
Celebrate 100 years of wildlife sanctuaries at staffed sites across the state! Enjoy free admission and fun activities at most locations. Visit massaudubon.org/sanctuaries100.



Osprey Nest Checks: A Field Experience
April 9, 9 am–1 pm
ALLENS POND, Dartmouth & Westport
Help check nests for occupancy and incubating birds along both branches of the Westport River.

Day Hiking New England: A Regional Adventure with Jeff Romano
April 9, 2–3:30 pm
BOSTON NATURE CENTER, Mattapan
Learn all you need to know to plan your next New England hiking adventure with this presentation.

Threatened Birds of Cape Cod’s Shore and Grasslands
Two-day class:
April 23 & 24, 8 am–5 pm
Sponsored by LONG PASTURE, Barnstable
Visit beautiful locations with leading experts and learn about shorebird and grassland bird conservation.

Earth Day Celebration with the Caterpillar Lab
April 23, 1–4 pm
MUSEUM OF AMERICAN BIRD ART, Canton
Join us for an awe-inspiring, hands-on program about native caterpillars with the Caterpillar Lab.

Great Blue Herons and Bald Eagles
April 30, 2–5 pm
ARCADIA, Easthampton and Northampton
Take in a presentation on herons and eagles. Then visit a spot where both birds nest.

Spring Fungus Foray
May 7, noon–4 pm
DANIEL WEBSTER, Marshfield
Mycologist and author Lawrence Millman leads a search for fungi through woodlands and wetlands.

Sea Change Film Series: The Messenger • May 7, 7–8:30 pm
Sponsored by WELLFLEET BAY, Wellfleet • Watch a film about the challenges confronting migratory birds and hear a discussion by Mass Audubon scientists. Cosponsored with Wellfleet Harbor Actors Theater and WCAI.

Birds and Breakfast
May 8, walks at 7, 8, 9, & 10 am
BROADMOOR, Natick
Celebrate Mother’s Day with a guided bird walk and a homemade pancake breakfast.

Mother’s Day Breakfast and Nature Walk
May 8 at 8, 9, 10, & 11 am
MOOSE HILL, Sharon
Treat your mom (or any special person) to a guided nature walk and a pancake breakfast.

Bird-a-thon Birds and Breakfast
May 14, 7:30–10:30 am
WACHUSETT MEADOW, Princeton
Enjoy a guided walk, then discuss your discoveries over a delicious breakfast.

Furry Fliers
May 17, 3:30–5:30 pm
HABITAT, Belmont
Take a tour of bat houses. Enjoy a batty craft and a game or two.

Once-in-a-Blue-Moon Campfire
May 21, 8–9:30 pm
BLUE HILLS TRAILSIDE MUSEUM, Milton
Celebrate the spring blue moon with a campfire. Toast marshmallows and stargaze.

Family Fun Day
June 4, 10 am–4 pm
PLEASANT VALLEY, Lenox
Experience fun shows, crafts, and walks, and explore our new Nature Play Area.

Audubon Nature Festival
June 5, 10 am–4 pm
IPSWICH RIVER, Topsfield
Enjoy owl presentations, native reptiles and amphibians, craft and native plant sales, walks, and more.

Farm-to-Table Cooking: Spring Harvest
June 10, 6–9 pm
DRUMLIN FARM, Lincoln
Visit the fields to harvest fresh produce. Create a balanced, delicious meal to enjoy together.



Marj Rines, Wildlife Expert

By Peggy Sagan

As an avid birder, nature enthusiast, and active member of several conservation organizations, Marj Rines had no trouble deciding how she wanted to spend her free time when she retired from a career in advertising: she wanted to volunteer with Mass Audubon and share her knowledge and interest in wildlife. And she found her perfect position, fielding calls to Mass Audubon's Wildlife Information Line.

Most Common Questions

Most of the calls Marj handles fall into about 15 categories. The typical caller is looking to identify a bird—often not recognizing a juvenile or, less frequently, coming across a rarity. Others want to know how to attract bluebirds, what to do with a bird stunned from flying into a window, or how to keep woodpeckers from drumming away at their gutters. The most common question: "Why have the birds stopped coming to my feeder?"



Favorite Part of the Job

"I love watching the blinders come off someone's eyes. They encounter a bird with fancy markings, like a northern flicker, and they call me and ask, 'What was that amazing bird?'," says Marj. "Their excitement is infectious!"

Continued Learning

During her 18 years in this position, Marj's knowledge has grown. "If I don't know the answer, I research it and get back to the caller. It's a blessing: I learn something new, and I get to encourage the caller to keep observing, questioning, and learning, too," she says.

To find out why the birds aren't coming to your feeder—and much more—send your questions to wildlifeinfo@massaudubon.org, call 781-259-2150, or check out answers to frequently asked nature and wildlife questions at massaudubon.org/nature-wildlife.

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

Peggy Sagan is Statewide Volunteer Program Coordinator.



Birds migrate—and members can, too!

When it's time to renew your membership, consider "migrating" to Explorer level or higher.

Enjoy even more benefits including complimentary outings and a free gift membership to give.

massaudubon.org/membership

10th ANNUAL STATEWIDE VOLUNTEER DAY



Saturday
April 30, 2016
9 am–noon

massaudubon.org/volunteerday



Birding and Natural History Tours

Spitsbergen Arctic Wildlife Cruise
July 8–18, 2016

Chile: Birding and Natural History Tour • Oct 27–Nov 7, 2016

New Zealand:
Birding in Middle Earth
Nov 2–19, 2016

Uganda: Treasure House of Birds and Primates • Jan 27–Feb 11, 2017

massaudubon.org/travel
travel@massaudubon.org
800-289-9504



Spring 2016

By Ann Prince

APRIL

- 2** On beaches look for piping plovers arriving from southern wintering grounds.
- 9** Listen for the high-pitched bell choir of hundreds of spring peepers in freshwater wetlands.
- 17** A native shrub, shadbush, blossoms in April when American shad are swimming upstream to spawn.
- 18** This evening is a good time to see Mercury, which is now at its highest point above the horizon. As the sun sets, the planet is in view low in the darkening sky.



22 Full moon. The Shad Moon (Native American).

27 Gray catbirds and eastern towhees return. Listen for the feline-like mewing of the catbirds among sprawling vines and thickets and the drink-your-tea call of the towhees in scrubby areas.



30 Search in woodlands for early wildflowers, such as trout lily, trillium, lady's slipper, bloodroot, and hepatica.

MAY

- 5** Common blue violets, actually purple in color with heart-shaped leaves, are blooming in woodlands and wet meadows, and are often ubiquitous in neighborhood lawns.
- 6** New moon and height of the Eta Aquarids meteor shower. In the northern hemisphere, roughly 30 shooting stars per hour, most prominent after midnight, grace the dark moonless sky.
- 8** Brilliantly colored scarlet tanagers, Baltimore orioles, and rose-breasted grosbeaks arrive from southerly climes. Look and listen for flashy males high above in spring-green treetops.

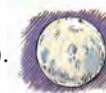


MAY (continued)



15 Spring azures are abundant now—keep an eye out for the strikingly blue butterflies at woodland edges and in forest clearings.

21 Full moon. The Bright Moon (Celtic).



22 The red planet Mars is its brightest for this calendar year—fully illuminated by the sun and visible all night long.

24 At nightfall watch for flickering fireflies in fields and grassy areas. Each species has its own pattern of flashes.

JUNE

3 Newly metamorphosed from tadpoles, multitudes of tiny toadlets may appear in your garden or wooded yard if you live near a small pond or wetland.

5 On a midday walk you could happen upon a garter snake—the state reptile of Massachusetts—basking in a sunny forest clearing or grassy meadow.



14 Garden butterflies are about. Watch for favorites including swallowtails, painted ladies, fritillaries, and sulphurs.

20 Summer solstice, ushered in by the Full Rose Moon (Colonial American). Longest day of the year.



26 Field wildflowers such as Joe-Pye weed, black-eyed Susan, and milkweed bloom.

28 Tiny gray treefrogs, often heard yet seldom seen, are camouflaged against tree trunks to which they cling with their sticky toe pads as they sound their birdlike trill.



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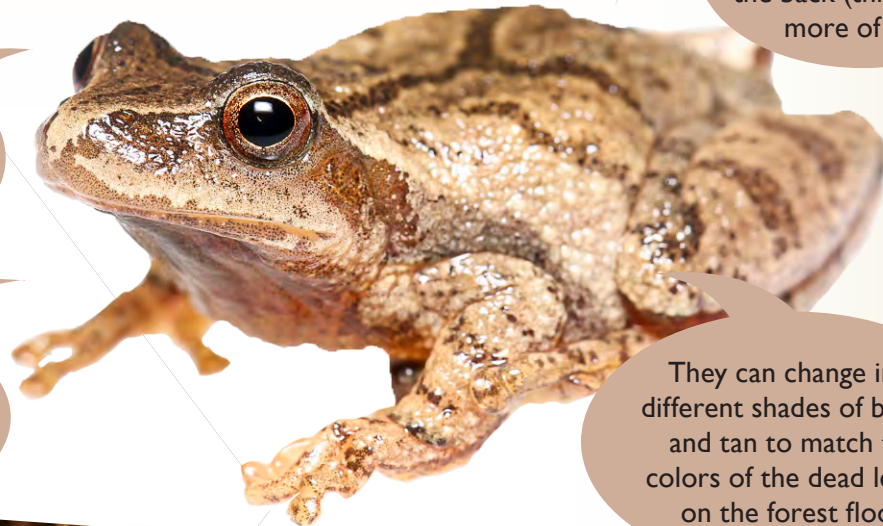
SPRING PEEPER

The Tiny Frog with a Giant Voice



Peep! Peep! If there's a wetland nearby, listen for loud peeps at night. These sounds come from a tiny frog called a spring peeper. In the spring, male peepers choose a patch of wetland about the size of a hula-hoop. Then they peep to attract female spring peepers.

Meet the Spring Peeper



Peepers can handle cold weather. In the winter they can freeze nearly solid!

Peepers usually have an X-shaped mark on the back (this one has more of a Y).

They have sticky pads on the feet to help them climb plants.

They can change into different shades of brown and tan to match the colors of the dead leaves on the forest floor.

Listen for Peepers

It can be hard to see a spring peeper. They are very small. A full-grown male can fit on top of a quarter. Females are larger—sometimes twice as large as males—but that's still not very big! While listening for that peeping sound, investigate a little...



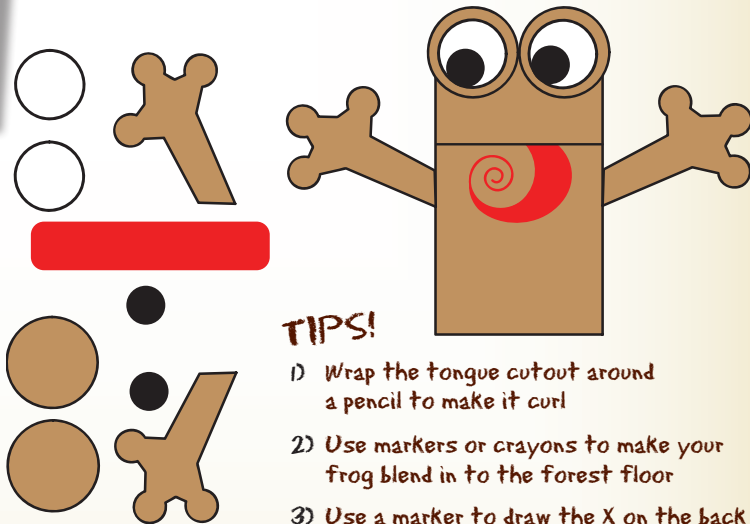
Besides peeps, can you hear another sound like *brrrrrrrt*? That's a special call made by a male spring peeper who's telling a nearby male, "You're way too close! Get lost!"

What day of the year do you hear spring peepers start calling? Write this down and compare it with dates from year to year!

Can you hear any other spring nighttime animals? Wood frogs going *quack quack*? Woodcocks going *peent*?

Peeper Paper Puppets

- Materials:
- a paper lunch bag
 - glue and/or tape
 - construction paper
 - something to color with
 - scissors



TIPS!

- 1) Wrap the tongue cutout around a pencil to make it curl
- 2) Use markers or crayons to make your frog blend in to the forest floor
- 3) Use a marker to draw the X on the back of your paper bag and you'll have the perfect peeper!

Go to massaudubon.org/go to hear what a spring peeper sounds like and to find a template for the peeper puppet.

Mapping Conservation for Massachusetts

By Christina Wiseman

Have you ever wondered which land areas in your community are most important to conserve? Now there's an easy way to find out. Mass Audubon, in collaboration with The Nature Conservancy and LandVest, has developed an exciting online tool to help communities focus their land protection efforts.

Mapping and Prioritizing Parcels for Resilience (MAPPR) is a user-friendly tool that identifies the highest priority parcels of land for conservation in the state based on habitat quality, climate change resilience, and more. The tool takes into account factors like biodiversity (using data from the state's *BioMap2*), parcel size, and wildlife habitat connectivity to weigh the priority level of each parcel in the area of interest.

"This tool has tremendous potential to help Massachusetts land trusts—particularly those with few, if any, paid staff—take the sophistication of their land conservation planning up several notches," said Bob Wilber, Mass Audubon's Director of Land Conservation.

MAPPR was developed with support from the Open Space Institute and the Lookout Foundation, and its land analyses are based on data available through the state's Office of Geographic Information (MassGIS). Whether for land trust members trying to make more informed decisions, or residents wondering which areas in their community are most likely to support native plants and animals in a changing climate, MAPPR can provide some much-needed answers.

Learn more and give MAPPR a whirl at massaudubon.org/mappr.

Christina Wiseman is Advocacy Associate.

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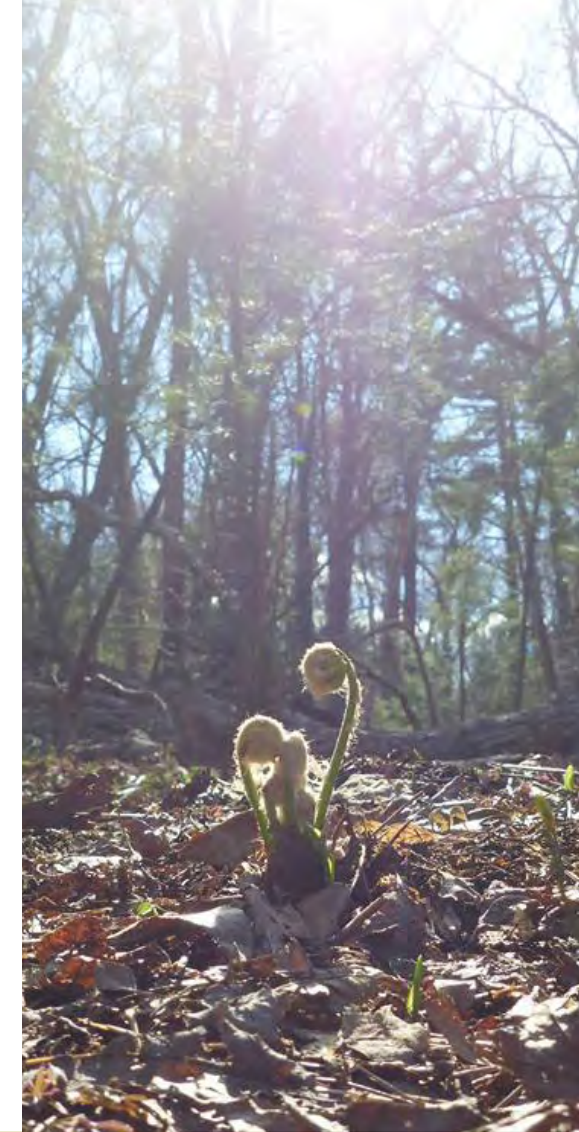
The Final Word

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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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.

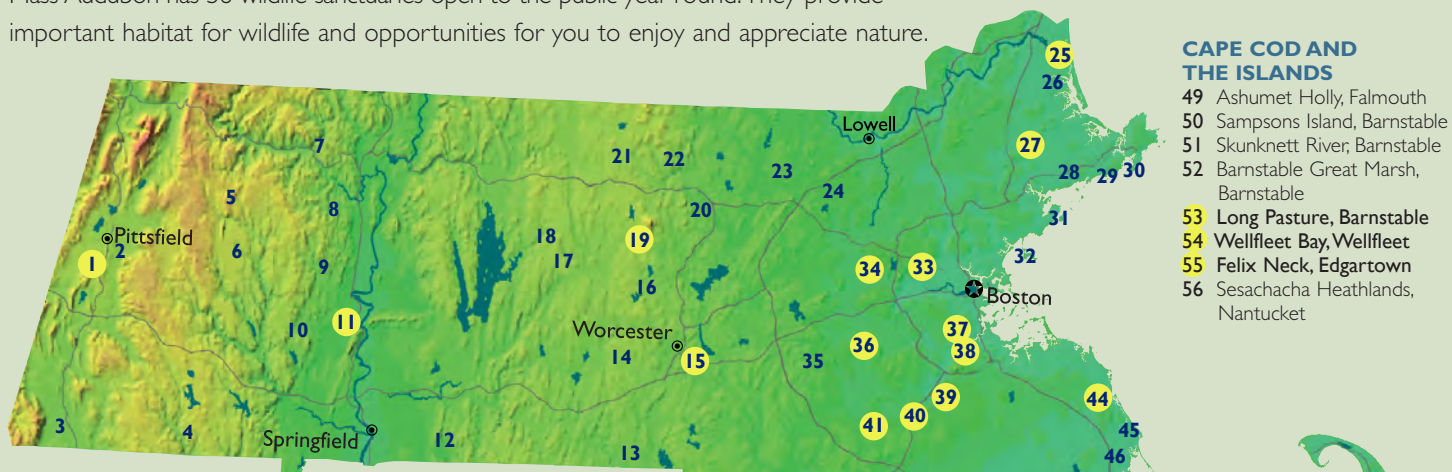


Celebrate Spring

at a Mass Audubon Wildlife Sanctuary Near You!



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.



CAPE COD AND THE ISLANDS

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

BERKSHIRES

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

CONNECTICUT RIVER VALLEY

- 4 Richardson Brook, Tolland
- 5 West Mountain, Plainfield
- 6 Road's End, Worthington
- 7 High Ledges, Shelburne
- 8 Conway Hills, Conway
- 9 Graves Farm, Williamsburg & Whately
- 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

Allens Pond had 12 pairs of bobolinks—striking black, yellow, and white songbirds—nesting along the Grassland Loop Trail last year.



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 = Wildlife sanctuaries with nature centers