



Otter Tracks

Inside

-  **Neonics and the EPA**
— An Editorial
-  **Salamander Crossing**
2016
-  **The Messengers: Birds**
and Climate Change
-  **Let's Go Birding!**
-  **Cuba-U.S Environmental**
Agreement
-  **Overwintering Sandhill**
Cranes Move Northwest
-  **Calendar of Event**
-  **Devastating**
Salamander Fungus

Announcing the 2016 Environmental Education Grant Recipients

by Carol Ramsayer

Each year OCAS offers Addison County teachers the opportunity to apply for its Environmental Education Grants. Applicants are encouraged to design nature-based experiences for their students. The OCAS grants committee continues to be very pleased with the enthusiastic response from educators. We are happy to announce that \$4015 was granted this year, an increase in available funds made possible by two very generous OCAS member donors.



Cornwall Elementary School 5th/6th grade class, teacher Mindy Harvey, and Cornwall Conservation Commission member Emily Sunderman by their new "sandbox" for capturing wildlife tracks in sand.
Photo by Mary Dodge

Funding will benefit about 471 children in ten Addison County public and private schools and one Rutland County school.

Three projects funded this year include a component of community involvement, thus broadening the impact of student explorations. In Cornwall Elementary School, 3rd through 6th graders will partner with the Cornwall Conservation Commission to determine wildlife travel corridors using tracking and game cameras. Data will be entered in iNaturalist and shared with community members. Tenth graders at Middlebury Union High School have an exciting insect and arthropod biodiversity unit ahead – involving the collection and preparation of specimens. The ensuing collections will be available to researchers

and other students. Elementary students at Leicester Central School will partner with Moosalamoo Program students from Otter Valley Union High School to explore nearby Hawk Hill and develop an ecological map of the area. Data will be entered in iNaturalist. The Rutland County Audubon Society will join OCAS in funding this citizen science project.

Addison Central School primary students will travel to Huntington to participate in outdoor programs at the Birds of Vermont Museum and the Green Mountain Audubon Center. VINS educators will visit Bridport Central School, bringing their live raptors, amphibians and reptiles. Middle schoolers from Orwell Village School will again experi-

cont. on page 5



OCAS Mission:

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

OTTER CREEK AUDUBON SOCIETY

PO Box 938
Middlebury, VT 05753

Ron Payne, President
Warren King, Editor
388-4082

Winslow Colwell, Design and Layout
www.wcolwell.com

Vol 42, No. 2

www.ottercreekaudubon.org

 Printed on 100% recycled paper

Otter Creek Audubon Society

Board of Directors 2015-2016

Officers

Ron Payne **President**
388-6019

Marcia Parker **Vice-President**
897-7222

Warren King **Secretary**
388-4082

Gary Starr **Treasurer**
388-6552

Board Members

Alan Coulter 545-2213

Melissa Green 382-0123

Barb Otsuka 388-6829

Tyler Pockette 349-5827

Carol Ramsayer 989-7115

Craig Zondag 453-7237

Director Emeritus

Abbott Fenn*

Audubon Vermont

Jim Shallow

Conservation & Policy Director

* Deceased



Neonicotinoids and the EPA: An Update

Editorial by
Warren King



VIEWPOINT

The most widely used pesticides in the world are neonicotinoids, neonics for short. The U.S. Environmental Protection Agency (EPA) has issued conditional registrations for several neonics developed by Syngenta and Bayer. They are sprayed on 100 million acres of corn, wheat, soy, cotton, barley, alfalfa and other crops. An additional 50 million acres are planted with neonic-coated seeds, something EPA doesn't control. Ninety-five percent of the seeds' coating turns to dust, disperses widely, and is incorporated systemically into plant tissue, including pollen and nectar of nearby plants.



Dead Honeybees in front of hive

photo by Stefan de Konink

Pollinators, including bees, pollinate 75 percent of all food crops. But many beekeepers have lost 30-50 percent of their hives this past year due to colony collapse disorder. Recent studies of pollen in honeybee hives and bumblebee nests reveal high levels of three kinds of neonics and six kinds of fungicide. Researchers estimate that this mix of pesticides has an impact on bees 1,000 times higher than previously believed, although specific combinations of these chemicals have yet to be studied in detail.

The Center for Food Safety (CFS), American Bird Conservancy, and several beekeepers and farmers filed a lawsuit against the EPA in January. They charged inadequate regulation of two neonic-laced seed coatings, both manufactured by Bayer. Also in January, CFS and the Center for Biological Diversity filed notice of violation of the Endangered Species Act for failing to make a required finding on a petition to protect the monarch butterfly from neonics. And in February, CFS filed a citizen petition to the EPA seeking policies to protect water quality from contamination by neonic insecticides. Beekeepers in Canada are bringing suit against Syngenta for deaths and damages to bees and reduced honey yields and quality. Meanwhile Syngenta has requested that the EPA increase the allowable levels of residues of two neonics in certain food crops.

Evidence is lacking that neonics alone are the cause of colony collapse disorder. Parasitic mites, disease, loss of habitat, inadequate nutrition, weather and a lack of genetic diversity in bee populations all contribute to the problem in some way. But it is becoming clear that EPA's failure to control neonic-coated seeds has had serious negative consequences for pollinators, birds, butterflies, and aquatic invertebrates. EPA has promised a report by 2019 on the impact of neonics on the health and survival of pollinators including honeybees and bumblebees. Beekeepers and farmers wonder if they can hold out until solutions are found for their problems. They need measures to:

- Reduce aquatic contamination thresholds
- Eliminate "reduced risk" fast track conditional registrations for neonics
- Treat seed-coated neonics like sprayed neonics
- Track long-term effects of neonics on aquatic ecosystems
- Track and reduce effects of neonics on non-target organisms like pollinators, monarch butterflies and grassland birds.

Cynthia Palmer, director of pesticide science for the American Bird Conservancy, says: "A single seed coated with a neonicotinoid insecticide is enough to kill a songbird. There is no justification for EPA to exempt these pesticide delivery devices from regulation." 🐾

Salamander Crossing 2016

Otter Creek Audubon's Salamander Escort Service completed its 16th year with two good nights. We aided five species of salamander and two species of frogs across Morgan Road in Salisbury from their wooded upland wintering sites to breeding site in vernal pools in Salisbury Swamp. Volunteers delighted in the opportunity to observe the remarkable flow of amphibians across a narrow dirt road. In two hours on 24 March our 22 volunteers moved 1286 amphibians across the road; in two hours on April 7th 44 volunteers moved 498 amphibians. We counted 3 amphibian mortalities from 2 vehicles on the first night and 14 mortalities from 7 vehicles on the second.

We intend to offer similar opportunities for volunteers next spring. Sign up for the email amphibian alerts from late March to early April: kinglet@together.net. 🐾



Two red-backed salamanders migrate across a road to their breeding site
photo by Chris Slesar

The Messengers:



Red-crowned Cranes
Photo: David Courtenay/Audubon Photography Awards

BirdLife International, in collaboration with the National Audubon Society, BirdLife's Partner in the U.S., published a major report in November 2015 entitled *The Messengers: What Birds Tell Us about Threats from Climate Change and Solutions for Nature and People*. The link is: <http://climatechange.birdlife.org>

The report stresses that birds are clearly responding to climate change. Here is a synopsis: "Birds are the planet's messengers, telling us that climate change is already posing danger. Recent research has documented impacts that include:

- 🐾 Distribution shifts polewards and to higher ground to escape warming temperatures
- 🐾 Disrupted interactions with predators, competitors and prey
- 🐾 Mismatches in the timing of migration, breeding and food supply
- 🐾 Population declines resulting from these and other effects."

Because birds are the best-studied group of vertebrates, impacts of climate change are clearer with birds than with any other group. Twenty-four percent of bird species are affected negatively, 13 percent are affected positively, 14 percent show non-significant effects from climate change, and 49 percent have not been studied well enough for us to know how climate change will affect them.

The bulk of the report, a series of 68 case studies, lays out what research has revealed about the impact of climate change on birds and on people, mostly in third world countries. The report's 39 pages include many eye-catching and dramatic photographs which refer to specific case studies. The case studies are presented in charts and graphs, with single paragraphs conveying what was not otherwise evident.

The report concludes with ten recommendations to policymakers, falling into three headings: Keep Fossil Fuels in the Ground, Help Species Adapt, and Invest in Nature-based Solutions. 🐾



Birders enjoying Wright Park's natural bounties. photo by Carol Ramsayer

Let's Go Birding!

By Carol Ramsayer

Summer's finally here and it's time to enjoy our annual outing for beginning birders. It's the perfect chance to spend the morning with folks who can help you find that warbler that's singing from the treetops! On Saturday, June 25th, Otter Creek Audubon and Middlebury Area Land Trust will co-host this beginner's bird walk, exploring several of Wright Park's diverse habitats. Small groups led by experienced naturalists will walk along the Quest Trail, a loop off the Trail Around Middlebury. We'll explore a managed shrubland, a variety of forest types, wetlands, beaver habitats and the banks of Otter Creek. We will listen for birdsong, watch for nesting behaviors, breathe plenty of fresh air and enjoy whatever natural wonders come our way. There will be a surprise discovery station or two, as well as the traditional snack stop for any hungry hikers.

Please join us 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 11:00 AM. We will go rain or shine, but if you have questions call 989-7115. 🐾

Cuba and U.S. Collaborate on Environmental Agreement

On November 24, 2015 the U.S. Department of State and the Republic of Cuba released an agreement aimed at increasing collaboration on a broad range of environmental issues of mutual importance. The agreement covers:

- 🐾 Climate change
- 🐾 Scientific research
- 🐾 Exchange of information and best practices
- 🐾 Coastal and marine natural resource and habitat protection
- 🐾 Watershed management
- 🐾 Control of invasive alien species
- 🐾 Endangered and threatened species and their habitats
- 🐾 Protected area management
- 🐾 Prevention of wildlife trafficking and illegal logging
- 🐾 Protection of migratory species
- 🐾 Forest fire control
- 🐾 Ecosystem-based approaches to resilience planning
- 🐾 Prevention of spills of oil and other hazardous substances

Of particular interest to Audubon members is the protection of migratory species, including endangered species. Over 180 species that breed in the U.S. winter over in or migrate through Cuba. The agreement applies not only to collaboration between governmental agencies but also to initiatives undertaken by non-governmental organizations, scientific and academic groups. The initiatives include facilitation of movement of officials, equipment and materials between the two countries. 🐾

Overwintering Eastern Greater Sandhill Cranes Move Northwest

The center of distribution of the eastern population of wintering Greater Sandhill Cranes in North America moved 400 miles northwest over the last 47 years from central Florida well into Georgia. International Crane Foundation researchers used citizen science data from Audubon Christmas Bird Counts and North American Breeding Bird Surveys for the study.

The Greater Sandhill Crane subspecies breeds in mid-continental North America from the Midwest to the West Coast; other subspecies breed farther north and in Mississippi, Florida and Cuba. The center of distribution of breeding eastern Greater Sandhill Cranes has remained in Wisconsin throughout the study years.

In winter, however, the study notes that in 1966 only 423 cranes were observed in the eastern U.S., growing to 55,826 by 2012 as the result of more effective protection. The authors attribute this change in movement to annual weather, climate change, and changes in land use, trends they anticipate will continue. 🐾

OCAS Calendar of Events

May - July 2016

MONDAY, MAY 2 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. See insert, this issue.

THRU MONDAY MAY 16

SUNDAY, MAY 8 **MOTHER'S DAY WARBLER WARM-UP.** Ron Payne and Warren King 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.

7:30-10:30 AM

SATURDAY, JUNE 4 **BIRDING TRIP TO MISSISQUOI NATIONAL WILDLIFE REFUGE SWANTON.** Ron Payne will lead a trip to one of the most species-rich sites in Vermont. Targets will include Black Tern, Common Tern, Great Blue Heron, Bald Eagle, Bonaparte's Gull and early spring migrants. Home of the only pitch pine woodland bog in Vermont. Meet at the Ferrisburgh/Vergennes Park and Ride on Route 7 at 6 AM. Travel time 1 hour 15 minutes each way. Bring lunch and liquid. Call Ron Payne at 388-6019 for further information.

6:00 AM

SATURDAY, JUNE 25 **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 for further information. See article, this issue.

9-11 AM

SATURDAY, JULY 30 **NATIONAL MOTH WEEK CELEBRATION** at Ilsley Library and Otter View Park. Enjoy the huge diversity and abundance of moths in Vermont. We'll start with an indoor illustrated introduction at Ilsley Library to acquaint us with some of our striking and common moths, followed by an outdoor black light session in Otter View Park at 9 PM to see what moths are active in mid-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.

8 PM



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 14, 7-9 AM
- SATURDAY, JUNE 11, 7-9 AM
- SATURDAY, JULY 9, 7-9 AM
- SATURDAY, AUGUST 13, 7-9 AM
- SATURDAY, SEPTEMBER 12, 7-9 AM

2016 Grant Recipients

continued from page 1

ence nature during their Environmental Science Days, rotating from station to station in a wooded camp setting. Shoreham Elementary sixth graders will travel to the Lake Champlain Maritime Museum where they will paddle canoes to collect and then test water samples, learning first-hand about water ecology. In an effort to protect their newly planted bird-friendly shrubs, teachers and preschoolers at Quarry Hill School will install deterrents to discourage hungry play area woodchucks. Continuing their study of plant life, Weybridge Elementary fifth and sixth graders will use grant funds to purchase a Fast Plant seed kit. And finally, Vergennes Union High School students in the Walden Program will learn about following tracks and signs through workshops with tracker Sue Morse.

OCAS can enthusiastically report that at least three schools are continuing projects that have evolved from grants received in previous years. Steve Flint (Mary Hogan Elementary School) and his 3rd graders are again raising trout from eggs, and will release the fry into the Middlebury River in May. Amy Clapp (Salisbury Community School) is in the midst of a school-wide migration unit. And Jocelyn Foran (Mt. Abe Union Middle School) is expanding the scope of her seventh graders' biodiversity study at the Watershed property in Bristol. OCAS volunteers support these projects by leading outdoor discovery stations and by guiding nature walks.

OCAS heartily applauds the excellent work of these Addison County teachers as they strive to provide their students with exceptional outdoor learning experiences. If you would like to contribute to OCAS' Environmental Education Grants, a good opportunity is the OCAS Bird-a-thon, described in a special insert in this issue. 🐾

Devastating Salamander Fungus

In 2013 a fungal infection (Bsal) was discovered that affects salamanders as dramatically as the Bt chytrid fungus affects frogs. See the November 2015 Otter Tracks for the background on this fast-breaking story.

In January the U.S. Fish and Wildlife Service, acting with unprecedented speed, released a 23-page interim rule about Bsal in the Federal Register. This was prompted by research being done in the U.S. and Europe as well as a petition from the Center for Biological Diversity and Save the Frogs! The rule summarizes what is presently known about the disease and lists the various species of salamanders known or believed to be susceptible to it.

The fungus is not yet known to have reached the United States, but given the magnitude of global trade in captive salamanders, there is a high risk of its establishment here. The Lacey Act prohibits the importation into the U.S. and the interstate transport of listed species, alive or dead, and their parts. Under the Lacey Act, the Fish and Wildlife Service has determined that 201 listed salamanders in 20 genera can carry the fungus and are therefore potentially injurious to the wildlife resources of the United States.

Operating on the assumption that if any member of a salamander genus is susceptible to carrying the fungus, all members of the genus are susceptible, the list contains many species that have not yet been shown to have lethal effects from the fungus either in the wild or in captivity. Thus far the Fish and Wildlife Service has determined that 67 salamander species from 5 genera native to the U.S. are carriers of Bsal. Once established in the U.S. Bsal will be extremely difficult to eradicate.



Red-backed Salamander Photo by Brian Gratwicke

Two salamanders native to Vermont are on the list: eastern newt and red-backed salamander. Both are common and widespread in Vermont, probably our two most abundant salamander species. Until the rule went into effect, both were readily available for purchase on the Internet. The loss of these and the other listed species to the retail trade will amount to an estimated \$3.9 million. The economic loss to pet stores from direct, indirect and induced effects of the rule is estimated at \$10 million.

The Fish and Wildlife Service allowed only 15 days for the rule to take effect, “allowing for the reasonable completion of imports and transports already in progress and to give wildlife inspectors and other law enforcement officers time to enforce the interim rule.” This briefest of lead times is “due to the significant risk of introduction, establishment and spread of Bsal in the United States.” Because of the interim nature of the rule, we can expect it to be revisited before very long. Many questions must be dealt with, including the fate of at least some of the 478 additional salamander species not covered by the interim rule but likely to be carriers. It is encouraging to see that the Fish and Wildlife Service can react rapidly in a serious emergency. 🐾

Non-Profit
U.S. Postage
PAID
Middlebury, VT
Permit No. 15



Otter Tracks

Otter Creek Audubon Society

PO Box 938

Middlebury, VT 05753