



Otter Tracks

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Chris Slesar Earns Silver Feather



OCAS Board President Ron Payne bestows the Silver Feather Award upon Chris Slesar. Photo by Craig Zondag

In honor of notable devotion, dedication and untiring effort on behalf of the preservation and appreciation of the birds, other wildlife, and natural communities of Addison County”, the Otter Creek Audubon board awards its prestigious Silver Feather at the annual dinner to a deserving Addison County resident. This year the recipient is Chris Slesar of Monkton.

Chris has been at the core of a multi-year effort to design, fund and construct two wildlife underpasses at a busy amphibian crossing between the Monkton Swamp and upland forest. A dream Chris has shared with Steve Parren of Vermont Fish and Wildlife, the underpasses came about by convincing the Vermont Department of Transportation of their importance, undertaking major fundraising to augment state budgets and several successful grants, and creatively resolving design challenges.

In his position as Environmental Resources Coordinator for VTrans Chris was in the ideal place to promote and organize the project. But his role went far deeper. His efforts generated a culture of conservation and an atmosphere of support for wildlife within VTrans. As the chair of the Monkton Conservation Commission and a board member of the Lewis Creek Association, he encouraged strong community support for the project and played

a significant role in community fundraising from the town of Monkton and the Lewis Creek Association that covered the funding shortfall. The underpasses will reduce significantly the threat to large numbers of several species of amphibians that cross the Monkton Road to breed. In recent years half of the crossing amphibians never make it across the road on any given night.

The keynote speaker at the annual dinner was Jim Andrews. Jim is the compiler of the Vermont Atlas of Reptiles and Amphibians, chair of the Herp Specialist Advisory Group of the Vermont Endangered Species Committee, and the compiler of the Middlebury Christmas Bird Count. He is an instructor of popular herp, bird and other biology courses at UVM and Hogback Community College. He has played a major role in OCAS’ amphibian escort service on Morgan Road in Salisbury for the last decade. He is a Silver Feather recipient and the first person to give a second keynote presentation at our annual dinners, his first taking place in 1998. The title of his presentation was “Selected Reptiles and Amphibians of Addison County”. The audience was captivated. 



OCAS Mission:

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

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Burn It All, Flood It All

Editorial by
Warren King



VIEWPOINT

In July 2012 Bill McKibben wrote an article in *Rolling Stone* called "Global Warming's Terrifying New Math". He considered it to be among his most significant publications. He structured the article around three figures: 2° Celsius, 565 gigatons and 2,795 gigatons.

The first figure is the global temperature rise due to anthropogenic climate change before possibly catastrophic and irreversible changes take place. We've currently used up 0.8 of those two degrees.

The second figure is the amount of CO₂ we can release into the atmosphere by mid-century and remain within the 2° increase.

The third figure is the amount of CO₂ released if all existing proven reserves of fossil fuels were burned. The third figure is about five times the second. It represents the financial assets of the world's fossil fuel corporations and nations, the bulk of their net worth. McKibben's conclusion is that 80 percent of those proven reserves must be left in the ground if our planet is to continue to be habitable.

But this simple logic hasn't prevented the fossil fuel corporations from budgeting billions to turn up yet more oil and gas reserves. Nor has it prevented them from using their significant resources to establish an aura of uncertainty about the science of climate change that mimics the calculated messages of doubt about the science of cigarette smoke, DDT, and fluorocarbon refrigerants. Climate change went from prediction to observed fact in the late 1980s, shortly after which Exxon went from sharing science with the public to hiding behind a veil of doubt.

Fossil fuel corporations stand to profit from continuation of the status quo but will lose billions if they can't access their reserves. So publicly they continue to raise doubts about the science and the urgency of taking action. The cost of this trumped-up skepticism has been the loss of 25 years of work on the changes needed to deal with a largely fossil-free economy.

In a September 2015 paper in the peer-reviewed journal *Science Advances* the authors calculated that burning all available fossil fuels will result in melting almost all the Antarctic ice and a sea level rise of 160 to 200 feet. If we hold the temperature rise to 2° we will cause sea level to rise "just a few meters." A sea level rise of one meter is already predicted in this century under current high-impact conditions, which will flood an area currently occupied by a billion people. The sooner we get to work on this problem the less expensive it will be.

Status of Vermont's Rare Birds

Peregrine Falcon: This species was extirpated from Vermont in the 1970s due to DDT and re-established in the 1980s from captive bred birds released at favorable locations. After a good comeback, the species was delisted from the Vermont list of endangered and threatened species in 2005. However, human disturbance above cliff nest sites frequently causes pairs to abandon their nest site. Accessible nesting cliffs and nearby trails continue to be closed during the nesting season.

Almost all historically occupied sites are once again occupied. Four new nesting pairs were documented this year, bringing the number of occupied cliffs to 49. A record 67 young fledged. Sites in Addison County included Bristol Cliffs, Elephant Mountain, Deer Leap, Mount Horrid, Rattlesnake Point, and Snake Mountain. Only the first two of these were successful this year.

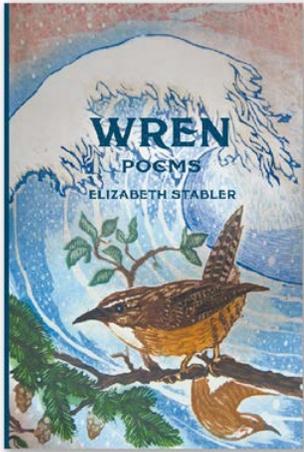
Common Loon: A record 87 pairs nested and 65 of them successfully raised 69 chicks. In Addison County, young fledged on Lake Dunmore and Silver Lake. A pair attempted to nest on

Sugar Hill Reservoir. In 2015 Vermont's loons suffered impacts from territorial fights, ingesting fishing line, and depredation. The species was removed from the state list of endangered and threatened species in 2005.

Common Tern: Mark LaBarr of Audubon Vermont estimated 220 breeding pairs on Popasquash and Rock islands, down from 235 and 270 pairs in 2013 and 2014. Great Horned Owls preyed on chicks at Popasquash, but good reproduction on Rock Island brought productivity up to 0.4 chicks per pair. Productivity remains below the 0.6 fledglings per pair required for downlisting.

Bald Eagle: Nesting attempts statewide numbered 32. Twenty-one chicks fledged, lower than the previous three years.

Spruce Grouse: The 2015 census yielded a density of 24 males per square mile along monitoring transects in Nulhegan Basin and 3 males per square mile in Victory Basin. Spruce Grouse density declined in both areas from 2012's numbers. 🐾



Book Review

Wren

Poems by
Elizabeth Stabler

Red Barn Books,
June, 2015. 98 pgs.

Review by
Barbara Brosnan

As Elizabeth Stabler opens *Wren*, it is winter and four downy mockingbird feathers cling to a bare azalea branch.

On the last page, it is spring and a band of blue sky opens over the melting of glittering ice and the call of a titmouse who “finds his blue note/ and sounds it over and over and again.”

These two poems reveal the depth of Stabler’s observations. But while all is reality, all is also metaphor. In the first poem the mockingbird has been killed, “fresh-pawed for a winter meal,”

yet his downy feathers lie on the same azalea branch “where buds show pink,” promising new life.

Stabler has grouped her poems into four sections by themes, but these themes echo throughout the collection. In “Acorn” we see a young girl climbing alone up an oak tree to “The swaying treetop where/ she catches her breath and/ looks out, way out---“ over a WW II wartime world below her. This wartime world is both inside and outside a school bus in her haunting sestina where a lonely boy stares through a dirty bus window. In “Yellow,” images of dying yellow linden leaves fall upon an earth where yellow tulips await spring. And in “Muse” a writer listens to a Carolina Wren who she hopes would “alight like a sparrow on my palm... then I will know the whole universe breathes.”

Elizabeth Stabler invites us to ponder and celebrate how we humans participate in the natural world, for better or worse, and to stand quietly with her inside a house hoping to see the evening return of a Carolina Wren family. In *Wren* life emerges hopeful despite broken relationships, nostalgic visions, and a ferocious November gale. In this beautiful little book of wisdom, watercolor images rise to end with the song of a titmouse. 🐾

A Tough Way to Make a Living

A European butterfly species, the large blue, lays eggs on wild oregano plants. The large blue caterpillar feeds on oregano flower buds for two weeks and then drops to the ground where it adopts the posture and mimics the scent of a particular ant species that is active only at night. The ants adopt the caterpillar, assuming it is an ant larva, and bring it underground beneath the oregano plant. The caterpillar enhances its status by clucking, imitating the sound queen ant larvae make. This “queenly” status gives the caterpillar liberty to feed on ant larvae, something that adult ants of this species do when times are tough. After ten months of gorging on ant larvae the caterpillar, now fifty times its original weight, pupates and then transforms into an adult large blue.

But the large blue isn’t alone in benefiting from this complex relationship. The oregano plant produces a toxic gas that protects it from most ants, but the particular night-active ant in this triangle tolerates the gas and harvests oregano roots,

while the gas keeps other ant species away. The large blue larva reduces the reproductive potential of the ant colony by its voracious ant larva browsing.

But that’s still not the whole story. The ant species requires warm temperatures

at the ground surface. When the turf is allowed to grow longer the ground stays cooler, so the ant colony is seriously restricted, negatively affecting large blue caterpillars. Large blues went extinct in Britain as a consequence of reduction of livestock grazing on nature reserves where grazing had been the practice. Sorting out



Large blue butterfly on wild oregano.

photo courtesy PBS

the web of connections between the butterfly, the ant and oregano and providing other means of keeping the turf short and the soil warmer provided the opportunity to import large blues from Sweden to Britain, where the butterfly once more plays an active role in a complicated evolutionary web. 🐾



Major New Threat to Salamanders

Following a remarkable worldwide decline in frog numbers in the 1980s biologists discovered that the fungus *Batrachochytrium dendrobatidis* (chytrid or Bt for short) was responsible for the decline, but not before 200 frog species, including species discovered only recently in remote South American rainforests, have already gone extinct. The fungus infects mainly frogs, although a few salamander species are susceptible as well. The disease attacks keratin in the amphibians' skin and mouthparts, affecting oxygen exchange and control of salts and water.

A closely related fungus, *Batrachochytrium salamandrivorans* (Bs), discovered in 2013 in eastern Asia, is dramatically lethal to most species of salamanders. It has spread to Europe from eastern Asia, probably via the vigorous trade in captive salamanders (Google "pet fire-bellied newt" or "tiger salamanders for sale" for a sample of this huge global market).

In a lab study of 17 Bs-infected European and North American salamander species all 50 individuals of 11 species died. Six additional species in the test were not affected. Among the victims were eastern newt, familiar in its red eft stage to all of us who walk in the woods in Vermont. Whether the unaffected species became carriers of Bs is not known.

The discovery of salamander chytrid fungus adds one more survival threat faced by amphibians on top of habitat destruction, invasive exotic species, commercial exploitation, water pollution and climate change. Bd was discovered after its establishment in North America. Bs is not yet confirmed here. Unless the trade in captive salamanders is rapidly eliminated, there is every likelihood Bs will become established here and will spread. The world's greatest concentration of salamander species and abundance is in the Appalachians of the southeastern United States. Swift, decisive action will be needed to prevent the bulk of these species from being wiped out. 🐾

The following is the description of a citizen science project being undertaken by research biologist Jonathan Kolby as a means of monitoring Bs spread around the world. Please participate. If you participate in iNaturalist.org, send your photos and comments to <http://bit.ly/1MvPydF>. Otherwise you can send photos and comments to DeadSalamanders@gmail.com. Here are some important things to remember:

1. Species identification is NOT necessary. If you cannot identify the type of salamander because they are too long dead, or simply because you don't know salamanders, that's ok! All dead salamander photos are important.
2. If your salamander is not dead, but looks like it has weird skin sores or marks, we also want you to take a photo and report these.
3. Your photos don't have to be pretty and you don't need a fancy camera! Feel free to use the camera on your phone. A blurry picture is better than no picture.
4. Record this simple information along with your photo:
 - a. Date
 - b. Location
 - c. Number of dead salamanders you saw (i.e. if you find a pond with 20 dead salamanders, you might only take a picture of a few, but report 20)
 - d. Species (your best guess is great, but it's ok if you have no idea — just call it a salamander)
 - e. Suspected cause of death (i.e. was it hit by a car, stepped on, partially eaten by an animal? etc.).

Please always make a comment in the description box about this observation. If you tell us there was no obvious reason why it was dead, this is very helpful because we can rule out non-disease factors like roadkill, predation, etc.

A Cowbird's Work Is Never Done

Brown-headed Cowbirds are brood parasites. They do not build nests of their own. Instead, they lay their eggs in nests of other species, and the host parents raise the cowbirds' young as well as their own. Cowbird chicks are normally larger than the hosts' chicks, they get more food, grow faster, and they sometimes eject some or all of the hosts' chicks. An individual cowbird female may lay up to 40 eggs in as many different nests.

Well, you say, cowbirds have figured out the ideal labor-saving way of raising their young. But reflect for a moment on what it takes to be a successful cowbird mom. Not only do you need to find the

nest of a suitable host, you need to have an egg ready to lay at a suitable moment, that is, when the host's clutch is being laid and when the host female is away from the nest. The cowbird female must retain reproductive information on all her potential host pairs.

Is she done when she successfully lays her eggs? The answer is "Not by a long shot." If the hosts discern they have a foreign egg in their nest, some parasitized species react by evicting the egg. The cowbird may then engage in "mafia-like retaliation" by ransacking the hosts' nest.

Some parasitized species are apparently unable to distinguish the parasitized egg.

Most songbirds nest twice. If their first nest is successful and the cowbird chick fledges, irrespective of the fate of the other chicks, the same pair is far more likely to be parasitized a second time than pairs that have not been successful in their first nest attempt. It is not known if it is the same female cowbird that parasitizes the second nest, but the researchers think it highly likely that female cowbirds keep track of neighboring cowbird chicks as well as their own. It is clear that cowbirds learn from, and act appropriately on, the success or failure of their chick in the hosts' nest. 🐾

OCAS Calendar of Events

December 2015 - January 2016

ADDISON COUNTY CHRISTMAS BIRD COUNTS

- SATURDAY, DECEMBER 19** **FERRISBURGH CHRISTMAS BIRD COUNT.** Call Mike Winslow at 877-6586 for details.
- SATURDAY, DECEMBER 19** **MT. ABE CHRISTMAS BIRD COUNT.** Call Randy or Cathy Durand at 453-4370 for details.
- SUNDAY, DECEMBER 20** **MIDDLEBURY CHRISTMAS BIRD COUNT.** Call Jim or Kris Andrews at 352-4734 for details.
- SATURDAY, JANUARY 2** **HINESBURG CHRISTMAS BIRD COUNT:** Call Paul Wieszoreck at 802-434-4216 for details.

FRIDAY, JANUARY 1 **FIRST DAY BIRD HIKE:** New Year's Day birding trips are a tradition held by many in the bird watching world as they begin to fill their annual bird lists. This year we invite you to join us as we combine that tradition with the fairly new tradition of First Day Hikes held at State Parks across the country. Meet us at Button Bay State Park in Ferrisburgh at 9 AM to walk the trails in search of overwintering birds.



At Quarry Hill School, recipient of an OCAS Environmental Education Grant, pre-school students tend to new bird-friendly plantings in their schoolyard.

Photo by Su White

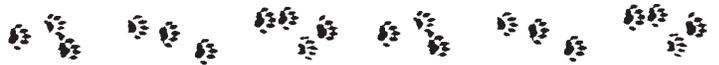
Calling All Addison County Educators!

Otter Creek Audubon is pleased to announce that Environmental Education Grants will again be available to Addison County educators. Applications for the 2015-2016 school year can be found on our website in late-November, with a submission deadline of mid-January. In addition, school principals will be asked to distribute digital applications to their teachers. We encourage teachers interested in designing nature-based experiences for their students to apply. Spread the word! 🐾

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.

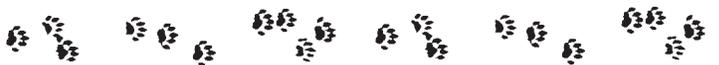
- SATURDAY, NOVEMBER 14, 8-10 AM
 SATURDAY, DECEMBER 12, 8-10 AM
 SATURDAY, JANUARY 9, 8-10 AM
 SATURDAY, FEBRUARY 12, 8-10 AM



Bathed in sunshine, participants at the 14th annual Dead Creek Wildlife Day enjoyed a wide variety of wildlife-related activities and presentations, including bird banding and an owl pellet workshop. Claire Trombley bands a warbler. photo by Gary Starr



Five-year-old Asher Phillips dissects a pellet to find bones from an owl's prey. photo by Carol Ramsayer





OCAS Trail Camera by Ron Payne

This past year Otter Creek Audubon purchased a Stealth Cam model STC-G42NG trail camera with the aid of a National Audubon Society collaborative grant. The purpose of this purchase was twofold, first to add it to our lending library of nature resources for use in Addison County classrooms, and second for us to use it to capture interesting wildlife sightings. Over the past six months, I've been in charge of taking care of that second goal.

I had a bit of a learning curve using it, putting it in the right location, securing it well, and aiming it properly, but after getting past that, we've had great results. The camera, when placed in the field, is triggered by motion and can take high definition pictures or video both day and night. So far it has been used mostly at the Hurd Grassland in Weybridge where gray squirrels, rabbits and white-tailed deer have made up the bulk of the captures. But we have had some other more impressive animal species as well.

The best result came on June 17th when almost exactly one hour after I had set the camera up in a hedgerow, a bobcat came



Bobcat at the Hurd Grassland in Weybridge

Photo by Ron Payne

by and had pictures taken of it. Moving the camera near an old apple tree in late summer gave us great quantities of entertaining video of deer does and fawns eating fallen fruit. Another excellent recent sighting from that same location was a blurry but recognizable set of nighttime pictures of a fisher.

Many pictures and videos from the camera can be viewed via our Facebook, Twitter and YouTube pages, and a compilation video will soon be shown on Middlebury Community Television.

The camera has not yet been used in a classroom, so if you know any educators in our area that might make use of it, please have them contact us. 🐾

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Otter Creek Audubon Society

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