HUBBARD BROOK
RESEARCH FOUNDATION

E-NEWS

August 2023

Promoting the understanding and stewardship of forest ecosystems through scientific research and monitoring, policy outreach, and education

Hubbard Brook Holds 60th Annual Cooperators' Meeting at Plymouth State University

This year's 60th Annual Hubbard Brook Cooperators' meeting was July 12-13 at Plymouth State University and Hubbard Brook's U.S. Forest Service Headquarters at Pierce Lab. The Cary Institute of Ecosystem Studies was the lead organizer of the event, which brought scientists,

students, communicators, and educators together to share research highlights, public engagement progress and community-building initiatives. Social activities included field trips, a bonfire, lawn games, and a talent and storytelling event that showcased the musical, magical, and poetic sides of the Hubbard Brook community.

The capstone of this action-packed week was Hubbard Brook's Quarterly Project Meeting on Friday, July 14, in partnership with colleagues from Harvard Forest and the White Mountain National Forest. Regional collaboration was the theme of this engagement, and topics included improving data use and accessibility, DEI initiatives, and forest research and management with a focus on climate change.

Group photo from the 2023 Cooperators' meeting by Hannah Vollmer.
Hennecys Perez Castro sings in the Talent and Storytelling Hour. Photo by Raisa Kochmaruk.

Big Bat Night: Our Spring Appeal Finale!

This year's spring appeal featured the sounds of Hubbard Brook science, with peepers announcing the campaign kick-off in April. We had hoped to achieve our $20,000 matching challenge before "Big Bat Night," the first summer night when bioacoustic monitors record four or more bat species over Mirror Lake. In 2023, this occurred on July 22 and, **thanks to you, our campaign was a success!**

The bat convention included six different species. Big brown bats tipped the list with a whopping 188 bat passes! Other chiropteran delegations included the Eastern red bat, the Hoary bat, the Silver-haired bat, the Little brown bat, the Tricolored bat, and the federally-endangered Northern Long-eared bat.

- **Thank you, Jess Jones, educator at The Nature Museum in New Hampshire, for your amazing work with the recorders and data!**

- **Thank you, generous donors, for beating the bats to the campaign finish line and unlocking essential matching funds in support of Hubbard Brook outreach, science, and facilities!**

Spring Appeal Highlights:

- Gifts from new, lapsed, and major donors unlocked $20,000 in matching funds from a generous supporter!
- We received 92 gifts for a grand total of $51,762
- This included 33 gifts of $250+ and 40 gifts from new or lapsed donors

We are deeply grateful to our growing community of supporters for investing in our work!

Above: Northern long-eared bat, photo by Hannah ter Hofstede.

Science Feature
Meteorological Data + Local Knowledge = Improved Winter Storm Preparation

Many of us recall the 2011 Halloween Nor'Easter that toppled fully-flushed trees, downed power lines, and blocked roads, leaving people stranded in their homes from Virginia to Maine. "Winter Weather Whiplash" events are abrupt, unusual swings in winter weather conditions that impact both human and natural systems, according to a recent paper drawing on the work of Hubbard Brook investigators Alix Contosta and John Campbell. Historically, the causes and consequences of winter storms have been investigated from a meteorological perspective, with an emphasis on atmospheric variables. In this study, researchers also consider social and ecological factors, using publicly available data about local snowfall accumulation, vegetation phenology, road density, and per capita income, as well as newspaper articles written about the 2011 Halloween Nor'Easter to understand the impacts of climate-driven Winter Whiplash events on local communities. Investigators found that the "combined meteorological, natural, and human system drivers were better able to predict storm impacts than models that considered each driver in isolation."

Hubbard Brook's long-term meteorological data record on winter storms can be paired with local and regional knowledge about infrastructure and storm response plans to better prepare for Winter Whiplash events in a changing climate.

Above: A downed tree in Pelham, Massachusetts. Photo credit: Michael Dwyer for the Associated Press.

Outreach Highlight
Artist Leah Wilson to Begin Residency at Hubbard Brook

In August, Leah Wilson, a visual artist, writer, and storyteller, with a history of collaborating with the HJ Andrews LTER site, completed a two-week summer ArtSci residency at Hubbard Brook. Leah considers the residency as the beginning of an ongoing relationship with Hubbard Brook, and spent her time laying the groundwork for a water-cycle themed art project. Leah first visited Hubbard Brook in Autumn 2016 and then attended our January 2023 ArtSci conference, affording a multi-season experience in the White Mountains before beginning her residency.

Leah's artistic process is based on long-term, deep connections with people, places, and specific elements of the landscape. Through years of steady observation, Leah witnesses and chronicles ecosystem shifts. In her recent piece *Shifting Resonance: Klamath River*, Leah depicts foam accumulating on the surface of the Klamath River, which flows for 257 miles, through Oregon and Northern California. Leah writes

I am observing the transformation of the Klamath River before the dams are removed and concluding when the ecosystem stabilizes and unifies, creating a body of visual artwork and a collection of writing that responds to and deepens my understanding and relationship with the river as it undergoes a series of changes throughout the upcoming years.

Through her relationship with Hubbard Brook, Leah will observe ecosystem changes, large and small, and will represent these changes through her art.

For more information about Leah Wilson, visit her website.

Above: Detail from Wilson's Shifting Resonance titled Ode to the Eddy Muffin: Eddy at the Gun Club 2, synthetic paper, applique pins, & acrylic, 8.5 x 17 in., 2023. Right: Leah Wilson (a selfie taken as she climbed a giant sequoia tree.)

Yankee Magazine Features Hubbard Brook in Fall 2023 Issue

Hubbard Brook is the focus of Nina McLaughlin's forest-themed essay for the fall 2023 issue of *Yankee Magazine*. McLaughlin's article, "These trees say so much," captures the beauty of the forest while conveying the importance of long-term environmental monitoring. The article was inspired by a summer walk with Lindsey Rustad, Director of the USDA Northeast Climate Hub, Research Ecologist, and Hubbard Brook Investigator.

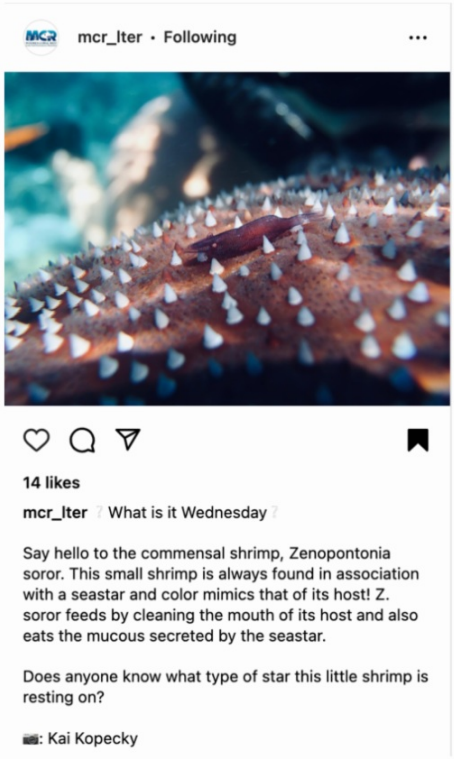
Parting Shots

Dr. Gene E. Likens, Co-Founder of the Hubbard Brook Ecosystem Study, Delivers an Unforgettable Presentation on the Porch of Pleasant View Farm

On July 19, the Hubbard Brook summer community enjoyed an evening with Dr. Gene Likens as part of Hubbard Brook's weekly summer *Science Night* tradition. Students crowded the porch to ask Dr. Likens about his early days developing the small watershed approach and found humor and inspiration in his stories, wit, and words of encouragement. Hubbard Brook's Twitter post about the evening was featured among the LTER Network's "Social Media Posts of the Month."

Above: Students pose for a photo with Dr. Likens on the porch of Pleasant View Farm. Below: Screenshot of the LTER's social media of the month section. Photos by Raisa Kochmaruk.

Social Media of the Month



A collection of old friends here—first, a mutualistic interaction between the corals at the MCR LTER, and second, a mutualistic interaction between colleagues, old and new, at the Hubbard Brook LTER. Goes to show that collaboration is key far beyond academia!

As always, thanks for your interest in Hubbard Brook. Please feel free to contact us with any questions, ideas, or suggestions, and help us to spread the word by forwarding this email to a friend.

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The Hubbard Brook Research Foundation is a nonprofit organization dedicated to supporting the Hubbard Brook Ecosystem Study.