

HUBBARD BROOK
RESEARCH FOUNDATION
E-NEWS

February 2023

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

Happy
Valentine's Day
from the
Hubbard Brook
Research
Foundation!



Fun facts about love interests in the northern forest...

- Male luna moths use long, feathery antennae to find females via pheromones. They only live about a week after emerging, and use that time only to mate.
- Male black-throated blue warblers guard their social mates closely to prevent other males from approaching them while they are nest building and egg laying. But despite male efforts, in any given nest, half of the nestlings might belong to a male rival, usually his nearest neighbor!
- Orchids package their pollen (the male part of the flower) in special sticky packets called pollinia. The pollinia are arranged at a specific distance apart to adhere to the eyes of pollinating moths. Both the moth's eye distance and tongue length match the pollinia distance and nectar spur length, respectively.

Illustration by Raisa Kochmaruk

HBRF Welcomes New Staff



Dayna De La Cruz (she/they), a former *Research Experiences for Undergraduates (REU)* student from Wellesley College and *Young Voices of Science* alum, has been hired as the new Community Relations Specialist at Hubbard Brook.



Vanessa Johnson has been hired as HBRF's new Development Director. She will be working closely with our Executive Director, Anthea Lavallee, to build and strengthen relationships with HBRF's supporters.

HBRF Trustee Pioneers New Avenue of Research: Critical Ecology

“What does science miss by ignoring the ways in which human inequality has influenced ecosystems?” This is the question that Dr. Suzanne Pierre, Founding Director of the [Critical Ecology Lab](#) in Santa Rosa, CA, posed to the Hubbard Brook scientific community at the Quarterly Project Meeting in early January. Critical Ecology is an area of ecological research that examines how social injustice, wealth distribution, and power within human social systems impact natural areas, particularly in relation to the changing climate.

Dr. Pierre, who worked at Hubbard Brook as an undergraduate and PhD student, is now a Trustee of the Hubbard Brook Research Foundation. She began her trajectory in Critical Ecology while completing her postdoc at the University of California, Berkeley, where she worked with archaeologists studying plantations in the U.S. Virgin Islands. It became clear to her that leaving out large spans of human experience fails to accurately represent the ecological story.



Dr. Peter Groffman, a Professor at the City University of New York and Senior Research Fellow at Cary Institute of Ecosystem Studies, recruited Dr. Pierre to join the new Long Term Ecological Research proposal



and bring Critical Ecology to Hubbard Brook. "This new approach will allow us to expand our understanding of the societal roots of disturbances such as acid rain and climate change, address past, current, and future interests of Indigenous people in the northern hardwood forest, and increase diversity, equity and inclusion in our research group," Groffman said.

Lear more about Critical Ecology and Dr. Pierre's research and

story on this episode of the award-winning Ologies podcast [here](#).

Above: (right) Dr. Suzanne Pierre; (left) Small-group discussions during the January 2023 Hubbard Brook Quarterly Project Meeting at Vassar College. Photo by Hazel Westney.

Outreach Highlight

Concord Monitor Science Reporter has a Change of Heart about Art and Science



In a January 30, 2023 article titled "Can art help teach science to scientists?" Concord Monitor contributor David Brooks writes about collaborations between artists and scientists at Hubbard Brook and the potential for art and science together to yield new discoveries. [Check out the full article here.](#)

As the name implies, [Long Term Ecological Research sites] like Hubbard Brook are places to do ecosystem studies providing insight over years or decades or, with any luck, centuries. Maybe that explains the openness to art: an emphasis on unusual time scales might make people more open to unusual viewpoints.

As for me, I promise to be more open, too. The next time somebody turns the scientific world-view into poetry, music, dance or painting, I will embrace the work and try to learn from it.

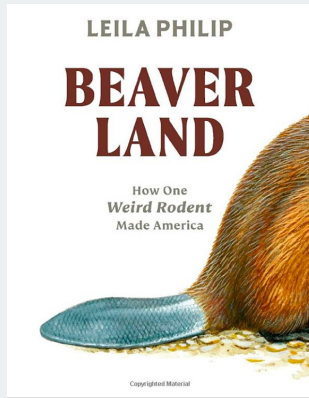
– David Brooks

Above: Hubbard Brook's artists and scientists toured the forest together after a January snowfall during the recent ArtSci conference. Photo by Kristin Jones.

Off the Press

New Book Highlighting Beaver Activity at

Hubbard Brook Attracts National Interest



Research in the Hubbard Brook valley is [attracting national interest](#). The new nature book *Beaverland: How One Weird Rodent Made America*, by Leila Philip, includes a chapter about a log jam and beaver dam on Hubbard Brook, and the book is receiving good reviews nationally. Written for the popular press, the chapter portrays the author's impressions of a field trip to the Hubbard Brook Experimental Forest. Dr. Denise Burchsted writes, "This book highlights the importance of our work in national discussions of land management."



Burchsted continues: "The beavers of Hubbard Brook are showing us a natural, low-cost way to increase resilience to climate extremes. During floods, their dam diverts water into the river valley, which can decrease flooding downstream. Additionally, some of the water diverted by the dam enters the groundwater of the river valley, which could also help mitigate droughts. Our trail camera monitoring and field mapping is assessing the extent and nature of these diversions. This work can be used to better inform river management for climate resilience."

You can view the trail-cam footage of the Hubbard Brook beavers in action [here!](#) In the video, the beavers' lodge is to the left just off screen, and the camera is facing their snow-covered dam.

Parting Shots

This series of photos by Brendan Leonardi (right) captures [phenological changes](#) from a viewpoint on the main stem of the Hubbard Brook from August through January.





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.

