



June 2021

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

# "The youth of the world will save us."

—Shalanda Baker, U.S. Department of Energy,
Deputy Director for Energy Justice
& the Secretary's Advisor on Equity
March 8, 2021 Youth Climate and Clean Energy Forum

When it comes to the climate crisis, we must battle it together. But the future belongs to young people, and they will inherit the consequences of our environmental decision-making. At HBRF, we are working to empower young scientists to engage with decision-makers and to share their knowledge, concerns, and hopes for the future. Over the past year, through our *Young Voices of Science* initiative and youth climate and clean energy events, we have provided communication tools, outreach techniques, and public platforms for environmental students from high schools, colleges, and universities across and beyond our region. This is emerging as one of the most uplifting and important components of our mission.

Yesterday, our 2021 Youth Climate and Clean Energy Forum was a vivid example of civic engagement for informed environmental policy and practice, with brilliant, brave young scholars out front. What a privilege to watch these young people blazing trails to a brighter future and to help clear their way!

Sincerely,

Anthea Lavallee HBRF Executive Director

Artwork from the Field:
A Mural for Hubbard Brook Headquarter

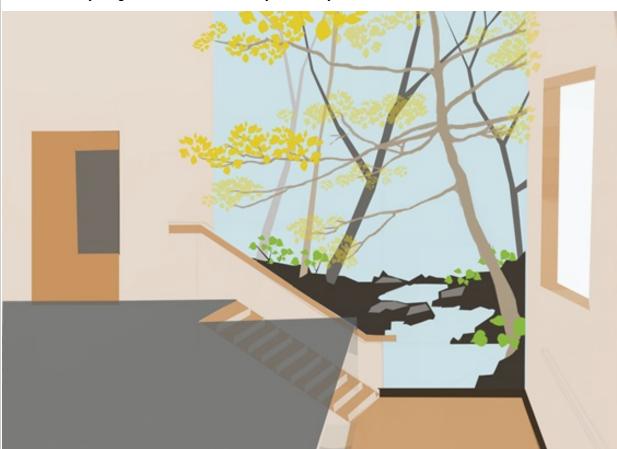


Illustration of a female (left) and male (right) black-throated blue warblers by Raisa Kochmaruk

Original paintings at Hubbard Brook headquarters will bring the the outdoors IN, thanks to a talented member from our growing community of artists.

This summer, scientific illustrator <u>Raisa Kochmaruk</u> will paint a detailed mural at the top of the staircase in the Robert S. Pierce Ecosystem Laboratory, featuring a variety of Hubbard Brook's resident species, including the much-studied black-throated blue warbler (BTBW).

Raisa, who graduated from Cornell in May after majoring in Environment & Sustainability with a self-designed concentration in science communication, knows the black-throated blue warbler perhaps better than any other subject. As a member of <u>Sara Kaiser's lab</u>, Raisa worked on a series of illustrations of female plumage variation and nestling development in the BTBW. "I have drawn so many black-throated blue warbler females, I know every single feather on their body," she says.



Inspired by Raisa's presentation during Hubbard Brook's 2020 virtual meeting of Cooperators, Forest Service Environmental Engineer Linda Pardo reached out about a site-specific painting for Hubbard Brook.

The two planned the mural's subject matter and logistical execution in consultation with Hubbard Brook scientists and technical staff over the spring. Featured animal and plant species will include the black-throated green warbler, ovenbird, red-eyed vireo, American beech, sugar maple, yellow birch, eastern hemlock, hobblebush, round-leaved orchids, a variety of mosses and lichens, moths, butterflies, spiders, frogs...even people!

Raisa plans to document and share her progress through time-lapse video. "I think it's important to let people into the artistic process," she says.

Stayed tuned for an update at the end of the summer! In the meantime, don't miss Raisa's beautiful video and original story, below: "Inspiration to Preserve Birds."



# Young Voices of Science: Project Showcase

The following articles are a selection of outreach projects that participants in HBRF's *Young Voices of Science* program produced with one-on-one mentorship from HBRF staff.

Young Voices of Science is a new, free science communications training program for graduate and undergraduate students

in environmental fields. With generous support from the Bailey Charitable Foundation, the Canaday Family Charitable Trust, the Cotyledon Fund, and an anonymous foundation, HBRF has now hosted two cohorts of 21 students each—one during fall 2020, and one during spring 2021.

Good things happen when bright, motivated young scientists are given the tools and platforms to share their hopes for the world. After reading the pieces below, we think you'll see why YVOS has quickly developed into one of our most important and inspiring programs.



Crisis After Crisis During Pandemic Field Day Experiments
The Journal of Stories in Science

Alicia Brunner Follows the Birds
Northern Woodlands

Towards an Inclusive Environment Re-Earth Initiative

We Can End Lead Poisoning During This Lifetime

<u>Undark Magazine</u>

**SEE MORE PROJECTS** 

Research Highlight: Insights from 40 years of the LTER Network



Forest Service Technician Amey Bailey in the Archives building Photo: Joe Klementovich

A new special research collection, led by Hubbard Brook Investigator <u>Peter Groffman</u> and published in the Ecological Society of America's open-access journal *Ecosphere*, features 25 vignettes from the Long Term Ecological Research (LTER) Network's more than 40-year history.

The rich datasets from Hubbard Brook—which has been part of the LTER Network since 1988—and other sites give invaluable insights into Earth's rapidly changing ecosystems.

"Climate change is affecting ecological systems in really complex ways that are difficult to see and assess," Dr. Groffman said in a press release. "Observing from one point in time or through one method only reveals a slice of the situation. The scientists in the LTER Network combine long-term observations, experiments, models and theory to build up a more comprehensive picture."

The 25 vignettes fall under five themes: State Change, Connectivity, Time Lags, Cascading Effects, and Resilience.

**READ MORE** 

Outreach Highlight: #IfThenSheCan - The Exhibit





Above: Renderings of #IfThenSheCan - The Exhibit Below right: 3D-printed statue of Lindsey Rustad

Forest Service Team Leader <u>Lindsey</u> <u>Rustad</u> is one of 125 women in STEM selected to participate in the AAAS IF/THEN® Ambassadors Program.

That means that Lindsey Rustad's likeness is also one of 125 life-sized, 3D-printed statues of women in STEM currently on display in Dallas's NorthPark Center for #IfThenSheCan - The Exhibit.

The program's goal is to activate a culture shift among young girls to open their eyes to STEM careers: "IF she can see it... THEN she can be it." Ambassadors share their stories and serve as high-profile role models while receiving skill-building, media, and engagement opportunities.

#IfThenSheCan – The Exhibit was originally scheduled to open in May 2020 but was postponed due to the pandemic. In the meantime, program organizers launched the <a href="IF/THEN® Collection">IF/THEN® Collection</a>—a free digital resource with thousands of photos and videos of contemporary women in STEM, significantly increasing stock imagery of women in STEM worldwide.



#IfThenSheCan – The Exhibit features Ambassadors from more than 40 states and is the most statues of women ever assembled in one location at one time. It is free to the public and runs through October 24, 2021.

**READ MORE** 

Join us in warmly congratulating members of the Hubbard Brook community whose work has recently received special recognition!





#### **Tyler Edwards**

Tyler Edwards, an undergraduate student in the Bernhardt Lab at Duke University and a participant in HBRF's *Young Voices* of Science program, won the 2021 Merritt Science Communication Award for an episode of her podcast "Gather, Share, Teach" that introduces listeners to Gene Likens and the origins of Hubbard Brook.

#### **Read More**

#### **Jackie Matthes**

Jackie Matthes, an Assistant Professor in the Biology Department at Wellesley College and a Hubbard Brook Investigator, was elected a 2021 Early Career Fellow of the Ecological Society of America.

#### **Read More**

### Pam Templer

Pam Templer, a Professor of Biology at Boston University and a Hubbard Brook Investigator, received the 2021 Provost's Scholar-Teacher of the Year, an award that recognizes outstanding scholars who excel as teachers inside and outside the classroom.

#### **Read More**

## **Upcoming Events**

#### JULY - THE MOSS STORYTELLING HOUR - ADD DETAILS



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.