FROM THE PRESIDENT’S DESK

I am writing this on the day after we opened our McLane Nature Center to the public, reopened our Nature Store, and invited families to view our animal room and displays for the first time since March, 2020. Fifteen months ago we hung a sign on the front door of our Nature Centers that we would be closed until at least April 1, 2020. At that time, we thought we would need one month to figure out how to reopen safely to the public.

In the past fifteen months NH Audubon responded to the COVID-19 pandemic like many businesses and nonprofits. The key word was “innovate.” In this Afield, we catch you up on the innovations, activities, and successes we achieved. Our science, policy, lands, and education had to evolve, and through it all we continued to connect people to nature at a time when all of us needed those connections more than ever before.

We continued stewarding our lands and improving trails and trailheads. We built new wheelchair accessible paths to ensure people of all abilities could more easily visit our raptor displays. We testified at legislative sessions through Zoom technology. We created dozens of online videos to provide schools and remote audiences with nature-based content. And we continued the state-wide monitoring of our most important bird species. We even launched a new website. All of these actions required nimbleness, and through it all, we retained focus on our critical mission.

In this long-awaited returning issue of Afield you will see the annual report financials and Year in Numbers that we shared at the Annual Meeting in September, as well as information on our 2021 Annual Meeting.

As spring and summer continue to bloom, as migratory birds return and raise their chicks, I am thankful that the pandemic that changed all of our lives did not slow us down in finding new ways to protect our natural environment for wildlife and for people.

Thank you for being part of our NH Audubon family, and for your ongoing support during this challenging time.

I look forward to seeing you soon,

Doug Bechtel
President

Cover Photo:

Nancy Moreau discovered a family of Sandhill Cranes at Umbagog National Wildlife Refuge in Errol last summer. She shares,

The photo came unexpectedly to me as I was passing through Sweat Meadows in my kayak back onto the river in Umbagog. I was initially too close to them to photograph. It was like they came out of nowhere from the tall grass. First I saw one adult; I was so excited. As I backed up ever so slightly, I raised my camera very quietly and slowly and I was able to capture a once-in-a-lifetime photo of this family coming out of the meadows one by one. They allowed me to continue to shoot until a motor boat coming up the river caused them to go cautiously back into the high grass. What a treasured time!

Sandhill Cranes were first documented nesting in the state in 2014 and this is the first nesting record for the Errol region.
The State of New Hampshire’s Birds: A Conservation Guide

Birds have long been recognized as environmental indicators. From the oft-repeated tale of miners’ canaries, to Silent Spring, to Spotted Owls in old-growth forest, we’ve relied on or pointed to birds to help us avoid environmental catastrophe. This need is just as crucial today, with recent estimates that North America has lost over three billion birds in the last 50 years spurring conservationists to new action. The actions needed are often broad in scale, sometimes spanning continents, but even these are ultimately implemented at a local scale.

In 2011, NH Audubon produced the first statewide overview of bird populations and conservation, and we are proud to present this update to that information. The report documents our current understanding of how birds are doing, with data on population trends and threats for the over 190 species that breed in the varied habitats of the Granite State. We’ve added new information on birds that pass through or winter here, and expanded coverage of threats to birds when they’re not in the state. Most importantly, we’ve updated and expanded the list of actions that people can take to help birds both here and beyond our borders.

See the Key Trends for NH’s State of the Birds running along the bottom of the following pages. For the full report and other related links and information, visit: nhaudubon.org/conservation/the-state-of-the-birds.

Key Trends for New Hampshire’s State of the Birds

Of the 193 species that have been recorded breeding in NH over the last 20-25 years, nearly equal numbers have populations that are either increasing/stable or declining. However, the number showing strong declines (greater than 50% loss in 5 years) is almost twice that showing strong increases. The net effect is a significant decline in the overall number of birds nesting in New Hampshire.
NH Audubon actively stewards nearly 10,000 acres of land and maintains 39 wildlife sanctuaries across the state, with land in every New Hampshire county. Our sanctuaries range widely in acreage and offerings and include everything from tiny loon nesting islands to expansive tracts of forestland and diverse arrays of wetlands. Included in our stewardship is a place for people, and our trail networks total 70 miles, providing passive recreational opportunities for all people.

For the past year, NH Audubon has been tracking visitor usage at all three centers and at other trailheads in order to better assess our reach and impact on NH’s communities. This has yielded information about total numbers of visitors and the times of day and days of week when peak visitation occurs. Preliminary data have shown that NH Audubon centers and sanctuaries were incredibly busy this past year, with upwards of 100,000 visitors estimated at our three centers alone!

This should come as no surprise, though. As COVID impacts shut down our way of life and movement, people turned increasingly to the outdoors, and our sanctuaries saw a large increase in use. Even some of the typically quiet sanctuaries were loaded with visitors in 2020. With the higher visitation, however, came additional impacts such as trail degradation and litter, among other issues.

Thankfully, many of our existing volunteers, as well as several new ones, stepped up to the challenge of helping us maintain these busy trail systems. Read on to learn about some of our past year’s work as well as a brief look ahead to some exciting new projects.
‘Friends’ Lend Helping Hands at Ponemah Bog Wildlife Sanctuary

Ponemah Bog Wildlife Sanctuary in Amherst is a fine example of a sanctuary where great strides have been made in the past year, thanks in no small part to the efforts of the Friends of Ponemah Bog. This team of volunteers, led and organized by Sanctuary Steward, George Rollend, in collaboration with NH Audubon staff, accomplished numerous projects and tasks that benefit wildlife and people. This group and its members provided use of essential tools, monetary support, and a considerable amount of time.

In addition to the nearly constant repair and replacement of bog bridges, several committed volunteers refurbished and rebuilt two platforms to provide safe and enjoyable access to the bog pond and its fascinating blend of plant species. Volunteers also placed new nest boxes for Wood Ducks, Eastern Bluebirds, and two species of owls. Most impressively, perhaps, was the completion of a new trailhead with several interpretive panels full of information about ‘the Bog’ including its unique plants and abundant birdlife. The panels and their content were designed for all ages and abilities, and many families are already taking advantage of this new educational resource.

Two of the popular platforms near the ‘Eye of the Bog’ were completely rebuilt. The Jack Gleason Platform honors this former long-term Sanctuary Steward who loved leading field trips to the bog and sharing his knowledge of bog formation and bog plants. Though we could not host the memorial field trip that was named in his honor last year, NH Audubon is developing a virtual field trip that will highlight the sanctuary and allow a broader audience to enjoy this place. Another platform in the Tamarack area was dedicated to the many volunteers who help keep the bog a special place.

Some of these projects were a huge volunteer undertaking and had numerous key partners involved, and it’s a true accomplishment that this was safely achieved during the challenges of the past year.
Habitat Management for Wildlife

NH Audubon manages its wildlife sanctuaries in accordance with a diversity of conservation goals, habitats, and species in mind. Our management strives to enhance wildlife habitat and populations through maintaining open fields, sophisticated timber harvesting, managing wetlands for sensitive wildlife species, removing invasive species, and a variety of other strategies.

In 2020, NH Audubon conducted forest management at its Popple Island Wildlife Sanctuary in Epsom. This management focused on creating early successional habitat, adding new ‘age classes’ of trees, regenerating oak and pine forest, and establishing a formal parking area. Shrubland birds such as Chestnut-sided Warbler and Eastern Towhee stand to benefit immensely from the larger openings that were created intentionally to benefit species already present in adjacent openings. A riparian buffer and forest reserve was set aside to protect the ecologically-significant shoreline communities of Odiorne Pond, which can be viewed from points along the mile-long loop trail. Follow-up trail management activities and invasive species control are ongoing and likely to be complete by the end of 2021.

Forest management allows NH Audubon to create wildlife openings, promoting early successional habitat and other enhancements while helping the organization derive a sustainable source of revenue to reinvest in its lands. This can help to fund some of the more costly practices associated with prioritizing wildlife management, as well as improved access and recreational opportunities, invasive species control, and interpretive information for the benefit of the visiting public.

Elsewhere in the world of vegetation management, NH Audubon continued to expand New England Cottontail habitat on two Seacoast-area sanctuaries, the Bellamy River Wildlife Sanctuary in Dover, and the Smith Sisters (Follett’s Brook) Wildlife Sanctuary in Newmarket. This cottontail species, which is state-endangered, along with a suite of declining shrubland bird species, will benefit from the removal of field pine and enhancement of native shrub communities across over 40 acres in these locations. Further north, at the Dahl Wildlife Sanctuary in Conway, habitat management occurred in the winter of 2020 to maintain regionally-important shrubland habitat for young forest species. The site is managed periodically and contains a mosaic of habitat types including field, floodplain forest, upland forest, and riverine communities. This is an excellent location for enjoying both spring and fall migrations of birds, and it has become a very popular sanctuary in recent years – for good reason.

Our state is 80% forested, and 97 species breed in our several forest types. Overall, this group of species is doing relatively well, with only 16% showing strong declines. Over half are increasing or stable.
Looking Ahead

Management practices are now in full swing at several wildlife sanctuaries around the state with a focus on pollinator meadows, accessible trails, interpretive signage, and trail stewardship.

The Thompson Wildlife Sanctuary in Sandwich is NH Audubon’s first trail offering accessibility features. It includes a 1/3 mile long trail and boardwalk which was completed in 2016. Visitors will see upgrades to this trail, as well as new and improved interpretation along the trail. A new virtual tour of the sanctuary is being designed and will be available on our website in the upcoming months.

In addition, the Wilderness Loop trail now features a rerouted stretch that was led by Sanctuary Steward, David White. This longer trail traverses abutting conservation land and permits a more immersive experience in an older forest that will move toward old growth conditions in time (as its entire 300 acres are protected by a forever wild easement). It is easy to immerse oneself in the wilderness of this scenic gem which contains high wildlife value, and the opportunities for observation here are boundless.

The Kensan-Devan Wildlife Sanctuary in Marlborough will soon offer a new interpretive trail that demonstrates how habitat management can help benefit declining forest bird species. NH Audubon has partnered with a trail crew from SCA NH Corps to build this network. In addition, plans are in place to conduct a breeding bird survey that will assess the response of forest bird communities to forest management practices. Interpretive signage and displays will guide visitors in an educational journey through this quiet woodland mosaic. Work should be complete by the fall of 2021.
The summer of 2020 brought major improvements to public access at the Pondicherry Wildlife Refuge in Jefferson and Whitefield. The biggest project was a $105,000 improvement to the four miles of the Pondicherry and Presidential Range Rail Trails. Twelve new culverts, two new trailheads, new ditch lines for better drainage, four beaver deceivers, and 165 dump truck loads of ledgepack was spread and compacted along the entire rail trail on the refuge. The improved surface proved very popular with people on foot, bicycle, and wheelchair.

The cost of the improvements to the rail trail came from a FLAP grant. FLAP is the Federal Land Access Program, a competitive grant which provides funds to communities and states to improve access to federal lands. In this case, the federal public land was the Pondicherry Division of the Silvio Conte National Fish and Wildlife Refuge, of which NH Audubon is a landowning partner. The access is over the State-owned and managed rail trails. The project was conducted by the NH Trails Bureau and local contractors. The grant required a detailed environmental analysis and a cultural heritage survey.

Other improvements at Pondicherry in 2020 included portable toilets at the Airport Road Trailhead that were well received by visitors. New trail signs were installed by the Northwoods Conservation Corps. The Little Cherry Pond Trail had twenty bog bridges replaced. The Mooseway Ski Trail had six old ditches filled in that posed a hazard to skiers in the winter. Three traffic counters were installed in November that will be monitored to determine public use at the refuge. Surveys by botanists were completed that give a better picture of the natural communities found at this 10-square mile wetland.

**KEY TRENDS FOR NEW HAMPSHIRE’S STATE OF THE BIRDS**

Aerial insectivores are birds that feed on insects captured in flight, and include swallows, swifts, and flycatchers. Only 18 species nest in New Hampshire, but 12 of these are declining. The strongest declines are in highly aerial species that also migrate to South America, such as the Chimney Swift, Bank Swallow, and Common Nighthawk.
NH Audubon continues to put a focus on making our Centers and Sanctuaries accessible for everyone. We know the importance of being able to connect with the outdoors in the company of loved ones. To that end, in 2019 we secured funding from the Christopher and Dana Reeve Foundation to install six push button door operators at the McLane and Massabesic Centers. With this funding, we also finished the Garden for the Senses pathway around the exterior of the Massabesic Center that tied into the ramp to the back door which was installed by volunteers of Timberland’s Serv-a-palooza in the spring of 2019.

In 2020, we secured funding to install an accessible concrete pathway to connect visitors in the McLane parking lot to the courtyard on the other side of the building. This pathway makes it clear to all visitors that there is much more to see and explore at the Center including a beautiful demonstration pollinator garden as well as the raptor mews.

Accessibility
by Marc Nutter

Migration is an exceptionally hazardous time of year for birds, and the farther a species migrates, the more likely it is to be experiencing declines. Thirty-eight percent of species that fly all the way to South America have declined by at least 50%, while only 7% of our non-migratory species have declined this much.

A volunteer pulls invasive Purple Loosestrife at Pondicherry. Photo by David Govatski.
Thanks to conservation efforts, populations of waterfowl and birds of prey have recovered from past declines. Forty to fifty percent of birds in these categories are increasing, while only 15% are decreasing.

A Different Kind of Year at the Hawk Watch

by Phil Brown

Last season (2020) marked the 16th consecutive season of raptor migration monitoring at the Pack Monadnock Raptor Observatory. Between September 1 and November 20, staff and volunteers logged 558 hours of observation time, tallying 12,032 raptors at the observatory located within Miller State Park in Peterborough. Due to COVID restrictions within Miller State Park, visitor numbers were limited and groups were nonexistent. Despite this, and the lack of school groups, a nearly average tally of 4,568 visitors visited the Observatory in 2020 to witness, learn about and enjoy the spectacle of raptor migration.

A Big Year for Several Species, but Some Declines

With only one more hour of observation time than the 2019 season, the Observatory tallied roughly 1,500 more birds in 2020. This may relate to favorable migration weather, a successful breeding season for northern populations of many species, and several other unknown factors. These totals include the highest all-time counts for three species: Bald Eagle (185), Red-shouldered Hawk (223), and American Kestrel (257). Up from last year and more in line with their long-term averages were Broad-winged Hawk (8,815) and Sharp-shinned Hawk (1,325). Also bouncing back significantly from low 2019 tallies were Northern Harrier, Cooper’s Hawk, and Merlin.

Only a few species showed significantly lower trends or continued declines. These include Osprey (162), which has now dropped below the Bald Eagle level for the second consecutive season, and Northern Goshawk (12), which has demonstrated a sustained and strong decline, both locally and region-wide. Peregrine Falcon, while not thought to be declining in population levels, or by other measures, had a lower than average showing with only 30 individuals detected.

Promising Trend for Kestrel

Following the 2019 season’s strong showing for the American Kestrel – a species in decline over much of its range – was a record high count of 257 of these tiny and colorful falcons. Though the trend had been positive in previous years, it was still a surprise to record so many as migrants past the Observatory in 2020. This species has suffered from a combination of factors related to habitat loss, contamination, other human-induced causes, and even competition including direct predation from larger raptors. A cavity-nesting species of open habitat, this species has benefited from the proper placement and maintenance of nest boxes in suitable habitat. Perhaps some regional conservation efforts are starting to pay off! We will continue to monitor the migratory trend of this Species of Special Concern in NH in years to come.

We Count Lots of Things!

In addition to raptors, Observatory staff and volunteers also counted migrating Canada Geese (3,355 – twice the 2019 total) and Monarch Butterflies (534 – half of the 2019 total), among many other notable species. In total, an impressive 89 species of birds were tallied from the Observatory, the most notable of which were several species of irruptive ‘winter finches’ and two rare Boreal Chickadees from the northern forest (as its name implies).
Although roughly the same number of wetland species are declining as increasing or stable, we lack trend data for a fifth of these birds. Better data on secretive marsh birds are needed before we can identify and prioritize conservation actions for this habitat group.

Events and Education

While no formal public events were conducted at the Observatory in 2020, our staff and volunteers still managed to have considerable impact on thousands of visitors, including many families. Homeschool families were a notable presence throughout the first half of the season. Many individuals turned to nature during this trying period of time. As a free, outdoor, and safely-operated destination atop a favorite mountain, the Observatory was quite popular for learners of all ages. Just as important this fall was the need to connect with others pursuing similar interests, and it was easy to find camaraderie from a safe distance on the platform.

The Harris Center hosted a series of popular virtual presentations focused on raptors, featuring places both close to home and further afield. We look forward to and are hopeful for a return to some of the popular in-person programming – especially school groups – during the next fall season.

The Bigger Picture

The Pack Monadnock Raptor Observatory is part of an international monitoring effort under the umbrella of the Hawk Migration Association of North America (HMANA). Because of the site’s consistent and long-term dataset, Observatory data is included in the latest Raptor Population Index (RPI), an analysis that illustrates how migratory raptor populations are faring regionally. These data are particularly important for tracking migratory populations of several species of conservation concern from year to year, as well as determining raptor populations. Results of the most recent RPI analysis are included in the full 2020 season report.

Thank You

Financial support in 2020 came from the Gilbert Verney Foundation, Nature’s Green Grocer, the Jack Daniels Motor Inn, and from many individual and organizational sponsors, including sustaining donors. Miller State Park, NH Parks, and the NH Department of Natural & Cultural Resources continue to support our work onsite, in partnership with NH Audubon. We’re also grateful to all of our many dedicated volunteers, sponsors, and program participants who keep this project a vibrant community resource for all.

Learn More

For more detailed information, including an in-depth analysis and population trend graphs for each raptor species we observed, see the full report from the 2020 season: https://www.nhaudubon.org/conservation/raptor-migration/pack-madnock/

The Pack Monadnock Raptor Observatory is a project of the Harris Center for Conservation Education and New Hampshire Audubon, in partnership with the NH Department of Natural and Cultural Resources, Division of Parks and Recreation.

Key Trends for New Hampshire’s State of the Birds

Although roughly the same number of wetland species are declining as increasing or stable, we lack trend data for a fifth of these birds. Better data on secretive marsh birds are needed before we can identify and prioritize conservation actions for this habitat group.
McLane Center Pollinator Garden

1000 volunteer hours
600 people engaged in programs

3,430 Common Nighthawks
migrating through Concord,
mostly from Canada

13 active nest sites in the state

32 Eastern Whip-poor-wills
counted along 16 routes

18 Colonies of Cliff Swallows
supporting 152 pairs

only 2 Colonies of Purple Martins
19 pairs produced 83 young

Backyard Winter Bird Survey
1,394 people counted birds at their backyards
44,303 birds counted
4,500 volunteer hours spent!

166 pounds of fish
eaten by the McLane Center Bald Eagle

494,045 bird sightings reported in eBird!
ALL of them were reviewed by New Hampshire Bird Records volunteers
72 Bald Eagle Pairs
  82 young fledged

24 Peregrine Pairs
  28 young fledged

Nearly 25% of Peregrine nests are now located on human structures.

166 Educational programs held at MAC
83 Educational programs held at McLane
over 4,000 people reached!

The Nature Store
$76,000 gross sales
over 5000 items sold

Most Popular
bird calls
snake stickers
and
MAC swag (t-shirts and sweatshirts)

Northeast Endemic Damselflys
89 NH sites surveyed
23 NEW sites found for the Scarlet Bluet found in NH!

Social Media
14,858 fans
1,326,514 impressions
83,392 engagements
total posts = 870
videos = 19,377 total views

Since Covid (just the past six months)
total posts = 706!
videos = 75,161 total views!

top posts:
Have you “spotted” me?; help finding our missing Spotted Turtle in May (6,458 engagements).
Barn Owl Live Q&A video with Shelby in March (5,143 engagements).

* Note: these numbers were reported during the September 2020 annual meeting.
Birds that specialize on coastal habitats such as beaches, islands, and salt marsh show a wide range of trends. Species such as terns and Piping Plovers, which benefit from conservation actions, are stable or increasing. The sparrows that nest in salt marshes, on the other hand, show consistent declines, and these are likely to get worse as sea levels rise.

New Hampshire Audubon has been a leading organization in 2020 in urban education throughout the state. Over the past year we have transitioned many of our programs on to virtual platforms and have developed new programs to meet the changing needs of teachers and students. Here are the highlights of three of those programs, plus notes on a one-of-a-kind summer camp experience.

**Urban Wildlife**

Our Urban Wildlife program served students in two Manchester school districts throughout the year, including Bakersville Elementary, McDonough Elementary, Jewett Street Elementary, and Smyth Road Elementary. Thirty-four programs were facilitated in these schools reaching 250 students in third and fifth grade this year. With COVID-19 having a great effect on schools, these teachers were forced to work virtually with their students.

The teachers at Bakersville and McDonough were thrilled to continue working virtually with Naturalist Kelly Dwyer. She filmed several programs and engaged with the students this way. Through this time we facilitated nine programs and reached 150 students through virtual programming. Kelly says, “Providing an educational opportunity for students to see their urban environment as unique and critical to the health of wildlife and people engages them in many curriculum areas and promotes a sense of community and pride.” This program teaches students to learn about nature and the wildlife around them right from their classrooms.

**Beech Street School**

Beech Street School and NH Audubon connected 115 students through programming of all kinds, both in their classroom and outside at our centers. Beech Street School has one of the most diverse groups of students in New Hampshire and being able to connect them with nature is one of the great achievements of this program. Naturalist Angie Krysiak says, “For a significant number of Beech Street students, field trips to the Massabesic Center represent their first opportunity to experience hiking trails and exploring in nature.”

This program allows students to experience and develop

**Key Trends for New Hampshire's State of the Birds**

Birds that specialize on coastal habitats such as beaches, islands, and salt marsh show a wide range of trends. Species such as terns and Piping Plovers, which benefit from conservation actions, are stable or increasing. The sparrows that nest in salt marshes, on the other hand, show consistent declines, and these are likely to get worse as sea levels rise.
an understanding of different animals, how they interact with nature and why this is important. It also allows children to explore our very own centers with field trips to the Massabesic Center. This provides hands-on activities through our Autumn Adventures and Pond Probe program such as pretending to be squirrels in the woods to prepare for winter, and catching various creatures out of the pond to see what lives there. The TD Charitable Foundation’s support continues to be vital and very much appreciated in helping to continue this valuable program to get young people out in nature and connected to plants, wildlife and each other.

Learning as Scientists

Students at the Hooksett Memorial School learned all about Peregrine Falcon monitoring through our new Learning as Scientists program. This project was funded by the Dorr Foundation as a new program connecting our education and conservation teams. We reached 80 students in person with multiple visits to the school and several webinars with the students and other guests. The kickoff event was facilitated at the school and the students were introduced to Chris Martin and some of our rehabilitated resident raptors.

“When are they coming back??” Students reacted after the project kickoff about how they couldn’t wait to learn more about Peregrine Falcons.

“Champlin, Chris Martin, and teachers hosted webinars with the students to learn more about the science of peregrine studies and ask questions. One student reflected on the project at the end by saying “This project impacted me in a great way because I am way more observant than I used to be. I could just go on a run with my brother and I see almost every bird in the trees and try to identify them. I think this made me a better person overall and improved my science skills.” (See the article on page 17 for a review of the second year.)

While all three programs ended up on a virtual platform this year, they all ended strong, and the students and teachers were thrilled to have been a part of these great programs. They will continue to stay connected to nature right from their own homes.

Summer Camp

Summer Camp 2020 was unlike anything we could’ve imagined. From the beginning, we knew we still had to do one thing: connect children to the outdoors. While we would have loved to have our campers on-site at our centers, it just wasn’t possible for the safety of everyone. So, we created and hosted eight sessions of Backyard Summer Camp where the campers were able to explore their own backyards and neighborhoods. We reached 81 campers in total. Campers were challenged to learn about different wildlife, build forts with natural materials in their backyards, use their imagination to create crafts, and so much more.

Of 85 species that don’t breed in New Hampshire, numbers are roughly even between those with increasing, decreasing, and unknown population trends. The high number of unknown trends points to the need for more study of birds outside the breeding season or in hard-to-reach nesting areas to the north.
The global pandemic provided a unique opportunity for NH Audubon’s Education Department. Unable to visit schools in person, NH Audubon adjusted its programs for virtual delivery as an alternative. By incorporating PowerPoints and props, live animals, and interactive activities, educators presented environmental education lessons from both the Massabesic Center as well as the McLane Center, creating relationships with their audience despite the distance.

Students logged into Google Classroom from both home and their reduced-size school rooms using laptops. Their faces were often fringed by bedroom décor or kitchen cabinets, and most were plugged into audio with headphones, indicating that there were other learners in the vicinity doing the same. Students in reduced-size classrooms were similarly adorned but with the added face mask. For those joining from home, it wasn’t uncommon for a sibling, parent, or pet to join in on the NH Audubon virtual lesson; everyone seemed to enjoy the opportunity to connect with someone outside of their immediate family!

This year, thirteen classes in the Manchester SAU received a four-part program through a partnership with NH Fish & Game. Subjects included habitats, mammals, birds, and a lesson that coupled reptiles and amphibians. Students were challenged with habitat hunts and wildlife trivia, and encouraged to participate in various role play activities to get them out of their seats between slides. Many live animals and a variety of props ranging from rattlesnake sheds and beaver pelts to moose skulls and turtle scutes made the lessons both interesting as well as interactive even when delivered 2D. The teachers gave positive feedback about the unique delivery method that livestreamed from the auditorium at the Massabesic Center:

“Excellent program!” commented one 3rd grade educator. “Every single student enjoyed it! They looked forward to it every week.”

Another added, “It definitely has been challenging for us all to teach and learn remotely, but [the presenter] did a great job keeping the kids engaged and involved and the kids absolutely loved it!”

A surprise benefit of remote delivery was the ease with which programs could be delivered. With commute restrictions non-existent, educators were able to offer same day lessons to different schools without juggling live animals from site to site or packing up materials.

The virtual delivery had its drawbacks from time to time with blotchy Internet service and one surprise fire drill, but all in all, the programs were well received.

“I look forward to this program every year,” explained one teacher. “My students always say it’s one of the highlights of their year. The students learn about so many things they won’t get in general classroom lessons. They love to learn about the animals they may have in their backyards and in their state. Thank you for making this program possible!”

We look forward to returning to in-person program deliveries next year but recognize the broader audience livestreaming presents. Future audiences may be from a much wider demographic with distance learning lessons expanding as far as Pittsburg to the north and Keene to the west with every town in between eligible for nature education presented by NH Audubon.

We continue to adapt to the changing needs of our closest school and afterschool partners. To this end, we have a launched a self-service education portal where teachers and families can bring experienced NH Audubon into their classrooms at a reduced cost, but with all the enthusiasm and activities we are known for. Find out more at: https://www.nhaudubon.org/distance-learning-lessons/.
Two fifth-grade classes at Hooksett Memorial School have been intently monitoring the development of four Peregrine Falcon chicks rapidly growing in their nesting box at the Brady Sullivan Tower in downtown Manchester. The students, equipped with observation sheets and activities to accompany the livestream video footage of the nest, have been meeting monthly online with NH Audubon's Senior Biologist Chris Martin and me, Education Specialist Willamina Coroka, for interactive presentations, Q&A, assignments, and activities.

The program launched in March this year right after a returning pair of breeding Peregrine Falcons arrived back “on screen” at the nesting box this 2021 season. The initial two-part, virtual class session introduced students to the Peregrine Falcon as a recovering species. Chris Martin presented a visual history of the birds leading up to today’s current nesting pair and allowed for questions immediately following. The students’ interest was piqued and queries were rapid fire between the two classrooms logging in together via Zoom. Chris responded with expertise and enthusiasm, and paused their inquiries only long enough for me to familiarize the 5th-graders with their personal Student Science Notebooks (binders packed full of resources and past data from the nesting box).

The second portion of this initial session was activity-based after a brief presentation on introductory raptor biology. Talons, skulls, feathers, and photos accompanied this particular session and students were instructed on how to use binoculars to aid in bird identification. Activities included keying out specific birds, using supplied print guides and online references, and trying their hand at identifying raptor species by silhouette alone. Students took to the field with their teachers, binoculars, and laminated silhouettes in tow, leaving me behind on the classroom’s big screen! “Guys?”

Students reported back that they’d had a challenging time correctly identifying the silhouettes and were eager to try the activity again. The 5th-graders had access to these materials for the remainder of the month and were encouraged to use them when they had the time between regular studies and documenting their nest cam observations.

The second session found the students anxious to discuss the falcon nest footage as eggs had been sighted! While the excitement of mating and egg laying took up most of this particular program, students were also shown video footage of various species’ courtship displays in order to present a diverse overview of avian behavior. Questions and observations took up the vast majority of our time together and both Chris and I were blown away by the enthusiasm of these curious kids. Encouraged to continue documenting their observations of the livestream and to complete a handful of assignments, students were left to independently explore their Science Notebooks until the following month’s program.

Our third session delved into egg anatomy and physiology...
Students as Scientists, cont.

and concluded with each student dissecting a raw chicken egg while following along with me, instructing via Zoom. Before letting the students tackle the dissection module, the topic of biological adaptations pertaining to the Peregrine Falcon and urban environments was discussed. As these majestic raptors have been monitored for over two decades, there is much research and video footage documenting the various ways falcons have been able to successfully swap cliff ledges for high rises and students had excellent observations and inquiries pertaining to the subject.

We encouraged the students to begin polling their hypotheses for when the first egg would hatch after recognizing that there was no way we would regain their attention after setting them loose on their eggs; they were all too invested in exploring the albumen, yolk, and membranes of their individual specimens.

When we met with our middle schoolers in May, four out of five of the Peregrine Falcon eggs had hatched and students were surprisingly shy about discussing what they were seeing! Perhaps this was because of the unending cycle of feeding, eating, and sleeping they were witnessing through the nest cam; or maybe it was the initial surprise of the snow white, down covered, wobbly, gangly chicks. A few students noted how entirely dependent the newly hatched chicks were on their parents; several expressed disbelief that these blundering balls of fluff would somehow develop into streamlined sovereigns of the sky; many inquired as to the status of the remaining egg.

We were thrilled at the inquisitive questions and theorizing of what was clearly an intriguing subject. Chris and I answered as many questions as we could while also discussing the rapid physical developments that would be occurring over the next few weeks. To wrap up this particular program, and to tie in the incredible hunting and feeding feats of the parental falcons, the topic of avian digestion was introduced with visuals, a lecture, and lastly...video footage of an adult peregrine casting up a pellet. To cap it off, students were handed an owl pellet to dissect and explore while comparing what they know about peregrine diets to what they discovered in their own pellet. It was an engaging session and students were racing up to the computer screen to share their treasures with the equally engrossed Chris and me. Students were left with final assignments (individual essay, small group PowerPoints, exit interviews) and encouraged to virtually join the livestream banding of the chicks.

At 10am on May 24th, Chris Martin led a troop of masked raptor enthusiasts up to the 13th floor of the Brady Sullivan Tower. I, my heart in my throat with excitement, was set to visually document the banding of the 2021 chicks. (Watch this incredible event at https://youtu.be/WHkik8qfOqTg.) The students of Hooksett Memorial logged in for the entirety of the livestream and are scheduled to discuss their experience in mid-June as the final portion of the Students as Scientists program.

By the end of this unique, virtually-delivered program, these two 5th-grade classes will have not only witnessed the courtship displays and breeding habits of the world’s fastest animal, but also observed the incubation, hatching, and rapidly developing chicks of this amazing recovering species. If we are lucky, NH Audubon will have some future wildlife biologists to add to their exceptional team of researchers… It’s hard to ignore the allure of the charismatic peregrine!
SUMMER 2021 NH AUDUBON AFIELD

**Membership Survey Results**

by Jen Thomas

With two new staff members joining the NH Audubon team in the last year – Hope Jordan, Director of Membership and Development and me Jen Thomas, Membership and Development Coordinator, we were eager to find out more about who you–NH Audubon members–are. We wanted to get your feedback on current benefits, suggestions for events post-COVID, and also to find out what inspires you to support the organization.

Both the recording of the awards presentations and the entire meeting can be found on our YouTube Channel by searching the phrase “2020 Annual Meeting”. We had about 70 people tune in from across the state during the livestream, with 280 people viewing the awards and annual meeting after the fact. We are currently planning how our next annual meeting will be facilitated and are planning to keep at least a few virtual components to it so that folks feel connected despite being many hours car ride away.

2020 Award recipients:

- Goodhue Elkins Award: Betsy Janeway
- Tudor Richards Award: Bruce and Sarah Schwaegler
- John Thalheimer Volunteer Award: Jack Dorsey
- President’s Award: NH Audubon Staff
- Meade Cadot Award: David White

For downloads of the transcripts of the awards visit our awards webpage, which also shows past recipients: [http://www.nhaudubon.org/about-us/annual-awards](http://www.nhaudubon.org/about-us/annual-awards)

**Save the Date**

September 18

NH Audubon’s 107th Annual Gathering and Meeting will take place on September 18, 2021. The meeting will be held at NH Audubon’s Massabesic Center in Auburn, with a choice of attending either in-person or virtually. We are pleased to announce that our keynote speaker for the day is New Hampshire author Sy Montgomery! Sy is a nationally bestselling author of 28 books for both adults and children, and will present *Birdology: What Makes A Bird A Bird* (based on the book of the same title) as shown by cassowaries, hummingbirds, chickens, hawks and other birds.

Whether you join us virtually from the comfort of your home, or in-person at Massabesic Center, we look forward to seeing you on September 18! Watch for more details and registration links posted on the Annual Meeting webpage as we approach the event.

We appreciate the 650+ members who took the time to respond to the membership survey, distributed in February. We learned that many of you depend on our biweekly enewsletter to stay informed, and that while most of you can’t wait to attend an in-person event again, some folks also appreciate the convenience of the new online educational webinars.

When asked, “*In your opinion, what is the most important thing NH Audubon does for wildlife, people and/or you?*” an overwhelmingly frequent answer was education-related. And, while many people initially joined because of their love of birds, we were pleased to read several responses about joining as a way to support our mission. Here are a few:

*NH Audubon provides a way for likeminded people interested in the environment, nature, and its protection to come together to share experiences and get involved in those efforts.* -David B.

*Educates and inspires youth as well as adults who are now retired to help them enjoy nature now while they have some free time...also helps to get grandkids/grandparents involved in caring and passing on info to future generations.* -Karen C.

*Education, because it ultimately leads a fair number of people to become involved some type of conservation effort.* -Tom M.

As an added incentive, respondents were entered into a drawing to win two bird houses and a bird feeder, generously donated by our friends at Duncraft. Congratulations to Anne Garland, Richard Uncles, and Donna Ward, who are anxiously awaiting new feathered residents in their yards.

If you did not get a chance to respond to the survey and would like to share your thoughts, visit [https://www.surveymonkey.com/r/NHAmembership21](https://www.surveymonkey.com/r/NHAmembership21).
I have been coordinating the Master Gardener activity at the Massabesic Center (2020), and I wanted to take a few minutes to share with you my team’s experiences over the past year, and some thoughts on 2021.

To say that we had some challenges this past year is quite the understatement. (Then again, compared to what others have gone through, we cannot complain). We had to deal with a late start, which presented us with well established weeds and plants in poor shape. We had many hot days, drought conditions, and no bathrooms (a challenge indeed!). Through it all, and wearing masks, our team did great work. We received many compliments from visitors coming through, and even a few said thank you!

Mid season we received a request to revive a Memorial garden that, to be honest, was so buried in weeds that most of us did not know it even existed. The team once again rose to the task and installed a new rendition of the garden in just a few weeks.

Efforts to restore, rejuvenate and reinterpret the MAC gardens have been led by a group of dedicated Master Gardener Volunteers from UNH Extension. The Extension Master Gardener program provides training for individuals who enjoy gardening and want to make a difference in the community through horticulturally related service. To learn more: https://extension.unh.edu/resource/about-new-hampshire-master-gardener-program.

Thanks,
Ruth

Maureen is a stellar volunteer (from my first class!). She and the team (several of her classmates) are so dedicated. I know she is a great ambassador for Extension but I do want to make sure that whatever is written about their efforts gives noticeable credit to the UNH Extension Master Gardener Volunteer program. You know how important it is to get good press, so I appreciate your effort for us as well. Let me know if you need any additional background or “B roll” for the story.

At our first official get together in September, we reviewed the highs and lows of the season. To my surprise, everyone was committed to coming back next year, despite all of the challenges this year presented. The team was genuinely excited to make next year special. We exchanged thoughts and ideas about what we could do to help the center grow.

We really do have a remarkably talented and hard working group of team players:

**UNH Extension Master Gardeners:**
- Lisa Dumont
- Stacey Scaccia
- Kris Allen
- Michelle Bernard

**Massabesic Volunteer Gardeners:**
- Dee Cleary
- Chris Mcglaughlin

It is important that you know that our team is here and ready to help in any way we can to not only keep MAC going, but to make it a beacon of light for the surrounding community. We collectively have a great skill set among us, including educators, designers, project managers, yoga instructors—the list goes on. Most importantly, we have great gardeners! We are ready and eager to work with and support the staff as part of the team that brings MAC back!

In closing, I’d like to say that our team is so grateful for the opportunity to volunteer as Master Gardeners at Massabesic Center. During these trying times, just being at MAC has sustained our spirits. Working the soil and connecting with nature in that beautiful space has been a salve to our souls. It has become a special place for all of us and we are committed to keeping it special for many years to come.

It takes a village. Please count us in as part of yours.
In these extraordinary times, the McLane Center Pollinator Garden offered a public garden to rest, restore, and inspire ideas for community and backyard spaces.

With careful safety planning, we were able to bring volunteers back into the McLane gardens in early June. Through the summer of 2020 we worked to maintain and improve the garden while initiating virtual ways to share this lovely space.

Perhaps the best reflection of our time in the gardens comes directly from the words of our garden volunteers. We are very grateful for all their hard work and dedication!

Sandy Bowles  
Cynthia Chilen  
Linda Clark  
David Forsyth  
Pam Freilich  
Jordan Greenberg  
Virginia Hast  
Sandy MacIntyre

We would also like to thank Denise Dalaker of Bagley Pond Perennials and Jordan Greenberg of Pemi Native Plants for their generosity and support in making our Virtual Native Plant Sale a reality. Both have also been instrumental in enhancing our gardens through their many donations of native plants. We are very appreciative!

I love the energy of the Pollinator Garden; it buzzes and blooms alive with NH Audubon’s mission to work for the natural world. All the moving traffic here—every syrphid fly, tussock moth, ant, bumblebee, and person—is a busy reminder of the world tied together. It’s a pleasure being part of the mission and this humming, green, planted, and colorful place. -Jordan Greenberg

Insects, including pollinators, are under a great deal of stress on the planet these days, so to be part of a project that informs and inspires families and others to do what they can to provide food and habitat for them feels important. -Nancy Rideout

Volunteering at the Pollinator Garden provides a wonderful opportunity to work at a garden that helps me learn more about our pollinators and what we can do to help them. I also have an opportunity to work with and learn from the dedicated team of garden volunteers; all of whom are focused on helping our pollinators and the public to learn more about them! What a wonderful way to spend a few hours of my week. -Sandy MacIntyre

You all have done a lovely job of creating an educational and inspirational garden experience... I especially appreciated learning new information from some of the very experienced garden volunteers. Looking forward to continuing this experience! -Virginia Hast
NH Audubon is grateful for the generosity of the following individuals and organizations who contributed $500 or more during Fiscal Year 2020 in support of our programs:

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Thank you!

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MEET AMONG NATURE

Host your next gathering or meeting at NH Audubon’s McLane or Massabesic Center

COVID guidelines are still in place to ensure we provide a safe place

Planning a meeting or celebration?

Host your event with us and support our mission.

Contact Lauren Kraemer to find out more.

Email: LKraemer@nhaudubon.org for rates and availability

Center Updates For Summer 2021

McLane Center & the Nature Store
Open Tuesdays - Fridays from 11am-4pm
Including the Reptile Room and Raptor Mews!

Newfound Center
Opens on June 14 for the season
See our website for upcoming announcements on the Red Barn Series and boat rentals.

Massabesic Center
Remains closed until September
Only open for summer camp.

Trails and gardens are open for visitors daily from dawn to dusk.

* * *

SUMMER 2021 NH AUDUBON AFIELD
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**THE NATURE STORE IS OPEN!**

And the hard to find board game Wingspan is back in stock!

You are bird enthusiasts—researchers, bird watchers, ornithologists, and collectors—seeking to discover and attract the best birds to your network of wildlife preserves.

Lay eggs, gain food tokens, and draw from hundreds of unique bird cards filled with natural history details.

The winner is the player with the most points after 4 rounds.

The store is open Tuesday-Friday 11am-4pm at the McLane Center in Concord.

Stop by, explore the wonderful array of gifts and birding items, and take home Wingspan!