



MAINE AUDUBON

Fall 2021

HABITAT

The Challenges of Solar Siting

ALSO

New Faces at Maine Audubon
Legislative and Advocacy Update
Fall Programs
Species Spotlight: Woodchuck

New Faces at Maine Audubon

Meet these new staff members, who rose to the challenge of joining either just before or during the pandemic!



Michelle Duffy
*Fields Pond Audubon
Center Program Assistant*

Michelle is a program assistant at the Fields Pond Audubon Sanctuary where she runs programs

for people of all ages. She recently graduated from UMaine with a Master's in Wildlife Conservation.



Maria Felski
*Development & Program
Services Coordinator*

Originally from Charlottesville, VA, Maria attended Bates College, where she received a Bachelor's Degree in

Classical & Medieval Studies and Spanish in 2018. After graduating, she taught English in Madrid, then returned to Maine and worked as a Study Abroad Advisor at the Council on International Educational Exchange. She got her first taste for the field of development while volunteering in the Development & Special Events office at the Children's Museum and Theatre of Maine.



Julia Finkle
Staff Accountant

Julia is a born and bred Mainer who loves to hike, swim, and eat every delicious meal the Greater Portland area has to offer.

She enjoys singing and playing guitar, as well as exploring as much of Maine as she can. She says Maine Audubon has been her dream place to work for years!



Annette Kraus
Grants Manager

After a varied corporate career and a 2005 move to Portland, Annette turned to the nonprofit sector, co-founding an arts

education organization working with public schools. She has been providing strategic and operational support to small nonprofits and writing grants ever since. Annette holds tandem Bachelor's Degrees in Finance and Computer Science from the University of Pennsylvania.



Mary Raimondo
*Gilsland Farm Nature
Store Associate*

Nature lover and long-time Maine Audubon member and patron, Mary has worked most

recently as a Visitor and Member Experience Ambassador at the Portland Museum of Art and Store, welcoming and assisting visitors from around the globe.



Colleen Spivey
*Leadership & Legacy
Giving Manager*

Colleen brings more than a decade of fundraising experience to Maine Audubon,

having most recently worked with the Island Institute and The Trust for Public Land. A native of Washington, DC, Colleen received her B.A. from Colgate University (NY), and worked for several public interest and environmental nonprofits before landing in Maine in 2015. She enjoys exploring the Maine outdoors from her home base in South Portland, where she lives with her husband and rescue pup, Abbey.



Jill Valley-Orlando,
*Nature Store Manager &
Volunteer Coordinator*

Jill is excited to join Maine Audubon as the new retail store manager and volunteer coordina-

tor. Jill has spent 25-plus years in sales, marketing, public relations, and retail operations and is eager to devote her time and energy into growing the volunteer and docent program, as well as bringing unique Maine products to our members and guests.

 MAINE AUDUBON

Bird Seed SALE

October 15–25

It's our annual bird seed sale with the lowest prices of the year on all in-stock bird seed.

Also, members get 20% off all other store items *(except bird seed and optics)*

Order at

naturestore.maineaudubon.org

Schedule a pick up between

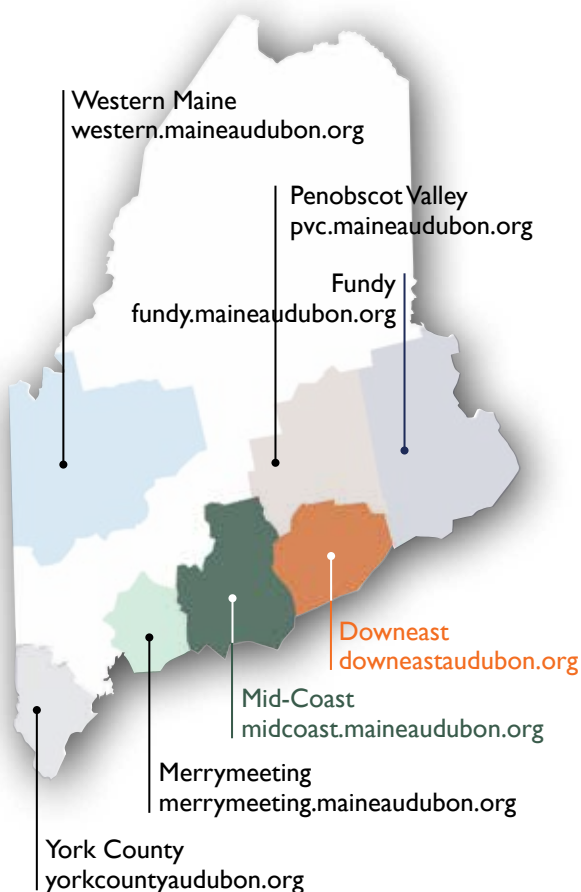
October 15 and 25 at

Gilsland Farm Audubon Center

Nature Store in Falmouth.



Chapters



DOWNEAST CHAPTER downeastaudubon.org

Maine Wonders with Zoe Weil
Moore Community Center, Ellsworth
September 8, 7 pm

Journey into the natural world, where you'll discover mind-boggling animals and fungi. This program will cover: **Sex and Reproduction**, **Metamorphosis and Transformation**, **Iconic Maine Beauty**, and the **Weird and the Wild**.

MID-COAST CHAPTER midcoast.maineaudubon.org

**Fall Talks hosted by the
Camden Public Library**
Online via Zoom, 6-7pm

**September 16: Ancient Trees
of North America**

Take a photographic journey with David Govatski across North America to see the oldest trees including Bristlecone Pines, Whitebark and Foxtail Pines, Bald Cypress, Northern White Cedar, and the Black Gum.

October 21: Nocturnal Flight Calls

Author, conservationist, and bird migration enthusiast Eric Master-son will share what he has learned operating a nocturnal flight call station, recording and analyzing the calls of migrating birds as they pass unseen overhead.

**November 18: A Year
in the Lives of North
American Owls**

Join Paul Bannick for a program featuring video, sound, stories from the field, and several dozen new images from his award-winning book: *Owl: A Year in the Lives of North American Owls*.






Bird Feeder Station Project Grows
Mid-Coast Audubon awarded six bird feeder stations this spring to five schools and a library in Knox, Lincoln, and Waldo counties. We had an outstanding response to our call for applications, and we plan to continue this project and support additional sites in the future. We led seven field trips this spring with increased interest and attendance. Our slate of programs in partnership with the Camden Public Library will resume on September 16.

Shop Early for the Holidays

A Maine Audubon membership is the perfect gift for friends, family, coworkers—anyone who loves nature and wildlife.



**Purchase a
gift membership at**
maineaudubon.org/members

**and receive a card to send your
recipient telling them a gift
membership is on its way.**

*Allow three weeks for the recipient's
membership packet to arrive.*

Contact
Membership Manager Maureen Duggan
207.781.2330 ext. 230
mduggan@maineaudubon.org

Conservation

Forests for Maine Fish

Maine's forests, fish, and wildlife go hand in hand, and when properly managed, forests can provide abundant clean water and quality fish and wildlife habitat. That's why Maine is the last U.S. stronghold for Brook Trout and Atlantic Salmon. That's also why Maine Audubon has teamed up with several other partners to develop a new **Forests for Maine Fish** program. As a complement to our **Forestry for Maine Birds** program, it guides foresters, loggers, and shoreland owners on what they can do to help protect these precious habitats.

Forests managed for fish help reduce runoff and pollutants like phosphorus; provide shade that keeps waters cool; provide leaves that form the basis of the aquatic food chain; help stabilize banks; and provide feeding, spawning, and nursery areas. They also contribute trees that fall into the water and help create pools where insects circulate and, if deep enough, provide oxygen-rich cold water refuges. Our guides are scheduled to be completed by winter.

Partners include: Forest Stewards Guild, Maine Forest Service, Maine Lakes, and Maine Lakes Association, with input from Maine Dept. of Inland Fisheries and Wildlife, Trout Unlimited, and Sustainable Forestry Initiative.

Moosehead Regional Planning

If you've ever visited Greenville and the Moosehead Lake region, you know how special it is. Some years ago, the Land Use Planning Commission (LUPC) approved a plan for the region that allowed numerous subdivisions, two large resorts, and a few commercial activities to be developed in exchange for a permanent conservation easement on 359,000 acres around Moosehead Lake. That plan was discontinued last year and now it's time to develop a new plan for the region. The LUPC has developed four different scenarios that you can review online or in person and let them know what you like, what you don't like, and what you'd like to see changed. Maine Audubon submitted preliminary comments that were used to develop the four scenarios, and will be reviewing and commenting on the draft maps this fall. Look for the Moosehead Region Planning Project here: maine.gov/dac/lupc





Photo: Somes-Meynell Wildlife Sanctuary

Loon Restoration Grant

In 2003, 98,000 gallons of oil spilled from a tank barge off the coasts of Massachusetts and Rhode Island, and an estimated 531 Common Loons died from direct or indirect impacts. Now, a natural resources damage settlement from this spill has led to funding for restoration of loons on their breeding grounds, and Maine Audubon is pleased to be one of the funding recipients.

Maine Audubon's proposal, a collaboration with Maine Lakes, Lakes Environmental Association, and the Penobscot Indian Nation, was awarded \$825,445. "We're excited to partner with lake associations, loon counters, and other community scientists throughout the state to enhance breeding success and reduce mortality to benefit the state's loon population," said Maine Audubon Wildlife Ecologist Tracy Hart. The project will include the use of artificial nests and signs where appropriate, an expanded Fish Lead Free Program, and the expansion of a volunteer Loon Ranger program. Maine is fortunate to house the largest Common Loon population in the Northeast and this grant will allow biologists and community scientists to expand efforts to recover loon losses from the oil spill and safeguard the future of this population.



A loon raft on Echo Lake in Mount Desert Island. This summer, the partners started training sessions on how to find and select the best spots for placing rafts, and how to monitor nests and families after eggs hatch.

Education



Raise High the Roof!

Visitors to Gilsland Farm Audubon Center in Falmouth this spring and summer were able to watch every phase of the creation of a new outdoor classroom. Even the local Snapping Turtles approved, laying eggs right near the foundation! Thanks to a generous grant last fall from Jane's Trust, Maine Audubon has replaced the Instructional Tent at Gilsland Farm with a new post and beam structure designed and built by Maine Barn Company. It will serve as an outdoor classroom, providing safe outdoor learning in most weather for small groups and hosting numerous Maine Audubon and community programs and events.

Don't Forget Native Plants Sale

It's been another wonderful season of "Bringing Nature Home" in Maine, and we are grateful for everyone who bought plants, attended a program, or supported a habitat restoration project in their community. But the growing season ain't over yet! Stay tuned for emails and social media about fall specials, member discounts, and tips for closing out the growing season and getting started on next year in style.

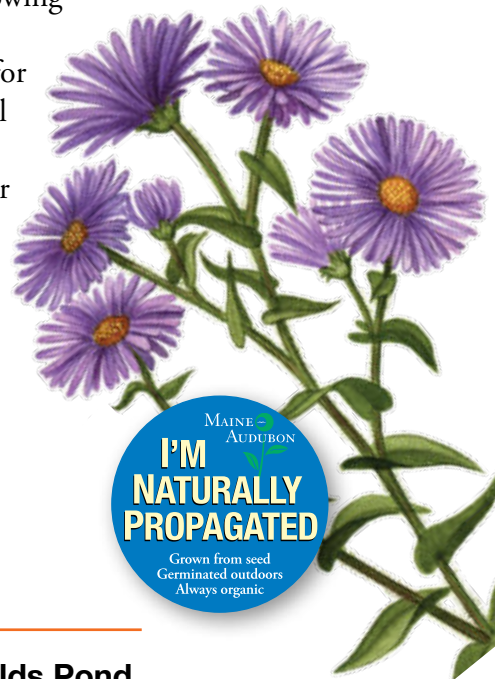


Photo courtesy of Amber Roth

Tagging and Tracking Bobolinks at Fields Pond

In the last issue of *Habitat*, we reported on Dr. Amber Roth of the University of Maine and her project to put nanotag transmitters on Bobolinks and Monarch Butterflies at Fields Pond Audubon Center in Holden. This summer, she and her students began by catching Bobolinks in mist nets, putting the nanotags on the birds, and releasing them. They will then compare their migration patterns to Bobolink populations in other states. While connected to the broader Motus Wildlife Tracking Network used by professional researchers, the Fields Pond Motus tower and tagging project, which is funded by the Maine Outdoor Heritage Fund, is focused primarily on providing educational access and exposure to these real world STEM and conservation practices. Roth will use Fields Pond to introduce her students, as well as local schoolchildren, to these skills, tools, and careers.



EDUCATION IN ACTION

Members of Portland Youth Corps, a program planned and created by Portland Parks and Recreation, Portland Parks Conservancy, and Maine Audubon.

Urban Spaces

Take Center Stage for Environmental Action

Maine Audubon's mission and work has always emphasized engaging people and their communities. That focus, combined with our ongoing commitment to diversity, equity, and inclusion, has meant that Maine's urban centers have heightened strategic importance in expanding and sustaining our reach and relevance.

To be more inclusive as an organization means inviting and incorporating new participation, new perspective, and new leadership. It also means meeting new partners where they are, finding shared values, and making Maine Audubon resources more accessible. This summer, we hunkered down in the middle of Maine's three largest cities with these goals in mind.

Portland

Maine Audubon is honored to have been a founding partner for Portland Youth Corps, a new work development and stewardship program for Portland teens. Twenty-four incredible youth joined Maine Audubon and others restoring habitat, improving trails, cleaning up parks and public spaces, and getting to know the many community organizations excited about their futures.

We also worked with Portland Schools on their annual Summer Language Academy for English language learners in middle and high schools. More than 60 students studied the habitats around them, learned about Rachel Carson, and visited her namesake National Wildlife Refuge

in Wells. The program concluded with local landscape stewardship projects.

Lewiston-Auburn

Maine Audubon is thrilled to have contributed to a growing interest in habitat restoration in downtown Lewiston and Auburn, and some transformational projects started coming to fruition this summer. Our friends at the Center for Women's Wisdom have anchored our work in the Tree Streets area at Sophia's House, from which programmatic tentacles extend to new funding, collaboration with Bates College, an interpretive installation at Range Pond State Park, and new youth programs for Maine's second largest population center.


Bangor

We've reported before on our "River In My Backyard" watershed education program, funded by North American Association for Environmental Education, in partnership with Bangor's 21st Century Community Learning Center school enrichment program. This summer, our staff jumped at the opportunity to take over managing the 21CCLC site at Fairmount School, an elementary school in Bangor. Maine Audubon helped the school district keep the site open and the grant even helped us hire a lifeguard so that participating youth could still use the pool across the street. In all, 40 Bangor students enjoyed at least a week of free STEM enrichment camp.



The Challenges of Solar Siting

By Nicholas Lund



In late 2020 the planning board for the town of Blue Hill was considering a controversial new development proposal. Residents had questions and concerns about the project's more than 18-acre footprint: Would clear-cutting the site increase runoff into East Blue Hill Bay? Would this project fit with existing infrastructure? Would any habitat for Bald Eagles or other wildlife be lost?

These were all normal concerns for a large development project in a rural area, only this project wasn't a shopping mall or warehouse, it was a solar farm—clean, locally-produced renewable energy. Blue Hill was one of many Maine towns suddenly faced with proposals for large solar developments, spurred in part by state incentives, but without experience or guidance on how to evaluate their impacts and benefits.

Decades of fossil fuel use continues to fundamentally change our planet, putting wildlife, habitat, and human lives at risk. There is an urgent need to move to clean, renewable energy in order to stave off the worst impacts of climate change. The state of Maine has recognized this need and is committed to procuring 80% of retail electricity sales from renewable energy sources by 2030 and 100% by 2050. Solar energy is already playing a major role in our conversion to renewable energy, and its role will continue to grow: the state is committed to creating 375 megawatts of solar energy by 2024, more than double the 174 MW installed as of April 2021.

These ambitious and important state goals have led to a rush of proposals in front of planning boards in towns like Blue Hill.

After months of debate in town planning board meetings, in February 2021 the citizens of Blue Hill voted 114-30 to establish a moratorium on solar development while they developed solar provisions for their Land Use Ordinance.

Many of Maine's existing municipal solar regulations, where there are any at all, are geared toward the kind of private, rooftop panels that became popular in the 1970s and 80s. Today's projects are often quite different: large arrays consisting of hundreds of ground-mounted panels taking up

many acres. While undoubtedly producing clean energy, these projects have a much larger environmental footprint than rooftop installations. Of greatest concern is where forested areas, which provide wildlife habitat and act as carbon sinks, are being cleared to build solar farms.

Decades of fossil fuel use continues to fundamentally change our planet, putting wildlife, habitat, and human lives at risk.

Heartburn about the impacts of solar siting isn't unique to Maine; our neighbors to the south are experiencing the same issues.

According to Mass Audubon's 2020 Losing Ground report, roughly 7,000 acres of land conversion between 2012 and 2017—or one quarter of all development—was for ground-mounted solar arrays. "We've known for a number of years, observed anecdotally, that these big projects were happening," says Heidi Ricci, Mass Audubon's Director of Policy and Advocacy, "and that large areas of forest or farmland were being converted to solar arrays, but we didn't know it was this much."



Examples of solar panels placed on already-developed land include the Fore Street Parking Garage in Portland (top), the transfer station in St. George (middle) and a capped municipal landfill in South Portland (bottom). *Photos courtesy ReVision Energy.*

Part of the problem, she said, was that towns were unprepared. "Lots of the people in these smaller communities who were left to deal with these issues were volunteers or had very few staff, and all of a sudden they were inundated by businesses saying they were going to undertake these huge projects in their towns." The pace of development, coupled with a Massachusetts law that exempted solar installations from local development

law, meant that thousands of acres of forest or farmland were being converted to solar.

Municipalities and states around the Northeast, including in Maine, are increasingly taking action to ensure that solar is sited in such a way as to avoid or minimize environmental impacts. Massachusetts finalized emergency regulations

in July 2020 to protect what the state defines as critical natural landscape, core habitat, and priority habitat. Long Island, New York, created a solar energy road map to find low-conflict areas to develop. Other states, from Maryland to Hawaii, are dealing with similar issues.

One potential solution is to make sure solar is prioritized in areas of low environmental impact. Panels placed on residential or commercial rooftops sit entirely

on already-developed land, and, thanks to Maine's net-energy billing rules, may actually benefit homeowners when energy is put back into the grid. Solar arrays may also be placed on parking lots, brownfields, gravel pits, landfills, and other unused or underutilized areas, giving municipalities a break on energy costs and boosting Maine's clean energy bottom line.

Lots of projects have already been sited in these low-impact areas. About 90% of the energy needs of the town of St. George have been met by solar panels on top of their transfer station. The town of Bucksport installed solar systems at their public works department and wastewater treatment facility, saving the town an estimated \$1.5 million over the life of the projects, according to ReVision Energy. Capped municipal landfills are

generating energy for Portland, South Portland, Cumberland, and others, seemingly fulfilling the utopian promise of renewable energy.

But not all solar development can fit onto a landfill or be placed on a roof, and larger projects are being proposed or built across the state which are causing some to ask difficult questions about environmental benefits.

Maine Audubon is helping to get ahead of the issue in Maine, where the state's relatively large amounts of undeveloped land mean that siting issues are felt primarily on the local level. In 2020, Maine Audubon partnered with municipal planners, solar developers, and agricultural and environmental advocates to develop a kit including a model ordinance, a best practices document, and other information that was mailed to more than 300 Maine towns with the help of the Maine Municipal Association. Some towns, including Freeport and China, have developed and passed ordinances based on this model.

Maine Audubon has made a series of recommendations for solar siting in order to reduce its environmental footprint. These Best Practices include preferential use of brownfields or other degraded lands; the avoidance of intact forested landscapes; locating solar near existing infrastructure to minimize additional clearing and disturbance; and maintenance of solar farms with native vegetation to support local pollinators. Maine Audubon is working with towns, developers, the state, and the state legislature to spur the widespread adoption of these recommendations, or turn them into requirements.



Find Maine Audubon's solar siting toolkit at maineaudubon.org/solar

Working with Clarissa Paz, a contractor who worked on a similar tool for the National Audubon Society, Maine Audubon Conservation Biologist and GIS Specialist Sarah Haggerty has developed the Renewable Energy Siting Tool (maineaudubon.org/renewable-energy-siting). This new tool is an interactive online GIS map with dozens of layers designed to help towns, developers, landowners, and regulators reduce potential impacts to high value plant and wildlife habitats, soils, and other natural resources by steering development toward more compatible areas early on in the process.

As for the town of Blue Hill, planners worked quickly to update their commercial site plan review ordinance to deal with solar projects. Their update, finalized in March, had the effect of excluding the kinds of large projects proposed nearby, due to environmental concerns and a lack of substation infrastructure to accommodate for a sizeable

amount of new energy put into the grid. Hugh Nazor, the Chair of the Blue Hill Planning Board, said that the town is "reasonably happy" with the updates and is proud of how his town handled this new situation. But Nazor, who lives in a passive solar home, doesn't want the state or town to give up on local renewable energy, believing that "[e]verybody should be trying to find a place to make solar work." 🌞



Nicholas Lund is Advocacy and Outreach Manager at Maine Audubon. He writes about birds and nature for the *Portland Phoenix*, Slate.com, The National Audubon Society, and for his own site, TheBirdist.com.



ADVOCACY IN ACTION

Building Bird Safe

Local Architects Incorporate New Technologies into Eco-conscious Homes

An unsettling thought crept into Danielle Foisy's mind during the lecture: "What have we done? Have we made a death trap for birds?"

An architect at Kaplan Thompson, Foisy was in the middle of a major rebuild-in-place project on the coast of Maine. The clients were eco-conscious, the building would be all-electric and Net Zero Energy, incorporate native plantings and a green roof, and use local lumber, but bird safety wasn't on their radar—or the design team's. Now, as she watched the 2019 guest lecture on "Birds and Buildings" by architect Nick Liadis, hosted at the Maine College of Art, she knew she had to do something.

Large windows taking advantage of ocean views were a design priority, so she focused there. She researched solutions and identified windows in the existing design that were at greatest risk of bird strikes: corner windows, those that reflected vegetation, large picture windows, and those without large exterior screens. She worked with glass supplier Marvin Windows to specify windows with UV glazing, meaning they were visible to birds but didn't impact views for humans.

But using windows with UV glass meant additional costs, and Foisy wasn't sure how the clients would react. Thankfully, once aware of the issues at hand, they felt it was the right thing to do—even revealing problems with bird collisions at their current house. As a bonus, Foisy discovered that the UV glass reduced solar heat gain potential in the home, and helped keep the airy home cool in summer. A total of 16 cutting-edge UV-glazed windows will be installed, along with fully-shaded exterior lighting to minimize attracting migrating birds at night.

Foisy told her story at a webinar hosted this summer by the Portland Society for Architecture, one of Maine Audubon's partners in bird safe work, while other architects on the panel shared their stories of waking up to the use of bird safe technologies in their buildings. Awareness is growing among Maine architects, and bird-safe technology is poised to become the next big thing in sustainable design.



First Session
of the
130th Maine Legislature

Legislative and Advocacy 2021 UPDATE

The attribute that characterized the first session of Maine's 130th Legislature was determination. Determination not to let the pandemic stand in the way of getting work done. Determination to make progress on climate action and other environmental priorities. Determination to take advantage of opportunities to do the right thing.

And it worked. Legislators hit the ground running this session, picking up on progress made during the second session of the 129th Legislature last year and taking advantage of an administration in Washington that is now willing to support progress on climate change, renewable energy, and other environmental priorities.

Maine Audubon members helped us achieve some incredible wins this session. Our records show that Maine Audubon members and supporters sent more than 4,500 messages to their representatives in 2021, nearly double what they sent in 2020. Our voices were heard, and as a result many of our priority bills passed, including some that had been stymied for years.

Make sure you're part of the success by joining our Action Network to stay up to date on all policy issues impacting Maine's wildlife and habitat. Go to maineaudubon.org/act to sign up!

Yours in conservation,



Eliza Donoghue, Esq.

Director of Advocacy and Staff Attorney



Progress: Maine's Climate Action Plan

The Climate Action Plan (CAP), finalized in December 2020, was a major priority this session. A number of legislative issues we worked on focused on taking recommendations of the Climate Action Plan and making them a reality.



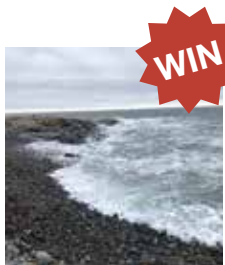
Climate Action Plan Goal: Conserve Natural and Working Lands by Securing Essential Land Conservation Funding

This was identified as a CAP priority, as natural lands store large amounts of carbon. Maine Audubon has long advocated for the Land for Maine's Future (LMF) program, a popular and successful program that had not received new funding since 2012. That all changed at the very end of the session, when LMF funds were included in the state budget, giving this vital program \$40M over four years. This is a major win for climate resilience, wildlife, and outdoor recreation.



Climate Action Plan Goal: Increase Renewable Energy Production and Guide Thoughtful Renewable Energy Siting

A challenging but critical goal in the battle against climate change is to increase the state's renewable energy portfolio while protecting wildlife and habitat. We supported two bills related to offshore wind energy and were pleased that they both passed. LD 336 and LD 1619 help the state get started on a grouping of floating turbines some 40 miles off the Maine coast in federal waters, which are critical for researching potential impacts to wildlife. We also supported the passage of LD 802, which establishes standards for the decommissioning of solar projects when they reach the end of their lives, and LD 820, which will convene a stakeholder group to make policy recommendations on responsibly sited solar.



Climate Action Plan Goal: Build Climate Resilient Communities by Improving Land Use Planning and Smart Growth

Climate change will continue to cause sea levels to rise along the Maine coast, threatening critical wildlife habitat and coastal towns. Maine Audubon was a leading supporter of LD 1572, which required Maine state agencies to update their rules and regulations to incorporate the latest science and projections on sea level rise, helping Maine better prepare for and manage a changing coast. We were pleased to see the bill pass through the legislature and receive the governor's signature in mid-June.

More Climate Work to Come

Maine Audubon continues to provide input as a member of the Natural and Working Lands Working Group and help push processes to: install properly-sited renewable energy; engage with Maine communities and students on climate education; and support weatherization, electric vehicles, green infrastructure, and much more.



Other Legislative Victories



Neonicotinoid Pesticide Ban

Neonicotinoid pesticides are known to harm bees, eventually leading to colony collapse, with ripple effects on plants, birds, and other systems. Maine Audubon was proud to support LD 155, which banned the use of neonics in many parts of the state, and was pleased to help the bill pass the legislature. It received the governor's signature in June.



Cracking Down on Plastic Pollution

Seabird biologists know discarded balloons to be one of the most common causes of mortality for seabirds and sea turtles. Balloons, however, were not widely recognized as litter until LD 1023, with strong support from Maine Audubon, was signed into law this session. The bill sets up fines for the intentional release of large numbers of balloons. What's more, Maine became the first state in the nation to establish an Extended Producer Responsibility program, which makes manufacturers responsible for the recycling of their products rather than putting the burden on towns and taxpayers.



Defending Plastic Bag Ban

Several bills attempted to reverse Maine's progress in banning single-use plastic bags, one of the most insidious forms of plastic pollution. Maine Audubon worked hard to oppose the rollback of our important progress, and was pleased to see that none of these harmful bills gained traction.

Work to do Next Session

It was a banner session for many of our priority bills, but we didn't get everything we wanted. There's important work to do regarding lead ammunition, which can remain in deer, wild turkey, and other game carcasses often scavenged by Bald Eagles and other species. Maine Audubon is working with the state on increased educational opportunities for hunters in Maine, and considering what legislative fixes might be warranted. Additionally, a Maine Audubon-supported bill to give sovereignty to Maine's indigenous tribes was pushed to the legislature's second session, hopefully giving advocates more time to make their case for this overdue legislation.

Fall Programs

AUTUMN EQUINOX

A special
Maine Audubon fundraiser
hosted by Portside Real
Estate Group. A live band,
food trucks, children's
activities, adult beverages,
a live auction, and more!

**September 22
5pm**

SPECIAL EVENT

Gilsland Farm Audubon Center, Falmouth

Family Fun (Ages 2-5)
Weekly on Wednesdays
September 15–November 10
9:30–10:30 am or 10:45–11:45 am

Young children and their grown-ups explore nature together through stories, art, and play.

Rewilding: A Three-Part Series

An instructive series about planting natives to support bees, butterflies, birds, and other wildlife in order to make positive environmental change in the community. *Event co-sponsored by Wild Seed Project.*

September 29, 7 pm: Transform Your Lawn to Layers

October 27, 7 pm: Adopt Mindful Landscape Practices

November 17, 7 pm: Plant Native Trees, Support Local Food Webs

Uncommon Encounters with the Great Northern Diver **September 30, 6:30 pm**

James Paruk, Professor of Biology at St. Joseph's College, will talk about his new book on the natural history of loons, *Loon Lessons: Uncommon Encounters with the Great Northern Diver*.

Fall Frolic

October 2, 10 am–2 pm

Celebrate the change of seasons with an outdoor family festival with a giant leaf pile, autumnal artmaking, and more! *Event made possible by L.L.Bean*

Stream Smart Training Phase 2

October 6 and 7, 8:30 am–4:30 pm

A two-day, hands-on introduction to stream survey techniques and concepts for developing ecologically sound road/stream crossings.

Ferns of New England

October 13, 6–8 pm

Arthur Haines, forager, human ecologist, Senior Research Botanist for Native Plant Trust and author of *Flora Novae Angliae*, will give a talk about the ferns of New England.

More information at
maineaudubon.org/events

NOTE: If in-person events cannot be held, we will offer online options when possible.

A photograph of a forest trail. The path is made of large, flat, moss-covered rocks. The forest is dense with tall, thin trees, mostly evergreens, and the ground is covered in pine needles and moss.

Fields Pond

Audubon Center, Holden

Talks by David Spahr, author of *Edible and Medicinal Mushrooms of New England and Eastern Canada*

September 18, 11:30 am–2 pm: Foraging: Finding Wild Edible and Medicinal Plants

October 2, 11:30 am–2 pm: Mushrooms of Maine

Pre-registration required.

Family Fun

**Weekly on Wednesdays, September 15–November 10
9:30–10:30 am**

Young children and their grown-ups are invited to spend an hour exploring nature together through stories, songs, art, and play.

Advanced registration is encouraged! Drop-ins are welcome if space available.

**Contemplative Hiking with William Bigelow & David Lamon
October 2, 9–11 am**

Slow down and fully engage with whatever lessons nature offers during this walk through Fields Pond. *Bring notebook to write in.*

**Wildlife Migration in the Classroom: Using MOTUS
Technology with Your Students
October 5, 3–5:30 pm**

Teachers (grades 4, 5 & 6) and administrators are invited to this Professional Development workshop to introduce activities and resources related to wildlife migration that will engage your students with real-time data collection and analysis. *Workshop is free, and food is provided! Reserve your space today.*

**Annual Fall Foliage 5K Trail Run
October 9, 10 am**

In partnership with Holden Land Trust, we are able to offer a new course this year that will take runners and walkers entirely on trails.

Volunteer Opportunity

**Fall Stewardship Day
October 16, 9 am–12 pm**

Help us improve our trails and public spaces.

Bring work gloves and sturdy footwear. Snacks provided!

Species Spotlight

Woodchuck, *Marmota monax*

Torch, Pompeii, Athos—these could be names from literature or from an atlas, but they are also names that Dr. Chris Maher has given to some of the woodchucks that make their home at Gilsland Farm Audubon Center in Falmouth.

Since 1998, Dr. Chris Maher, a biologist from the University of Southern Maine, has worked on a long term study of woodchuck social behavior, exploring factors that influence how social they are, and whether it's better to compete or cooperate with kin. Over the years, she has learned that “some woodchucks never leave home (just like people!)” she says. “They settle near the place where they're born. Thus, they live near kin and interact with relatives. They tend to be ‘nicer’ toward kin, although mothers will chase their older daughters if they try to share a territory.”

For her research, she collects DNA samples, marks the Gilsland Farm woodchucks with metal ear tags, and paints identifying symbols—created with blonde or black hair dye—on their backs. Woodchucks here come in three different varieties: light brown, dark brown, and all black (melanistic).

Woodchucks, also called groundhogs or whistle pigs, are herbivores that will eat legumes, vegetables, berries and other fruit, and fresh produce—to the frustration of many gardeners. They will also chew on trees to sharpen teeth and mark territories.



Woodchucks are one of the few “true” hibernating species in Maine. As soon as the breeding season is over, the males start to put on weight in preparation for hibernation; females wait until after their young are weaned. Over the summer, their metabolic rate declines. Adults start to hibernate in September; juveniles need time to gain more weight so their hibernation doesn’t start until October. They drop their body temperatures and wait out the cold in the safety and warmth of their underground burrows, where they’ll stay until February or March. Adults mate in spring, pups are born in April or May, and after about four to six weeks are weaned and ready to leave the burrow under their mother’s supervision.

Fully grown adults can grow to be about 20 inches long, with tails of up to six inches. They have powerful legs and heavy claws that help them dig their burrows, which can be anywhere from two to six feet deep and as long and extensive as 40 feet.

Dr. Maher has followed the lineages of many families at Gilsland Farm (and yes, she names them) and says that as the habitat has changed—a gradual shift to more woody plants, and fewer of their favorite foods like clover and dandelion—the population has declined. Disease, predation, and cars have taken their toll, too. She says, “The good news is that we had four litters this year, compared to just two last year. Currently, on the property, I estimate there’s just one adult male [that’s Royce], four adult females, a few yearlings, and this year’s crop of pups. However, we’ll need to see if some of those pups stick around and settle into permanent territories on the property. It’ll be interesting to see what happens next year.” One thing you can count on: Dr. Maher will be there to watch!



Dr. Maher weighs, marks, and examines woodchucks at Gilsland Farm.



Naturalist HQ

Doug Hitchcox, Staff Naturalist

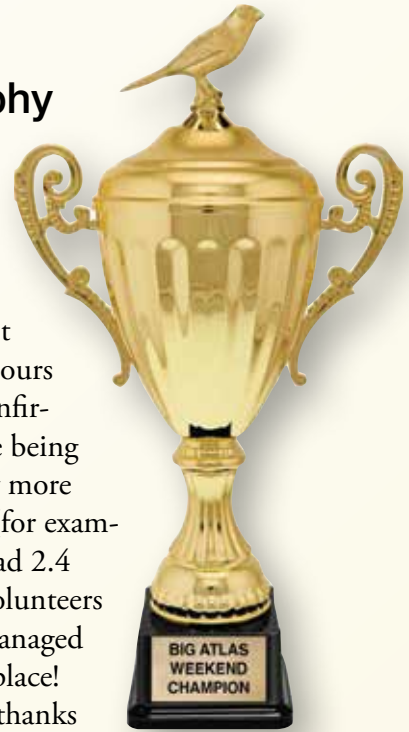
Maine Bird Atlas Team takes Home the Trophy

This summer we wrapped up the fourth of five years for the Maine Bird Atlas, a project by the Maine Department of Inland Fisheries and Wildlife that will provide a comprehensive understanding of the distribution and use of resources by Maine's breeding and wintering birds. I've written about the goals and need for volunteers in this column before, but now I want to share a fun result from a friendly interstate competition this year. Maine isn't the only state doing a bird atlas right now, so we teamed up with New York, Maryland & DC, and North Carolina to create the inaugural Big Atlas Weekend (BAW).

The purpose of the BAW was to engage our volunteers by giving them a variety of intrastate challenges, ranging from submitting an observation for the first time (for new volunteers) to visiting a remote priority block and documenting as many confirmed species as possible (which takes quite the effort!). We held a very entertaining kickoff event featuring a presentation by Purbita Saha and Stephanie Bielke of the Galbatross Project, focusing on female bird identification (you can watch it here: maineaudubon.org/BAW). To make things really fun, a few of the intrastate challenges were used for an interstate competition and there would be only one winner . . .

More than 1000 atlasers participated across all four states. They spent a total of 3276 hours making 6169 confirmations! Despite being outnumbered by more populous states (for example, New York had 2.4 times as many volunteers as Maine), we managed to come in first place! This was largely thanks to our very knowledgeable and efficient volunteers. While most of the other states are in their first or second year of their respective atlases, Maine's volunteers have more experience and were able to put in a higher degree of quality and effort that allowed the trophy to land in Maine for the first year of the BAW.

With one year left for the Maine Bird Atlas project, we'll need more help to get the last bunch of priority blocks completed. Stay tuned for an exciting year ahead. I hope you'll at least join us next year for the second BAW and help us keep our title as Big Atlas Weekend Champions!



The Naturalist's Fall Almanac

SEPTEMBER

- 6** Today is World Shorebirds Day! Get out to the beach, count migrating shorebirds, and join the celebration at: worldshorebirdsday.org

- 22** Happy Autumnal Equinox to all our members in the Northern Hemisphere.



Photo: USFWS Midwest

- 25** Even if Woolly Bear Caterpillars aren't reliable predictors of winter, they are still fun to watch while they are on the move, looking for safe places to spend the cold months.
- 30** Leave the leaves this fall! Many plants and insects benefit from leaf litter in the winter. Less work for you and better for the environment!

Photo: Doug Hitchcox



OCTOBER

- 1** Northern Flicker migration is peaking. These woodpeckers are ant specialists, so they have to migrate, unlike our other generalist woodpeckers.
- 5** Watch for White-crowned Sparrows under your bird feeders, the only sparrow we see regularly in Maine that neither nests nor spends the winter here.
- 8** Piping Plovers are settling into their wintering grounds in southern coastal states and the Bahamas. See you in March!
- 15** Common Witchhazel is in bloom right now, a yellow burst that is pollinated by our late flying moths.

NOVEMBER

- 1** Be safe in the Maine woods and wear blaze orange through the deer hunting season.
- 4** Bald-faced Hornet nests are becoming visible as trees become bare. You'll be amazed to see where they were "hiding" all summer.
- 7** Most Garter Snakes have found a place to hibernate for the winter but you'll occasionally see them still active on warmer November days.
- 25** Happy Turkey Day. The reintroduction of Wild Turkeys in Maine is one of the most successful conservation stories in the state.



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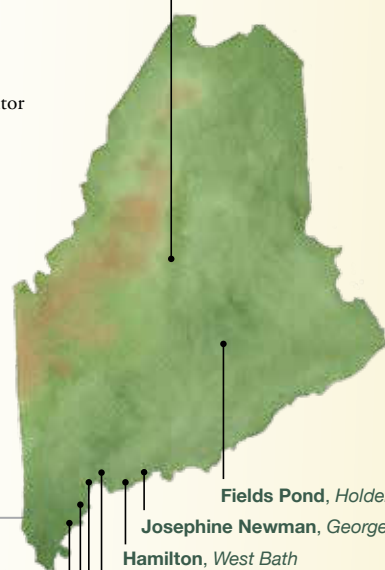
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Cover: Gilsland Farm Solar
Installation, *courtesy of ReVision Energy.*