



## May - July 2021 Newsletter

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Dear Friend,

What do humans do best? What unique strengths do humans have in our participation in living systems? Some might say “intelligence”; some might point to language, writing, community, or opposable thumbs. We use tools, and these days have a vast array of technologies that enable us to go about our daily lives and take some of these behaviors— communication and knowledge transfer— to new levels.

No one answer or attribute neatly “separates” us from other species. And after all, why should we be so intent on separation? However, one attribute I take a lot of heart in is learning, which is certainly not exclusive to humans. We learn with each experience we have in the world, and we learn not just from our own lives and memories, but from the experiences of others passed down to us over millennia in writing, and across cultures and ages in stories, songs, poems, and any number of creative means.



Photo by Jonathan Kemper

Learning is not just about information and intellect. Along with our intellects, we have emotional intelligence, spiritual knowledge, and intuitive understandings which can all be exercised and strengthened. As we work to restore the earth, in conjunction with science and the practice of ecosystem restoration, we can learn how to reconnect and revitalize our attitudes and spirits.

When I entered into environmental advocacy, I was filled with exasperation and urgency. The thought that “So much is going wrong!” made me want to scream from a rooftop. This kind of energy is useful to an extent: it fuels me to work hard, to get the solutions that I know exist out into the world as much as possible. But as important as that is, we can all get tangled in the attitude of “it’s simple, we just need \_\_\_\_ ” (fill in the blank: scaled-up regenerative agriculture, community-owned restoration projects, relocalization...).

That attitude can sometimes keep us from seeing that the great transformation of the present moment is an iterative process. Yes, it involves spreading knowledge, sharing existing solutions and inspiration, and sometimes shouting those things in excitement.

But it also requires sitting down quietly with the humbling truth that none of us can see all the pieces of the puzzle. It is a commitment to learn more and more, to take in both new information and wisdom, perspectives and value systems to help us make sense of what is happening and what is possible.

The past few months have been full of incredibly enriching learning experiences at Biodiversity for a Livable Climate. In June, we hosted a riveting conference on [Nature's Solutions as National Policy](#), pulling together expertise in the science and practice of restoration and in policymaking to fill out more of the picture of how we get where we need to go.

I've been coming to a greater appreciation for Indigenous wisdom and the importance of centering it in efforts to restore the earth. I'm learning more and more about symbiosis, about forests and wetlands, the lungs of the Earth. I'm learning about the fungi that share with trees and vegetation the ways of being interconnected agents of intelligence and community. There are so many ways of being, and the more perspective we all gain, the better equipped we are to participate in this beautifully complex web of life.

When I pause and reflect, detaching for a moment from the motivating urgency of solving dire problems, I feel tremendously honored to be able to take part in this with all of you. When I learn and grow, I feel connected to the best of what it means to be human, or perhaps the best of what it means to be alive at all. I'm grateful to be on this path, and to be here with you.

With open heart and mind,



Maya Dutta  
Research and Outreach Coordinator

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#### **Events:**

- Save the Date - August 16, 1 pm - Alice Friedemann and Adam Sacks join our *Life Saves the Planet* lecture series to discuss Life After Fossil Fuels

#### **In this issue:**

- Bio4Climate's new website launch
- [Nature's Solutions As National Policy](#) conference
- Book Review: *Braiding Sweetgrass*
- [Indigenous Wisdom and the Power of Place](#) with Dawn Knickerbocker and Juan Martinez
- [Biodiversity 4: Forests, Fungi, and Living Shorelines](#) class with Jim Laurie
- Featured Video: [Indigenous Seed Keepers](#)
- Compendium Notes: *Community owned solutions for fire management in tropical ecosystems: case studies from Indigenous communities of South America*, Mistry et al. 2016

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**Announcing [Our New Website](#)**



Photo by Felipe Giacometti

Bio4Climate is getting a makeover! We've renovated our website to bring you the same vital information and inspiring content with more ease than ever before. As a hub for our events, resources, climate solutions, blog posts, and activities, the website is at the heart of how we connect to people and get you involved in what we do. After several years of accumulating materials in one place, we've overhauled the site to make searching and navigating our vast library a more seamless and enjoyable experience. Our new website has officially launched, so [check it out here!](#)

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## **Indigenous Wisdom And The Power Of Place** **with Dawn Knickerbocker and Juan Martinez**



Dawn Knickerbocker



Juan Martinez

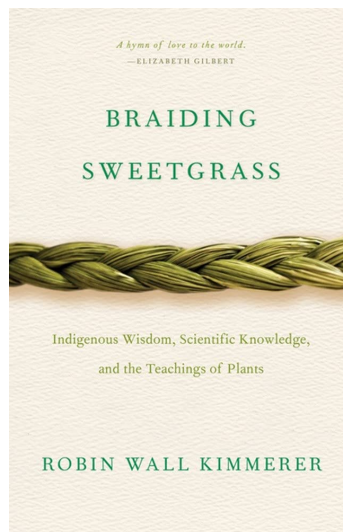
This May Dawn Knickerbocker and Juan Martinez joined our *Life Saves the Planet* lecture series for an enlightening conversation on environmental stewardship and the opportunities to empower new generations of leaders to tackle the intersecting challenges we face in creating a flourishing world.

Experienced grassroots organizers whose perspectives are informed by their Indigenous heritage, Dawn Knickerbocker of the Anishinaabe People / White Earth Nation and Juan Martinez, proud descendent of the Be'ena' Za' Zapotec people, discussed the importance of place-based relationships in caring for land and the way Indigenous wisdom honors the relational nature of experience. By centering that wisdom and calling back to the rich cultures and histories of the places we are in, we can come to appreciate the way people and nature shape one another and belong to one another.

If you missed this wonderful and energizing conversation, you can check out the recording [here](#).

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## Book Review: *Braiding Sweetgrass*



Rachel West, writer and contributor to our Compendium, joins our newsletter to share her review of *Braiding Sweetgrass* by Robin Wall Kimmerer:

In *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*, Dr. Robin Wall Kimmerer uses the languages of science, story, and metaphor to weave a stunning tapestry of essays that brings readers across North America, from the inland marshes of New York, through Canadian forests, to the towering and ancient trees of the Pacific Northwest. Yet even as she immerses us in this lush world, she writes unflinchingly of the impacts of modern “progress” on the living earth; about how the loss of forest habitats, wetlands, and prairies resonates across the biosphere, and about the enormous challenge of restoring the ecological complexity of these areas—a task far beyond simply planting trees and “re-greening” such habitats.

Using relatable language and stories of both connection and loss—including the loss of life, language, and knowledge suffered by

Indigenous people across North America as the result of colonialism—this book brings together many stark environmental realities that are finally gaining global attention. Kimmerer acknowledges how many of Earth’s resources are becoming dangerously scarce, including water for crops and for people, healthy soil capable of supporting crops without massive quantities of chemical additives, populations of wild fish and animals, and land that remains free of pavement and buildings and is able to drive climate-regulating water cycles. Yet she also acknowledges that, as part of life on Earth, people must use resources; that “In order to live, (we) must consume. That’s the way the world works, the exchange of a life for a life.” However, we need to find ways to do it differently...“We need acts of restoration, not only for polluted waters and degraded lands, but also for our relationship to the world...” and we need them *soon*, while the Earth still has the capacity to respond.

Throughout *Braiding Sweetgrass*, Kimmerer shares some of the ways that Indigenous peoples have lived on the Earth in a pattern of give and take, or reciprocity and respect, and offers her thoughts on ways that modern cultures — the cultures of “progress” and “growth”— may be able to integrate some of these learnings. She shows us that “The traditional ecological knowledge of Indigenous harvesters is rich in prescriptions for sustainability” and shares traditional stories that may help us restore balance, and to help us “locate ourselves once again in the circle” of life on Earth, rather than holding ourselves outside of that circle, only as consumers, rather than as active participants.

By reminding us that we are but one part of the living Earth, and showing us ways to reconnect with our own roots as well as those of the plants that sustain us, *Braiding Sweetgrass* offers a way forward—and some deeply nourishing food for thought.

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## Nature's Solutions as National Policy



This June we hosted the first in a series of mini-conferences on Nature’s Solutions as National Policy to great success. Walter Jehne, Vijay Kumar, and Congresswoman Chellie Pingree participated in a riveting panel discussion on nature’s solutions and the mechanisms and challenges of integrating them into policy. Scientific research and case studies demonstrate the importance of regenerative agriculture and other means of restoring water cycles and ecosystems, but a key question remains: how do we scale up such techniques? While these practices have already seen tremendous success in a groundswell of grassroots adoption, the big opportunity is in using government policy to boost restorative movements up to the scale that is so urgently needed.

Our panelists succinctly and persuasively tied together the elements of science, experience, and policymaking to tackle this question of how to make these transitions to working with nature for the collective good of all people and species. This first installment in a series of mini-conferences on nature’s solutions as national policy is not one to miss, so if you didn’t have a chance to join live, [check out the recording here](#).

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## **Biodiversity 4: Forests, Fungi, and Living Shorelines with Jim Laurie**



Jim Laurie, our Staff Scientist and Restoration Ecologist, is back with his fourth class on Biodiversity and Symbiosis, focusing on forest and coastal ecosystems. The course is in progress, but always open to new members!

Join us to explore the ways that the interconnections between fungal networks, root systems, and forest life enable healthy ecosystems to act as the “lungs of the planet,” and to consider how to protect and restore forests and shorelines to act as our allies in the planetary challenges ahead. Find out more on our [course page](#).

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**Featured Video: [Indigenous Seed Keepers Network](#), introduced by Tania Roa**



“What is a seed?”

This short question prompts powerful answers by members of the Indigenous community. From the statement that “seeds are our children and the creation’s children,” to the ideas that seeds are Indigenous culture and heritage, health, and the present and the future, these reflections demonstrate the importance of maintaining the essence of the seed. Other answers include “seeds are our knowledge and cosmic understanding,” and that they sustain families, and are future generations. The seed connects ancestors to people alive today, and the people alive today will later become ancestors, continuing the cycle. For these reasons, protecting the seed is a necessity and a duty that Native Americans take seriously.

One person alone cannot undertake this massive task. It takes entire communities to plant, grow, and exchange seeds. The first step is uniting everyone under the same mission. The next is ensuring that seed stewards are growing plants with a deep understanding of the spiritual aspect embedded in this action. Not all people who grow seeds are good stewards, as we see when corporations buy Indigenous homelands to plant monocultures. The ability to “make and keep life” requires making seeds accessible to all. When this process is done the right way, the Indigenous way, communities can be self-reliant and find resilient ways to survive as the climate changes.

The profound comprehension of how the seed movement unites everyone, not just farmers and gardeners, is an indication of the power of food. From the planter to the grower to the cook, it matters how and where we grow our food. That understanding determines how you view seeds: are they merely a source of profit or are they your relatives? Are they something someone owns, or are they life itself? The Indigenous Seed Keepers Network offers answers we are searching for as we move forward and transform the food system from one that prioritizes profit for a few to one that provides the essential life-giving nutrients every human needs.

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## Compendium Notes

This is an excerpt from our [Compendium of Scientific and Practical Findings Supporting Eco-Restoration to Address Global Warming](#). This is a short summary; for the full article summary access the Compendium issue [here](#). The article below is from the wildfire section of [our eighth issue](#), published in January 2021, Vol. 4 No. 2.

### **Community-owned solutions for fire management in tropical ecosystems: Case studies from Indigenous communities of South America, Mistry et al. 2016**

Indigenous groups across the world have developed ecological knowledge linked to the places they inhabit, including prescribed fire practices used to maintain healthy ecosystems. Mistry et al. examine the challenges Indigenous communities in South America face in managing the landscape through fire and preserving such knowledge across generations in sometimes hostile political climates.

However, there is growing recognition that Indigenous people have a vital role to play in combating climate change and supporting biodiversity and healthy ecosystems. Emerging research shows the fundamental role their land-use practices can play in controlling deforestation and reducing CO<sub>2</sub> emissions: analysis of satellite imagery suggests that Indigenous lands have reduced rates of deforestation and habitat conversion, and lower greenhouse gas (GHG) emissions, compared with surrounding areas [p. 1].

While indigenous groups' use of prescribed fire early in the dry season to prevent destructive out-of-control fires is gaining broad recognition, that hasn't necessarily translated into greater respect or autonomy for those communities. Instead, Indigenous people may be given auxiliary roles in fire management, or have their knowledge utilized but implemented by non-local organizations in structures that fail to benefit or empower the local communities themselves.

While this may still achieve desired results in managing wildfires, it weakens intergenerational knowledge transfer and undermines the social and spiritual role of prescribed fire within communities. Mistry et al. argue that Indigenous fire management is effective as “an emergent property of a linked social-ecological system where Indigenous knowledge and culture, and associated livelihoods, are intimately interconnected with landscape management practices” [p. 4].

The authors also write that

Critically, as community owned fire management is intricately linked with Indigenous survival strategies, so too must firefighting and prescribed burning be grounded in local social–ecological systems. We believe it is necessary to define long-term actions to support the integrated functioning and survival of Indigenous communities as a whole, rather than focusing on isolated issues (e.g. carbon retention) or benefits for some individuals (e.g. hiring Indigenous firefighters) [p. 8].

This systems approach may well be the key to successful long-term fire management. The authors offer this challenge:

What we want to do is not promote one over the other, but encourage decision-makers to engage with, and appreciate, Indigenous perspectives and worldviews on fire management. Community owned solutions acknowledge collectivity, spirituality, process orientation and locality, whereas many expert-led fire management interventions often result in promoting individualism, ethnocentrism, rationality, efficiency, commercialism and globalization. The question we raise is this: can the 'community owned solutions' approach be the mechanism through which Indigenous perspectives can be represented within fire management? [p. 8]

Mistry, Jayalaxshmi, Bilbao, Bibiana A. & Berardi, Andrea, 2016, Community owned solutions for fire management in tropical ecosystems: case studies from Indigenous communities of South America, Phil. Trans. R. Soc. 371(1696), <http://doi.org/10.1098/rstb.2015.0174>.

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## 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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