

# Finding joy in Earth's biodiversity while sheltering in place

April 23 2020, by Sarah Cafasso

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Daily and Smith in the field in Costa Rica, a country that has embraced farming practices that protect biodiversity while producing delicious products like coffee and chocolate. Credit: Stanford University

NatCap's Gretchen Daily and Jeffrey Smith contributed to a new book, "Earth 2020: An Insider's Guide to a Rapidly Changing Planet," a collection of interdisciplinary essays to celebrate 50 years of Earth Day. Their chapter, "Everyday Biodiversity," describes the small ways that biodiversity supports the fabric of our daily lives, from our first sip of coffee in the morning to an evening beer as the sun sets. Here, they discuss how people can still connect with and celebrate Earth's biodiversity while sheltering in place during the coronavirus pandemic.

**In "Everyday Biodiversity," you describe how biodiversity underpins everything in our daily lives, from our first sip of coffee in the morning to a cold microbrewed beer in the evening. Tell us more about those connections—will we see changes in our daily routines if biodiversity continues to decline?**

Jeff Smith: Almost everything we enjoy eating comes from plants that need biodiversity to survive. If we were to live on just corn and soybeans, we might be okay without much biodiversity. But all the foods that bring us joy—fresh fruit, herbs and spices, coffee, wine—are dependent on insect and animal pollinators. Our favorite berries and apples and pears all require insect pollinators to spread their pollen from flower to flower. If we lose that biodiversity, we'll lose access to the foods that make our meals vibrant and delicious.

Gretchen Daily: During this time of sheltering in place, we're all feeling a little trapped. In our normal lives, many of us have much more freedom to get out and connect with nature, and sometimes we take that opportunity for granted. Now that we're more isolated, whatever small scraps of nature immediately around us become so much more valuable. We can appreciate the beauty and life in those small pieces, whatever

they may be. It's not surprising to me that gardening has absolutely taken off right now, with people using whatever they have, even if it's a tiny little planter box or a small patch of ground. I'm getting a lot of calls from friends asking about birds in their backyards that they're noticing for the first time. We're all feeling a need to connect with nature. I've been inspired by people fostering or adopting pets during this pandemic. Everyone in my family is so grateful for our dog Willow, because she's a source of solace and joy for us.

However wild or domesticated, people are recognizing that fundamental human craving of connection to our [natural](#) world, our biodiversity. It can provide a release from day to day tensions—even just feeling the wind across our face and the sun on our skin can connect us to nature.

**With the majority of society in self isolation right now, we're looking for new ways to experience nature while staying close to home. You mention the biodiversity in our yards and local parks—what does backyard biodiversity look like, especially for city-dwellers? How can we connect with nature from our homes to experience some of the benefits you mention?**

Smith: As Gretchen mentioned, a big part of this new experience is recognizing the parts of nature we took for granted before and then learning how to find personal value in them. I'm lucky to have a park across the street from where I live. The other day, I found myself watching a squirrel as it scampered up and around a tree. Normally, I'd be too busy to pay attention, but I found myself amused and entertained by this little squirrel in its habitat. Squirrels are ubiquitous in places like New York City or San Francisco—they're little representations of

biodiversity that we're so used to, we don't normally take a moment to recognize. There are so many examples of biodiversity that we take for granted, just like our neighborhood squirrels.

Even without access to parks or greenspaces, a really accessible way to connect with biodiversity right now is through the live streams that many aquariums and national parks are putting on. I've been watching a lot from the Monterey Bay Aquarium, which has some great options, including very soothing jellyfish streams and a heartwarming otter stream. People are connecting with other humans virtually, and it's important to realize that we can also be connecting with nature virtually.

**This week, we're celebrating 50 years of Earth Day, which was the impetus for this collection of essays. What have been some of the most significant moments in biodiversity conservation and policy since that first Earth Day in 1970? Where are we now?**

Smith: Following the first Earth Day, we really experienced a golden age for environmental legislation in the United States. Between 1970 and 1975, we saw things like the National Environmental Protection Act, the Clean Water Act, the Clean Air Act and the Endangered Species Act all enacted into law.

For biodiversity conservation, the Endangered Species Act is the obvious legislation that links to our work because it has targeted protections to prevent at-risk species from going extinct. However, there is a really important complementarity with these other pieces of environmental legislation—they allowed for the protection of wider swaths of habitat and natural areas, which in turn allowed more species overall to persist—not just targeted species. It's a multifaceted approach to governance, in which all the pieces fit together to create more powerful

protections than any one policy could on its own.

Daily: Looking back on that history, the crucial framework and foundation for environmental policy in the US was established by a Republican administration and by Republican leadership. It was a time when we had much more mutual understanding and cooperation in governance. The history is both dismaying and heartening, because things have changed so much. We aren't seeing that bi-partisan cooperation right now, but it gives me hope that we could all come together again. We have historically worked really well together. Conservation is a conservative issue; it's everyone's issue, it's beyond politics.

**You write about our planet's dwindling biodiversity and the steps that need to be taken to protect it. Specifically, you mention the need to go beyond government action and work within the economic system to create change. What are some tangible examples of that type of change in action?**

Daily: This moment really heightens the importance of access to nature, especially among urban residents. It also heightens the inequities in access, from education to healthcare and so many other vital services. As a parent, one of the things I feel the most anguish over is access to the outdoors; thinking about kids sheltering in place, unable to easily connect with nature.

Encouragingly, we're seeing that development institutions like the World Bank and the Inter-American Development Bank are prioritizing nature and looking for new ways to integrate its values into their approaches to planning and development. At the Natural Capital Project, we're teaming

up with the World Bank's Global Platform for Sustainable Cities to help standardize norms to integrate nature into decision making. We're thinking about access and accessibility across all populations in cities, so that everyone can experience the benefits that nature provides to people.

Smith: Right now, our markets aren't set up in ways that can incorporate the values of nature. The transformative change that we need is going to require involvement from both governments and economic institutions. One of the best examples of the interplay between governments and corporate leaders is in the establishment of water funds. There's a clear economic angle, but it's not the only angle. Governments are realizing that provisioning of water is such an essential service that there needs to be a way to integrate policy changes and economic incentives, to protect upstream water sources and therefore provide for downstream users. That interplay between governments and the economic sector is crucial.

## **In 50 year's time, where do you hope we'll be? What do you envision Earth Day 2070 to look like?**

Daily: We're at an inflection point right now, in awareness of and appreciation for natural capital approaches. In past pandemics like the bubonic plague or Spanish flu, society was still much more localized, and the diseases didn't spread globally in the same way as today. Now, we see how totally interconnected we are, and therefore how we really need a systematic, global approach to integrating nature into decision making. As we plan stimulus packages and other catalysts of economic recovery, we have an opportunity to integrate values of nature—the stability of our life support systems—into economic policies.

We can also see the tragic costs of action delayed and opportunity lost. Now is the time to take long-needed action on securing the climate and nature. There's high hope yet in transforming our ways—in accounting

for the values of nature in our policies, investments, and management.

I hope that when we look back on 2020, we see the very best of human ingenuity, cooperation, and purpose, creating a future in which people and nature thrive.

Smith: In the United States over the past 50 years, there's been a realization that preserving healthy ecosystems is critical for providing quality of life for people. Nature provides clean air and clean water, timber, agriculture, fishing, and all these other economic activities that are vital to maintaining not only our economy, but our national identities.

At the Paris Climate Accord, countries came together to recognize that climate change transcends national and political boundaries, that we need to act as one unit. The same goes for biodiversity protection; the Canada Lynx doesn't care if the border between Canada and the United States gets shut down for whatever reason, it's still going to move back and forth between the countries. Even beyond the movement of species, we recognize now that local decisions have global impacts. The actions we take here in the United States, whether it's turning wetlands into suburban developments or deforestation, the impact on migratory birds can lead to cascading effects in Latin America, South America, and beyond.

So, I really hope that when we're looking back in 50 years, we can reflect on an outpouring of international cooperation that protected biodiversity globally. Countries will have made decisions based not only on how they might affect the biodiversity within their borders, but how they might affect their neighbors in this global community.

**Circling back to the little joys that we experience thanks to biodiversity. Do you have a favorite food or**

## drink you'll be enjoying to celebrate this Earth Day?

Smith: Lucky for us, coffee and chocolate are two of the best examples of crops that can be grown in wildlife friendly ways, and I'll probably enjoy both on Earth Day! If you have even 10-20 percent tree cover on your coffee farm, you not only get better returns on your coffee because it's higher quality, but you are also likely to be supporting 20-30 percent more [biodiversity](#). Smithsonian's Bird Friendly certified coffees are a great option, as are chocolates and other products certified by the Rainforest Alliance.

Daily: And for winding down in the evening, there are a lot of small-scale wineries and breweries really embracing sustainability practices. One example is from our friends at Mahonia Vineyards in Oregon, but there are so many options popping up across the US. I'll be enjoying Earth Day with some bird watching in my backyard...and definitely some chocolate.

**More information:** Earth 2020: An Insider's Guide to a Rapidly Changing Planet, [www.openbookpublishers.com/product/1109](http://www.openbookpublishers.com/product/1109)

Provided by Stanford University

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