

Biodiversity for a Livable Climate

Restoring Ecosystems to Reverse Global Warming

October-November 2021 Newsletter

Dear Friend,

Can you believe we are well into November already? Autumn seems to have passed like a whirlwind, and now winter is on the horizon.

The days seem to fly by. Sometimes I feel as though the time between placing my feet on the floor in the morning and climbing into bed at night is gone in a flash. My Google calendar is filled with color-coded calendar blocks, and throughout the day I step into each one as if I'm on a path from the Candyland board game.

I enjoy feeling useful and productive as I step through Candyland boxes, although sometimes I get caught up in this "game" and forget to look up at my surroundings. Does this happen to you too?



This past weekend, I left my calendar and textbooks at home, and went with my school's Outdoors Club to Natural Bridge State Park, home to the only known white marble arch in North America. As I stood among the massive rock structures and looked out at the Berkshire mountains cloaked in the reds, oranges, and yellows of the fall foliage, I became very aware of how tiny I am compared to the nature around me. As we all shivered in the cold and windy weather, there was a feeling of wisdom in the air, as if Mother Nature held her face to the wind saying "Pfff! This? This is nothing; we've been through the cold a thousand times before!" And, when Mother Nature says she has done something a thousand times, she isn't exaggerating.

"It's incredible how powerful water is," my friend said, pointing to a fallen tree trunk that the water had carried through a narrow passage in the rock. I nodded, looking down at the perfectly carved depressions in the marble, formed from countless years of water flowing down the very same path.

It was the perfect reminder that following the path of those Candyland boxes in my calendar slowly brings good results: completing assignments, creating impactful projects. At the same time, I also need to remember to look up at my surroundings every now and then to recenter with the magnificent forces of nature around me. After all, Mother Nature has been through Candyland boxes of her own before--we call it the geologic time scale--and she has so many stories to tell, if only I take the time to listen.

With warm wishes for a restorative holiday season,



Abby Abrahamson
College Outreach Coordinator & Newsletter Editor

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Upcoming Events:

- November 15: Decolonizing Environmental Thought, GBH Forum Network Talk with Fred Tutman
- November 20: Nature's Solutions as National Policy Mini-Conference
- · November 30: Giving Tuesday
- December 14: Save the Date: Climate Emotions Panel & Discussion

Nature's Solutions as National Policy Code Red in Glasgow: What Did They Miss?

We are delighted to announce the third mini-conference in our *Nature's Solutions as National Policy* series: *Code Red at Glasgow: What Did They Miss?*

Join us on November 20th from 10 am to 12:30 pm EST. Our guest speakers Andrew Revkin, Joseph Michael Hunt, and representatives from La Via Campesina (which represents 200 million smallholder farmers around the world) will share their reflections, takeaways, and recommendations following the COP-26 conference in Glasgow, Scotland.

Click **here** to learn more and register.

Nature's Solutions as National Policy Code Red At Glasgow: What did they miss?

NOVEMBER 20, 2021 · 10:00 AM - 12:30 PM ET · ZOOM







ANDREW REVKIN



LA VIA CAMPESINA

We are thrilled to welcome Andrew Revkin, Joseph Michael Hunt, and representatives from La Via Campesina to a panel discussion on the Glasgow summit, what it may have missed, and how citizens and governments can collaborate to realize the goals of ecosystem restoration and meaningful climate action.

Danehy Park Miyawaki Forest Update

In case you missed it, our Miyawaki Forest was planted successfully this September in Danehy Park in Cambridge, MA. The Miyawaki method is a unique approach to tree planting that aims to recreate the relationships and succession of a natural forest. By densely planting a very biodiverse array of native species, such forests encourage collaboration among the plants, and with fungal and microbial life in the soil, resulting in fast-growing forests with high survival rates. They create ecosystems that are self-sustaining after the initial three years after planting; those ecosystems go on to boost biodiversity, support pollinators and other insects and animals, sequester carbon, filter the air , increase water absorption, buffer against flooding and erosion, and cool the surrounding areas.

It was an honor to participate in creating this forest with an extraordinary group of people. In planting these trees and shrubs, we created a community of life that will last much longer than any of us individually. We reinstated natural ecology on top of a city dump, and witnessed firsthand the way eco-restoration can heal, not just biologically and chemically, but spiritually and communally.

It has been so moving to see the enthusiasm for this project from individuals and organizations here and elsewhere. In addition to stewarding the Danehy Park Miyawaki Forest in the coming years, we are imagining what comes next for the city of Cambridge, surrounding communities in metro Boston, and cities and towns across the country and world. This forest was the first in Cambridge and in the entire northeastern United States, but it will certainly not be the last.

To find out more, see photos and related resources, and stay tuned for updates, check out <u>our Miyawaki Forest page</u>. Take a look at an interview I did for <u>Boston.com</u> on the project, or read through my reflection on the experience on the <u>Bio4Climate blog</u>. To everyone who volunteered, spread the word, and sent encouragement and support, thank you!

- Maya Dutta

Decolonizing Environmental Thought with Fred Tutman Monday, November 15 at 6:00 pm EST

As the planet faces existential threats from multiple sources, the people raising movements aimed at greening the planet must first learn how to discard ideals and notions about the environment founded upon capitalism, racism and classism. This is a frank talk with case studies, about how to build truly equitable, compelling and inclusive conservation cause movements by first

unpacking and ground-truthing the inherent values behind the slogans, fundraising appeals and strategic aims of "insider" Green movements.

Fred Tutman is a grassroots community advocate for clean water in Maryland's longest and deepest intrastate waterway. He holds the title of Patuxent Riverkeeper, sharing that name with the organization that he founded in 2004. He also lives and works on an active farm located near the Patuxent that has been his family's ancestral home for nearly a century. Before he started Riverkeeping, Fred spent nearly 25 years working as a media producer and consultant on telecommunications assignments all over the globe, including



a long stint working with and advising traditional healers in West Africa and time covering the Falklands conflict in Argentina on assignment for the BBC. After a late-life sojourn into law school, in addition to his duties as a Waterkeeper, Fred also teaches and advises in the Graduate Studies program of Goddard College in Plainfield, Vermont; he has also taught environmental law and policy at various colleges, universities and law schools.

In his spare time, he helps maintain trails on the Appalachian Trail and explores the Patuxent River by kayak.

Fred has received many regional and state awards for his various environmental efforts on behalf of communities. He is among the longest serving Waterkeepers in the Chesapeake region and our nation's only African-American Waterkeeper.

We are very excited to welcome Fred as the latest speaker in our lecture series *Life Saves the Planet*. The talk will be recorded and made available online through GBH Forum Network. Register for free here.

Climate Emotions Panel & Discussion Tuesday, December 14 at 7:00 pm EST

When you think about climate change and biodiversity loss, what do you feel? What emotions come up? There is no right answer, and every story is valid. This event will feature psychiatrist Dr. Lise Van Susteren and panelists who will share their experiences with climate-related emotions with the goal of creating an open discussion, so we can all process our feelings together. (Registration link will be provided soon on our website home page.)



Bio4Climate Fall 2021 Course Updates

Are you interested in learning about biodiversity, climate change, and nature's solutions with a group of similarly concerned people?

Two of our staff members, restoration ecologist Jim Laurie and ecological economist Fred Jennings, have each been sharing their knowledge about biodiversity and ecological economics in their fall courses over the past several weeks.



Jim's class is learning about how to maximize photosynthesis in forests, grasslands, and oceans, and examining how this powerful process can rebalance the carbon cycle and work to cool the climate. The class meets on Wednesdays with the choice of afternoon (noon-2 pm EST) or evening classes (7-9 pm EST).

Fred's class is exploring the ecological foundations for economics and the economic mechanisms that can support healthy ecological function. The class meets on Thursdays with the choice of afternoon (hoon-2pm EST) or evening sessions (7-9 pm EST).

It's not too late to join these classes! New voices are always welcome. You can register for Fred's Ecological Economics course here, and for Jim's Biodiversity course here.

Featured Article

The case for passive rewilding: 'If you love it, let it free'
By Alistair Walsh, Deutsche Welle News



Photo Credit: Luis Costa

This past October, the United Nations held its 15th Biodiversity Conference, COP 15. In this article, author Alistair Walsh encourages us to consider passive rewilding as an effective method for restoring biodiversity to abandoned European farmlands. Passive rewilding is the practice of allowing nature to heal and regenerate herself as humans adapt to the "chaos" surrounding it. Walsh notes that 30% of European farmland is at risk of being abandoned, and passive rewilding could be a low-cost solution to restoring the land. To learn more about the pros and cons of passive rewilding on European farmlands, click here.

Featured Bio4Climate Blog Post Climate Justice: For People and Planet By Tania Roa

Our Digital Communications Manager, Tania Roa, wrote on our blog about the importance of climate justice and amplifying Black, Indigenous, and People of Color (BIPOC) voices within the climate movement. Here is an excerpt from the post:

"BIPOC communities are said to experience climate change <u>"first and worst,"</u> making this global emergency an environmental and social justice issue. The destruction of natural resources devastates local communities as the resources they rely on for survival become ashes. The violence imposed on our planet is so intertwined with violence towards people-so much so that addressing one without recognizing the other would be a grave mistake.

Even though BIPOC have experienced enormous injustices, they have not remained victims of their circumstances. For decades, these groups have spoken up for their health and the health of the planet. They continue to demonstrate the importance of seeing ourselves as part of nature, not apart from it. However, communities of color cannot mitigate the effects of climate change by themselves. The movement to rebuild a world that respects our planet is one we all can, and must, join. And when we amplify their voices, we help them create urgent, everlasting change."

Read the full post on the Bio4Climate blog here.

This article was also originally published in *The Climate Issue*, Issue 5. The original version can be found here.

Below is a passage from our latest issue of the <u>Compendium of Scientific and Practical Findings Supporting Eco-Restoration to Address Global Warming</u>. This article is from our <u>ninth issue</u>, Volume 5 Number 1 (pp. 18-19), published July 2021.

Tree planting is not a simple science, Holl & Brancalion 2020

Well-planned tree-planting projects are an important component of global efforts to improve ecological and human well-being. But tree planting becomes problematic when it is promoted as a simple, silver-bullet solution and overshadows other actions that have greater potential for addressing the drivers of specific environmental problems, such as taking bold and rapid steps to reduce deforestation and greenhouse gas emissions [Holl 2020: 580].

The authors name some of the pitfalls to avoid in tree-planting initiatives:

- Using non-native species, which does not result in a true forest and can lead to depleting ground water in arid environments.
- Planting trees in historic grasslands and savannas, harming those native ecosystems and species.
- Abandoning trees after they are planted, as trees can die if saplings do not have enough water, or are shaded out by faster-growing herbaceous plants, or are grazed, or the area is re-cleared.
- Planting trees in agricultural land, which can push crop production into native forest land, which is then deforested.

The authors insist that reforestation takes careful planning, stakeholder engagement, clear goal-setting, and long-term monitoring and adaptive management of planted tree stands to ensure their survival. Above all, they stress the need to preserve existing mature, native forests.

If we are to increase the overall number of trees on the planet our first priority must be to reduce the current rapid rate of forest clearing and degradation in many areas of the world. The G7 nations responded quickly to the 2019 Amazon fires by offering funding to reforest these areas, but they failed to address the core issues: enforcing laws, protecting lands of indigenous people, and providing incentives to landowners to maintain forest cover. All too often, we hear the simplistic assumption that tree planting can immediately compensate for clearing intact forest. But , a large body of research shows that even the best-planned restoration projects rarely manage to fully recover the biodiversity of intact forest, because sources of forest-dependent flora and fauna are often scarce in deforested landscapes, and human activities have degraded the abiotic conditions [Holl 2020: 581].

Reference: Holl, Karen D. & Pedro H.S. Brancalion, 2020, Tree planning is not a simple solution, *Science* 368 (6491), https://science.sciencemag.org/content/368/6491/580

Last But Not Least...

You're a valuable part of your community, ecosystem, and planet, and we're so thankful for you. Would you share the love and join our Eco-Restoration Team of Monthly supporters?

Make a Monthly Gift

Make a One-Time Gift

All contributions help in our vital work to build a livable climate that sustains into the future. Many thanks!

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