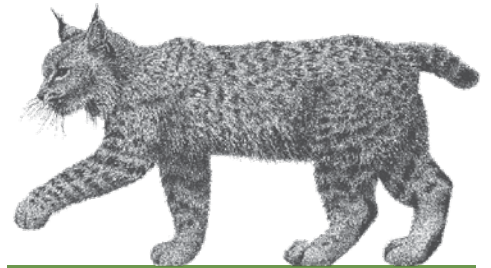


SPRING 2019

Harris Hearsay

THE HARRIS CENTER FOR CONSERVATION EDUCATION

Hancock, New Hampshire



Painted Trillium photo: Brett Amy Thelen



Our Mission

A member-supported nonprofit organization, the Harris Center for Conservation Education is dedicated to promoting understanding and respect for our natural environment through education of all ages, direct protection and exemplary stewardship of the region's natural resources, conservation research, and programs that encourage active participation in the great outdoors.

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Our warmest thanks go out to everyone who has made a donation to the Harris Center's Annual Fund or to our Membership drive. If you've yet to give, we hope you'll reflect on the widespread benefit to all as you consider making a contribution. If you'd like to make your donation online, please visit our website. For other ways to donate, please contact Diana at (603) 525-3394 or jacobs@harriscenter.org. We appreciate your support!

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Robin Nest Eggs photo: Michael Jacobson-Hardy



LAB GIRLS:



A Bunsen Burner In My Heart

by Susie Spikol, Community Programs Director and Teacher-Naturalist

Forester Karen Bennett shares her knowledge and experience with South Meadow School LAB GIRLS. photos: Ben Conant

T rue confessions of a lab girl: I never lit a Bunsen burner or mixed reactive chemicals during my science labs in high school. Instead, I was the data recorder. I was chosen for this task because of my neat handwriting. The other girls in my group were usually given the jobs of setting up and cleaning up the materials and equipment. From my lab seat, more often than not, I took the notes while the boys did the experiments.

I'm not the only woman to have had this experience, and it isn't just my generation. It persists. Ask around. As a longtime teacher-naturalist for the Harris Center, I work with kids throughout their lives. Girls who loved doing science with me in elementary school roll their eyes when I offer them a ponding net in 8th grade. How does a curious, science-loving 8-year-old girl become a disengaged, eye-rolling 8th grader? I know teenagers roll their eyes at a lot of things, but opting out of science in middle and high school closes the door to many opportunities for them in the future.

Two and a half years ago, the Harris Center started LAB GIRLS, an afterschool club specifically designed to help middle school girls stay connected to science. By offering opportunities to get their hands on Bunsen burners, test tubes, and computer codes, I'm hoping to build their science

muscle. They're going to need strong muscle and a resilient outlook. We have many problems to solve that will require all of us at the table.

I've read a lot about what makes girls stick with science. The answers are clear and none of them are rocket science. According to many studies, girls need more exposure and opportunities in all science, technology, engineering, and math (STEM) fields. LAB GIRLS gets girls doing science, using real tools and equipment — like the time we worked with a sunscreen chemist from Badger Balm to perform acid titrations, or when the girls learned how to use a Biltmore stick to determine tree trunk diameters with UNH Cooperative Extension forester **Karen Bennett**. One student wrote, "I like how we actually do science at

(continued on next page...)

LAB GIRLS, *continued*

LAB GIRLS. And I even like it when it doesn't work and you have to do it again."

Even more important than exposure and opportunities, studies suggest, are role models and mentors, more so for girls than boys. This makes sense to me as someone who spent hours and hours reading Jane Goodall's books. I can remember when I discovered Rachel Carson. She lit a fire in my heart. I also remember that I didn't have a single woman science teacher my entire educational career, from elementary school through an elite all-women's undergraduate college to graduate school. All of my science teachers were men.



world still has much work to do on this front. Recently an article in *The New York Times* reported that women scientists at the prestigious Salk Institute were routinely discriminated against and consistently paid less than their male co-workers. Women are still outnumbered by men in many STEM fields, and many women who chose STEM careers don't stay in these fields, perhaps because they're not offered the same level of opportunity as their male counterparts.

With LAB GIRLS, I'm lighting my Bunsen burner and holding it up to ignite a spark in these future female scientists. Bring it on, girls. I know you've got it in your heart! ➡

I thought of many of them as excellent teachers and researchers, but I could never see myself as one of them.

LAB GIRLS is all about mentorship and role modeling. ConVal high school girls volunteer their time to help out at the weekly club, and many women STEM professionals step up to share their stories and skills. **Dr. Moira Milne**, a biochemist who gave the girls the tools to remove the copper plating from pennies, offered this advice: "Girls, read everything you can and stay curious." **Kim Rumrill**, a forensic DNA specialist for the NH State Crime Lab, had the students analyze blood spatter patterns and explained that when she started at the lab she was the only woman, but now there is only one man. In a thank you note to **Marcia Wilson**, an owl expert and naturalist, one LAB GIRL wrote, "When I grow up, I want to be you."

LAB GIRLS is a different kind of afterschool club. It isn't open to everybody. I have been pressed about this. Why not just include the boys? But I'm standing firm. Girls need time to connect with one another around science, to form alliances and to build their own personal narratives. Our

"I like how we actually do science at LAB GIRLS.

*And I even like it when it doesn't work
and you have to do it again."*



Let's Not Leave It to the Beavers

by Jeremy Wilson, Executive Director



photos: Katie Wilson

April is the time for ice out, snowmelt, spring rain, and...beaver deceiver maintenance. Since its opening in 2014, the 1.4-mile Eastview Trail in Harrisville — a joint project of the Harris Center and Harrisville Trails Committee — has become a regular haunt of hikers, trail runners, horseback riders, mountain bikers, cross-country skiers, wildlife watchers, and anyone looking for a gentle walk in the woods.

Where we see great hiking potential, beavers see great habitat potential. In order to maintain and grow their pond, they've been plugging a culvert under the old railroad embankment that doubles as our hiking trail for years. We clear the culvert. They fill it back in. The trail floods. Lather, rinse, repeat. We don't trap and remove the beavers because they create wonderful habitat, and in this case, a beautiful pond. We just don't want hikers to have to walk through the pond.

A couple of years ago, we installed a "beaver deceiver" (a special fence designed to prevent beavers from plugging the culvert) in order to keep water off the trail. The ingenious beavers of Eastview outsmarted both that original design and the modification that followed, but hope springs eternal. This April, we went back to the drawing board and installed larger cages around the outlet pipes that drain into the culvert. If all goes as planned, the beavers will try to plug the caged culvert, but mostly ignore the outlet pipes that extend away from it. The beavers expressed interest in this new system the moment it was in place! (See the far right photo above.) Will they outmaneuver us again? Time will tell. 🐾

Eastview Trail News

Thanks to swift and generous support from the community, the Harris Center has just conserved the last remaining unprotected parcel along this section of rail tail. Protecting the 17-acre Eastview Land ensures access to, and preserves the character of, this tremendous recreational resource for generations to come. It also adds to a contiguous, 5,155-acre block of conserved lands in Harrisville, Hancock, and Nelson — ensuring room to roam for people and wildlife alike. Thank you to everyone who contributed to this important land protection project!

"April is the time for ice out, snowmelt, spring rain, and...beaver deceiver maintenance."

MARCH of the SALAMANDERS



photo: Brett Amy Thelen

by Brett Amy Thelen, Science Director

There's a myth environmental educators like to tell, and it goes something like this: after every long northern winter, spring returns. Days lengthen, temperatures rise, the snowpack slowly disappears, and one afternoon, it begins at last to rain — a soaking, 45-degree rain that continues well into the night. On that one big night, all of the wood frogs and spotted salamanders and Jefferson salamanders and spring peepers clamber out of their winter burrows and migrate — up to a quarter-mile, on tiny feet — to their breeding pools. An explosion of life, all on that one evening. We call this myth: Big Night.

In reality, most years, our region experiences several Big Nights, one or two Medium Nights, and sometimes a smattering of Small Nights. It all depends on the weather.

However, the magic in the myth — that staggering vision of tens of thousands of amphibians marching across the early spring landscape, their urgency eclipsing even their need to eat — is every bit real.

Spotted salamanders, wood frogs, and their kin exhibit what biologists call “site fidelity,” which is to say that they return to the same vernal pool, year after year, to breed. In many cases, it's the very pool where they were born. These days, this often means crossing roads.

It's a perilous journey.

In Canada, biologists surveying a two-mile stretch of road over four years recorded more than 30,000 dead amphibians. Researchers in western Massachusetts found that roadkill rates on rural roads were high enough to lead to localized extinction of spotted salamanders in as few as 25 years. Multiple studies have found that amphibians and reptiles comprise more than 90% of all vertebrate roadkill. In short: if you're a salamander, roads present a grave danger.

Enter the Salamander Crossing Brigades, heroic volunteers who carry migrating amphibians across roads by hand or in buckets, keeping count as they go.

For twelve years, I've coordinated a growing Crossing Brigade effort here in southwestern New Hampshire — complete with data forms, volunteer trainings, *Salamander Crossing* signs, frequent admonitions to never ever *ever* go out on roads at night without wearing a reflective vest, and even a five-day salamander forecast. (Because spring weather conditions change approximately every fifteen minutes in New England, migrations are nearly impossible to predict more than a few days out.)

My family and friends have finally stopped rolling their eyes when I tell them that my RSVPs to evening events in April are “salamander-permitting.”

Since 2007, our Crossing Brigade program has trained more than 1,150 volunteers, many of whom return, like the salamanders, year after year. Collectively, we've spared more than 47,000

amphibians from the crush of the tire. Add these to the counts from other programs in Maine, Vermont, New Jersey, New York, and Pennsylvania, and that number could easily top 100,000.

Still, we can't carry every frog across every road. How many are crushed after volunteers have headed home for the night? How many more at sites where there are no volunteers?

The true conservation power of the Crossing Brigades lies not in hand-carrying animals, but in their potential to inform longer-term solutions. In Monkton, Vermont, ten years of amphibian crossing data recently led to the installation of Vermont's very first salamander tunnels, which now permanently guide migrating amphibians under the road and away from the threat of passing cars. Last spring, Keene became the first community in the Granite State to close an amphibian road crossing site to vehicle traffic on Big Nights — a decision based in large part on data collected by, and a strong show of support from, our Salamander Brigades.

There is strength, too, in the transformative power of holding a spotted salamander in your hands for the very first time — its goldenrod-yellow spots aglow in the light of your headlamp, its tiny smile melting your winter-weary heart — and knowing you're making a difference in that animal's life. It's the kind of experience that sticks with you long after you've hung up your raincoat.

A few years ago, wet and tired after a long night on the salamander beat, I sent a bleary-eyed message of gratitude to my Crossing Brigade crew. The next morning, I awoke to this note from a longtime volunteer:

[Your message] got to the heart of why we keep doing field work in sometimes miserable conditions: it's important for the earth; it feels really good to be doing something positive; and it's a hoot to know there are other slimy-fingered loonies out there in the middle of the night sharing the thrills and the heartaches.

Here we are, at the cusp of a new spring. Bring on the Big Nights, the Small Nights, the In-Between Nights. Bring on the thrills and, yes, even the heartaches. Bring on the rain and us slimy-fingered loonies, and let the march of the salamanders begin... 🐸

NOTE: An earlier version of this essay was published in *Northern Woodlands* “The Outside Story” on April 2, 2018.

So, Why Did the Salamander Cross the Road? by John Benjamin, Teacher-Naturalist



Despite challenging weather and a number of very-late-night migrations, 250 Salamander Crossing Brigade volunteers moved 4,635 amphibians to safety at 30 different crossing sites throughout the Monadnock Region (and beyond...) in 2019, bringing our project total to 47,385 (!) crossed critters since 2007. Thank you, intrepid Crossing Brigadiers!



Jean Harrison, longtime volunteer and friend of the Harris Center

Early in the 1980s, she and her husband Gerry discovered and bought a home near the Harris Center. She's been with us ever since! THANK YOU, Jean, for many wonderful years of incredible help and good company. 🐾

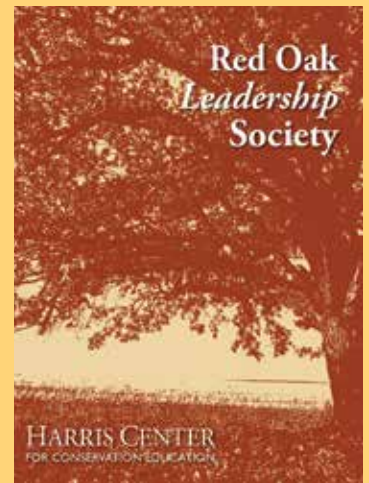
In Appreciation

Jean Harrison has been a steadfast and gracious Harris Center office volunteer since the very early days when Meade and Cindy Cadot were our only office staff. Today, she's 95 years old and still going strong — she continues to help us here at the Harris Center and also cares for her beautiful gardens at home. Born in Canada as an American citizen, she came to the U.S. when she was 8 years old. After graduating from Millersville State Teachers College in 1945, Jean taught high school history and geography until the birth of her first child.

Red Oak Leadership Society

The Red Oak Leadership Society

has been established to acknowledge and honor supporters who give financial support of \$1,000 or more within the Harris Center's fiscal year (July 1-June 30). This leadership-level support plays a vital role in sustaining the Harris Center, now and into the future. We thank all those in the Red Oak Leadership Society for valuing the natural world and helping us to educate the next generation of people who will care for it. 🐾



You can help ensure a grand future for the Monadnock Region by naming the Harris Center as a beneficiary in your will or estate plan through our planned giving program, **Bobcats Forever**. Anyone can make a bequest, and no amount is too small. For more information, contact Jeremy Wilson at (603) 525-3394 or wilson@harriscenter.org.