



# Otter Tracks

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## Salisbury Fledglings By Carol Ramsayer

**H**as it really been six years? Amazingly, it's true. Back in the spring of 2014, inspired by her week at Hog Island's session "Sharing Nature: An Educator's Week," Amy Clapp invited OCAS to bring the Classroom Birding Series into her Salisbury 1<sup>st</sup> grade science class. What fun we had! Gary guided small hands as they carved birds with real knives...Carol encouraged touching study skins as a way to learn about bird parts...kids tried to imitate various birds' feeding techniques with gummy worms and chocolate crumbs (among other treats). Each of the three days included outdoor bird watching with real binoculars. The kids were guided by a cadre of OCAS volunteers. At the end, each 1<sup>st</sup> grader was gifted with her very own bird guide. And, to top it off, they held Bird-a-thons with their families!

It was a grand beginning. Who knew then that the learning would continue – and it did. Let's follow along. The next spring it was all about owls – and this time the whole school participated, including our now 2<sup>nd</sup> graders. Every grade enjoyed Owl Week during their science classes — owl adaptations and owl pellet dissection. It all led up to a visit from VINS with live owls and raptors, funded by an OCAS Environmental Education Grant. And you guessed it, another all school Bird-a-thon!

In 2016 they were 3<sup>rd</sup> graders. The school-wide bird topic that

year was migration. Who could miss hand-made birds hanging from strings, "flying" down the hallway from Costa Rica at one end to Vermont at the other! Weather reports determined their progress...stopover habitats along the way fueled birds' bodies. The week concluded with a wild outdoors obstacle course to illustrate the dangers that migrating birds face. Cars...power lines...pesticides...and a particularly fierce hawk named Tyler.

Fourth grade was next – this year it was all about nests. Each class learned about building materials used by birds...then explored different kinds of nest construction. Cries of "Guess the Nest!" rang out as kids each described their own tiny nest. Then, pairs of students each dissected a real nest. Discoveries! Not all nests are sticks and dried mud! Bugs, horsehair, blue plastic bits, unidentified fur — who knew?

*cont. on page 5*

**Back in 2017 our fledglings were in fourth grade and learning all about nests.** Photo by Carol Ramsayer



### 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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# Windshield Phenomenon

Editorial by  
Warren King



## VIEWPOINT

In the 1950s, when I was starting to drive, one fact of life was that you had to pull over every few hours in the summer to clean the windshield, especially if you were driving on a limited access highway, which back then meant the Pennsylvania Turnpike. When was the last time you had to pull over to clean bugs off your windshield? Entomologists sometimes refer to this as the “windshield phenomenon”, also known as the “shifting baseline syndrome”, when changes take place gradually over a long enough timeframe that our sense of “normal” changes so gradually we fail to see a change at all.

Several long-term studies have recently come to light that demonstrate the windshield phenomenon and emphasize the importance of multi-year studies. In Luquillo Experimental Forest, a montane rainforest maintained in Puerto Rico by the U.S. Forest Service, two biologists undertook research in 1976 and 1977 on the biodiversity and biomass of the organisms inhabiting the rainforest, mainly arthropods (insects, spiders and crustaceans) but the insectivore vertebrate species as well. The researchers repeated their monitoring 35 years later, from 2011 through 2013. The biologists conducted a second study in tropical dry forest in Chamela-Cuixmala Biosphere Reserve in western Mexico in 1981, returning 33 years later, in 2014.

The Luquillo Forest data showed declines of arthropod biomass of 4 to 8 times from net sweeps and declines of biomass of 30 to 60 times in sticky traps. In the Mexican study the declines were 8-fold also. One climate difference between the earlier monitoring and the later monitoring was an increase of 2 degrees C (3.6 degrees F) in Luquillo Forest and an increase of 2.4 degrees C (4.3 degrees F) in Chamela-Cuixmala. This temperature rise depresses arthropod reproduction with a parallel decline of insect-eating anole lizards, a number of tree frog species, and insectivorous birds. The authors show that temperature rise was statistically the most likely explanation of the decline, which they refer to as a “bottom-up trophic cascade and consequent collapse of the forest food web”.

A second set of studies from Krefeld, Germany, showed a decline of flying insects of 76 percent at 63 protected reserves over a span of three decades. Studies around the world, mostly of single or groups of species like monarchs and other butterflies, hawk moths, fireflies, wild bees, and other insects corroborate the downward trend.

The massive decline of arthropods these studies demonstrate has striking implications for all the organisms that depend on insects for food, pollination, decomposition of dead organisms and the provision of other ecosystem services, worth \$

57 billion in one year in the U.S. alone.

The prospect of a steady decline of all flying insects poses a risk to the future of life on this planet. We have passed the point where human use of the planet's resources can proceed without an impact on global ecosystems. Increasingly severe global malfunction has become

inevitable. We will learn that we have

brought it on ourselves too late to avoid the

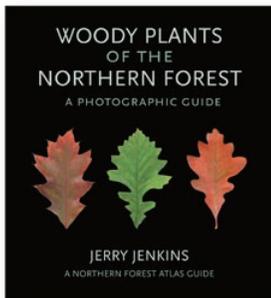
impact. If I'd only stopped to reflect on the message

on my Studebaker's windshield. 🐾



No, not Warren's Studebaker....

## Book Review



## Woody Plants of the Northern Forest: A Northern Forest Atlas Photographic Guide

by Jerry Jenkins

Cornell University Press,  
Ithaca and London, 61 pp., \$16.95

Review by  
Warren King

Jerry Jenkins has produced a photographic guide to the woody plants of the northern forest. Jenkins' photos are extraordinary. Technically, they are "multi-image composites shot with Canon lenses and a stackshot rail and stacked with Zerene stacker. This allows great clarity and depth and is rapidly making single-image macrophotography obsolete." Jenkins covers 235 of the 265 woody plants of the northern forest. His images jump off the page at you: stems, buds, and leaves alike.



This is a user-friendly resource for identifying woody northern forest plants in Vermont and neighboring states and provinces. It works nearly as well in winter as in summer. And the photos are not only technically useful but also exquisite. Jenkins' efforts have turned woody plant identification into a year-round activity.

His pithy explanatory comments show that he knows where to draw the line between utility and dogmatism. About the many hawthorn species he says: "Few people can identify them in the summer and probably no one in the winter. Just call them hawthorns and let it go at that." And about distinguishing between the two Virginia creeper species: "This is deep water, and you may be forgiven for not wanting to venture too far into it." Practical advice for all of us. 🐾

## Endangered Species

Digging into endangered species data to understand which species or populations are really at risk, the reasons they're at risk, and the efforts being undertaken to improve their status can be a challenge. In fact, just knowing which government agencies are responsible for those species at the state, federal or global level, and which private organizations have a productive role in endangered species recovery can take considerable study.

Starting at the top, the international organization responsible for endangered species at the global level is the International Union for Conservation of Nature and Natural Resources, IUCN for short, headquartered in Switzerland. IUCN maintains the global lists of endangered species, referred to as the Red Data Book series. BirdLife International handles bird issues for IUCN. BirdLife International is made up of a Secretariat, centered in Cambridge UK, and Partners, the leading bird organization in each of 121 countries around the world. National Audubon is the BirdLife Partner for the U.S.

The U.S. Secretary of Interior maintains the official U.S. Endangered Species List, which was authorized by the Endangered

Species Act of 1973. The U.S. Fish and Wildlife Service has responsibility for birds in the U.S. and its possessions.

States have their own endangered species lists. The Vermont Fish and Wildlife Department Natural Heritage Inventory maintains Vermont's lists.

The IUCN Red Data Book series, including Birdlife's Birds Red Data Book, currently recognizes several categories of risk from Extinct to Critically Endangered to Endangered to Vulnerable and then to Near Threatened, Least Concern, and Data Deficient. Currently, 1469 bird species, 13 percent of the 11,000 total birds around the globe, are "at risk", which means included in any of the first four categories. Since the year 1500 161 bird species have gone extinct. Five species are currently extinct in the wild but have small populations in captivity. Three species have been lost since 2000, two of which, Hawaiian Crow and Po'o Uli, were native to Hawaii. The former is one of the five with just a captive population. The Po'o Uli was discovered in 1973 and was last seen in 2004. Other species formerly extinct in the wild and now restored to the wild include California Condor and Guam Rail. Forty

percent of global bird species are declining, 44 percent are stable, 7 percent are increasing, and the trend of 8 percent is unknown.

Of species that occur in the U.S. or its possessions, IUCN lists 77 bird species in one of its at-risk categories. The U.S. Secretary of Interior lists 80 species, subspecies, or discrete bird populations as endangered and 21 as threatened. The State of Vermont lists 10 bird species as endangered and 3 as threatened. Recent additions to the official Vermont list include Eastern Whip-poor-will as threatened and Common Nighthawk as endangered. For comparison, IUCN has listed Chimney Swift and Evening Grosbeak as globally vulnerable and Eastern Whip-poor-will, Eastern Meadowlark, and Common Grackle as near threatened. Although Common Grackle remains abundant, its global population has declined by 60 percent in the last 40 years. 2005 was a banner year for Vermont endangered species. Common Loon, Osprey, and Peregrine Falcon were all removed from the Vermont endangered species list, having met the requirements of each species' recovery plans. 🐾

# Beginning Birders' Walk



Yay, it's summer! That means it's the time of year again when we gather in Wright Park to look for birds, explore various habitats, and generally enjoy time together with fellow nature enthusiasts. Experts from OCAS and Middlebury Area Land Trust will guide us in small groups and answer all our questions – even IDing those puzzling bird songs! We'll dabble in iNaturalist, too. One group will be especially geared to the younger set. And, oh yes, there will be snacks!

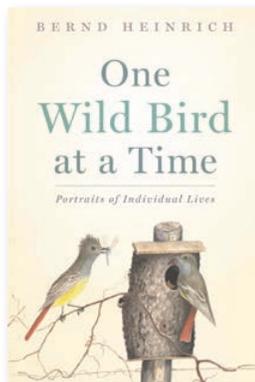


Above: **Beginners' Bird Walk**  
photo by Gary Starr

Right: **Veery on Beginners' Bird Walk**  
photo by Carol Ramsayer

So grab a friend and join us on Saturday, June 22<sup>nd</sup> for this yearly adventure! Bring your binoculars or borrow a pair from OCAS. The walk is family-friendly and suitable for all ages, but not appropriate for strollers or wheelchairs. We will meet at 9:00 AM at the Wright Park parking lot north of Pulp Mill Covered Bridge on Seymour St. Extension. (Go northwest from the Middlebury Green on Seymour St, then just before Pulp Mill Covered Bridge turn right on Seymour St. Extension to the parking area at the end.) The walk ends by about 10:30 AM. We will go rain or shine, but if you have questions call 989-7115. 🐾

## Book Review



### One Wild Bird at a Time: Portraits of Individual Lives

by **Bernd Heinrich**

**Houghton Mifflin Harcourt,  
Boston and New York, 2016,  
210 pp.**

**Review by  
Warren King**

**P**rolific Bernd Heinrich produces books about nature in New England faster than I can get them read. This is his eighteenth, and he's one ahead of me at the moment. This book is in 17 chapters, each about a different bird species that he has studied, usually at his cabin in a clearing deep in the Maine woods.

Any of the species is a likely breeder or visitor in rural Vermont.

Each chapter starts with an observation of one or more birds doing something that piques his curiosity. He observes with care and patience, never entirely certain he will solve the puzzle that suggests itself in his observation. For example, a male Yellow-bellied Sapsucker takes advantage of a two-foot tall ring of metal he installed to protect an old but still productive apple tree from the depredations of a hungry bear. The sapsucker hits the jackpot. The message it hammers out on the metal ring is audible nearly a mile away. Heinrich presumes the hammering is a territorial message. But when the sapsucker doing the ringing quickly departs after the prompt arrival of one or two additional sapsuckers, he follows all of them into the woods and is forced by the evidence he finds to follow a different and more complex line of reasoning. I won't spoil it for you by telling what happens. But his conclusions are satisfying to him and to this reader, as well. He turns patient observation, careful note taking, and logic into a captivating story. And that's just one chapter. 🐾

## May – June 2019 OCAS Calendar of Events

**SUNDAY, MAY 5  
7:30-10:30 AM**      **WARBLER WARM-UP.** Ron Payne 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 Warren at 388-4082 if in doubt about the weather.

**SUNDAY, MAY 5  
TO SUNDAY, MAY 19**      **OCAS BIRDATHON.** Our main fundraiser of the year. OCAS teams identify as many species as they can under self-imposed rules in a 24-hour period. Supporters provide contributions per species or a lump-sum amount.

**SATURDAY, MAY 18  
8-11 AM**      **HELP AUDUBON VERMONT'S MARK LABARR** net and affix geolocators on Golden-winged Warblers at Middlebury's Wright Park at 8 AM. Joint event of Audubon Vermont, MALT and OCAS. Meet a few minutes before 8 am at Wright Park entrance at end of Seymour Street Extension. For more information call Ron Payne at 388-6019.

**SATURDAY, JUNE 8  
(DATE SUBJECT TO CHANGE)  
8 PM**      **MOTH EVENT** at Ilsley Library, 75 Main Street, Middlebury. Enjoy the huge diversity and abundance of moths in Vermont with an outdoor black light session to see what moths are active in early summer. Local moth experts will be on hand to help us with moth identification and biology. Call Ron Payne at 388-6019 for further information.

**SATURDAY, JUNE 22  
9-11 AM**      **BEGINNERS BIRD WALK.** Jointly sponsored with MALT at Wright Park. Led by experienced naturalists. Meet at Wright Park (northwest from the Middlebury Green on Seymour Street, then just before Pulp Mill covered bridge turn right on Seymour Street Extension to parking area at end). Call Carol Ramsayer at 989-7115.

### Audubon Assembly

*continued from page 6*

Shortsleeve provides advice to towns, organizations and individuals to protect and enhance wildlife habitat, including forest and stream habitat management. Habitat Stamps helped fund a public boardwalk and allowed addition of land to several state wildlife management areas in 2018.

David Mears brought the group up to speed on a variety of activities in which Audubon Vermont takes part, including Audubon's participation in the Vermont Forest Partnership, an effective lobbying group in Montpelier. Mears described the fate of several wildlife-oriented bills in the legislature, including work

### 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, MAY 11, 7-9 AM**

**SATURDAY, JUNE 8, 7-9 AM**

**SATURDAY, JULY 13, 7-9 AM**

**SATURDAY, AUGUST 10, 7-9 AM**

**SATURDAY, SEPTEMBER 14, 7-9 AM**

### Fledglings

*continued from page 1*

By last year, in 2018, our young bird enthusiasts were in 5<sup>th</sup> Grade. Feathers were on parade for all grades to learn about: all sizes and functions (can you name all 23 functions that feathers perform?) and colors. A new OCAS stereo microscope brought the mystery of feather structures into focus. In the end, Amy tied the learning together with lessons on flight – both feathered and man-made.

So now we come to 2019...and we wonder how the 6 years have flown by so fast. Although Amy's science room is now a thing of the past, it's a joy to witness the result of a teacher who for six years has been dedicated entirely to science education. Not only the 6<sup>th</sup> grade class, but the whole school now shares a culture of birds. Bird-a-thons have become a school-wide spring tradition. So this year, on a day in May, we will look back with the 6<sup>th</sup> graders on our years together. We'll celebrate with a "This is your (birding) life!" morning full of a sampling of past stations, eating bird cookies and sharing memories. The students are ready to fly on to middle school, and hopefully they'll take their fondness for birds with them. 🐾



to revise Act 250, updating it to include issues like climate change and forest connectivity that were not of concern fifty years ago, when Act 250 was passed. The Act 250 revision will continue into the next legislative session.

The afternoon's highlight was a summary by a representative of each chapter of the work undertaken in the past six months since the last assembly. It affords an ideal opportunity for chapters to learn about the successes of neighboring chapters.

The Northeast Kingdom Audubon will organize the next assembly in April at St. Johnsbury's Fairbanks Museum. 🐾

# The Vermont Audubon Assembly: Origins and Functions

**T**here are six Audubon chapters in Vermont at present: Green Mountain, Northeast Kingdom, Ascutney Mountain, Southeastern Vermont, Rutland County and Otter Creek. Historically there was a Central Vermont Audubon in Montpelier, Taconic Tri-State Audubon in Bennington and Mad River Audubon. Going back to the 20<sup>th</sup> century, representatives of Vermont chapters came together four times annually as the Vermont Audubon Council (VAC). VAC had officers and an agenda of activities, including fairly regular visits to the State House to lobby for favorable legislation, a task currently undertaken by Audubon Vermont.

Audubon Vermont was formed 20 years ago from the staff of the Green Mountain Audubon Center, formerly run and owned by Green Mountain Audubon, plus a National Audubon representative (Jim Shallow), who was selected by the VAC Board, plus \$40,000 in conservation funds that had been raised by the VAC. VAC ceased to exist following creation of Audubon Vermont.

A few years after the formation of Audubon Vermont, the Vermont chapters felt a need to gather on a regular basis to exchange information and ideas. They created the Vermont Audubon Assembly, which meets twice annually, with meetings organized each year by a different chapter. The Assembly had its most recent meeting on Saturday, April 13, 2019.

Organized by Green Mountain Audubon, the assembly took place at the Birds of Vermont Museum, which was created by for-



mer director of the Green Mountain Audubon Center Bob Spear to house his collection of life-sized carvings of all of Vermont's 200-plus bird species. Seventeen representatives from six chapters, including one from New York, took part, as well as recently hired Audubon Vermont director David Mears and long time Audubon Vermont staff Mark LaBarr.

The meeting, run by Bruce MacPherson, chair of Green Mountain Audubon, started with a presentation by Vermont Fish and Wildlife habitat biologist Andrea Shortsleeve on the importance of the Vermont Habitat Stamp in providing \$110,230 in 2018 for several important aspects of the department's work, in addition to leveraging \$142,908 in federal funds for the state.

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