TRANSCRIPT

Key Conversations with Phi Beta Kappa

Paul Robbins on How to Save Biodiversity in the Planet

His research focuses on human interactions with nature and the politics of natural resource management. The professor and dean at the University of Wisconsin speaks with Fred about how the natural environment affects everything from racial and social justice to the population bust. And he reveals what coffee, frogs and workers can teach us about the survival of wildlife and humans.

Fred Lawrence: This podcast episode was generously funded by two anonymous donors. If you would like to support the podcast in similar ways, please contact Hadley Kelly at hkelly@pbk.org. Thanks for listening.

Hello and welcome to Key Conversations with Phi Beta Kappa. I'm Fred Lawrence, Secretary and CEO of the Phi Beta Kappa Society. On our podcast, we welcome leading thinkers, visionaries, and artists who shape our collective understanding of some of today's most pressing and consequential matters. Many of them are Phi Beta Kappa Visiting Scholars, who travel the country for us visiting campuses and presenting free lectures that we invite you to attend. For the Visiting Scholars schedule, please visit pbk.org.

Today, it's a pleasure to welcome Dr. Paul Robbins, Dean of the Nelson Institute for Environmental Studies at the University of Wisconsin at Madison, where he guides the institute in addressing rapid global environmental change. His research and educational focus have been in human interactions with nature and the politics of natural resource management. Questions regarding conservation conflicts, urban ecology, and environment and health interactions are central to his work.

Welcome, Dean Robbins.

Paul Robbins: Thank you. Glad to be here.

Lawrence: So, we've got a lot to talk about in terms of environmental change and all of the many areas that you have worked on over your career. You are one of the foundational figures in political ecology, which is really a series of fields, interdisciplinary fields, I think, but I want to start first with the journey and what brought you here. I know you're from Denver, which is that beautiful place that starts a mile high, famously, and is in the foothills of the Rockies, so is that what made you into an environmental scientist?

Robbins: That's kind of funny. Sure. You know, growing up in Colorado, particularly back in the '70s, when children were just set loose to do whatever they wanted all day long, back in the era of free range children, we used to spend a lot of time in the high country, a lot of time in the mountains, get out to Utah hiking and climbing, so the outdoors is certainly part of my story. But I never thought I'd become an environmental scholar. That, like with the case of most scholars, is a series of accidents that make you who you are.

Lawrence: Is there a moment or a series of moments that you remember thinking, "This isn't just something I'm interested in or I like. This is something I could make a career."

Robbins: It happened quite late. So, I'm what I call a recovering archaeologist. I was training for a career in archaeology. I was at the University of Wisconsin-Madison, where I went from Colorado to go to school, which has got a world famous anthropology program and it was very exciting. And I went to India. I had the opportunity on a professor's grant to go to the National Science Foundation-funded project in Gujarat, India, and what I learned, like many scholars, is that I did not want to be an archaeologist, but I did fall in love with India, and with the environment, and the landscape, and the farmers, and the herders, and everything that was going on in air quality, and water. And that's when I knew that the career was gonna be about the environment. Yeah. Definitely an accident.

And I've spent my whole career there, although it has been a few years since I've been back, which is quite unfortunate. And over the course of that time, I realized that the environment was interesting, but so were the politics around the environment. I mean, people were struggling over land rights, and who got to herd where, and whether people were allowed to use the forest, and this seemed pretty urgent to me, you know? There were a lot of people living there. There was a lot of hunger, a lot of poverty, and resource politics just were incredibly important.

So, the more I learned, the more excited I became.

Lawrence: Your foundational book, called Political Ecology, which suggests that intersection of the political and policy sphere with the environmental ecological sphere, but it sounds as if you didn't come to one before the other. It sounds as if you experienced them together.

Robbins: Right. I didn't have a name for it. Whatever I was thinking, there wasn't a word for it in my vocabulary. Calling it resource management doesn't quite capture the political economy aspects of it. Calling it political economy doesn't really respect how important the actual dynamics of the ecosystem are. There was no word for it until I got to graduate school.

Lawrence: So, take us back then. You spend the four months in India. You come back to the States and you're not gonna be an archaeologist. Is there a person, is there a mentor who turns the key? Who listens to you and says, "Hey, Paul. You know what you're really talking about is this, and maybe you ought to do graduate work in this area," or is that not how it happens?

Robbins: It's funny, because of course I'd come out of anthropology. I realized I needed far more training in environmental science to get myself up to speed. I took a year off before graduate school. I wasn't even sure I would go to graduate school, right? And I had a chance to explore, and read, and go to the library, and the revelation was that there was a field called geography, which I had never taken a class in. I did not know it existed. Like most of us, we don't know that there's an academic field called geography, which is incredibly rich and interdisciplinary in its nature. And that was when I opened my eyes and I discovered a book by Doug Johnson, who eventually became my advisor, and it was called The Nature of Nomadism, and it was filled with maps.

And these maps showed how people moved, and why they moved the way they did, and why they made decisions to go here or go there. The field of geography then brought me to graduate school, where political ecology as a kind of a concept was waiting for me.

Lawrence: Did you imagine that your fieldwork would mostly be international? Or were you thinking of this also as an American field of studies?

Robbins: Like most of us who go into fields, it was just an excuse to have somebody pay for me to go to India, right? So, I mean, just the opportunity to land a Fulbright, get some NSF money, you know, that pays you to do this, this was very exciting. And my love for international travel remains. There was a period after… I don't want to jump too far forward, though, where there were debates, academic debates, but they're really practical debates about are all the things we're talking about in places like India, or Africa, are they applicable to middle class homeowners in the U.S.? Which they are.

I mean, it's an interesting question. Are you applying theories and methodologies that come out of anthropology, and geography, and ultimately out of colonialism, problematically, to "study," quote unquote, people elsewhere in the world? And is that a colonial practice? And the answer is not if you can symmetrically produce the exact same kind of study on yourself, right? If you can reflexively study your own kind of knowledge, your own practice, and re-import those theories about peasants, and landowners, and property, and culture, and politics, and economics, to landscapes in the U.S. And that was a separate project, and I've been doing much more U.S. fieldwork over the last 30 years than Indian fieldwork.

Lawrence: In many campuses, anthropology and sociology are now either considered cognate disciplines, or indeed put together in the same department just for that reason, the difference between studying the other, studying the self, and then collapsing those into the study of people, or the study of ecosystems, or in your case the interaction of the study between individuals and the ecosystems.

Robbins: Yeah, absolutely. That symmetry is essential if you're gonna decolonize your thinking and your practice and your brain. So, yeah, I hear you on this. Geography, of course, always contained that, even with its own troubled colonial legacy, but it always contained this hole, which is why it's still a very exciting field.

Lawrence: I want to talk to you about some of the Visiting Scholar lectures that you've given for Phi Beta Kappa, but I'm intrigued first to ask you about one with the great title, *Coffee, Frogs, and Workers: Conservation in the Anthropocene.* First of all, there are listeners who may not know. What is the Anthropocene?

Robbins: The Anthropocene, it's a name generated by a chemist originally, but debated heavily in stratigraphy, that field of geology which demarks the different epochs and eras of the Earth's history, and the proposal is that a cene, that is an era, has risen in which Earth's system processes are dominated by human influence. If you looked at the rock record a million years from now, you would see a line where there's a carbon layer, or a radioactive layer, there's debates in the field about this, that would say we're in a new world. It's really just a convenient term to say wake up. All ecosystem processes, climatological, biogeochemical, are dominated by indirectly or directly by human activity. That's all.

Lawrence: And Coffee, Frogs, and Workers, how do they interact and collide?

Robbins: How do they? So, the question is this: How are we gonna save biodiversity on the planet? It's a practical question, but it makes for all the research questions in the field of conservational biology. One million species are on the brink of extinction according to last year's U.N. study, and one third of all bird life in North America since 1970 has vanished. We are in the middle of a catastrophe in terms of biodiversity. So, if you're in India and you're thinking about biodiversity, the first place you're gonna look is the Western Ghats, which is the hill region to the southwest part of the country. It's a spine of hills that predate the Himalayas, a Precambrian uplift. But it's also where most of the biodiversity is. Contains like a third of all the biodiversity of all of South Asia just in the Ghats alone.

So, endemic species, think about iconic things like tigers and elephants, but also the hornbill, lots of really important amphibian species, which are good indicators of ecosystem health. You lose all your frogs, you know you're killing everything else, right? So, the question is how do you save all that stuff? And the other question is where is it? And the answer, as it turns out, and this is known before I worked on this project, is that a certain number of hectares are in conservation land, like that are set aside as parks. Without parks, you can't have tigers. You have to have big chunks of areas, polygons set up there in the forest, in which big critters can live.

But most of the land isn't in conservation. Most of it is in production. People have been producing stuff in the hills for a thousand years, right? People have been living and farming, and one of the biggest crops is coffee. Used to be a huge export crop. It was brought from Africa before the colonial era but became big under the British as an

export crop. There's a lot of coffee plantations. And as it turns out, if you walk around them, and I have, they're filled with wildlife. Birds, frogs, they're thick. They're thick with life. Which is great. It means that people are able to make a living, because that's the real mystery. Can you make a living while not killing everything else? Without wiping out all of that habitat?

And the answer is in shade-grown coffee, and we've known this in Africa and South America, as well. Central America, as well. That yeah, sometimes you can get biodiversity and feed your family. So, our question really was what decisions are the farmers making that's rendering all this biodiversity possible? Because they're not doing it intentionally. They're not farming birds, right? They're farming coffee. But for whatever reason, they make decisions in production that sometimes are good for birds. And then the question is what makes the conditions that encourage the farmer to make the decisions that produce the habitat that maintain the biodiversity?

So, that chain of explanation, right, from birds, to trees, to farmers' decisions, backs up against the political economy of coffee. And as it turns out, the biggest issue is the availability of labor. Thus, coffee, frogs, and workers.

Lawrence: So, let me ask you the sort of devil's advocate question here. There are those who have said species have always risen and fallen over the ages and why should we be so concerned about that? Should it not be the case that just as dinosaurs came and went, that species will come and go during the time that homo sapiens are in domination of the planet?

Robbins: And they will. So, extinction, you can't fight extinction. Extinction is perfectly natural. It's like evolution. You can't stop it. It just happens, right? You're gonna get new species. Lots of new species. Speciating all the time, right? The problem is the rate. The rate of loss of species mirrors extinction moments in geologic history that were quite catastrophic, and from a human point of view, and because it's anthropogenic, it's we're doing it, we could stop it. It's not like this is a meteorite, right?

If we were doing the right thing, we would have less extinction than we do, and why do I care? Well, one is just the ethical, moral question in the Anthropocene that if we're stewards of the planet, we might as well be good at it, right? Instead of murdering all the non-humans around us. If you leave that aside, the genetic diversity itself is gonna be critical for our survival. The more habitat we destroy, the more animals and creatures we lose, the weaker we become. Those genetic materials are the future of medicine. They're the future of everything around us. Here's the real kicker: the COVID kicker.

What we also know is that when you destroy habitat and you encroach closer and closer on wildlife populations, the possibility of disease vectoring from zoonotic diseases, that is disease that comes out of critters to human populations, accelerates. If for no other reason, to save habitat and leave some of these species alone, COVID would give you a really good sense of what happens when you're not making good decisions.

Lawrence: You mentioned COVID-19, which obviously we were gonna have to talk about at some point but let me pull back a second and ask you sort of a broad scheme question. Not very long ago, I think many people and certainly on our campuses, many of our students, would have listed climate change in some form or another as one of their very top concerns, and very possibly their top concern. Now, with a combination of COVID-19 and an economic collapse we haven't seen the likes of in three quarters of a century, you're fighting a little more to get some airspace for the whole area of ecology as a set of issues.

How do you position environmental sciences in the current moment where there's such focus on racial injustice on the one hand, and on disease and economic panic on the other?

Robbins: The environment has never polled very high on Pew's annual policy poll. They do a policy poll, say, "What is your highest priority," right? And it's like the economy, my health, all that stuff. By the same thing is that's perfectly appropriate. People should be worried about the economy, where their food is gonna come from, their health, racial injustice, those things should come first. What's interesting, of course, is that those are fundamentally environmental questions. They're all environmental questions. That's my answer is that back behind the things that people are worried about is always the environment.

So, the map of the lead poisoning cases in Flint can easily be overlaid with the map of the red lining districting for mortgages in the 1930s through the 1950s. Those maps map perfectly. You run a spatial autocorrelation, they're spatially autocorrelated to perfection. So, the environment, race, and justice, just sit right on top of each other. And if you want to address equity and you want to make sure you get food to people, and you want to deal with the economy, the economy is a wholly-owned subsidiary of the environment. Not the other way around. That's Gaylord Nelson from somewhere around 1970.

Lawrence: Senator Gaylord Nelson from Wisconsin.

Robbins: Exactly. So… The founder of Earth Day. That's my answer, is that the environment's still there. And climate change is a multiplier on everything.

Lawrence: Where do you see the student interest in environmental studies today and as you think about that, can you reflect back, in the beginning of your teaching career, and then even your own undergraduate career, how would you describe the flow of the whole subject of environmental studies? I mean, 1970 is Earth Day, so it's not that long before this even was thought of as a field, as a self-conscious regarded area. So, how do you see the flow up to the moment where we are now?

Robbins: There's sort of a contradiction in it in what's happened to the environment as a field of study. In some ways, it's become strangely more popular and more ubiquitous. So, all of our students… We have, what, 300 or 350 undergraduate students, have to double

major. You can't just study environmental studies. You have to study environmental studies and something else, whether that's engineering, or it's dance, it doesn't matter.

Lawrence: That's actually a requirement in the Wisconsin program?

Robbins: It is. At Madison, that is our requirement, and it's pedagogically extremely exciting. And what it does is it opens the door to the environment for people from across campus. Instead of shutting it down and saying the environment is my field, you say, "I am in the business school, but damn it, I need to know about the environment. I need to understand how it fits into our business model, how we're impacting the environment, how climate change might actually impact our supply chains."

In some ways, right, it's becoming depoliticized. It's become ubiquitous. Like even business students are interested in the environment, and I think that's very different than 1975. Now it's everywhere, right? It's become in a sense non-political.

Now, of course that tracks at precisely the same period when it becomes super political. Richard Nixon signed the Clean Water Act. Richard Nixon gave us NEPA and the EPA. Granted, he had to be dragged into it a little bit, but you know, it wasn't like you couldn't do that as a Republican president. Now, of course, it's become super politicized in a way, so it's very strange. How does that affect what happens to kids on campus? I'd have to ask them, but my feeling is everybody's concerned about the environment now.

Lawrence: So, one I want to ask you about that I know you've written about and lectured about is population growth and the role that population growth plays in the ecosystem. Of course, we've talked about the risks of population growth and the population boom, but you've been writing and talking about the population bust. So, what is the population bust and why should we be worried about that after we've been worried about the boom all these centuries?

Robbins: We should never have been worried about the boom. You know, the boom, the interesting thing about the population boom is it's a blip on the map in the history of humanity. It begins essentially with the Industrial Revolution and it ends basically last year. We conquered death. The death rates all fell. That's what we did. We created sewage and modern healthcare, and you know, if the death rate falls and the birth rate stays the same, you're gonna have growth for a while. And then at a certain point, the birth rate falls, and the fertility rates fall, and it has everything to do with women's participation in the labor force, women's health care, women's education, all the things that have happened over the same period but are lagging. That drives the fertility rate down and when the fertility rate falls, then the birth rate and the death rate line back up. You get ZPG, zero population growth.

Half the countries in the world right now are at or under replacement rate. People stopped having as many kids or any kids. It's just a fact. It's the demographic transition. It's been predicted for decades. I mean, really since modernization theorists in the 1950s saw this coming, right? Some of them really dreaded it because of the surplus population… Actually, Marx first observed, but it was later adopted by more

mainstream economists, tends to lower the wage rate, which allows leverages for a growth in industrialization, especially in places like China, right? Having a lot of labor was really handy for a while, but now, people don't have kids in China.

Lawrence: This is basic supply demand economics and what happens when that supply of labor starts to get smaller.

Robbins: That's right. Well, this grew out of the coffee project. So, what we saw at the end of the coffee project was that they couldn't find workers. I thought, "What the heck? We're in India. Billion and a half people here and they can't find anybody to work?" And the truth is in Karnataka, the fertility had been less than two for two generations. Everybody moved to the city. Nobody wants to pick coffee. And I said, "Is that true everywhere?"

And then if you pull the numbers from the population reference bureau, it'll take you about four minutes to do the search, you'll find that it's happening everywhere. And this raises questions about the viability of Social Security, caring for the aged, this is something we're totally unready for. So, I just find that very interesting, that we've been obsessing with overpopulation when actually what's been happening is precisely the reverse.

Our current project we have is actually on dairy. So, one of the projects we have is on the environmental impacts of dairy, but the big change that's happened in dairy is that it's entirely dominated by robots now. So, even small farmers are buying robots. Giant robots that milk the cows. The cows just walk right up, they get themselves milked whenever they want to. They walk back, hang out with their sisters, and the reason is that there's a labor shortage because there's nobody to milk the cows. And so, you begin to see how this affects everything. And it has ecological implications, and it has labor force participation questions, and wage rate questions. Automation is gonna be one of the big revolutions.

So, we think about machines putting people out of business, putting people out of jobs, but in fact, labor scarcity is gonna drive a lot of the automation. So, I think when it comes to certain kinds of chemical demanding and water demanding behaviors that have been really stubborn in American culture, the lawn's an example, I'm seeing a movement on it. I think people are thinking more ecologically. I think they are looking for alternatives. And what's interesting about it is like most kinds of environmental things, it's really uninteresting. It's like so invisible, right?

Lawrence: So, you have taught goodness knows how many students over the years, and you've given them syllabi and reading lists, so I'm gonna give you a chance with my listeners to give them a reading list. Maybe one or two, three at the outside. If people want to get informed on the environment, and let's assume they are what publishers like to call the serious general reader, what should they add to their list in political ecology?

Robbins: That is a great question. Emma Marris's book. She's an environmental journalist. And it's called Rambunctious Garden, and her study, she went out and just interviewed scientists and resource managers about like living with the fact that the environment's changing,

and being okay with that, like reconciling the urge to conserve with the inevitability of change, and how you garden the Earth knowing that you can't control it. The Earth is rambunctious. It's a beautiful book. It's extremely accessible and she's a wonderful writer.

Lawrence: Paul Robbins, thank you for your time today and for making us smarter about issues that are not only not going to go away, they're gonna continue to preoccupy us for the foreseeable future. We're grateful to have you involved in Phi Beta Kappa as a Visiting Scholar and look forward to continuing to read your work, hear your words, and benefit from your great wisdom. Thank you for being with me today on Key Conversations.

Robbins: Thank you for having me.

Lawrence: This podcast is produced by Lantigua Williams & Co. Cedric Wilson is lead producer. Virginia Lora is managing producer and Hadley Kelly is the Phi Beta Kappa producer on the show. Our theme song is Back to Back by Yan Perchuk. To learn more about the work of the Phi Beta Kappa Society and our Visiting Scholar program, please visit pbk.org. Thanks for listening. I'm Fred Lawrence. Until next time.

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