

A Scientist Who Cares, and Why

[Matt Kettmann](#)

Overview

Sometimes there's no more passionate form of advocacy than sound and rigorous science. Dominick Dellasala explains why.

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This is the first in a series of interviews with scientists who are working to study and protect rare, often endangered species and the landscapes that support them. This introductory interview takes a broad look at the professionals involved with natural resources, many of whom find themselves becoming passionate advocates instead of just detached observers. In future columns, expect to learn more about interesting animals as well as the charismatic people who focus on them.



Name: Dominick Dellasala

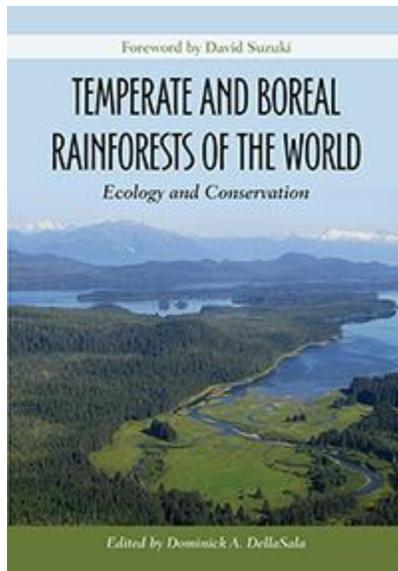
Location: Ashland, Oregon

Job: Chief Scientist at GEOS Institute

Fields: Conservation biology, climate change

Species worked with: Northern spotted owl, American bald eagle, least terns, piping plover, and neo-tropical migratory birds, such as wood warblers, flycatchers, and tanagers.

Recent publications: Temporal and Boreal Rainforests of the World. See islandpress.org/dellasala.



Though he got his start working on the ground with some of the most headline-grabbing endangered species battles of the past quarter-century, Dominick Dellasala admits that today he is an “armchair biologist,” having been out of field work for years. The chief scientist of the climate change-focused GEOS Institute grew up in Brooklyn, where he admits there weren’t many trees. Trips to the Catskills with his parents sparked his passion for the outdoors.

“My whole background is very improbable in terms of where I wound up,” Dellasala told me over the phone from his office in Ashland. “I wasn’t raised in an outdoor environment, but it became my passion because, once I got out there, I knew how special it was.” Teachers in high school and college recognized that passion early on, and pushed him to study nature while at Adelphi University on Long Island and then Wayne State in Detroit, where he got his Masters. He then went to University of Michigan in Ann Arbor for his Ph.D.

Once a professional, he ran headfirst into the northern spotted owl, the most challenging species he’s ever had the opportunity to study and, eventually, protect. “It’s just become the symbol for the battles over the forests of the Pacific Northwest,” said Dellasala. “That species has shouldered all of the conservation burdens, and you either hate it or you love it, depending on your approach to the issue.”

Many scientists try to straddle the divide between strict observation and passionate activism, but Dellasala has set a strong mold for how to do both without undermining one’s career and respect.

Since this column will be interviewing many scientists who lean to one or the other sides of that divide, Dellasala seemed like the perfect introduction to this series, and he graciously spent about a half hour on the phone answering my questions last week. What follows is an edited account of our conversation.

How did your passion for the great outdoors evolve into a profession?

I was working with a consulting company on a project up in the Tongass Rain Forest in southeast Alaska. I just fell in love with the place. I started to get really frustrated with what I was seeing. It was one of the most intact rain forests in the world and it was being disassembled before my eyes. They were taking giant spruce and hemlock trees out of this incredible rain forest and I was documenting how the logging was impacting wildlife. I started asking myself, 'What am I doing?' I needed to get this information out to the public and to the decision makers so they can see what's at stake. We were going to lose this incredible legacy of wildlife if I didn't get my opinion and the facts out there.

There is a great deal of tension in the scientific community between researchers as being dispassionate observers versus becoming advocates for a cause. How did you deal with that distinction in your own experience?

Science is a door in, and once you are in and you observe what is going on, it's hard not to be connected with the importance of whatever it is that you are studying. There are a lot of different ways you can approach this. There is a big continuum. Either you can be doing dispassionate, neutral science — the Francis Bacon approach to science that he started in the 1700s — and collect data, run studies, reach conclusions, and walk away. That's pure observational science.

Then there's the other end of the continuum where you have a responsibility to do something with that information, because scientists who are looking at these problems understand them in ways that are different from a lot of other people, but we are also members of society in which we live and work and play. I subscribe to the philosophy of doing something with the information.

Is that a conflict?

I don't see any conflict in it because you can approach a situation as an unbiased observer running science experiments and then, if the experiment turns out results that are meaningful to society, then it's your responsibility to say something about it.

Here's an example. You go into the doctor's office. He reads your blood test, reaches a conclusion that you've got a quirk in your system, tells you what's going on, and then just walks away, and says, 'Go down to the hall and talk to someone in social science. I can't advise you. I can't be an advocate for you.'

Like the doctor, it's our responsibility to take that information, interpret it, and then do what's in the best interest of the patient, which in this case is the planet.

Do you run any risk becoming a scientist-advocate?

There's always a risk of being branded as someone who doesn't have science in mind when you are advocating, and I face that often in my career. But there is a bigger risk of not speaking out.

And there are rules of engagement that scientists will take. So you talk about uncertainty in whatever you are looking at, and you talk about how you reached your conclusion. In our profession, that's peer-reviewed science. I try to get as much of my stuff published in the peer-reviewed literature and then I lean on that to make sure there are checks and balances to what I say.

Were you surprised how much politics played a role in environmental management decisions?

Yea. [Laughs heartily.] Nothing in graduate school prepared me for the world of political decision-making. It was kind of a shock to the system when I first testified in the House of Representatives' Natural Resources Committee way back in the '90s. I went there not knowing what I was getting myself into. I was testifying on forest health issues, and I was in the hearing room for nine hours as my testimony was banded about like a tennis match. Most of what was being thrown at me was pretty wacky stuff that had nothing to do with the science. That happens every time I testify in Congress, actually. It's really like theater whenever you get into a situation where you are testifying on the Endangered Species Act.

With the cards often stacked against the environmentally correct thing to do, it seems that sometimes the scientist-as-advocate might be the only antidote.

Absolutely. We see it in a lot of different places, like in the tobacco industry and how they rigorously fought the science on the link between tobacco and cancer. There were fighting the sound science on that with every recourse they had.

We're seeing the same thing now with climate change. There's a lot of crazy information trying to discredit it, but now 98 percent of the scientists polled agree that it's happening and that it's human caused, and yet there is still a lot of fighting about it. We're going to be at a point pretty soon where it's just like tobacco—people are gonna get it, and hopefully we'll be talking about some solutions.

And then there's Tyrone Hayes work. His lab was funded by the chemical industry to look at the effects of atrazine [an herbicide]. He started working on amphibians in his experiments, and saw some astounding results that atrazine was a dangerous chemical. He started publishing his findings, and the chemical industry began to attack his science. He prevailed because he took a stand, and now the Environmental Protection Agency is looking into it.

Do you find that a lot of people are drawn to conservation biology and other types of environmental work because of experiences outdoors?

People come to working on natural resources because they had those experiences, like when they went out camping with mom and dad and got interested in nature. Carl Sagan grew up in Brooklyn too, but yet had this passion for astronomy and sciences, and was really gifted in being able to communicate why it was important.

As explained in the book *Last Child in the Wilderness*, kids that play outside in nature have a tendency to have higher IQ, but the sad part is that we are seeing less and less of that in the world today. They're not playing in nature, they're playing computer games or texting. This shift toward

technology is a concern for a lot of people who are seeing the potential decline in folks who are connected to nature in this way.

So how does the future look to you?

I tend to remain optimistic because I have an eight-year-old daughter. I would say that we're in a time of unprecedented change. We're on a collision course with the atmosphere, and most of this is triggered by how we're out of balance with the natural world. We need at this time to marshal an unprecedented amount of resources if we are going to be able to forestall the likely future that we are heading toward. And I'm not just talking financial. I'm talking about kids being involved in the natural world so they can become future, educated leaders who get that their connection to the outdoors is important. I'm optimistic, but I'm also reading the tea leaves, and it doesn't look good right now.

We've become so dependent on the information revolution that we're forgetting that we're connected to nature and our survival depends on time—more than any time, arguable, in human evolution, because of the oath we're on.

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The Geos Institute uses science to help people predict, reduce, and prepare for climate change.

"Those who have the privilege to know, have the duty to act." Albert Einstein