



## *Come Together* with David Baum

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### *EPISODE – Phoebe Barnard: A Conservation Scientist's Optimistic View*

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<https://cometogether.me/phoebe-barnard-a-conservation-scientists-optimistic-view/>

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**DAVID BAUM:** Hello, everyone! I'm David Baum in Seattle. I'm with Phoebe Barnard, a scientist who was one of five co-authors of the recent paper [Scientists' Warning to Humanity of a Climate Emergency](#). The paper, published in the journal *BioScience*, has gathered more than 12,000 signatures in support, from scientists around the world.

Phoebe is fully informed about the dangers to humanity and to the planet posed by climate change, but she is not strictly a "climate scientist."

**PHOEBE BARNARD:** I would describe myself first as a biodiversity scientist who works on climate change vulnerability. So I'm not an atmospheric scientist, I'm not a climatologist, but I have been working on climate change for about 25 years and over 20 years ago started up a national-scale climate change program for the government of Namibia where I was then working.

But I'm trained as an evolutionary ecologist focused on behavior and birds, and therefore my interests are primarily in helping as many species and ecosystems get through the gauntlet of the next few hundred years of dangerous climate change, as much as possible.

**DAVID:** So you see the next few hundred years as a critical period in the geological history of the earth?

**PHOEBE:** Of course I do. And it's clearly not the first. We've had, you know, five previous big extinction events at least. And some of those have been really cataclysmic

with up to 97% estimated species extinctions.

Nonetheless, I think we have engineered a rapid and pretty serious extinction event here, which is now underway. And that comes at the cost of also a rapidly destabilizing climate, which itself comes with rapidly destabilizing society and economy and political system. So we are headed for a bit of a rough ride, for sure.

**DAVID:** Well, let me just cut right to the chase. Do you think human beings are going to go extinct?

**PHOEBE:** Well, ultimately yes. Whether it happens in the next couple of hundred years, I'm doubtful. But there are things that may make that happen.

You know, we have unleashed a number of tipping points. There was [a paper that came out in late November, 2019](#) that focused on how 50% of the tipping points that the IPCC (Intergovernmental Panel on Climate Change) regards as significant – earth, ocean, atmospheric system tipping points – are now active. So some of those could lead to our extinction as well as that of many other species. Massive methane belches from the thawing of the permafrost and/or the ocean, hypoxia in the ocean. There are a number of things that are real curve balls, and I wouldn't like to say it wouldn't happen.

I do think that there's a lot of angst, unnecessary angst. I don't want to use the "H-word" of "hysteria." There's a lot of unnecessary angst on the Internet from people who have heard poor messaging, let's put it that way. They've heard that we have until 2030 to turn things around from our energy and carbon economy point of view. And if we have not massively done that by 2030, then our ability to reverse course is close to zero. That's what the messaging *should* be. A lot of people have heard: "We're all going to be dead by 2030!" That's a very, very serious bit of mis-messaging.

If I could change one thing about the media right now, it would be that. Because it's very disempowering to people. It's extremely discouraging and depressing for people. So part of my own work is to help people – after hours – to help people keep focused on the things that we really can change still, and that are so important, so critical to change that we need to keep all hands on deck, every person engaged at whatever level they can be to make those changes.

It is not just about us as a species. Even if it were, that's a problem, because every tenth of a degree of global heating that we can avoid or reverse can help millions of people, millions of children, live better lives, have more choices, avoid more misery, escape a pretty grim life. But also outside our own species, there are at least 10 million other species that we can help get through this period with every bit of change that we

make. And for me, that's more than enough motivation to keep focused.

So I still use that serenity mantra. Have the courage to change the things that we can change, have the serenity to accept that certain things are now set in motion, like sea-level rise. We just have to get out of the way and we have to pick up all of our toxic infrastructure like sewerage systems and electrical substations and concrete infrastructure and move it in. Get it out of the way so we don't have toxic seas and we don't have miserable, dangerous, treacherous coasts with lots of rotting and rusting concrete and steel and sewage outflows from sewerage systems.

**DAVID:** From your point of view, if everything worked out the best, from now, what would that look like?

**PHOEBE:** Oh, it would be just so much more chilled, relaxed, and productive and happy.

My vision of a successful future is one in which people have understood that this is a Marshall Plan moment. That we have a world-war type challenge. That people in countries around the world have bottom-up, top-down, and sideways change, because we need sideways paradigm shifts, as well as grassroots action, as well as policy action. That it all manages to come together in time. That there is goodwill and a sharing of lessons around different constituencies. And that we don't retreat into the worst of human nature, which we are seeing abundantly in the USA and in many other countries at this time.

That we do manage to detach our dreams from the mythology of globalization. That we understand that solutions are going to fundamentally be local, and that they will retreat to a more manageable level of regional trade, and perhaps global communications. But that we are not going to be burning up prodigious amounts of fossil fuels shipping milk from the Netherlands to Britain to be processed, and then back to France to be made into Camembert. And then back to the British and the Dutch to eat it.

That we will have more of the [Transition Town](#) type of model where people know their neighbors, again as they used to. That they will be able to order and exchange services that have real value. That they will reconnect with nature. That their kids will be brought up to be adaptable and resilient and curious. That we will basically manage to address proactively, more than reactively, as many of the coming challenges as possible.

There are so many of them. We are basically in a multidimensional space where we have to achieve psychological change, social change, political change, economic change. We need to transform our economy from one that is exploitative and degrading of both natural and social capital, to a regenerative economy in which people and the

planet actually matter. And that alone faces so much resistance from vested interests that I don't know whether we're going to be able to do it.

A key thing which I don't think most people in the U.S. are aware of is that we are entering the UN decade of ecosystem restoration. That, for most countries, is a powerful incentive to reform our agricultural and food systems. To take our productive landscapes and make them more able to meet multiple goals: biodiversity, conservation, timber production, watershed management and water quality, salmon restoration, all of those kinds of things.

It is possible!

Now, that [BioScience paper](#) that we published identified six areas of action: 1) Energy transformation and efficiency, from the fossil fuel economy to renewables. 2) Nature and ecosystem restoration. 3) Food systems and regenerative agriculture, and getting people off heavily meat- and dairy-focused diet. And you know, that cuts to the bone for a lot of people, not just in the USA, but also over much of Africa, for a start. 4) Economic reform. 5) Population stabilization, so that we are not in a geometric exponential growth curve, but we can stabilize the population to around 3 billion by the beginning of the 22nd century, assuming we are all still here. And 6) Reducing short-term atmospheric pollution like methane and carbon soot.

If we can do all of these things – and I think we can do most of them; whether we can do them fast enough is another matter – but there's no doubt that we have all the technologies and the ability and the skillsets to achieve all of those things. The question is simply whether we can do it in time, and the bottlenecks for that are: perception and psychology, the architecture of government, and our ability to face down vested interests.

**DAVID:** Well, it sounds like you understand the problem very clearly. You and your colleagues and your community.

**PHOEBE:** I'm still learning.

**DAVID:** It sounds like you have a grasp, though. There are rational ways to examine the situation and propose action, and you have done that.

As a scientist you can look at the rationalities and you can make plans that, if executed, would help to solve the problem. As a human being, when you look at this gargantuan tragedy that faces us as a species, as a collective, as a planet – why is this happening? What's going on here beyond the specifics of the science and the policy necessary to

change the situation? What happened to us, to get us to this point?

**PHOEBE:** I think there's some pretty well understood psychological tendencies that we have, that have inevitably brought us to this point.

You know, it was not so long ago that even in the rich Northern and Western countries, we were still fighting for our survival. People were committing genocide to favor their families. People were killing each other for a patch of land. And you know, we observe all these things in different parts of the world even now. But the veneer of civilization is pretty thin.

And against that backdrop, we have a couple of hundred thousand years, probably, of hominid evolution to contend with. There are such good things about that that we can and must call upon right now. There's storytelling, our oral history traditions. And maybe that hasn't gone on for much more than maybe 50,000 years, but we still have the significant tradition of storytelling. We have a significant tradition of clan altruism and reciprocity, and we can call on that. We don't have to retreat to our "nasty, short, brutish life" self.

And the choice is ours. We have to go into this next century, this next decade, with open eyes. Are we going to be up to the task? Or are we going to fail miserably because we value our iPhones and Netflix more than we do the ability of future generations and other species to live? A lot of people have trouble boiling it down to that level, yet. Even my own stepchildren have trouble boiling it down to that, yet.

And so, how are we going to get to a place where people can agree that the stakes are so high but there's still time to change? It's a tall order. I only know that I am not the person with the DNA to say it's too late, it's a lost cause. I don't think it is. I am intrinsically so optimistic that I will go down with the ship, still exhorting people to make changes and bail the boat.

Without that, I think we risk endangering the lives and the purpose of literally millions of people, if we do not enlist them into positive, focused action to shift the needle; to steer the Titanic away from the iceberg. We can do that!

But we have to start the conversation. We have to speak up. And of course, there is a real risk that a lot of people don't want to know. They are rather happier to escape reality, than to face it. So we maybe need to appeal to more basic instincts. We need to get people to show leadership. We need to ask them to show courage. We need to encourage them to face down corruption. We have a big task in this country alone. But it's still possible, because there is a big wave building, and I have a lot of hope with that.

**DAVID:** What does that look like, the big wave you see building?

**PHOEBE:** It's very young. It's very angry. It's pretty articulate. I spend some of my time talking at climate rallies and climate strikes, and the teenagers and pre-teens that come out to speak before and after me – I'm the real oldie in the group – most of them are young and vigorous and articulate, and they're very clear how our generation and our parents generation, and the one in between them and us, has let them down.

And if you look at these climate rallies and the demographic distribution of the people that turn out for them, it's very bi-modal. It's young folks, and it's old folks. (And I guess we're in that latter category.) But where is the middle-aged crowd? Well, they're often either raising kids, still actively, and so they are for various reasons not able to be there, or they're working. They've got hard lives and they can't do everything.

Or often they're the ones who don't care. And I am increasingly willing to call stuff out when I see it. There's the missing early middle-age of late 20s to about 50 that often don't care. And I'd like to see more of them out on the street. I'd like to see more people of any description (almost any description) out on the streets of this country, asking for change. We need to face down a lot of the worst part of human nature that is going to show its ugly head. And we've got to be fearless about it.

**DAVID:** And that's the story for now! To read Phoebe Barnard's scientific paper and other work, find the links on my website at <https://cometogether.me/>. If you'd like to discuss what you've heard with me and other listeners, please join the [Come Together Conversation Group](#), on Facebook. (The link is on the website.) I'm David Baum, in Seattle. Until we meet again, farewell!

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