

C Mass Audubon *Protecting the Nature of Massachusetts* Connections

MAY – AUGUST 2010

A NEWSLETTER FOR THE MEMBERS OF MASS AUDUBON

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▶ www.massaudubon.org/connections

Editorial Team:

Jan Kruse, Susannah Lund, Ann Prince,
and Hillary G. Truslow

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 information about becoming a member, or for questions regarding your membership, contact: Member Services, Mass Audubon, 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 34,000 acres of conservation land, provide educational programs for 225,000 children and adults annually, and advocate for sound environmental policies at local, state, and federal levels. Mass Audubon's mission and actions have expanded since our beginning in 1896 when our founders set out to stop the slaughter of birds for use on women's fashions. Today we are the largest conservation organization in New England. Our statewide network of wildlife sanctuaries, in 90 Massachusetts communities, welcomes visitors of all ages and serves as the base for our work. To support these important efforts, call 800-AUDUBON (283-8266) or visit www.massaudubon.org.

Photography:

Cover: Rough Meadows Wildlife Sanctuary—
Alfred Chandler III©

p. 2 Girl running—Bob Wilber

p. 4 American kestrel—Jerry Ligor©

p. 5 Lawrence Green Team—Kathryn Prybylski©

p. 8 Couple with owl—Sherry Pearl 2008©; boy with net—Schylling©; Bird-a-thon graphic—
Kristin Foresto

p. 9 Girl in garden—Mass Audubon©; black-eyed susan and highbush cranberry—Joy Marzolf; great spangled fritillary butterfly—Richard Johnson©; ruby-throated hummingbird—
Bruce deGraaf©

p. 10 Josh Lachapelle—Miriam Rubin©; Josh with children—Lisa Carlin

p. 11 Shoe—Mia Kheyfet; Puffins—Bob Speare

Insert: Women kayaking and boys with clipboards—
Jan Kruse; butterfly—Mass Audubon©; man and girl with apple—Jan Kruse;
photographer with boy—Richard Johnson©

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Best-Kept Secret



*by Chris Leahy, Gerard A. Bertrand Chair of Natural History
and Field Ornithology at Mass Audubon*

WHICH CONSERVATION ORGANIZATION PROTECTS THE MOST LAND IN MASSACHUSETTS?

Even if you're a member, it may come as a surprise that the answer is Mass Audubon with more than 29,000 acres in its well-distributed statewide sanctuary system. We protect an additional 5,000 acres of land through conservation restrictions. But, though the score card is impressive, it doesn't begin to capture the energy and expertise that drive our ambitious land protection program. If you're ever feeling a little down about the state of the environment, stop in for a chat with Bob Wilber, Mass Audubon's director of land protection. Though he has spent the last two decades as a leader in the Massachusetts land protection community, Bob's unflagging enthusiasm for land conservation resembles that of an earnest college student working on his first political campaign. Inspiring concepts and telling anecdotes pour out as fast as the words can be formed—sometimes faster.

Bob begins by talking about people. "Of course we're focused on protecting important wildlife habitat, but since the acquisition of our first sanctuary nearly 100 years ago, people have been an essential part of the equation," he says. "And for those of us who spend a lot of our time working with landowners, it becomes so very clear that people have a deep *emotional* attachment to land and nature that involves aesthetic, spiritual, and historical values, as well as ecological ones." Bob is also quick to heap praise on his staff, whom he describes as not only technically proficient but uniquely skilled at establishing relationships of trust, as also noted by one of our key allies. "Mass Audubon is a major force in land conservation in Massachusetts, and I appreciate the leadership, dedication, and commitment it brings to preserving our natural landscape," says Commonwealth Energy and Environmental Affairs Secretary Ian Bowles. "As we in state government carry out Governor Patrick's historic land conservation agenda, Mass Audubon is our valued partner."

Bedrock of Science

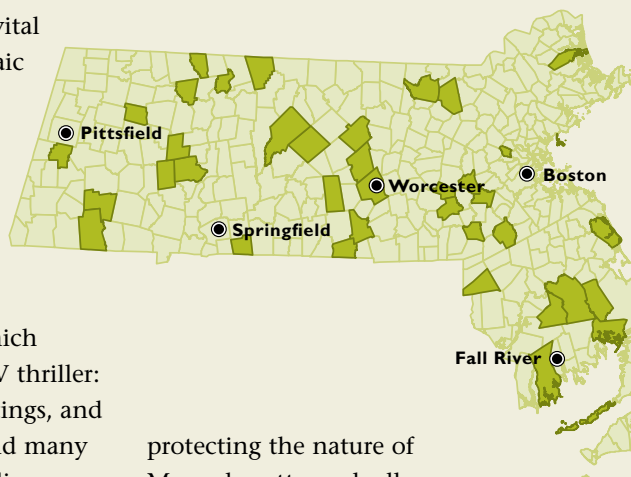
We strive to protect intact ecosystems that have high biological diversity and/or support rare species, and this means using the latest scientific data to guide our work. Priorities include acquiring properties to increase our already extraordinarily diverse land base, establishing conserved linkages to other significant protected areas, and working in partnerships to preserve additional lands of statewide importance. For example, **Rutland Brook Wildlife Sanctuary in Petersham and Barre**—the product of the vision of the late John Woolsey and the generosity of many landowners including the Butterworth, Woolsey, and Allen families—began as a relatively modest, though ecologically important, property. Through strategically targeted acquisitions, this sanctuary now comprises more than 1,600 acres. Rutland Brook also serves as a vital piece of the extraordinary mosaic of conservation properties located on the northeast flank of the 50,000-acre Quabbin wilderness.

Live Action Drama

Working in land protection makes for riveting “stories,” which contain all the elements of a TV thriller: heroes, villains, spectacular settings, and unpredictable twists of plot. And many of these stories have happy endings with multiple winners. Consider, for example, the “Miracle in Wareham”: Our land protection team—collaborating with the Wareham Land Trust, town of Wareham, state Department of Conservation and Recreation, and conservation-minded neighbors—helped the Sacred Hearts Retreat Center raise needed funds for facility improvements while preserving its land. Working with our partners, we protected over 300 acres of remarkably diverse habitat on Buzzards Bay—much of which was a developer’s would-be dreamscape. Instead, it will open to the public late this year as the **Great Neck Wildlife Sanctuary**, managed by Mass Audubon.

And although there is no end of “ripping yarns” that Bob can recount from the annals of land protection at Mass Audubon, he is justifiably proud of all we’ve accomplished, as are others. “Mass Audubon is nationally respected as one of America’s finest conservation organizations and stands uniquely poised to make a tremendous impact through its land conservation work,” according to Rand Wentworth, president of the Land Trust Alliance, a leading national land conservation organization with 1.5 million members. “Mass Audubon’s excellent staff has the demonstrated capacity to negotiate complex acquisitions to save some of the most important natural lands in Massachusetts.”

That said, there’s no sign of resting on laurels. “We are *absolutely* determined, as we watch the window for



protecting the nature of Massachusetts gradually closing, to *really have impact*,” says Bob. “Right now, there are good deals to be found, and we have an extraordinary opportunity to get large amounts of critical habitat permanently preserved. I want to carry a big sign around saying ‘talk to me about land protection’ because sometimes I feel like we’re Mass Audubon’s best-kept secret.”

PROTECTING LAND AND HABITAT

Goal: \$10,300,000



The 34,000 acres of conservation land we care for are home to 30 percent of rare plant species and 50 percent of threatened animals in the Commonwealth. The Protecting Land and Habitat initiative of Mass Audubon’s *Connecting People and Nature Campaign* is focused on current land protection efforts and aims to increase our capacity for preserving and maintaining valuable land.

Recent Successes

← **Worked** in 41 communities to protect an additional 5,000 acres of land over the last four and one-half years

Leveraged additional support for stewardship of the diverse 1,100-acre habitat at Allens Pond Wildlife Sanctuary in Westport

Published *Losing Ground IV: Beyond the Footprint*, a review of the pace of land development in the Commonwealth and its impact on the nature of Massachusetts

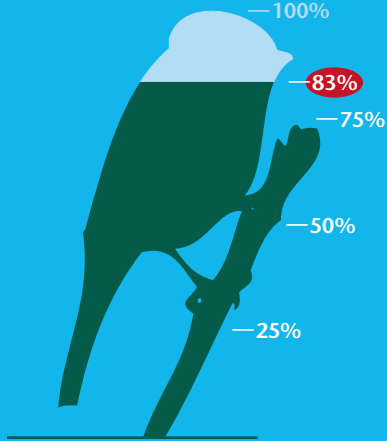
Developed the *Shaping the Future* program to assist 29 communities in southeastern and central Massachusetts with proactive planning for land protection

Recently launched the Mass Audubon Land Fund, which raises funds in perpetuity to enable us to rapidly respond to future key land conservation opportunities.

Learn more at
www.massaudubon.org/land

PRESERVING A COMMON WEALTH OF BIRDS

Goal: \$3,380,000



For more than a century, Mass Audubon has safeguarded birds. This initiative of Mass Audubon's *Connecting People and Nature Campaign* aims to strengthen Mass Audubon's ability to protect birds and their habitat, and to address the issues contributing to a disturbing decline in avian populations.

Recent Successes

Expanded the Birds to Watch program from Baltimore orioles to include whip-poor-wills and American kestrels

Created dynamic web content to empower citizen scientists to collect and disseminate important bird population information

Engaged 600 volunteers in the ambitious, statewide, data-collection initiative Breeding Bird Atlas 2

Increased the number of sites monitored by the Coastal Waterbird Program from 100 to 140 across the state over four years

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



BIRDING Beyond the Backyard

Kestrels: Big Trouble for Our Smallest Falcon

by Matthew Kamm, Bird Conservation Staff

American kestrels used to be a common sight in Massachusetts, hovering and diving over open fields. Sadly, this is no longer true. Just over thirty years ago, the first Massachusetts Breeding Bird Atlas found that half the survey blocks across the state had some evidence of breeding kestrels. Atlas 2—a five-year citizen-science research project currently in year four—reports evidence of breeding kestrels in less than 19 percent of the thousand plus blocks.

The possible culprits for the decline are numerous. Commercial flame retardants appear increasingly in nature, and they have been shown to cause reproductive problems in kestrels. West Nile virus arrived in America a decade ago and had a detrimental effect on populations of many raptor species before immunities developed. Further, Cooper's hawks have undergone a population explosion in Massachusetts, and they are known to hunt American kestrels.

Yet the most imposing factor for North America's smallest falcon is habitat loss. Kestrels need large, open fields in which to hunt, and they are secondary cavity nesters, requiring holes in trees excavated by woodpeckers or other preexisting cavities to breed. Forest succession and development are causing open space to disappear, making it increasingly difficult for kestrels to find suitable nesting sites.

The good news? With your assistance, we can help this colorful raptor. The American kestrel is the latest addition to Mass Audubon's Birds to Watch program, which relies on citizen scientists to help track the populations of declining, yet not endangered or threatened, bird species in towns and cities throughout the state. The goal? To better understand and reverse the causes of a species' decline.

If you can identify a kestrel, you can help by reporting the locations of kestrel sightings during breeding season using our online locator tool on the Birds to Watch website. We will use the data gathered by volunteers to erect nest boxes in strategic

locations throughout the state. Adult volunteers can also monitor the nest boxes during the breeding season. This entails visiting the box once every other week to check for kestrels, and, if a pair moves in, more frequent monitoring may be required. By offering these birds ready-made cavities, as well as identifying and protecting critical habitat, we can bring them back from the brink of disaster.

Learn more online at www.massaudubon.org/kestrels or read our Breeding Bird blog, Distraction Displays, with reports about the status of every breeding bird species in Massachusetts at www.massaudubon.org/bba2/blog.



American
kestrel



Hands-On, Minds-On, and Boots-On Learning

Spotting scope. Check. Field guides. Check. Teens and adults committed to urban environmental stewardship. Check. To develop dedicated environmentalists in urban areas where we do not own land or buildings, Mass Audubon has partnered with Groundwork Lawrence, a nonprofit organization working to promote the environmental, economic, and social well-being of that city.

“Mass Audubon’s success in Boston and Worcester, along with educational outreach in other urban communities such as Pittsfield, Lowell, and New Bedford inspired us to develop this new model for our organization,” says Gloria Villegas-Cardoza, Mass Audubon’s director of education and diversity. “We are committed to building sustained alliances and capacity of community organizations with a similar mission. Their success will be our success in engaging *all* residents—in particular, underserved and recent immigrant populations—in our important work.”

Flash back to September 2009. With training from Mass Audubon scientist Lou Wagner and naturalist Chris Leahy, the Groundwork Lawrence Green Team of ten energetic high school students began conducting Rapid Ecological Assessments (ecological surveys of plants and animals) at sites along the Spicket River. Over this past winter, the teens learned the nuts and bolts of creating trail maps and visitor guides from Mass Audubon Visitor Education Coordinator

Lucy Gertz, and they took a field trip to the Boston Nature Center (BNC). There, they learned about ecological restoration and the features of the green building, and also studied animal tracks while snowshoeing with Mass Audubon naturalist Peter Duran and the six teens who work with Mass Audubon staff at the BNC.

If additional funding is received, Mass Audubon staff will teach the Green Team to use technology, such as GIS/GPS equipment, to complete maps of additional vacant lots for inclusion in a natural resource management plan for the Spicket River. The end goal? To create a three-mile “emerald bracelet” along the waterway, comprising multiple green sites, linked by a walking trail and interpretive signage.

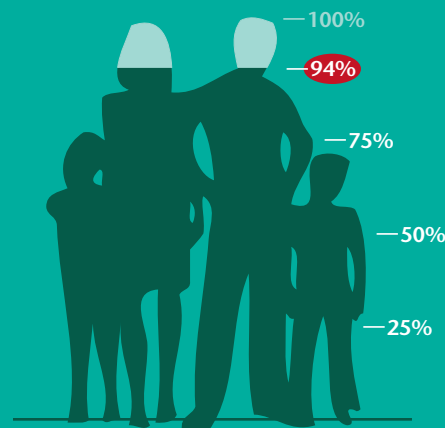
“Our partnership with Mass Audubon has helped build Groundwork Lawrence staff capacity to do more with environmental education,” says Groundwork Lawrence Education Program Manager Rose Gonzalez. “We want the youth to be good environmental stewards and give back to their community but also to broaden their skills and experiences. Fortunately, this program meets both goals and we hope it continues.”

This project is part of Mass Audubon’s Connecting People and Nature Campaign (see sidebar) and is funded by a TogetherGreen fellowship and the U.S. EPA.

▲ Jan Kruse

BUILDING CONSERVATION COMMUNITIES

Goal: \$34,376,000



More than 750,000 children and adults interact with Mass Audubon each year, through our statewide network of wildlife sanctuaries. This project of Mass Audubon’s *Connecting People and Nature Campaign* supports initiatives that strengthen our sanctuaries and programs.

Recent Successes

Opened five new sanctuaries (Burncoat Pond, Lynes, Conway Hills, Lime Kiln, and Eagle Lake); reopened Laughing Brook

Updated and built new facilities to better serve our visitors and care for our animals at Drumlin Farm

Added a new, green classroom to increase our programming for children and families at Joppa Flats Education Center in Newburyport

Launched initiatives at Boston Nature Center, Broadmoor, Wellfleet Bay, and Ipswich River wildlife sanctuaries to expand and diversify our reach, better engage our visitors, and enhance our facilities

Reduced our carbon footprint by 42 percent over six years through increased energy efficiency and use of renewable energy at our nature centers, which also serve as teaching tools for sustainable living.

Find out how you can get involved at
www.massaudubon.org/bcc



Wind

Have you noticed that there's almost always some wind? That's good because wind disperses seeds from plants, provides air thermals for migrating birds, and propels sailboats. Wind also allows animals to pick up a scent to locate and catch prey, and helps prey detect and flee from hungry predators. Wind contributes to fragrant breezes, fluffy clouds, and summer storms.

Have fun with these activities and then, for more hands-on wind adventures, visit www.massaudubon.org/go.

ready, set, Go Outside!

Create a Wind Sock

Supplies:



One wire clothes hanger

Tape or stapler

Crepe paper streamers or other lightweight materials such as tissue paper, thin cloth, or plastic grocery bags cut into strips

1.

Bend the hanger into a round shape and bend the handle (so it's shaped like a lollipop on a stick).

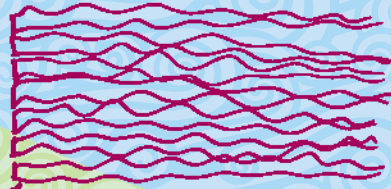


2.

Staple or tape 8 to 10 crepe paper streamers around the circle of the hanger, each about 2 feet long.

3.

Carry your wind sock outside on a windy day and watch it move!



Parent/Teacher Note

Skills Learned: Observation, comparison, sensory awareness, measuring, and experimentation

Windy Day Game

Can you see, hear, or feel the following things when you're playing outside?

- Moving clouds
- Seeds that travel in the wind
- A place where an animal can find shelter from the wind
- Blowing leaves
- A bird flying in the breeze
- Wind on your face
- Grass waving in the wind
- A gusty sound



Chillin' with Wind

Want to know the direction the wind is traveling? Hold one index finger up and move it around in a circle so your finger has faced each direction—north, east, south, and west. Next, lick your finger on the fingerprint side. Move it around in a circle again. Your finger should feel coldest when the wind hits the wet side, indicating the direction from which the wind is coming.



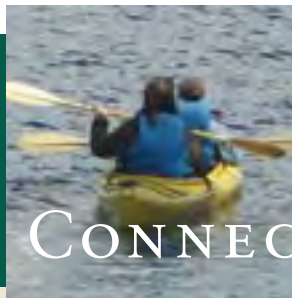
Test Flight

Fold a piece of paper into a plane and fly it outside on a windy day.

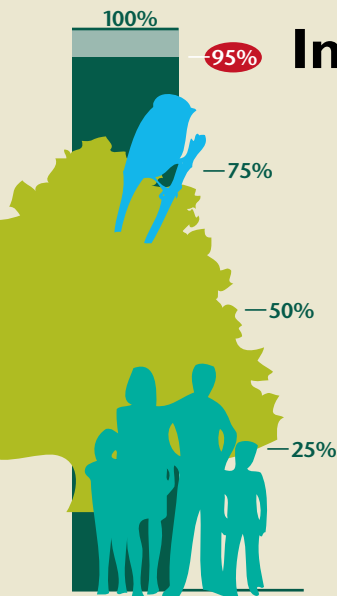
Observe where the wind takes it.

Make different styles of planes and compare how they are carried by the wind.





CONNECTING PEOPLE AND NATURE



Inspire. Preserve. Enjoy.

Nearly five years ago, Mass Audubon launched our *Connecting People and Nature Campaign*—to strengthen the ties that each Massachusetts resident has to the natural world. With more than \$52 million raised toward our overall Campaign goal, the finish line is in sight, thanks to the support of people like you.

You can help us reach our ambitious goals by making a contribution to one of the following high-priority areas. Please consider a tax-deductible donation above and beyond your membership dues. Together, we will make this vision a reality.

Connecting People and Nature Campaign

Building Conservation Communities \$34,376,000

To spark a lifetime of curiosity about the natural world
Community Education and Citizen Science, Endowed Positions,
Capital Improvements (*read more page 5*)

Protecting Land and Habitat \$10,300,000

For the benefit of people and wildlife, before land
is lost forever
Land Protection: Acquisition and Stewardship (*read more pages 2-3*)

Preserving a Common Wealth of Birds \$3,380,000

To honor our history and preserve our future
Campaign for Bird Conservation and Coastal
Waterbird Program (*read more page 4*)

The Fund for Nature \$6,944,000

To ensure our responsiveness, effectiveness,
and ability to innovate
Unrestricted Support

Total \$55 million

A Perfect Match!

Double your contribution when you make a gift above and beyond your membership dues. Gifts to the Annual Fund received by June 30 qualify for a generous \$100,000 Matching Challenge!

Donate now at
www.massaudubon.org/challenge or use the enclosed envelope.

If you'd like to know more about getting involved or would like to receive a *Connecting People and Nature Campaign* brochure, call 781-259-2133, email development@massaudubon.org, or go online at **www.massaudubon.org/campaign**.

Show us
Your Connection
to Nature!
This summer, join us
and take part in our

Passport to Nature
program,
Free Discovery Days,
and **Photo Contest.**

See details on
the following
pages...

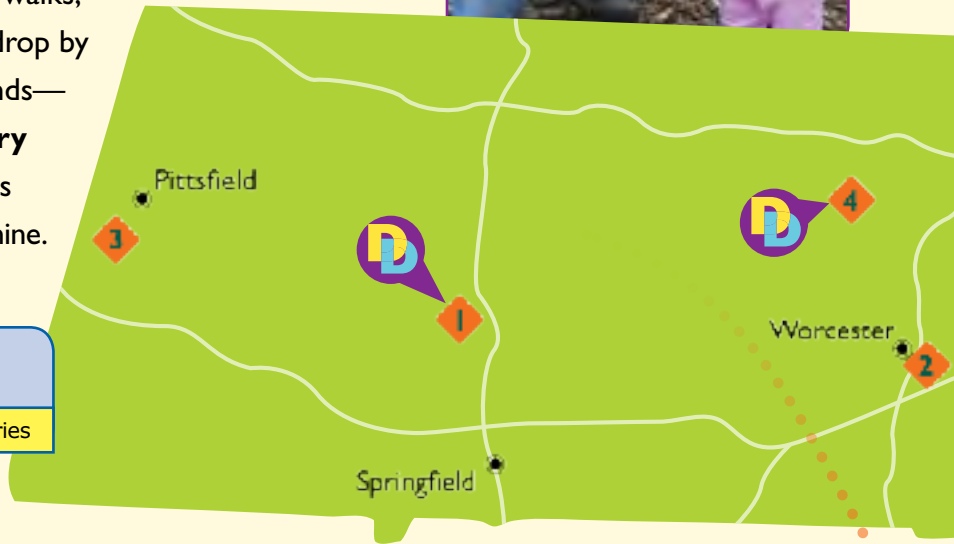
Everyone's Invited: Free Discovery Days



This summer and fall, join Mass Audubon for free fun-filled **Discovery Days** at select wildlife sanctuaries across the state. There will be special activities for all ages, including live animal demonstrations, crafts, guided walks, slideshows, and more. Please drop by and bring your family and friends—everyone gets in free. **Discovery Days** will be held on Saturdays from 10 am to 3 pm, rain or shine.

Request a **Passport** and get more information about **Discovery Days**

www.massaudubon.org/sanctuaries



Proud sponsor
of Mass Audubon's
Free Discovery Days.

Discover great savings on green auto insurance with the Environmental Insurance Agency, proud sponsor of Mass Audubon's Free Discovery Days. Get a free quote at www.EIAinsurance.com or call 877-999-9342.

Mass
Audubon
members save
10%!

Passport & Discovery Day Destinations

Central & Western Mass

1. Arcadia, Easthampton
 October 16 fields and grasslands discovery
2. Broad Meadow Brook, Worcester
3. Pleasant Valley, Lenox
4. Wachusett Meadow, Princeton
 August 7 historic farming exploration

Greater Boston

5. Blue Hills Trailside Museum, Milton
 October 23 how wildlife prepares for winter
6. Boston Nature Center, Mattapan
7. Broadmoor, Natick
8. Drumlin Farm, Lincoln
9. Habitat, Belmont
10. Visual Arts Center, Canton

North of Boston

11. Ipswich River, Topsfield
 September 11 river and wetlands investigation
12. Joppa Flats, Newburyport
 May 22 birding and seashore adventures

South of Boston

13. Allens Pond, Dartmouth & Westport
14. Daniel Webster, Marshfield
15. North River—South Shore, Marshfield
16. Moose Hill, Sharon
17. Oak Knoll, Attleboro
 October 2 grand opening of Attleboro Springs Wildlife Sanctuary
18. Stony Brook, Norfolk

Cape & Islands

19. Felix Neck, Edgartown
20. Long Pasture, Barnstable
21. Wellfleet Bay, South Wellfleet
 June 5 spring wildlife by the bay

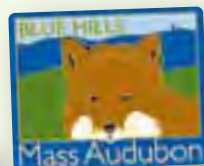
GET YOUR
PASSPORT
STAMPED

Back by popular demand —

Mass Audubon's **Passport to Nature**

Need another reason to hike our mountain trails, explore nature in the city, paddle a Massachusetts river, or see pond critters up close? Mass Audubon's **Passport to Nature** provides a great way to track which properties you have visited, what you did, and where you'll go next. When you visit a participating wildlife sanctuary, look for the wooden box containing the passport stamp, enter the secret code provided in your passport, and stamp the matching page of your book. Commemorate your visit with a unique pin, one for each participating sanctuary, available for \$5.

(See sample pins at right)



Visit 10 sites and you'll receive a pocket-sized **MAG-LITE® flashlight**; visit all 21 sites and we'll send you a **Mass Audubon stainless steel-water bottle**.

Calling All Shutterbugs!



Enjoy nature? Like taking photos?

Mass Audubon is pleased to announce the

Picture This:

My Connection to Nature

Mass Audubon Photo Contest

Contest ends September 6, 2010



We're seeking striking photographs that highlight the beauty and diversity of Massachusetts wildlife, habitats, and people in nature.



Eligibility

Professional and amateur photographers in the following categories are invited to participate:

1. Adults age 18 or older
 2. Students age 17 or younger
- Each entrant may enter a maximum of five digital photos; photos may be black and white or color.
 - Photos taken at any time prior to or during the photo contest are eligible, providing contest rules are met.



Prizes

National Geographic award-winning photojournalist Brian Skerry (www.brianskerry.com) will be among a panel of judges who will select winning photos, two of which will be featured on the cover of a Mass Audubon publication.

- **Two Grand Prize Winners** (one Adult and one Student)
- **Two winners for Best Mass Audubon Wildlife Sanctuary Photo** (one Adult and one Student)
- **Up to 20 Honorable Mentions** (up to 10 Adults and 10 Students)
- **All entrants will be invited to a post-celebration event** to be held this fall at the Visual Arts Center.

How to Enter

Upload digital photos that were taken in Massachusetts or at Mass Audubon's Wildwood Camp in Rindge, New Hampshire, via Mass Audubon's flickr® group.

Got the picture? Great! Then send us your best shot.
For complete rules, visit: www.massaudubon.org/picturethis.

It's not all fun and games. Long, stiff, sensitive, facial whiskers equip these playful mammals to locate and catch fish, frogs, crayfish, turtles, and snakes in murky water:

River Otter
(*Lontra canadensis*)

Rivers evoke our imagination and sense of adventure. They are places for boating, fishing, recreation, and wildlife watching. We see opportunities for transportation and commerce. And we witness the power of watercourses when they are harnessed for energy.

Rivers flow with their own seasonal rhythms. Winter snowmelt and spring rains lead to spring flooding. Dry summers bring droughts, higher water temperatures, and decreased oxygen levels. Autumn's fallen leaves yield a surge of decaying organic matter. Whatever the season, river inhabitants have remarkable adaptations for this constantly changing and continually moving habitat. Plants survive with long, anchoring root systems and floating seeds. Insects' streamlined or flattened body shapes are adorned

Common Arrowhead
(*Sagittaria latifolia*)

Aptly named, this plant has large, arrow-shaped leaves that splay over the shallows. Root tubers form below, and will surface in autumn.

EXPLORING THE NATURE OF MASSACHUSETTS

by Lucy Gertz, Visitor Education Coordinator

Reflections on Rivers

with all manner of hooks, lifelines, and suckers. Fish can maintain a constant position in the current, sometimes seeking shelter in deeper pools and in the lee of rocks on river bottoms. And mammals that live in and around cold, moving water adapt with webbed feet, thick fur, and abundant body fat.

Brook Trout (*Salvelinus fontinalis*)

This native fish prefers cold, clear, free-flowing rivers and is an indicator of healthy river habitats. Sometimes brook trout visit brackish estuaries to feed, reminding us that many riverine species are also associated with the ocean.

After centuries of our use and misuse of rivers, we are slowly changing our attitudes and renewing this vital natural resource. In the last 30 years, wastewater management expenditures and enforcement have improved water quality. Removing small, obsolete dams has restored flowing streams and enhanced habitat for certain fish species. Storm water management has begun to reduce surface water pollutants and

Belted Kingfisher
(*Ceryle alcyon*)

It's a delight to hear the rattling call and witness this bird dive headfirst into the water to catch a small fish resting in a quiet eddy or behind a rock.

siltation. Land conservation efforts continue to afford necessary protection of headwaters and streams. Ecological management practices control invasive aquatic plants such as water chestnut.

Still, the threat remains, as water drawdowns and pollution continue to plague some Massachusetts rivers, making them increasingly uninhabitable for aquatic plants and animals. Ongoing partnerships among municipalities, conservation agencies, watershed associations, and landowners are key in helping rivers. From these efforts, our rivers will flourish and flow, and we can continue to enjoy these precious and rich waterways.

Caddisfly larvae
(Order Trichoptera)

These larvae wear tiny, portable tube cases constructed from riverbed twigs, leaves, sand, bark, and animal debris. Construction techniques are so distinctive that most species can be identified by their case.

Illustrations by Michael DiGiorgio, from Mass Audubon's *Paddlers Guide to New England Rivers*. Available for \$4.95 at the Audubon Shop at Drumlin Farm.

Visit a river at one of these sanctuaries.

Arcadia, Easthampton—Paddle the Mill River or stroll the Fern and River Trails. Climb the observation tower for a possible bird's-eye view of river otters, herons, wood ducks, and more.

Broadmoor, Natick—Explore half a mile of riverfront on the Charles River Trail, where hooded mergansers, migrating warblers, and cardinal flowers can be seen. Launch a canoe off-site and float past the sanctuary to look for muskrats, great horned owls, and dragonflies.

Canoe Meadows, Pittsfield—Native Americans once hauled their canoes from the Housatonic River onto what is now this sanctuary. Sacred Way Trail, which parallels a bird migratory flyway, permits fine views of the river and its avian life.

Daniel Webster, Marshfield—During the dry summer months, snapping turtles are seen from the bridges over the Green Harbor River on the River Walk Trail. When the water level rises, river otters occasionally surprise visitors.

Ipswich River, Topsfield—Mass Audubon members can rent a canoe and take a leisurely trip down the beautiful, slow-moving Ipswich River. Canoes are available until October 31.

North River, Marshfield—In August, on the River Loop Boardwalk, great and snowy egrets, and great and little blue herons feed in the salt marshes at low tide. To the east, at the mouth of the North River, shorebirds and terns stage in huge numbers.



Audubon Nature Festival Sunday, June 6: 10 am-4 pm

Eyes on Owls live presentations
native plant sale | insect zoo
garden tours & nature walks
reptile & amphibian tent
food & bake sale | kids' activities
craft demos

Admission: \$12 per car.
Rain or shine.

Print a discount coupon at
www.massaudubon.org/ipswichriver

Ipswich River Wildlife Sanctuary
978-887-9264

Summer Reading

Paddlers Guide to New England Rivers water-proof field ID laminate

Now in paperback:
Summer World
by Bernd Heinrich—for adults

My Eco-Log by Clare Walker Leslie—nature activities book for kids ages 8 to 13—pre-order for early July

Audubon Shop at
Drumlin Farm Wildlife Sanctuary
Route 117, Lincoln, MA 01773
781-259-2214
audubonshop@massaudubon.org
www.massaudubon.org/shop



SUMMER PROGRAM SAMPLER

A snapshot of programs from among hundreds that Mass Audubon offers this season at our wildlife sanctuaries

John James Audubon Bird Walk— Woodlands and Streams

June 12: 9-11 am (coffee at 8:30)
ALLENS POND, Westport, 508-636-2437

Perseid Meteor Showers at Laughing Brook

August 12: 7:30-9:30 pm
ARCADIA, Easthampton, 413-584-3009

Blue Hills Summer Day Camp

June 21-August 7
BLUE HILLS, Milton, 617-333-0690 x227

Birds and Bards

May 16: 1-4:30 pm
BOSTON NATURE CENTER, Mattapan,
617-983-8500

Excursion Boat Trip on the Blackstone River

July 11: 1-4 pm
BROAD MEADOW BROOK, Worcester,
508-753-6087

Father's Day Weekend Canoe and Breakfast on the Charles

June 19: 7-11:30 am; pre-registration required
BROADMOOR, Natick, 508-655-2296

Dairy Day

June 5: 10 am-5 pm
DRUMLIN FARM, Lincoln, 781-259-2200

Seashore Discovery

June 21-September 3 (Mondays, Wednesdays,
& Fridays): 10-11:30 am
FELIX NECK, Edgartown, 508-627-4850

Summer Evening Mushroom Walk

August 11: 6-7:45 pm
HABITAT, Belmont, 617-489-5050

Mount Washington Alpine Exploration

June 17-18
IPSWICH RIVER, Topsfield, 978-887-9264

Seashore Science Series for Grades 1-4

July 13-15: 9:30-11 am; July 27-29: 9:30-11 am;
August 10-12: 9:30-11 am
Call for topic for each session
JOPPA FLATS, Newburyport, 978-462-9998

Aquatic Exploration Cruises of Nantucket Sound

Thursdays; July 8-August 12: 1:30-3:30 pm
LONG PASTURE, Barnstable, 508-362-7475

Fireflies!

June 29: 8:30-9:30 pm
MOOSE HILL, Sharon, 781-784-5691

Pleasant Valley Fun Day

June 5: 10 am-4 pm
PLEASANT VALLEY, Lenox, 413-637-0320

Tall Grasses and Breeding Birds Walk at Daniel Webster

July 10: 8-11 am
SOUTH SHORE, Marshfield, 781-837-9400

Family Art Studios: Sun Prints

June 13: 2-4 pm
VISUAL ARTS CENTER, Canton, 781-821-8853

Looking for Lost Ladybugs

July 17: 10 am-noon
WACHUSETT MEADOW, Princeton,
978-464-2712

Horseshoe Crabs Close-up

May 30: 9:30 am-noon
WELLFLEET BAY, Wellfleet, 508-349-2615

Wildwood Spring Alum Event and 60th Birthday!

May 22 (call for more information or to register)
WILDWOOD, Rindge, NH, 800-289-9504



www.massaudubon.org/programs

SPECIAL GARDENS

In Frances Hodgson Burnett's beloved children's tale, *The Secret Garden*, a young girl gains entrance to an enchanted garden that inspires her to bond with nature as she tends the plants and befriends a robin.

Many Mass Audubon wildlife sanctuaries have unique gardens brimming with native plants that minimize water usage, attract wildlife, reduce erosion, serve as educational guides, and demonstrate sustainable practices. Many of the gardens were created and are maintained with the assistance of wonderful volunteers.

Stash this at-a-glance chart in your car or backpack as a reminder to stop and smell the flowers when visiting sanctuaries across the state. And come back often as we add and expand our specialized gardens.

wildlife sanctuary

features / fun facts

Allens Pond WESTPORT	butterfly		• take an insect scavenger hunt; see rare migrant butterflies; irrigated by rainwater and a solar-powered pump
Boston Nature Center MATTAPAN	butterfly		attracts 46 species of butterflies
Broadmoor NATICK	native plants	•	• take a native plant Quest; irrigated by a SmartStorm rainwater recovery system
Broad Meadow Brook WORCESTER	rain	•	• attracts butterflies and hummingbirds; demonstration garden for reusing storm water runoff
Broad Meadow Brook WORCESTER	water		observe frogs, native fish, and aquatic plants and insects
Drumlin Farm LINCOLN	native plants		• native perennials, ferns, ground covers, shrubs, and trees
Drumlin Farm LINCOLN	kitchen		walk through a small corn maze; see a bean tepee, edible flower bed, and pizza garden; demonstrates sustainable farming
Felix Neck MARTHA'S VINEYARD	butterfly		observe goldfish and water lilies in the garden pond; includes walking paths and benches
Habitat BELMONT	butterfly	•	enjoy native plants and herbs with birdbath
Ipswich River TOPSFIELD	backyard bird habitat		• features a wide variety of native plants and a pond for year-round appeal
North River MARSHFIELD	rain and hummingbird	•	demonstration garden for managing storm water runoff
North River MARSHFIELD	nectar		attracts butterflies and hummingbirds
Stony Brook NORFOLK	butterfly		garden expansion planned in 2010 will include brochure and interpretive panels
Wellfleet Bay WELLFLEET	butterfly and hummingbird	•	irrigated by recycled gray water and rain harvesting; also see the notebook about plants and butterflies in nature center

type of garden

brochure available onsite

plant identification



SIXTEEN AND GREEN



Josh Lachapelle is articulate and self-assured as he explains his goals in life. “I want to see how we will go green in the next 20 years,” he says, “because that’s the way we’ll have to go to live together on this planet.” A junior at St. John’s High School in Shrewsbury, Josh first attended day camp at Mass Audubon’s Broad Meadow Brook Wildlife Sanctuary

“I really enjoy teaching because I learned from the best,” Josh says, referring to the staff at Broad Meadow Brook. “There’s nothing better than exploring nature in a fun way and learning about conservation at the same time.” Josh likes teaching the older children, who understand more advanced concepts, but also shares the

“There’s nothing better than exploring nature in a fun way and learning about conservation at the same time.”

—Josh Lachapelle

in Worcester when he was 10. Since then he’s returned every summer, becoming a Counselor-in-Training (CIT) at age 14.

For two years he’s learned on the job as a volunteer CIT and as an assistant during vacation week camp. “This summer, Josh will be a paid junior counselor,” says Lisa Carlin, Broad Meadow Brook education coordinator and day camp director. “He’s a spectacular role model and a natural teacher with a passion for nature.”

basics with the younger campers.

At camp everyone calls Josh “Pickerel.” He says the name derives from a small pond by his house in Whitinsville where he first became engaged with nature. His family would fish for bass, kiver, sunfish—“and one large pickerel that was just sitting there near the surface.” But no one in the family could hook it. “It was a big event when we finally

caught it,” says Josh. “It was a beauty. We took a picture and then we let it go.”

Josh takes campers for hikes along the Troiano Brookside Trail to look for turtles, snakes, muskrats, and beavers; or to investigate the sanctuary’s vernal pools. He recalls his favorite day. A group of kids were searching the pools when they found not one but two uncommon salamanders. All the children took part in the ID—a two-lined salamander and a four-toed salamander, both of which had not been seen at the sanctuary for several years.

Josh’s whole family is involved at Broad Meadow Brook. Jacob, his younger brother, attends camp and was recipient of the young naturalist award at Broad Meadow Brook; and they all took part in the butterfly festival. “We try to treat the wild with as much respect as we can,” says Josh.

Alongside classmates, Josh helped dig the water garden at Broad Meadow Brook. And he is already looking to the future. As a member of the Model United Nations Club for high school students,



he attended the 2010 national conference in Chicago with 2,000 other participants. Through his interest in political science and international relations, Josh envisions preserving the earth on a worldwide scale. But he knows that conservation begins at home in Massachusetts, as evidenced by his work for Mass Audubon.

▲ Ann Prince

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The Natural Inquirer

by John Galluzzo, South Shore Sanctuaries Education Coordinator

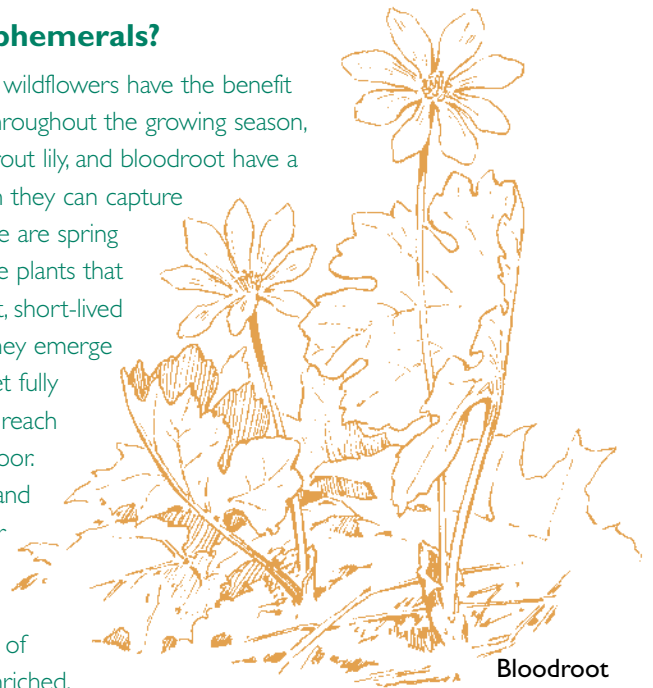
Q: What are spring ephemerals?

A: While many Massachusetts wildflowers have the benefit of strong, direct sunshine throughout the growing season, species including trilliums, trout lily, and bloodroot have a short window during which they can capture the energy of the sun. These are spring ephemerals, flowering native plants that capitalize on two important, short-lived factors of forest life. First, they emerge when the trees have not yet fully leafed out and sunlight can reach wildflowers on the forest floor. Second, as plants die back and decay in fall, they leave their nutrients in the soil. Early emergence allows spring ephemerals to begin intake of these nutrients from the enriched, wet soils before most other woodland plants. For six to eight weeks, spring ephemerals bring wonderful color to a world still locked in grays and browns, and then die back to their bulbs, rhizomes, and roots underground.

Natural fact: Ants spread bloodroot (*Sanguinaria canadensis*) seeds, which have an attached fleshy organ known as an elaiosome that the ants eat, then deposit the seed in their nest where it is protected until it germinates.

The Natural Inquirer would like to hear from you: e-mail inquirer@massaudubon.org

Illustration: Gordon Morrison©



Bloodroot



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October 30–November 13 with Chris Leahy

2011 Trips

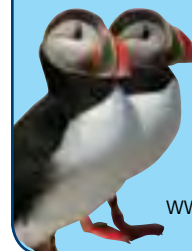
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Sounds like Summer

at a Mass Audubon Sanctuary Near You



Mass Audubon has 49 wildlife sanctuaries (www.massaudubon.org/sanctuaries) open to the public year-round. They provide important habitat for wildlife and opportunities for you to enjoy and appreciate nature.

Wachusett Meadow Wildlife Sanctuary has recorded 44 mammal species, more than any other sanctuary. Sightings range from a 1,000-pound moose to a 4-gram masked shrew.



Berkshires

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

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. Nashoba Brook, Westford
22. Joppa Flats, Newburyport
23. Ipswich River, Topsfield
24. Endicott, Wenham
25. Eastern Point, Gloucester
26. Marblehead Neck, Marblehead
27. Nahant Thicket, Nahant

Greater Boston

28. Habitat, Belmont
29. Drumlin Farm, Lincoln

30. Waseeka, Hopkinton
31. Broadmoor, Natick
32. Boston Nature Center, Mattapan
33. Blue Hills Trailside Museum, Milton
34. Visual Arts Center, Canton

South of Boston

35. Moose Hill, Sharon
36. Stony Brook, Norfolk
37. Oak Knoll, Attleboro
38. Attleboro Springs, Attleboro (Grand Opening Oct. 2, 2010)
39. North River, Marshfield
40. Daniel Webster, Marshfield
41. North Hill Marsh, Duxbury
42. Allens Pond, Dartmouth and Westport

Cape Cod and the Islands

43. Ashumet Holly, Falmouth
44. Sampsons Island, Barnstable
45. Skunknet River, Barnstable
46. Long Pasture, Barnstable
47. Wellfleet Bay, Wellfleet
48. Felix Neck, Edgartown
49. Sesachacha Heathlands, Nantucket

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