



FALL/WINTER 2022-2023

VERMONT *Nature*

VINS at 50 Years Looking Back and Forward

Standing at the top of the VINS Forest Canopy Walk's Tree House tower, one hundred feet above the curve of the Ottauquechee River, I feel the precarious position. Not because of the height – I was lucky enough to witness the engineering that went into this beloved exhibit, and am one of those people who actually enjoys the slight swaying sensation the sturdy poles allow as they adjust to the wind. Instead, I know I look out at a landscape at a crossroads. Fifty years ago, the founders of VINS pulled this river out of the mire of pollution, through local engagement and community education.

Our stewardship of the 47 acres on which the VINS Nature Center now sits constantly references this history. Fifty years from now, what will our corner of Vermont look like?

Our place-based environmental education, growing research involvement, and outstanding wildlife hospital will without doubt be rising to the new challenges our changing climate reveals. The loons, eagles, ospreys, and peregrine falcons we helped recover from the brink of extinction have stepped aside to show us the ash trees, monarch butterflies, chimney swifts and bumblebees that still need our help.

From the Tree House tower, I can just make out a huddle of water birds on Dewey's Pond. Ducks and geese frequent the pond these days, but will they in 2072? Even in the most optimistic scenarios of global warming, Common Mergansers are predicted to lose 21% of their summer range, including nearly all of that in Vermont. Even familiar residents like Mallards will be less commonly seen. By contrast, tiny, vociferous migrants like Willow Flycatchers may become more prevalent.

At VINS, our mission, to motivate individuals and communities to care about the environment, exists because we envision a resilient, healthy planet, where humans share resources sustainably with natural communities, participate in the stewardship of resources for future use, and maintain scientific literacy to guide decision-making. We see human ways of living as integral parts of a whole ecosystem. Therefore, we have a responsibility to notice the delicate balance of this system, understand how our actions shift the dynamic, and choose to move forward with actions that foster diversity of all kinds.

As a community concerned about the environment, we also realize that these issues are no longer local, but global. Our votes, the conversations we have with others, and the changes we demand from organizations with resources to make a difference are all critical actions that cannot wait another 50 years to be undertaken.

We are grateful to our members, who share this vision with us, and through their continued support are creating the capacity to increase our engagement with climate change solutions. Already, our corner of wild Vermont has come a long way since 1972. VINS' move to renewable energy sources, composting food waste, reducing single-use items, and advocating for wildlife-friendly legislation are just the beginnings of what we have the ability to do.

In fifty more years, I plan to be proud to tell the story of our actions today, standing firmly rooted in a healthy landscape.

*Anna Morris, Lead
Environmental Educator*



A Special Message

A recent headline in the Valley News reads: *After 50 years Vermont Institute of Natural Science Still Flying.* We are grateful to have reached this milestone and renew our commitment to our mission of environmental education for the next 50 years.

We had the honor and pleasure hosting two of our four co-founders, Sally Laughlin and David Laughlin, presenting the history of VINS on October 15.

It was a compelling day, and we so appreciate the many people joining us to learn more about how VINS was founded. To this day, the mission still remains.

As we mentioned recently to a gathering celebrating the founding of VINS – it has become a world-class environmental education organization and a sought-after destination for residents and visitors to Vermont and the Upper Valley. We will continue this effort in the many years to come.

Inside this edition of *Vermont Nature*, you'll discover just a few of the myriad ways in which VINS fulfills our mission and serves the community. Learn about the massive expansion of our songbird aviary and the opportunities it provides both visitors and our avian ambassadors. Get a small taste of the incredible talent and dedication of our avian rehabilitation staff as they face the threat of Highly Pathogenic Avian Influenza. Read about the diverse endeavors of our research team, including American Kestrel banding, Monarch butterfly tagging, and Ottauquechee River monitoring. Lastly, discover how important our in-school programs continue to be.



VINS Co-Founder Sally Laughlin speaking at the 50 Year Anniversary event.

Our work continues, and this would not be possible without the amazing staff, board members, and committed volunteers, and our friends and supporters.

We are grateful for the many years of service and we look forward to many years ahead.



Charles F. Rattigan
Executive Director

Mary Davidson Graham
Assistant Executive Director



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Take a private tour of the Forest Canopy Walk and enjoy an Animal Encounter.

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VINS Songbird Aviary

A calm place to sit and observe colorful birds, a showcase of local plants that benefit our native species and a sanctuary for those unable to live their lives in the wild due to injury.

All of these are apt descriptions of the new Songbird Aviary that opened in early July.

For more than a decade, the VINS Nature Center had an aviary to house non-releasable songbirds. From mourning doves and northern cardinals to evening grosbeaks and cedar waxwings, numerous songbirds have been given the opportunity to live out their lives at the Nature Center as ambassadors for their species. In the early summer of 2021 we began discussing how we could both improve the quality of life for our songbirds and also enhance the visitor experience. Part of the challenge of displaying songbirds is keeping them safe from predators. To do this, the entire aviary needs to be “wrapped” in 1/2 inch welded wire, which in turn limits the visitors’ ability to see the birds. However, if visitors are allowed to enter the aviary, then there are no visual barriers between human and bird. Having experienced walk-through aviaries at various locations the VINS staff embarked on researching how to create one of our own.

In the end we designed a 2160 square foot aviary with access to rain and snow or roofed sections to get out of the elements. By comparison, the old aviary was 154 square feet. At its peak the new aviary is 16 feet high allowing birds the chance to sit on the beams above and feel a greater sense of security.



Early Childhood Programs at VINS are Booming!

In a recent early childhood outdoor classroom, children are developing gross motor skills and hand-eye coordination as they toss cloth apples into a basket, while others are practicing letter recognition while matching apple letters on an apple tree. Another group is engrossed in imaginative play with a set of realistic wooden apples which they are counting and pretending to pick from a tree and put in their baskets.

This is one moment in time in a VINS Small Wonders lesson.



Bohemian waxwing in the Songbird Aviary.

The other major element was to incorporate native bird-friendly plantings into the space. We worked with local Henderson’s Tree and Garden Center, to design and install native plants that benefit birds. There are fourteen species of plants in the aviary of which many produce berries that birds love.

This aviary provides plenty of space for our non-releasable songbirds, a place to discover how important they are in the natural world and how they’ve had a sharp decline since the 1970s. It also provides an opportunity for visitors to learn how they can help birds with simple actions like installing native plants on their land.

The new songbird aviary is a peaceful and calm exhibit that feels as if we dropped an enclosure over the natural landscape to provide a second home for some stunningly beautiful birds.

We hope you’ll come experience it for yourself!

*Chris Collier, Director
Onsite Programs and Exhibits*

Earlier in the lesson, everyone had gathered around a series of posters, created by local artist and VINS volunteer Betsy Smith. She painted four stunning watercolor posters for our apples lesson, highlighting the animals that visit an apple orchard through the seasons.

This is an example of the high-quality, original materials that VINS incorporates into our lessons, making VINS’ early childhood programs extremely popular, effective and compelling. Wee Wonders (for toddlers) and Small Wonders (for preschoolers) are our fastest growing programs, serving 30 Upper Valley schools with an ever-expanding wait list.

Whether it’s toddlers ‘fishing’ for native species in a shallow bin of water and playing with realistic plush otter puppets, or preschoolers doing an investigation with floating pumpkins, our early childhood programs focus on science, nature, wonder and discovery.

Learn more at vinsweb.org/school-programs.

*Hannah Gelroth, Director
School Programs and Teacher Professional Development*

Research Update

A Year of Collaboration, Learning, and Hope

VINS' research department has many goals, not the least of which is to continue asking questions and learning about the ecological integrity of our campus, our state, and our region.

We strive always to learn, grow, and teach others – and our research projects are a vital part of that process. The spring and summer field seasons have been busy for our research department staff who continue to work on several long-term projects as well as new short-term collaborations with various organizations.

This spring was our second year monitoring American Kestrel populations throughout Vermont and New Hampshire. A total of 80 nest-boxes were monitored during the season by staff, volunteers, and private landowners. Thirty-three nestlings were banded during the 2022 breeding season, up from the 29 nestlings banded in 2021. We also received permission from Vermont Fish and Wildlife to monitor and band the nestlings at a box located at the 826-acre Windsor Grasslands Wildlife Management Area in Windsor, VT. A second successful pair was observed within an abandoned prison site at Windsor Grasslands, and we hope to install an additional nest-box at the location to encourage breeding in a safer spot.

VINS researchers also continued an exciting and immensely relevant tick monitoring project with a Dartmouth University PhD candidate. This research utilizes the humane trapping of small mammals in the VINS forest as a means of studying the relationship between mesopredators, small mammals, and ticks.

We also partnered with Dartmouth College professors in a unique research project which focused on the ultrasonic vocalizations of flying squirrels. Individuals were humanely trapped on the VINS campus and brought to a facility at Dartmouth where their vocalizations could be recorded and analyzed to determine if flying squirrels use echolocation (biological sonar) to navigate. Results will be published and shared in the near future. As is common in research projects, a number of interesting observations and questions emerged throughout this study. In addition to a continued interest in the purpose of flying squirrel vocalizations, this project led to questions about the home range and family dynamics of this species as well as the control and navigation ability they possess. This project has posed more questions about flying squirrel behavior and will hopefully lead to future projects with them.



View of the Ottauquechee River in Quechee, Vermont.

After reviving the Ottauquechee River 50 years ago, VINS continues its dedication to the health and ecological integrity of the river. VINS staff along with the Ottauquechee Natural Resources Conservation District continued to monitor the health of our shared river through water quality sampling at several hotspots along its reach.

Late summer included a collaborative project with Hawk Mountain looking at the northward expansion of Black Vultures into Vermont. Though the turkey vulture is common in New England, the black vulture is more typically associated with a range farther south. In recent years, however, black vultures have been expanding their range northward. To assess this expansion, VINS staff along with Saint Michaels College created a bait site that was remotely monitored to attract vultures. A single black vulture has been observed so far.

This fall we continued to monitor populations of monarchs through tagging and sampling for parasites. So far, VINS research team has tagged 75 monarch butterflies with the potential to add a few more through the middle of October. The Monarch's recent Endangered listing on the IUCN Red List of Threatened Species emphasizes the importance of our work with this species and will lead to more monitoring next season, including road side surveys and new sample locations.

All of our research projects are exciting opportunities to have a positive impact on the natural world through increased understanding. Research certainly is not simply the domain of formally trained scientists – anyone can be a scientist, and we need your help, too!

To learn more about other exciting projects and opportunities to get involved as a citizen scientist, please visit us at vinsweb.org/research.

Jim Armbruster
Field Research Coordinator

Rehabilitation Challenges

Avian Influenza at VINS



This spring, Highly Pathogenic Avian Influenza (HPAI) swept across the eastern U.S. for the first time in recent history.

Avian influenza is a viral disease found most commonly in waterfowl and other aquatic birds, but can affect any bird that is exposed to it. This new strain had an unprecedented effect on wild birds, with thousands, mainly raptors, scavengers and aquatic birds, succumbing to the disease. The rehabilitation team at VINS monitored as the disease spread to states nearby and then made its way to Vermont. For the safety of our resident birds, staff made the incredibly difficult decision to close our doors to new intakes for almost two months. HPAI has nearly 100% mortality in raptors, so while steps were taken to protect our resident birds, plans and adjustments were made to resume our care of wildlife in a way that was safe for staff, residents and patients.

The Center for Wild Bird Rehabilitation reopened in late April with a slew of new biosecurity measures including triage and isolation rooms, dedicated clothing and many, many new cleaning and disinfection protocols. Although we were still unable to take in certain high risk species, we found ourselves adapting our protocols to accommodate high patient loads, and saw a record setting July for intakes at 200 birds. Because of our protocols, we lacked our normal team of baby bird feeding volunteers and were reminded of how important they are as staff took on an additional 12 hours of baby bird feeding each day.

In spite of all these challenges, staff recognized a unique opportunity to learn more about this disease and sought to make the most of a difficult situation. Avian influenza is poorly studied in songbirds, so early on we began sampling songbirds brought to the clinic in the hopes of learning more about how this unique strain may have been affecting them. Due to complicated testing policies for HPAI, songbirds are rarely tested, so our goal is to learn more about whether songbirds are getting sick from the disease, or if they may be asymptomatic carriers that could put other birds in a rehabilitation facility at risk. We have also continued our work to learn more about other diseases such as avian malaria in Vermont, as well as treating the many usual diseases that we see each year.

As fall approaches, we expect to see influenza return with the migratory waterfowl that carry it, this time more prepared to face the difficulties the disease brings.

We are also planning for its return in the spring, and prepared to face the possibility of a future where HPAI is common. Despite our temporary closure and risk management policies, we are still on track to have our third busiest year in history, and have continued to provide a high standard of care for hundreds of birds in need. While there are many unknowns lying ahead, rehabilitation staff have learned a lot over the past six months, and are prepared to face them with the creativity, hard work and resiliency that has made our clinic, and VINS as a whole, so successful through the challenges of the last few years.

*Bren Lundborg, Lead
Wildlife Keeper*

Farewell to Friends of VINS

Romaine Solbert (1925-2022)

The world is absent an artist, photographer, illustrator of books, author, sculptor, gardener, painter and lover of nature. Ronni Solbert, best known for her illustrations of numerous children's books, including *The Pushcart War*, was a passionate supporter of nature education for learners of all ages.

After the passing of her partner, Jean Merrill, Ronni and Jean bequeathed the Washington, Vermont farm, known as the Old Pepper Place Nature Reserve, to VINS. Through this gift and other vital support, Ronni was and will continue to be instrumental in providing access to nature camps and field trips for children throughout the region. Ronni's artistic talents and her ardent belief in helping all people to experience, understand and respect all aspects of nature and its inhabitants will carry on.

William Badger (1935-2022)

VINS lost a dear friend and colleague this summer. Former Trustee Bill Badger was a lover of Vermont and his adopted hometown of East Barnard as well as a staunch supporter of VINS. As Chairman of the Nature Center Committee, Bill was instrumental in seeking the current location of VINS in Quechee, where we are thriving today. Bill was most at home in nature and loved exploring the outdoors with his beloved partner Jenepher Lingelbach. His light and laughter will be missed.



*Mary Davidson Graham
Assistant Executive Director*



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Upcoming Events at the VINS Nature Center

STARTING NOV 25

Forest of Lights on the
VINS Forest Canopy Walk
Pre-registration is required.

DEC 14

Eyeing the Stars: Geminid
Meteor Shower Viewing Event
Pre-registration is required.

DEC 15

Registration Opens
VINS Nature Camp 2023
Summer Session

DEC 28 – 30

VINS Nature Holiday Camp
Registration opens December 1.

JAN 27 / FEB 10 / MAR 3

Owl Prowl
Pre-registration is required.

FEB 17 – 20

Great Backyard Bird Count

FEB 20 – 24

VINS Nature February Camp
Registration opens December 1.

FEB 25

Winter Wildlife Celebration

APR 15

Owl Festival
Pre-registration is required.

APR 22

Earth Day

**View our full
event schedule at:
vinsweb.org/events**



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