



Otter Tracks

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The 2020 Great Backyard Bird Count (GBBC) takes place Friday, February 14 through Monday, February 17. The GBBC works with eBird to provide global coverage. It's easy to participate: count the birds in your backyard, your favorite birding spot, even traveling, and then submit your list on-line. You can no longer mail in your observations so **before you submit a list you must create a free GBBC account.** Go to BirdCount.org. You'll find downloadable instructions to create your free account, to enter your observations, and other opportunities. If you are already registered with eBird or Project Feederwatch, use the same login information. There's a tally sheet inserted in this issue, but remember to create your GBBC account to report sightings. Help provide a 4-day snapshot of bird distribution and abundance around the globe.

Here's what you do:

-  Count the highest total of each bird species for at least a 15-minute period in your yard, or wherever you want. Taking the highest total avoids duplicate counting.
-  Create your GBBC account and send your totals for one or more days during the



Great Backyard Bird Count
23rd Annual • Feb 14-17, 2020

Count birds in your backyard, local park, or wherever you spot a bird, and submit your observations online.
birdcount.org

GBBC period to birdcount.org. Use a separate checklist for each day or each site on a given day. The on-line checklist is user-friendly. If you don't have Internet access, ask a friend to create an account and submit your list for you.

National Audubon collaborates with the Cornell Lab of Ornithology and Bird Studies Canada to bring GBBC to you. To continue monitoring through the winter, participate in Project FeederWatch: feederwatch.org.



OCAS Mission:

To protect birds, other wildlife and their habitats by encouraging a culture of conservation within Addison County.

OTTER CREEK AUDUBON SOCIETY

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Ribbon-cutting ceremony: Gale Hurd turns over the Hurd Grassland property on 25 January 2020 to Ron Payne, OCAS president, and the conservation easement to Jamie Montague, MALT director, with a crowd of 40 supporters looking on.

Photo by Carol Ramsayer

Otter Creek Audubon Society

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Ever More Intolerable

Editorial by
Warren King



VIEWPOINT

Evidence is mounting that a 2°C global temperature increase would bring vastly more misery to the planet than once thought. 1.5°C will be challenge enough for us. The U.N. IPCC report of 2018 noted only a dozen years were left to keep to a target maximum of 1.5°C increase over pre-industrial temperatures. That was two years ago. We are now on track to hit 3.2°C by 2100, with uncertain but predictably intolerable consequences. To keep to a 1.5°C increase will now require an annual drop in greenhouse gas emissions of 7.6 percent *starting this year*.

At 2°C 99 percent of the corals of the world would be lost by 2100, with only 90 percent lost at 1.5°C. Insects, including pollinators, are twice as likely to lose half their habitat at 2°C than at 1.5°C. Sea level rise would impact 10 million more people at 2°C. Summers without an Arctic ice pack would occur one year in ten at 2°C, but only one year in 100 at 1.5°C. Hundreds of millions more people would be subject to food scarcity at 2°C.

The decision to hold to 1.5°C is up to the governments of the world, and, in democratic countries, it's up to those who vote. The clock is bringing the time to act down to a scant decade, after which we start to lose our options. President Trump, denying the science of climate change, has initiated the process of U.S. withdrawal from the Paris Climate Accord. Trump's administration has now approved widespread use of the neonicotinoid sulfoxaflor, known for its toxicity to bumblebees and without consideration of the other 4000 U.S. bee species. And our president has declared war on migratory birds by eliminating enforcement of incidental take, even predictable bird deaths from wind towers, oil spills, and airport bird kills. A bill is now under consideration in the U.S. House that would renew enforcement of this "incidental take", but it is highly unlikely to clear the Senate. The Trump Administration is now reversing the National Environmental Policy Act, which requires scientific transparency and public oversight prior to approval of actions that could impact birds, like logging in U.S National Forests, road building and energy development. Day by day our lives and the lives of the wildlife that shares the planet with us grow more intolerable. 🐾

Bicknell's Thrush Survival

Bicknell's Thrush is among the rarest bird species breeding in northeastern North America. Currently about 120,000 birds comprise the total population, placing it among the likeliest North American species to be in danger of extinction. The species migrates to the Caribbean Greater Antilles in November, with the greatest numbers on Hispaniola, returning north in March.

A 2019 publication in the journal *Avian Conservation and Ecology*, authored by Vermont Center for Ecostudies (VCE) researchers Jason Hill, John Lloyd, Kent McFarland and Chris Rimmer, assessed the risks to Bicknell's Thrush on its breeding sites in high elevation spruce-fir forests in the Northeast and its wintering sites in high and medium elevation subtropical forests on Hispaniola. The publication was based on survival studies of 50 female and 128 male Bicknell's Thrushes banded in Vermont by VCE staff over a 15-year period.

The lead author noted that the research team had drawn conclusions about the importance of predation on Bicknell's Thrush by red squirrels, the species' most important summer predator. Analysis of their data in Vermont and on the species' Hispaniolan

wintering grounds forced them to reconsider their conclusions. Although red squirrel predation is important, levels of precipitation on the wintering grounds on Hispaniola are equally important for thrush survival. Reduced winter rainfall on the Caribbean wintering grounds decreased food availability for Bicknell's Thrushes, lowering southern mast production and leaving the thrushes in poor condition to survive migration and to avoid red squirrels on their breeding grounds. Senior author Jason Hill noted "apparent survival of thrushes bumps up in wet winters." Mast abundance, especially fir cones on the breeding grounds, promotes a large red squirrel population, but mast abundance on the wintering grounds due to adequate rainfall provides Bicknell's Thrushes with sufficient food through the winter as well as nutrition to complete their challenging northward migration. Apparently, large numbers of red squirrels awaiting the thrushes' return is not a deterrent. Thrush survival was highest in summers following large winter mast crops, even though red squirrels were at their peak also 🐾

Kirtland's Warbler: No Longer Endangered

On October 8, 2019 Kirtland's Warbler was removed from the U.S. Endangered Species List. It was listed in 1967, among the first species to be listed. It's delisting comes with a management commitment on the part of the U.S. Forest Service, American Bird Conservancy, Bahamas National Trust, Michigan Department of Natural Resources and private foundations and individuals.

When the species was listed, fewer than 200 pairs occurred. They lived only in Michigan's Lower Peninsula in isolated patches of jack pine less than 25 feet tall with thick brushy understory. Regular burning of more mature stands of jack pine has helped reset the clock for breeding pairs. In addition to their very specific habitat requirement, Kirtland's Warblers are frequently parasitized by Brown-headed Cowbirds. The impact is so great that cowbirds are removed by traps from Kirtland's Warbler habitat to enable the warbler's population to hold its own or increase.

By 2015 the population had exceeded 2300 pairs, more than twice the original recovery goal for the species. Pairs have expanded into the Michigan Upper Peninsula, Wisconsin and Canada. Kirtland's Warblers overwinter in brushy habitat on several islands in the Bahamas.

Kirtland's Warbler remains among the rarest warblers. It continues to be conservation-reliant, meaning that management of new jack pine habitat and cowbird trapping in Michigan and pro-



Kirtland's Warbler on its Michigan breeding grounds

Photo by Gary Starr.

tection of shrubby habitat in the Bahamas will need to continue to keep it at its current level or to increase. Kirtland's Warbler habitat remains a highly desirable destination for bird watchers so they can increase the likelihood of adding the species to their life lists. 🐾

Environmental Education Grants Announced

By Carol Ramsayer

Results are in for the 2020 Environmental Education Grants program, available to all Addison County educators. Teachers had submitted their proposals for providing their students with outdoor, hands-on, nature-based learning. A record-setting 19 applications were received by the November 4th deadline. Thanks to OCAS Bird-a-thon fund-raising efforts and very generous donors, we were able to award a total of \$10,026. Thus, 19 grants will reach 867 students in 15 schools – pre-school to high school. What a



Last spring, Bristol Elementary 1st graders used field guides to identify birds on their field trip to Birds of Vermont Museum and Audubon Vermont.

Photo by Jackie Raymond

rewarding year ahead for Addison County students!

Several teachers proposed creative opportunities for their students. For example, a Mary Hogan class will have a field trip to Shelburne Farms for their "Active in Winter" program. First graders will be out in the cold, learning first hand about how animals adapt to winter. Salisbury Community and Weybridge Elementary will be visited by live animals from the Southern Vermont Natural History Museum. They will learn about unfamiliar Vermont history through these familiar animals. Robinson Elementary's 3rd and 4th graders from Starksboro will explore three of the eight biomes they are studying on their field trip to the New Hampshire coast. They will be hands-on in tide pools, sandy beaches and rocky shores! "Forest Phenology" is an outreach program brought by Shelburne Farms staff to Starksboro 5th and 6th graders. Students will journal and collect data from their individual "sitspots."

Whether partially funding a group of six high school students on a citizen science field trip, or fully funding a live bird visit for an all-school presentation to 100 students, OCAS values opportunities to support teachers as they enrich their students' learning. We look forward to reading teachers' end-of-grant summaries as the year unfolds. If you would like to contribute to the OCAS Environmental Education Grant program, a good opportunity is the OCAS Bird-a-thon, held yearly in May. 🐾

2019 Status of Vermont's Rare Birds

Common Loon: A record 101 pairs attempted to nest, including five new pairs. Seventy-five pairs (76%) fledged young. Seven adults were found dead, six of which received necropsies at Tufts University. Entanglement in fishing gear caused at least one bird to die. Thirty pairs nested on small artificial platforms, 27 of them were successful, a better rate of success than on natural islands or lake shorelines. The nest on Lake Dunmore failed, but nests on Silver Lake and Goshen Reservoir were successful.

Bald Eagle: Thirty-four pairs nested in Vermont, a record high. Six new pairs nested. Twenty-seven pairs fledged 47 young. In Addison County five pairs raised five young. Bald Eagle has met or exceeded the requirement for delisting for eight years, and is expected to be downlisted to threatened status before long.

Peregrine Falcon: Not all pairs were monitored. At last 50 pairs nested, 34 of which raised at least 69 young. Fourteen nests failed. In Addison County the pairs at Bristol Cliffs and Elephant Mountain failed. The Deer Leap pair and the Mt. Horrid pair raised two young each. The Rattlesnake Point pair raised at least one young. Snake Mountain may have had a productive pair. Peregrine Falcons were delisted in Vermont in 2005.

Common Tern: The terns on Audubon's Popasquash Island produced over 90 chicks this year.

Black Tern: Seventy-three Black Tern pairs, fewer than nor-



Bald Eagle

photo by sciencealert.com

mal, produced 45 chicks, more than normal, at Missisquoi National Wildlife Refuge.

Upland Sandpiper: Four birds were seen in the upper Champlain valley. Two pairs may have bred.

Whip-poor-will: Eight of this threatened species were counted in Franklin and Grand Isle counties.

Chimney Swift: Audubon Vermont and the Vermont Fish and Wildlife Department will conduct nesting and roosting surveys to provide a baseline from which to measure future decline.

Eastern Meadowlark: Has been proposed by the Vermont Endangered Species Committee for listing as threatened.

Grasshopper Sparrow: Thirteen of this threatened species were counted at one site, eight at another. 🐾

Sign Up for 2020 Salamander Escorts



Spotted Salamander.

Photo by Camazine at English Wikipedia

On warm, wet nights from mid-March to mid-April frogs and salamanders move from their wintering sites on high ground to breeding sites in wetlands to mate and lay eggs. Their route to the nearest vernal pool sometimes takes them across a road.

This is the seventeenth spring that Otter Creek Audubon and the Salisbury Conservation Commission will patrol an amphibian crossing site in Salisbury. Across Vermont, groups of concerned individuals attempt to alter amphibians' lethal odds by moving them off the road during nights of significant movement. At the most

dangerous crossings amphibians may suffer 50 percent mortality, but the crossing we monitor has little traffic. This site retains not only large numbers of amphibians but also remarkable species diversity: four salamander and three frog species. If we happen to get a "Big Night", we'll move more than a thousand amphibians in a two-hour period. The site affords all who participate an opportunity to experience this remarkable natural phenomenon at first hand.

You can witness and help perpetuate this migration if you sign up for the 2020 amphibian email alert. The 2020 window is Monday, March 23 to

Sunday, April 12. You'll receive an email alert on the morning of a projected big night and then a confirming email at about 6 pm. Movement starts around 8:15 pm and can run for several hours. Volunteers may arrive and leave when they wish and are responsible for their own safety and the safety of others in their group. Upon arrival OCAS provides species identification tips and a reminder of appropriate behavior. With your help we'll record the numbers of each species we move for two hours.

Sign up at kinglet@together.net even if you were on the list in another year. 🐾

February – May 2020 OCAS Calendar of Events

FRIDAY, FEB. 14 **2020 BACKYARD BIRD COUNT.** See
TO MONDAY, FEB. 17 article, this issue.

MONDAY, MARCH 23 **2020 SALAMANDER ESCORTS.** See
TO SUNDAY, APRIL 12 article, this issue. Contact Warren
or Barry King 388-4082 or kinglet@
together.net to sign up for the volunteer amphibian email
alert list, even if you participated last year.

SUNDAY, MAY 3 **WARBLER WARM-UP.** Ron Payne
7:30-10:30 AM and Chris Runcie will lead a search
for newly arrived spring migrants.
Hone your birding identification skills before leaf-out.
Co-sponsored with the Watershed Center. Meet at the Bristol
Waterworks, Plank Road, east of North Street, Bristol. Call
Ron at 388-6019 if in doubt about the weather.

SUNDAY, MAY 3 **OTTER CREEK AUDUBON BIRDATHON.**
TO SUNDAY, MAY 17 See further information in the May
2020 Otter Tracks or call Gary or
Kathy Starr at 388-6552.

Heading to Hog Island Audubon Camp

We are pleased to announce the winner of the OCAS 2020 scholarship to Hog Island Audubon Camp! Congratulations to Jen Grilly, a teacher at the Bridge School. For nearly a week in mid-July, she will join peers from around the world for the “Sharing Nature: an Educator’s Week” session.

Led by renowned instructors, campers will be immersed in nature experiences and the exchange of ideas between fellow educators. We are sure that she will return home inspired by her hands-on experiences and eager, in her words, “to help our students engage in the natural world in meaningful ways.” 🐾

MARSH, MEADOW AND GRASSLAND WILDLIFE WALKS

A monthly joint OCAS-MALT event. We invite community members to help survey birds and other wildlife at Otter View Park and Hurd Grassland. Meet at Otter View Park parking area, Weybridge Street and Pulp Mill Bridge Road, Middlebury. Shorter and longer routes possible. Beginning birders are welcome. Come for all or part of the walk. For information call 388-1007 or 388-6019.

SATURDAY, FEBRUARY 8, 8-10 AM
SATURDAY, MARCH 14, 8-10 AM
SATURDAY, APRIL 11, 7-9 AM
SATURDAY, MAY 9, 7-9 AM

ELEVENTH ANNUAL CABIN FEVER LECTURE SERIES

(Second Thursdays in January, February and March)
Downstairs meeting room at Ilsley Library
75 Main Street, Middlebury

THURSDAY, FEBRUARY 13, 7 PM. PLANTS FOR BIRDS presented by Gwendolyn Causer, Audubon Vermont teacher/naturalist and Communications Manager

THURSDAY, MARCH 12, 7 PM. World traveling bird enthusiast Hank Kaestner will present “**WHY GHANA?**” This seldom-visited West African nation is rich in history, culture and, of course, birds, many of which are range-restricted to Western Africa.



2019 Addison County Christmas Bird Count Results

	Ferrisburgh CBC	Middlebury CBC	Mt. Abe CBC
Total species	80	62	51
Total birds	18,520	28,839	3331
Field birders	57	41	21
Feeder watchers	6	17	30
Owling teams	5	5	2
Unique sightings	1 Great Egret	1 Lesser Black-backed Gull	2 Red Crossbill
	1 Gray Catbird	1 Yellow-bellied Sapsucker	6 White-winged Crossbill
	1 Common Yellowthroat	1 Chipping Sparrow	1 Orange-crown Warbler
	1 Fox Sparrow	1 Swamp Sparrow	14 Evening Grosbeak
Unusual numbers	5 Hermit Thrush	27 Bald Eagle	13 American Black Duck

Extremely Long-lived Trees

In California's White Mountains, the bristlecone pine is found between 9,000 and 11,000 feet elevation. The species' population is secure at present, but the fate of one tree, named Methuselah by its finder in 1957, is always in question, since at 4,800 years old, it is the oldest living tree on the planet. Bristlecone annual rings, visible under a microscope, figure prominently in dendrochronology studies that shed light on changes in tree growth and climate over the last several millennia. Methuselah currently has the age record for a living tree, but many neighboring bristlecones have not been cored, including one that may already be 5,000 years old. Bristlecones, especially old ones, tend to space themselves far enough apart to protect them from fire which is important in their fire-prone habitat.

Although bristlecones have the record, each continent or island group has its own age champions. They include a yew from north Wales that is 4,000 years old, an alerce from Chile at 3,646 years, a sarv from Iran at 4,000 years, a chestnut in Sicily at 4,000, a kauri from New Zealand at 2,500, a 3,000-year old olive from Crete, a 2,000-year old Cryptomeria from Japan, and a 3,500-year old Florida bald cypress, which recently succumbed to gravity.

Another ancient tree species was in the news recently: the Wollemi pine. This species occurs only in an unnamed gorge in the Blue Mountains of New South Wales, Australia and is not really a pine at all but an australian. Even though the oldest living Wollemi pine is less than 1000 years old, the species has set its own longevity record. It has been present in the Australian for-

est for 200 million years. It reached its peak between 65 and 34 million years ago, when it was widespread in Australia alongside real pines, ferns, seed ferns, cycads, and of course dinosaurs. Broadleaf trees had not yet even evolved. Wollemi pines were thought to have been extinct for the last 2 million years until a population of less than 200 trees was discovered in 1994.

The recent outbreak of wildfires across New South Wales put the entire population in extreme jeopardy. The Australian Park Service sought to keep secret the location of the gorge where they occur, which made protection of the trees more difficult. They managed to save the bulk of the population although a few outlier trees were burned. The location of the population continues to remain a secret, but the Australian government has initiated a campaign to sell Wollemi pine seedlings to nurseries around the world. 🐾



A Wollemi Pine sapling at the Mount Tomah Botanical Garden, bordering the Wollemi National Park near Sydney, Australia.
photo by John Dalton

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