## Uniting People and Science for Conservation



ANNUAL REPORT 2017

## MISSION

The Vermont Center for Ecostudies (VCE) advances wildlife conservation across the Americas through research, monitoring, and citizen engagement.

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### DEAR VCE FRIENDS AND SUPPORTERS,

I turned 98 today. More accurately, I submitted my 98th observation to iNaturalist. *Hericium coralloides*, or the Coral Tooth Fungus, to be specific. While not a scientist myself, I have become enamored with photographing, identifying, and contributing my findings from the woods and fields around my house to this global biodiversity database—and at the same time, locally to VCE's Vermont Atlas of Life.

I am a generalist: I do love to bird, but I love to look for dragonflies and hunt for mushrooms in equal measure. For me, there is richness in variety. It is this richness that has drawn me closer to the heart of the Vermont Center for Ecostudies. VCE has, through the varying interests of its scientists, cast a broad net in pursuit of a greater understanding of ecosystems in northern New England, the Caribbean, and Central and South America. VCE biologists go where the species they study take them—birds, insects, and amphibians and the forests, grasslands, and montane habitats that sustain them have been studied, monitored, assessed, and conserved.

Similarly, the extended VCE family brings diverse backgrounds and experiences that inform and sustain their collective efforts. Staff, Board, Advisory Council, and volunteers comprise a formidable group of inspiring, engaged, and committed individuals. I am humbled and honored to be a part of such a family. While the scientists direct VCE's course of research (and consequently, citizen science opportunities), our role as supporters is to nurture the foundation upon which their exceptional work flourishes. I encourage all who are interested to explore the many ways to become part of this family and support that foundation. Together, we can continue to unite people and science for conservation.

Peter w Brooke

PETER BROOKE

THE EXTENDED VCE FAMILY BRINGS DIVERSE BACKGROUNDS AND EXPERIENCES THAT INFORM AND SUSTAIN THEIR COLLECTIVE EFFORTS.





## VCE IS NOT ONLY SURVIVING AT 10 YEARS OF AGE, BUT UNDENIABLY THRIVING.

## A DECADE OF MILESTONES

As we age, every year seems chock full of milestones and passages. Reflecting on the past year at VCE, we experienced several of each. First and foremost, VCE reached its tenth year. More symbolic than substantive, this benchmark is nevertheless meaningful: VCE is not only surviving at 10 years of age, but undeniably thriving. Our conservation science program is robust, our visibility and reputation vibrant, our legion of loyal citizen scientists growing, our finances stronger than ever, our dynamic staff phenomenally talented, our Board and Advisory Council fully engaged. VCE's vitality after a decade represents nothing short of an all-hands-on-deck team effort.

More specifically, 2017 capped a quarter century (OK, 26 years, but who's counting?) of VCE's signature work on Bicknell's Thrush. From Mt. Mansfield in 1992 to Cuba's Pico Turquino in 2017, VCE has surveyed, counted, banded, radio-tracked, and pursued this rare and vulnerable songbird across the hemisphere. Many have been involved, and touched, in the process—see our retrospective summary later in this report.

Three other notable milestones from the past year:

**>** Eric Hanson's tenure as VCE's Loon Biologist reached 20 years! The architect (and chief bottle-washer) of Common Loons' resounding recovery from near-extirpation in Vermont, Eric shows no signs of easing up on the conservation throttle. With his leadership of hundreds of volunteers, there can be little doubt we'll reach the century mark for nesting loon pairs within a year or two.

> Forest birds also made news, as **Steve Faccio spearheaded publication of** *The Status of Vermont Forest Birds*, a 25-year trend analysis from our long-term Vermont Forest Bird Monitoring Program. The news is mixed, with avian winners and losers, but this work reaffirmed the immense value of this core VCE citizen science project, the longest running of its kind in North America.

**>** Roz Renfrew produced a hemispheric Bobolink Conservation Plan for the U.S. Fish and Wildlife Service, an historic effort with contributions from dozens of collaborators, laying out an explicit roadmap for collaborative international actions to conserve this steeply declining grassland icon. Trans-border conservation is never easy, but this far-reaching plan will guide and inspire actions from Canada to Argentina.

Passages? Three deserve special mention. Far too soon, we lost our dear friend and founding advisor Jenepher Lingelbach in June. We profoundly miss her compassionate spirit, boundless spark, and wise counsel. We also bid farewell to two core VCE staff: Sara Zahendra and Juan Carlos Martínez-Sánchez. Both added immeasurably to VCE's success, and our unique persona—Sara as a founding (and still active) voice of *Outdoor Radio* and our Whip-poor-will maven, JC as our first and only Caribbean Bird Conservation Coordinator, who literally forged new ground as a conservation mentor and practitioner on Hispaniola.

Looking ahead, challenges and opportunities abound. Our natural world is changing rapidly, and dramatically. As VCE confronts those changes, striving to advance conservation through science, we'll need help from every corner. Whether you're a citizen scientist, conservation partner, advocate, fellow nature enthusiast, supporter, friend—or all of these—you helped make 2017 a great year for VCE. Together, let's aim even higher in the years to come.

CHRIS RIMMER

# Discovery

## VERMONT'S OLDEST LOON

While driving by Newark Pond one June day, Eric Hanson noticed a loon near shore sporting colorful identification bands on its legs—green and orange bands on the left leg, yellow and aluminum on the right. Upon consulting historical banding data, Eric realized that he had banded this male on this same pond in 1998, his first year as the Vermont Loon Recovery Program biologist! Just how old was this bird?

Based on plumage, the loon was at least three years old in 1998, but more likely five or even older, making him now at least 25 years old—and the oldest Vermont loon on record (the average lifespan of a Common Loon is eight years.) How fitting that Eric and one of his first banded loons in Vermont were reunited on the eve of his 20<sup>th</sup> anniversary with VCE!



▲ The bird leaving this nest was banded in 1998 on Newark Pond by Eric Hanson and re-sighted in 2017, once again by Eric, on Newark Pond.

## **Birds of a Feather**

A VCE study published in *The Condor: Ornithological Applications* analyzed carbon isotopes in feathers to discover what Bobolinks eat while on their wintering grounds. These carbon compounds reflect the different types of plant native grasses vs. planted rice—the birds consume while growing their feathers during winter molt.

**Rosalind Renfrew and** colleagues collected feather samples from Bobolinks wintering in South America both in a rice-producing region and a grassland region, and from breeding Bobolinks in North America. Results showed that the winter diet of most individuals was weighted toward non-rice material. but that rice consumption was highest in late winter, when rice is nearing harvest and the birds are preparing for their northbound migration.

While rice provides Bobolinks with needed calories as they prepare for their journey north, it may also increase their exposure to pesticides, or perhaps threats from some farmers who view them as pests. The study suggested that maintaining native grasslands, encouraging integrated pest management programs to reduce toxic pesticide applications, and compensating farmers for crops lost to seed-eating birds could help ensure the species' survival on its wintering grounds.

> Rosalind Renfrew prepares to release a banded male Bobolink.



MONT CENTER

LICENCE FOR CONSERVATION



© JONATHAN VAN BILSEN



## DRAGONFLY ATLAS

2017 was an exciting year for Odonata in Vermont. Two new dragonfly species were added to the list of Vermont fauna, and VCE launched the Dragonfly and Damselfly Atlas-the most comprehensive assessment of Vermont Odonata ever assembled, documenting species occurrence and distribution. This is of growing importance as the mounting effects of climate change alter species' habitats, range, and abundance worldwide.

Soon after VCE launched the Atlas, the first discovery came in: angler Dale Ferland snapped a photo of a dragonfly perched on the shoreline of the Black River in Springfield; an acquaintance posted the image to iNaturalist Vermont; Atlas curators determined (and enthusiastically announced) that Dale had discovered Vermont's first Cordulegaster erronea (Tiger Spiketail)!

A planned expedition to a remote section of the Victory Basin Wildlife Management Area yielded the second new dragonfly discovery of 2017. VCE collaborators Josh Lincoln and Mike Blust set out on a two-hour bushwhack into the heart of Victory Bog in search of Somatochlora incurvata (Incurvate Emerald), among the rarest of North American dragonflies. Their soggy adventure paid off, as they found their elusive quarry.

## Citizen Engagement

THE VERMONT CENTER FOR ECOSTUDIES PROMOTES WILDLIFE CONSERVATION ACROSS THE AMERICAS USING THE COMBINED STRENGTH OF SCIENTIFIC RESEARCH AND CITIZEN ENGAGEMENT.

## CITIZEN SCIENCE OPPORTUNITIES



### **Mountain Birdwatch**

Each June, volunteers hit the trails to complete bird survey routes on 123 mountain ridgelines across the Northeast.



## LoonWatch

On the third Saturday in July, volunteers conduct a one-day census of Vermont's breeding loons. Loon monitoring throughout the summer is optional.



## **Forest Bird Monitoring**

Each June, volunteers monitor breeding birds on 31 sites across Vermont in one of the continent's longest-running studies of forest bird population trends.



## **Vernal Pool Monitoring**

In April, May, and September each year, volunteers visit and collect data to monitor "adopted" vernal pools following protocols and using using VCE-provided equipment. Jason Hill prepares to hand over a recently-banded Willow Flycatcher for release during a banding demonstration in Norwich, Vermont.



## CROWD-SOURCED DATA PROJECTS

VERMONT eBIRD

40,000 COMPLETE CHECKLISTS submitted to Vermont eBird, comprising over 300,000 bird records, representing 281 bird species, and tallied by 1,732 birders.

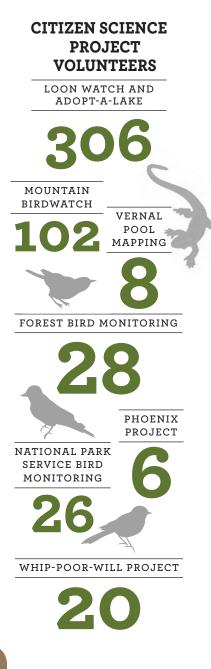
ODONATA ATLAS



**VOLUNTEERS** added 1,605 records to the Vermont Dragonfly and Damselfly Atlas (VDDA). Our growing dataset now stands at 10,544 records. That includes the addition of two new species to the Vermont fauna in 2017: *Cordulegaster erronea* (Tiger Spiketail) and *Somatochlora incurvata* (Incurvate Emerald).

VERMONT ATLAS OF LIFE AT iNATURALIST

**1,057** NATURALISTS contributed over 56,250 observations representing more than 3,850 species. Over 1,325 naturalists helped to identify and verify identifications, elevating the data to "research grade."





### **Whip-poor-will Project**

On clear, moonlit nights in early summer, volunteers travel between roadside survey points to listen for Whip-poor-wills and record surrounding conditions.



## eBird

Volunteers submit bird sightings and checklists that are vetted by experts and added to a worldwide avian database.



e-Butterfly

CROWD-SOURCED CITIZEN SCIENCE TOOLS

Volunteers report sightings and submit photos of butterflies across North America.



## iNaturalist Vermont

Volunteers share observations of all Vermont biodiversity in this digital project of the Vermont Atlas of Life.

# Outreach

MANY LANDOWNERS ATTENDED OUR WORKSHOP TO EXPLORE WAYS TO SUPPORT GRASSLAND BIRDS IN BALANCE WITH OTHER LAND MANAGEMENT OBJECTIVES.



#### Odd Names, Serious Trouble

## COMMUNICATING SCIENCE



## **Field Notes**

Our twice-yearly science magazine offers in-depth coverage of our research and conservation efforts, and behind-thescenes updates here at VCE. Learn about what we've been doing and how you can join us in science and conservation of wildlife. You can read past issues of **Field Notes online** at vtecostudies.org/ field-notes.

## eNews

VCE's monthly electronic newsletter delivers timely information and stunning photography to over 3,000 subscribers. eNews reports on topics ranging from VCE research, to breaking news from the frontiers of conservation biology, to explorations of regional natural history phenomena through our featured "Field Guide to the Month." and more. Subscribe at vtecostudies.org/ subscribe.

## Managing Habitat

VCE and Upper Valley Land Trust sponsored "The Balancing Act: A Workshop for Landowners and Land Managers" with the goal of educating land managers about how they can help grassland birds and maintain field quality through bird-friendly mowing regimes. Participants learned about grassland bird ecology and watched a birdbanding demonstration. Experts from VCE, the Vermont Department of Forests. Parks and Recreation, and **University of Vermont** Extension shared tips, tools, and incentives to help landowners strike a balance between hav production and stewardship for birds.





## **SUDS & SCIENCE**

You know you're doing something right when the most frequent complaint is, "there's nowhere left to sit," in a room that holds 50. VCE's public science discussion series, hosted by biologist Jason Hill, keeps getting better as we blend science with the arts of storytelling and craft beer. Held monthly (January-May and November) at the Norwich Inn, community members gather with beverage in hand to casually learn about a diversity of topics-which in 2017 included insect sound communication, the evolutionary origins of stress, shorebird migration, climate change, and Arctic soils. Our speakers are professionally recorded for rebroadcast on CATV Community Access Television, where the show is quite popular, and simultaneously affords access to constituents far and wide. vtecostudies.org/suds-and-science/

A Dr. Zane Thayer, Dept. of Anthropology at Dartmouth College, entertained with her talk on the evolutionary explanations for why stress affects our health.

#### ¥

Sara Zahendra and Kent McFarland pose atop an old beaver lodge at North Branch Nature Center in Montpelier.

## **Outdoor Radio**

VCE and Vermont Public Radio team up to explore fascinating natural history topics on air and online in our monthly Outdoor Radio show. Now in its fifth year, Outdoor Radio co-hosts Kent McFarland and Sara Zahendra, along with VPR's Chief Production Engineer, Chris Albertine, take listeners across the state (and sometimes underwater or above treetops) to delve into natural curiosities all around us. From mussels to moose and worms to waterfowl, anything is fair game for our intrepid hosts. Tune in to VPR the third Wednesday of every month at 6:20 PM, again on Thursday at 7:50 AM, or listen online anytime at vtecostudies.org/ outdoor-radio.



## Leadership

Male Bobolink in non-breeding plumage. This photograph was taken by a birder in Pennsylvania who contacted VCE to help identify the leg bands. VCE is an internationally recognized leader in Bobolink research. REACHING BEYOND ITS NAMESAKE, THE BOBOLINK CONSERVATION PLAN IS A FRAMEWORK FOR CONSERVATIONISTS, PLANNERS, AND BIOLOGISTS TASKED WITH ADDRESSING THREATS TO A SUITE OF GRASSLAND BIRD SPECIES.

## LEADING THE CHARGE FOR BOBOLINK CONSERVATION

VCE completed the international Full Life Cycle Bobolink Conservation Plan, commissioned by the U.S. Fish and Wildlife Service in response to long-term declines in grassland bird populations. Reaching beyond Bobolink, the Plan is a framework for conservationists, planners, and biologists tasked with addressing threats to a suite of grassland bird species throughout their annual cycles. Using input solicited from wildlife and conservation experts from seven countries, it defines population goals and prioritizes conservation strategies to stabilize grassland bird populations across the western hemisphere, and will provide a roadmap for future work that all parties interested in grassland bird conservation can share.





Top Right: VCE summer interns Kirsti Carr and Nate Launer proudly display banded **Bicknell's** Thrushes on Mt. Mansfield, 12 July 2017.

Liza Morse pins a Polyphemus moth for preservation.



## **MENTORING TOMORROW'S CONSERVATIONISTS**

Over nearly three decades of conservation science, VCE biologists have mentored dozens of students and young scientists. From field crews immersed in "brute force biology," searching for Bicknell's Thrush nests in balsam fir thickets atop Stratton Mountain and Mt. Mansfield, to banding songbirds, identifying butterflies, and mapping vernal pools, involvement in VCE's projects has set many a youth upon a career path to conservation. Former interns and seasonal biologists have gone on to PhDs and distinguished careers in academia, wildlife agencies, and fellow conservation nonprofits.

Reaffirming our commitment to mentorship, VCE in 2017 extended our mentoring opportunities to include participation in the University of Vermont (UVM) Rubenstein School Perennial Internship program, the ECO Americorps program through Vermont's Department of Environmental Conservation, and the second year of our own Alexander Dickey Conservation Internship.

ECO Americorps member Liza Morse joined VCE in fall 2017 to plan and coordinate the pilot year of a new citizen science project, VPMon, that will monitor vernal pool ecosystems. Under the guidance of Steve Faccio, she led the project through its first field season, developing protocols, recruiting and training participants, and spreading the word about this new project in communities across Vermont.

Two rising seniors at UVM filled VCE's dual internship slots: Nate Launer, from Greensboro, VT was VCE's second annual Alexander Dickey Conservation Intern. Kirsti Carr, from Fairfield, CT, was selected for the

Rubenstein Perennial Internship position at VCE. Nate and Kirsti conducted point counts for Mountain Birdwatch, banding on Mt. Mansfield, and loon surveys for the Vermont Loon Conservation Project. Read about their experiences at vtecostudies.org/blog



## **Building a Consensus** Agenda for Conservation

People often ask, "How does VCE set its priorities?" It's a legitimate question, given the vast array of wildlife and habitats, and the threats they face, even within the "Greater Laurentian" landscape at the core of our work.

We pursue projects that:

- > are within our areas of expertise
- represent timely and significant conservation challenges
- > present real opportunity for action
- > offer opportunities to engage the public in our work
- have available funding

Our ideal would be to build a "consensus agenda" which all parties active in conservation would advance: researchers would agree upon key areas of focus with input from policy makers who would envision putting the research to use. Practitioners and policy makers would advise the researchers on the most effective modes for delivering the science to parties who would apply it, and funders would direct their resources to advance this work.

To that end, VCE collaborated with Hubbard Brook Research Foundation to gather scientists, policy makers, practitioners, and funders. All who attended were selected because of their broad perspectives, willingness to think expansively, and potential for contributing to a rich and inspiring day-long discussion.

The discussion culminated in the 2017 publication of our report, "Co-creating an action-oriented agenda for biodiversity research in Vermont," which will inform VCE's strategic priorities in the coming years.

# Collaboration

## LOON CONSERVATION

The Vermont Loon Conservation Project is an unqualified success story, having ushered the Common Loon population from the brink of extirpation (a low of 7 nesting pairs in 1983) to 2017's record high of 97

A STRONG NETWORK OF COLLABORATORS HAS HELPED THE VERMONT LOON CONSERVATION PROJECT USHER THE COMMON LOON POPULATION FROM THE BRINK OF EXTIRPATION TO 2017'S RECORD HIGH OF 97 NESTING PAIRS. nesting pairs. In addition to the sheer number of loons, Vermont's loon productivity (number of chicks produced per pair) has exceeded the North American average. Each Vermont territorial pair produces on average about 7 chicks over a 10-year period; the average across North America is 5 chicks over 10 years.

What accounts for such success? One thing we know is that Vermont benefits from a very strong and diverse network of collaborators, each contributing in a unique way to protect loons and their habitats.

### **>** HYDROPOWER DAM OPERATORS

Ten hydropower dam operators help prevent flooding of nests for at least 22 territorial loon pairs. If loons nest on natural sites (such as islands and marshes) on any of these dam-regulated water bodies, VCE alerts the operators to tailor their water management regime to prevent flooding the nests, especially during heavy rain events. All but one of the stations does this voluntarily—Great River Hydro's license requires that they maintain relatively steady water levels on Somerset Reservoir during the loon nesting season. (Although Great River Hydro's license requires it, the company is a willing partner and important funder of this project.)

## > VOLUNTEERS AND CITIZEN SCIENTISTS

Over 500 volunteers and others serving as "informal contacts" are the program's eyes and ears, following loon activity on more than 120 lakes and ponds around the state. They document loons' spring arrival, courtship and conflict behaviors, nesting activity, failed nests and re-nests, and of course, they follow the rearing of "their" loon chicks. Volunteers help manage nest warning signs and nesting rafts, assist with loons in trouble (e.g., fishing line, road crashes, landing on ponds too small to fly from), and serve as loon ambassadors to their friends and neighbors. On a single day each July, volunteers around the state count loons on every lake during the same window of time, providing us an accurate snapshot of the statewide loon population.





### ► VCE STAFF

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Eric Hanson, VCE's Loon Biologist for the past 20 years, spends just as much time coordinating volunteers and communicating with the public and various stakeholders as he does observing or managing loons. The results speak for themselves. Vermont's loons are back and thriving!





Lake associations provide an avenue to reach lakeshore landowners and lake users on an even larger scale. Many associations have handed out thousands of VCE's pamphlets on loon natural history, conservation, and the importance of preserving shoreline habitat. VCE's loon outreach programs are presented at lake association meetings every year. In combination with outreach done by volunteers, Vermonters' level of loon awareness is likely among the highest in the country.

# **FROT PERKINS**

> PROFESSIONAL COLLEAGUES

 Veterinarians at Tufts University Wildlife Clinic have performed necropsies on more than 60 loons over the past 20 years. They provide insight on causes of loon deaths, which in turn informs our conservation and management practices.

 Vermont Fish and Wildlife game wardens assist when a distressed loon is reported, and the agency provides key funding to this project.

 Vermont State Parks personnel often help with monitoring and outreach efforts.

 Conservation groups involved in loon research and management in other states share information through the Northeast Loon Study Work Group.





VCE volunteers discover a Common Loon egg in a nest. Volunteers monitor nests and help place warning signs around nesting areas on over 120 lakes across Vermont.

## **Record Year for Loons**

**Our Vermont Loon Conservation** Project, through both monitoring and active management, saw record numbers in the project's 40-year history, both in terms of loon population recovery (97 nests and 308 adult loons, up from 7 nests and 29 adults in 1983) and volunteers engaged (306, not including agency and corporate partners).

What accounts for these chartbusting numbers? There was a higher percentage of 2-chick hatches compared to some years, and 86% of the known territorial pairs nested. Of course, having a record number of loon nests contributed to the record chick numbers (92 chicks at the end of August: previous high was 80 in 2016). Many ponds saw their first successful nests (Curtis Pond, Dog Pond, Green River Reservoir-Merganser Inlet), while others saw success after many years of failure (May Pond, Echo Lake-Charleston, West Mountain Lake).

There can be no doubt that the combination of dedicated volunteers, many partners, and a strong commitment by Vermont's lake users to live peaceably with loons has led to a remarkable conservation success story.

JANET STEWARD

# Conservation

Chris Rimmer enthralls Ty Christensen at the Mt. Mansfield bird banding station.

25 YEARS OF LEADERSHIP IN INVESTIGATING BICKNELL'S THRUSH HAS LED TO OUR FOCUS ON CONSERVATION OF CRITICAL HABITATS AT BOTH ENDS OF THE SPECIES' RANGE.

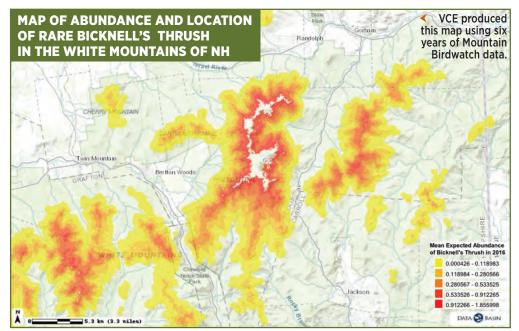
	1992	1994	1995	2000	2001	2003
BICKNELL'S HRUSH JOURNEY		First of -40 field trips to Hispaniola	BITH declared a distinct species from Gray-cheeked Thrush; BITH banded on Mt. Mansfield is recaptured by Kent McFarland on the wintering grounds in the Dominican Republic (DR).	The launch of Mountain Birdwatch, a citizen science initiative to investigate the population dynamics of montane forest birds, including BITH. 18 years later, more than 500 citizen scientists have conducted well over 25,000 point counts.	VCE biologists publish the official <b>Birds of North</b> <b>America (BNA)</b> <b>account for BITH,</b> cementing VCE's leadership role in investigating the species.	VCE biologists describe the unique mating system of BITH in the leading North American ornithological journal (The Auk).

## **BICKNELL'S THRUSH: A RETROSPECTIVE**

VCE's pioneering research on Bicknell's Thrush (BITH) inspired our approach to full life-cycle conservation of migratory birds. While we have learned a tremendous amount about the species' ecology, population dynamics, and conservation issues (since 1995, we have published no fewer than 42 peer-reviewed papers on Bicknell's Thrush), our efforts are increasingly turned to on-the-ground habitat conservation. Chronic-even accelerating-habitat loss in the Caribbean demands this approach. With the U.S. Fish and Wildlife Service's 2017 decision not to list Bicknell's Thrush as Threatened, the hard work of conserving this species falls largely on non-governmental organizations like VCE and our partners in the Caribbean.

#### LOOKING AHEAD

As our work to conserve BITH by protecting its wintering grounds proceeds, on the breeding grounds in northeastern North America we will broaden our scope to include conservation of the entire montane forest ecosystem. BITH is just one of many species that resides in the northeastern mountaintops. And while our research suggests that BITH populations are relatively stable at present, other species—such as the Blackpoll Warbler-are experiencing steep population declines. Understanding why will help us, and our partners, take action to conserve not only the birds but all of the wildlife that inhabit our mountain forests.



# © CHARLES GANGAS

## 2005

Our Ecotoxicology publication is the first to document mercury in a terrestrial songbird.



VCE leads collaborative formation of the **International Bicknell's Thrush Conservation Group (IBTCG),** with 7 countries, 6 U.S. states and 3 Canadian provinces now represented.

2007

### 2010

VCE spearheads publication of IBTCG's Conservation Action Plan for Bicknell's Thrush. VCE hires a full-time conservation biologist in the DR and Haiti.

2011



VCE's BITH field surveys and habitat model are key to establishing **DR's first-ever** private reserve in Cordillera Septentrional.

2012

## **2017 Achievements**

> Counting Bicknell's Thrush: We published research estimating the U.S. BITH population (-71,000 individuals) and identifying hotspots of the species' abundance.

> Mitigating habitat loss: At the request of the U.S. Forest Service, we developed an innovative program to offset loss of BITH breeding habitat through conservation on the imperiled wintering grounds, described in our 2017 publication, "Bicknell's Thrush Mitigation Across Borders: A Strategy for Full Life-Cycle Conservation."

> Guiding conservation planning: With our IBTCG partners (see 2007 timeline), we revised and updated the Conservation Action Plan for Bicknell's Thrush.

> Publishing results: We published the State of the Mountain Birds report online, making 10 years of highelevation bird monitoring data available to the world.

> Saving Caribbean habitat: We played a key role (funding and programmatic) in producing a strategic conservation action plan for DR's Sierra de Bahoruco National Park, a biodiversity hotspot and crucial wintering area for BITH.

> Expanding research: We initiated innovative work to investigate the occurrence of BITH in industrial forests of Maine and northern New Hampshire.

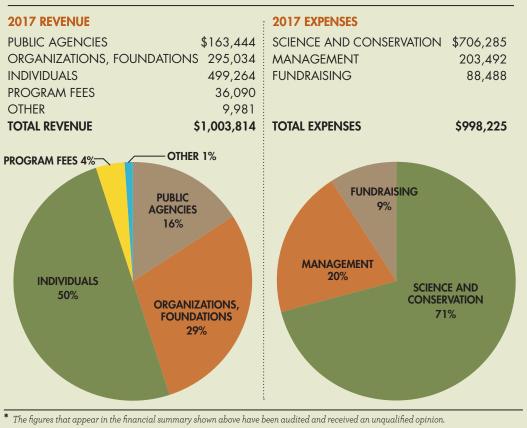
> Surveying Cuban habitat: We launched BITH surveys in the mountains of southeastern Cuba, collaborating with Cuban scientific partners at Centro Oriental de Ecosistemas y Biodiversidad (BIOECO).

> VCE launches islandwide **BITH surveys on Puerto Rico** (completed in 2016); VCE hosts IBTCG meeting at which John Lloyd succeeds Chris Rimmer as chair.

2015

STATEMENT OF FINANCIAL POSITION		
ASSETS	2017	2016
CURRENT ASSETS		
CASH	\$678,360	\$635,235
CONTRIBUTION RECEIVABLES	105,476	101,928
GRANT RECEIVABLES	91,138	133,561
PREPAID EXPENSES	19,393	18,573
TOTAL CURRENT ASSETS	894,367	889,297
EQUIPMENT & WEBSITE, NET	17,600	19,485
TOTAL ASSETS	\$911,967	\$908,782
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES		
ACCOUNTS PAYABLE	\$7,738	\$8,089
ACCRUED PAYROLL & RELATED TAXES	73,497	74,018
DEFERRED REVENUE	679	629
CURRENT PORTION OF CAPITAL LEASE OBLIGATION	FION –	1,583
TOTAL CURRENT LIABILITIES	81,914	84,319
TOTAL LIABILITIES	81,914	84,319
NET ASSETS		
UNRESTRICTED	507,740	510,968
TEMPORARILY RESTRICTED	322,313	313,495
TOTAL NET ASSETS	830,053	824,463
TOTAL LIABILITIES & NET ASSETS	\$911,967	\$908,782

#### **STATEMENT OF ACTIVITIES**



## DONORS

#### LEADERS \$10,000+

Anonymous (5) Bailey Charitable Foundation Binnacle Family Foundation Bobolink Foundation Richard Bowe and Karen Nemeth Peter W. and Ruth H. Brooke Fund at the Boston Foundation \* Erika and Brian Dade Annette Gosnell \* The Florence O. Hopkins Charitable Fund, Inc. Gale Hurd Jared and Songmei Keyes \* Warren and Barry King Clare Rimmer David Roby Elizabeth Ŕuml \* Ruth Stewart TechFoundation, Inc. **GUARDIANS** \$5,000 to \$9,999 Jack and Dorothy Byrne Foundation George Clark Will and Laurie Danforth

Stephen Whitney Dickey, Jr. Eugene B. & Nina L. Doggett Charitable Fund at the Boston Foundation Mr. Spotswood Hall, Jr. Hanover Consumer Cooperative Society, Inc. Robert K. and A. Joyce Jones Foundation, Inc. Emily Landecker Foundation, Inc. Mary D. Lindsay Charlotte S. Metcalf \* Judy Peterson Robert and Sandra Taylor Tow Foundation

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Wendling Fund Wildwood Foundation

Carter and Lissa Winstanley

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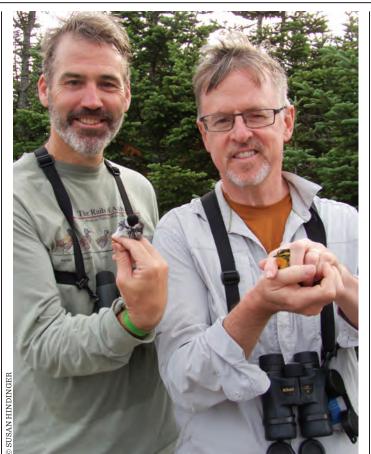
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## **BRYAN PFEIFFER**

The Julie Nicholson Citizen Science Award honors Julie Nicholson's extraordinary passion and commitment to birds and wildlife conservation through her many years of tireless work as a citizen scientist. It is presented annually to an individual who exemplifies Julie's dedication to the cause of citizen science and conservation. We're proud to present this year's award to Bryan Pfeiffer.

More than 30 years ago, a new birder on the scene in Vermont, Bryan Pfeiffer, "made the pilgrimage" to meet Sally Laughlin, the executive director of the Vermont Institute of Natural Science in Woodstock. At about that time, Sally hired VINS' first research director, Chris Rimmer, who would go on to become a founder and executive director of VCE. Ever since, Bryan and Chris and VCE have been partners in science and conservation.

For the past three decades, Bryan and every member of the VCE staff have collaborated on a huge range of projects from the reintroduction of Peregrine Falcons in the 1980s to the launch of a damselfly and dragonfly atlas in 2017.

"There are few who have done more to share their passion and knowledge of Vermont's natural history—with such flair and artistry—than Bryan," says Chris Rimmer. "His keen eye, richly articulate voice, solid understanding of science, and deep commitment to conservation have touched legions of people. Bryan's contributions to science-based conservation run deep and across all levels of society."

Bryan brings an unusual slate of skills to VCE. He's a writer, editor, educator, birder, photographer, entomologist, and all-around naturalist. Sharing nature with people—in the field or with the force of the written word—is in Bryan's DNA.

Bryan doesn't give it all away for free. He's been a VCE contract employee, most recently conceiving of Outdoor Radio, VCE's successful collaboration with Vermont Public Radio, and supervising the overhaul of our website.

As a volunteer. Brvan's contributions are older than VCE itself. He has surveyed our Forest Bird Monitoring route at Bear Swamp for 27 consecutive years; worked on the Vermont Breeding Bird Atlas, both outdoors and indoors, including co-authoring the chapter on avian conservation; completed several Mountain Birdwatch routes; and curates dragonfly, damselfly, and butterfly records on the Vermont Atlas of Life iNaturalist project. The brand new Vermont Damselfly and Dragonfly Atlas was a natural collaborative project for Bryan and fellow insect enthusiast Kent McFarland. Having made big contributions to birding in Vermont, Bryan has stepped away a bit from birds, in order to bring more attention to invertebrate discovery and conservation in the state.

Bryan's nature blog, found at bryanpfeiffer.com, connects followers to his adventures in his Vermont backyard and around the globe.

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