

DOPE LABS

Biodiversity and Conservation: The Circle of Life – Lab 059

Titi Have you seen Turning Red?

Zakiya No, but it's on my list, I'm behind.

Titi I can't believe that because you are usually the one that's recommending movies to me. I saw Turning Red, probably the first week it came out, and I loved it. So in the movie, there is a Red Panda, which is native to China. But, did you know that the Red Panda is endangered? Do you know how upset that makes me after watching that movie?

Zakiya But I did not know that. You want to know what else is endangered?

Titi What?

Zakiya The gray wolf?

Titi The gray wolf? What's going on?

Zakiya Yes, the gray wolf is also endangered, and it's been a yoyo-- off the list in 2020, back on the list in 2021. And here we are, 2022, it's back on the list,

Titi And it's little things that we are doing that cause these disruptions in their prevalence on the planet.

Yup, we should all walk around with our heads hung low. Shame.

Titi Shame, shame. Shame. Absolutely. Even when we think of so like in L.A., there is this mountain lion called p-22 and he is famous, OK, honey. And we disrupted his food chain because he ended up eating an animal who probably ate another animal who ate a rat who was killed by rat poison. And then P22 eventually got sick because that rat poison made its way up the food chain.

Zakiya And who brought the rat poison?

Titi Us. Shame, shame, shame.

Zakiya I wish people could see us tolling our bail.

Titi I'm Titi.

Zakiya And I'm Zakiya .

Titi And from Spotify, this is Dope Labs. Welcome to Dope Labs, a weekly podcast that mixes hardcore science, pop culture and a healthy dose of friendship.

Zakiya This week we're talking all about biodiversity and conservation. And if that sounds like a word, salad to you, don't worry. We're going to dig into those terms in this episode. You know, it's spring. That means the flowers are blooming and the animals are out and about. The birds chirping.

Titi I've been in my hammock.

Zakiya You've been in your hammock?

Titi Yep, every time it gets warm, I pull that hammock out of the shed and I do at least an hour and a half every day of hammock time.

Zakiya Well, you better keep your eyes open in your hammock time. You could have a visitor. Well, you wouldn't have a visitor like they had out in Silverlake, California, with p-22, that mountain lion that was roaming, but you could have a different type of visitor based on where you live.

Titi Yes, there is a neighborhood fox that I think I've seen its tail, but I have not seen its full body. But everybody talks about him.

Zakiya Well, all the animals are stirring and as you know, this is their home. We're just inhabiting it.

Titi We are visitors that overstayed our welcome. You imagine somebody move into your house and is like, I'm going to knock this wall down and turn this into a gym and you're like, This is where I'm trying to sleep.

Zakiya And that has been suburban sprawl.

Titi Yeah.

Zakiya But you know, it brings a great point as our population of humans continues to grow. How do we live in harmony with animals? How do we keep what's already here, preserve it, and not make any other species go extinct?

Titi OK, let's get into the recitation. So what do we know?

Zakiya I think we know even back to like elementary school. Do you remember those things like food webs would show how all the different animals and plants are connected and they're part of an ecosystem? Yes.

Titi Yes. The circle of life.

Zakiya Yes, we know it's important to have a lot of diversity. Biological diversity, different animals and species all working together for us to have a healthy environment, a healthy

planet. But, I think we know that there's been some shortcomings there and we've seen a lot of different species going extinct or decreasing populations of certain organisms. One example is that northern white rhinoceros, which is functionally extinct because there are only two females left.

Titi That's something that I don't think I think about when I think about, OK, this species is going extinct. I'm usually just like, OK, well, we want every species to live. We want all these animals to live. But I don't think about how it affects the food chain and everything else.

Zakiya I think we know there are scientists, and sometimes these feel like the most appealing scientists, that are tracking what's happening with different wildlife and animals. Like when I think about what Steve Irwin used to do and basically everybody on National Geographic, they're doing the glamorous science. They're saving the wildlife.

Titi Yes, and I think one of the other things that we know is that being able to create more balance with biodiversity isn't easy. And so it takes a lot from a lot of different types of scientists and people just generally making sure that we have the biodiversity that we need to have a balanced ecosystem.

Zakiya Yeah, I think that's right. You know, that's something we talked about, keeping that type balance for the ecosystem back in the Truth Pie episode. And we've touched on it a little bit even in our early coronavirus episode, where we talked about the more expansion of human behavior. So, you know, city and suburban sprawl as they encroach on wildlife areas or areas where different animals are living, we're somehow having an effect on them. We might think it's positive that we're putting that bird feeder out, but like, is this the best thing? Is that enough? You know, what should we be doing. And I guess I'm already asking questions. So, now we're at what do we want to know?

Titi Yes, I want to know the intricacies of what these types of scientists like, what their day to day would be like.

Zakiya Yes. And I think an intersection of some topics that we've been interested in is for this episode the biodiversity, but also climate change. How is that affecting animals? A lot of times we think about climate change just affecting humans. But what about everybody else? Their habitats are changing?

Titi Absolutely. And I think another question that that leads to is how our behavior as human animals, how are we affecting the ecosystem?

Zakiya Yeah, because I think there are a lot of misconceptions about how helpful we are. And so I think I'd like to know, you know, what's the real tea? I think we're ready to jump into the dissection.

Titi Our guest for today's lab is Dr. Rae Wynn-Grant.

Dr. Rae Wynn-Grant I'm Dr. Rae Wynn-Grant. I am a wildlife ecologist. I am a National Geographic explorer. I'm a professor and a storyteller and an intersectional person and a scientist.

Zakiya As a large carnivore ecologist, Dr Wynn-Grant has studied the impact of human activity on the behavior of black bears in northeastern Montana. But she's also done

research on African lions in rural Kenya and Tanzania, gorillas and chimpanzees in the Congo Basin and grizzly bears in Yellowstone. What have you been doing compared to Wynn-Grant?

Titi Where in the world is Carmen Sandiego? Where in the world is Dr. Rae Wynn-Grant? This isn't the first time we've talked about ecology on the show. Our very first lab on cuffing season was with Dr. Alejandro Trillo, a behavioral ecologist.

Zakiya And ecology is the study of the relationship between living organisms. That's including humans and their environment, and so much is learned about those relationships through collecting data.

Dr. Rae Wynn-Grant When I was in graduate school, one of my professors said ecology is essentially just counting things. You know, how many mountain lions are in this space? How many mountain lions per square kilometer or per 100 square kilometers? So data collection is exciting stuff out in the field in remote parts of the world, camping for days or weeks, tracking wild animals.

Titi It feels like Dr Wynn-Grant does it all. She collects all kinds of data out in the field, everything from parasitic load in a particular species, to performing dental exams, which we know from our conversation with Dr. Johnson in Lab 54 can be an indicator for overall health. All of this helps her understand the health of a particular animal, she'll also fit animals with a GPS collar so she can track migration patterns over time.

Dr. Rae Wynn-Grant And then what is equally as important but definitely less glamorous, is the data analysis part where I'm sitting in front of a computer and doing high level statistics to better understand my data.

Zakiya That's always the least glamorous part, and it feels like no matter what your job is, everybody has to do their time and spreadsheets, right? There's just no way around it.

Titi Excel, ugh!

Zakiya So you may be wondering why is Dr. Winn Grant collecting all this data?

Titi Well, it's because data helps us understand the biodiversity of a particular environment.

Dr. Rae Wynn-Grant Biodiversity is like the diversity of life, you know, that's what it means.

Zakiya Humans depend on the planet's biodiversity for a number of things, including food, fuel, freshwater and medicine. And we're not the only ones, depending on the planet's biodiversity. Other animals and species are, too.

Titi All of this kind of reminds me of when we were talking about how the supply chain was affected by COVID, and we talked about it in our live show about how when there was a traffic jam in Virginia, it affected the grocery stores in my neighborhood for weeks because those trucks can show up. So the biodiversity and the ecosystem is, it feels like the supply chain for the ecosystem where when you lose one aspect of it, then it affects the entire system.

Zakiya And so I think that's a good point. But I think the difference is it's even worse in nature, because when you lose biodiversity, there's not another truck to bring it back.

Titi Right. So like, imagine if it just completely went away, then what do we do? Then, we have to be walking around trying to figure out where we can get food from.

Zakiya And it's not just one thing that happens then. So then, if you think I'm a predator and my average prey that I normally use for fuel for energy is now gone, now I'm looking to something else. And so I'm going to graze on that. But now that population begins to dwindle and whatever was before using that animal as its source of nutrition, now it's affected, and so the whole thing begins to crumble. It's a ripple effect. The gray wolf is an apex predator, and you may think, Oh, they don't really matter that much. But if you go back and look at the history, whenever gray wolves were over hunted, their prey overgrazed the land, causing extinction of certain vegetation.

Titi I wish we could pull that clip from Lion King, where Mufasa is like the antelope eat the grass and then we eat the antelope, and so is the circle of life.

Zakiya Yes. Well, Mufasa said it best and it still holds true.

Titi It may be surprising, but biodiversity conservation is facing a data shortage, especially with invertebrates. So animals that don't have a spine, plants and fish. We still need more data collectors like Dr. Wynn-Grant.

Zakiya Yeah, I mean, part of it is resources to collect these things. Invertebrates are small. They're hard to track. They're hard to find. You got to look under logs and you know, they exist in these different places. There are only so many people doing this work. It's expensive, it's costly, it's longitudinal, so you can capture something looks like in 2020. So, for example, there were so many gray wolves in 2020 that U.S. regulating agency said this is no longer an endangered species. Here we are, February 2022, it is an endangered species. So if you think about that, unless you are tracking these different species all the time, you're only capturing them at singular moments and you don't get the full picture. And so, it would be so expensive, so time consuming, to constantly track every single species. So we just simply don't have the ability to do that. And sometimes what happens because we don't have that ability is that we don't realize when there are declining populations until something is already extinct and you can't find it anymore. There's so much biodiversity on our planet, but there's also so much that we don't know. Just think about the ocean, which covers about 71 percent of the Earth. We haven't even explored over 80 percent of it.

Titi This is why I'm more afraid of the ocean than I am of space.

Zakiya You do say that. You say that a lot.

Titi We don't know what's in there, Jesus.

Zakiya I'm leaning towards, you're right.

Titi I'm not going down there. My sister was asking me, Would you rather live at the bottom of the ocean or in space? I said, "Absolutely space." We don't know what's down there.

Zakiya People think the bottom of the ocean is like Bikini Bottom.

Titi It ain't.

Zakiya Those are shallow waters where SpongeBob is.

Titi SpongeBob ain't down there?

Zakiya No, it's dark.

Titi Come on, man.

Zakiya At the bottom of the ocean.

Titi It's dark. And we don't know what's down there. You think a shark is scary? Imagine a shark that ain't never seen the sun. I don't want to run up against that thing. Biodiversity is more than just variety, it also includes variability of life at multiple levels, like species richness, which is the total number of species within an area. Genetic diversity, which is the total variety of genes within a single species. Endemic species, which are species that occur in one place and nowhere else in the world. And the fourth is ecosystem diversity, which is the total number of ecosystems in that area.

Zakiya And we can't talk about biodiversity without the context of the environment. So, not all ecosystems are created equal. Biodiversity is highly concentrated in tropical ecosystems, so rainforests, coral reefs and savannas, and those contain over 75 percent of known non-marine species.

Titi Climate change has a huge effect on these ecosystems and continues to threaten our planet's biodiversity. We're going to get into that later in the episode.

Dr. Rae Wynn-Grant One of the things I love about the word biodiversity is that I think it's pretty straightforward in terms of understanding it, and it's measurable. In my work, I mostly focus on like one or two species at a time. So, it's again really straightforward for me to measure the amount of biodiversity, like how many mountain lions are in this space, how many mountain lands per square kilometer or per 100 square kilometers.

Zakiya Sometimes, though, collecting this data is more challenging than just counting.

Dr. Rae Wynn-Grant I'll give you an example. Every so often, I'll do a little project in the tropics, and tropical ecosystems are often places of tremendous biodiversity. Because all these plants, there's all these insects and all these animals, there's all these everything.

Titi Dr. Wynn-Grant and a couple other scientists were in the tropics to document the biodiversity in a rainforest in Madagascar.

Zakiya Sometimes a certain species may be difficult to observe. If you can't measure an organism directly, though, you can do it by proxy. If you know some of the organism's friends, or if you know some of the predators or other organism's prey, you can use those to help you tell the story about the animal you're actually interested in.

Dr. Rae Wynn-Grant And one of the ways that I learned through this that you can measure biodiversity in a space is through blood from leeches. There's some emerging

techniques from some really awesome scientists where they are actually taking leeches instead of looking for the animal. Maybe you're looking for a fossa, right? That's a kind of like a cat species large predator in Madagascar, and you can't find any. It doesn't mean it's not there, because they're very elusive. So, taking a couple of leeches and looking and taking the blood that the leeches have sucked and analyzing the different DNA in the leech blood will tell you what it's been feeding on. And maybe it's been feeding on a fossa, maybe some feeding on a lot of fossa, and that means they're there, even though we never saw them. I mean, they're there and they're not extinct. And so that, I think, is just this rad way of understanding biodiversity because it's not always going to be in our face.

Zakiya Using DNA extracted from leeches is a more indirect way of measuring biodiversity in an environment, and it can be especially useful for more elusive species. But when it comes to large predators like bears, Dr. Wynn-Grant's approach is a lot more straightforward.

Titi So, at this point, we really needed Dr. Wynn-Grant to walk us through what it's actually like trapping bears for data collection.

Zakiya How does she do that

Dr. Rae Wynn-Grant for a bear? For a mountain lion, we have a proper trap, right? It's like a big barrel. We call it a culvert trap or barrel trap, like a bear-sized barrel. Of course, there's like windows and, you know, it's like open air. And then on one end, it has a gate like a trap door. And so you put some bait in the back and then the bear smells it, walks into the trap, grabs for the bait and then the door shuts, and then the door also sends a little signal text message from my phone.

Zakiya That's the text I'm not answering. I'm sorry. I just have to leave it on read.

Titi My phone is on Do Not Disturb. I don't want to know what that bear is up to.

Dr. Rae Wynn-Grant And then I go. And from there I can either use a dart gun. But usually, if the bear is trapped, I will just use what we call a jab stick, which literally just looks like a a stick. You know, if you're playing pool with a little syringe at the end and you just get the bear in its shoulder or its little hip and you give it its little sedative. And then in five minutes, it falls asleep and then you open the door and that's when you know you get pictures of me handling a bear. It's sedated and it's asleep.

Titi And at that point, Dr. Wynn Grant can give the bear a checkup, take its temperature, weigh and measure it, check its overall health. And then she attaches a GPS collar.

Dr. Rae Wynn-Grant Then haul the bear out of the trap, put it somewhere nice and shady, put a little water out and get out of there and wait for it to wake up. And sometimes I hide and watch it wake up, and usually I just get out of there so that when it does come to, it's not frightened by the presence of a person or just doesn't get used to the presence of a person. And that's that. And then I am able to track that bear, you know, for a long time.

Zakiya If we haven't already made it clear, biodiversity is important. If, hypothetically, the Earth were hanging on by a thread, then biodiversity is that thread. So we're going to take a quick break and when we get back, we're going to talk about how to preserve and protect biodiversity.

Titi We're back, but before we get back into what we can do to protect biodiversity, let's quickly talk about next week's lab. We're talking nuclear energy with Dr. Marina Robinson Snowden. Nuclear energy is something that I feel like we've all heard about but don't know much about. So, we're getting into the science, politics risks and the potential with nuclear energy.

Zakiya I can't wait for that episode. Let's get back to today's lab. We're talking to Dr. Rae Wynn Grant. And before the break, we covered biodiversity, how it's measured, and why it's important. But now, we're going to turn our focus to conservation. And when you think about it, biodiversity and conservation go hand in hand.

Dr. Rae Wynn-Grant I do wildlife conservation, so I am very, very, very much actively in the business of conserving life on Earth.

Titi There are a lot of different kinds of conservation, environmental, animal, marine and even human conservation. The one thing they all have in common is the goal to protect and preserve living things. But that doesn't mean non-living materials don't play an important role.

Dr. Rae Wynn-Grant One of the beautiful things about our natural world is that it is both biotic and abiotic. So conservation, you know, if it's complete and comprehensive, should address water, which is not alive and should address air, which is not alive and soil. Our biotic environment and biodiversity does depend on the abiotic environment as well. And so, conservation needs to be comprehensive.

Zakiya That's right. Conservation is intersectional. It depends on the interactions of many different living and non-living things in order to sustain a habitable environment.

Dr. Rae Wynn-Grant The United States has a history of looking at one species, right, like one animal and being like, We need to save this one animal in this one place. Go!

Zakiya I'm sure you've heard some examples of these types of efforts. You know, save the snow leopards, the pandas, the whales. And yes, focusing on the specific endangered species is important. But,

Dr. Rae Wynn-Grant In the past, that's really missed the point, right? It's missed. Like, OK, well, actually, maybe we need to save the ecosystem and enhance the ecosystem. And maybe that means that we don't put as many protections for this one animal. Maybe we lose some more of those animals. But what if we keep the water or keep the soil bacteria? And that's actually what we need or keep the insect community and you know, those pollinators and that's what we need, even if we lose, you know, other things. So, it probably comes as no surprise to so many people that nature is complex.

Titi This complexity is something that was completely overlooked by the big name American conservationists back in the late 19th and early 20th century.

Dr. Rae Wynn-Grant I've been getting a reeducation about this science and a lot of ways, but also with conservation conservation, as I understand it and as it is taught these days, is very, very, very much rooted in colonialism.

Zakiya Conservation and environmentalism more broadly has a very racist history. Many of the figures, most well known for founding the first conservation lands-- think Teddy

Roosevelt, Madison Grant, John Muir-- all embraced the perspective on conservation that was rooted in white supremacy, eugenics and European colonialism.

Dr. Rae Wynn-Grant They were very harmful and they were motivated by, you know, some really terrible belief systems that were inherently racist, particularly towards indigenous groups and black folks.

Titi This idea of selective conservation, which is only saving those species that are deemed "valuable" by a dominant group, excludes indigenous groups that inhabit the land.

Dr. Rae Wynn-Grant And it was really, really driven by capitalism, too. It wasn't like, Oh, well, we should respect nature and just, you know, not consume and not destroy. It was more like, Oh gosh, we destroyed so much, you know, for the timber industry, we destroyed so much through like sport hunting that the core concepts, if you will, of conservation are essentially like what most indigenous groups around the world were just doing as regular lifestyle.

Zakiya Yes, and we talked about a lot of this in Lab 18 Truth Pie with Dr. Nicholas Reo. And I think one of the things to understand is that conventional or traditional conservation policy has focused on taking large patches or swaths of land and saying this is protected, but it's also doing that without consideration of who was living on that land. So, often we see the exclusion of indigenous people when deciding where these protected areas or zones are. And it also is disconnecting indigenous people from their sources of traditional food or important cultural sites or, you know, just general living. If somebody were to just show up in your neighborhood and say this 10 mile radius is protect it for the Sparrow, they don't care if your grocery store is there, they don't care if that's where you go to church. You know, it's no consideration for any of those things. And it could have been that, yes, they did it intentionally, but it also could be that they don't see it because they don't understand your culture. So I think that's what a lack of cultural awareness. That's how it can be so damaging and has been in the past for conservation policy,

Dr. Rae Wynn-Grant The conservation world is having a bit of a reckoning because there has been this miseducation and a lot of problems and a lot of harm, the environment isn't in better shape than when conservation started. And I say this as a conservation scientist like that is my career, and I was taught the Western way and I have benefited from the Western way, like it's paid my bills, you know, up until this point. And I would even argue that it just needs to be deconstructed and reconstructed with Black, indigenous, people of color leadership and like an anti-capitalist mindset.

Zakiya And that reconstruction of conservation is already underway. One crucial element is understanding the past. In June 2020, the executive director of the Sierra Club finally acknowledged the racist beliefs and actions of that organization's founder, John Muir.

Titi Another important step towards reconstructing our understanding of conservation is also reframing the spaces where conservation is happening.

Dr. Rae Wynn-Grant Like a lot of people and they think of like, we're going to see wild animals like national parks, right? Like you want to see bears like, go to Yosemite, you want to see wolves, go to Yellowstone National Parks were constructed to conserve biodiversity, and they do. The majority of top predators in the United States, in North America, the Bears, the wolves, the mountain lions, the, you know, bobcats, all of them live

outside of national parks and other protected areas. So although they exist in them, they mostly exist outside of them.

Zakiya And this is a pretty big misconception, right? Biodiversity conservation is happening everywhere. It's happening in your backyard and is not just about protecting endangered species, either, although that is important. Conservation efforts are happening in the Appalachian mountains and in the streets of South L.A. People think you need to have hundreds of acres of land to be actively practicing conservation, but it's just as important, especially in places that are really urban that one patch of land can sustain so many species can be the make or break. It becomes even more important when it's an island of biodiversity or an island of conservation because there are no other resources nearby, so that patch of land begins to be even more important.

Titi I know in my county you are allowed to use any pesticides on your lawn, and if you want to cut a tree down in your yard, you then have to replant a tree somewhere else. So maybe that's part of that whole idea that, you know, even like on a small local level, you are trying to maintain your local ecosystems.

Dr. Rae Wynn-Grant We really have to reimagine what conservation should be and could be today for it to be effective for both wildlife and people.

Zakiya Yes, and so now we consider the concepts of national parks. But knowing that a lot of these animals are outside of national parks, how do we protect those animals and protect the type of life that we want? I have a friend who wants to walk her dog and she's like, I have to be careful because I'm taking the dog out. But there are coyotes out there.

Titi Dylan, one of the cutest dogs.

Zakiya Yes. And they're seeing an uptick in coyotes because they're clearing out a lot of the land near where she lives to build more houses. Right? So this just this delicate balance of the need for housing also to share the space with the animals that are already there. What does it mean for us to be safe and not even just I feel uncomfortable around a coyote, but like what kind of diseases do coyotes and deer and things like that carry that we can then bump up against? Then, you know, now your dog has, and now you have, you know, it's just there are possibilities that we have to really consider.

Titi Pictures of Dylan will be in the show notes.

Zakiya Yes. And all of this is really just part of the broader definition and actual execution of biodiversity. So when you hear about things like the California oil spill or other human influences and suburban sprawl, people pushing closer and closer into what used to be really undisturbed areas, we have to think about all of these things. That's biodiversity.

Titi And of course, we can't talk about the effects of human behavior on conservation without talking about climate change in terms of biodiversity and specifically the types of wildlife conservation that Dr. Wynn-Grant does. Climate change means that with changing climate, the ecosystems where animals are best suited to live in will also change.

Dr. Rae Wynn-Grant Let's say there's a protected area and this little circle that has the perfect habitat for an animal. The climate change is going to move where that habitat is perfect like, you know, a thousand miles north or something we can't just like, pick up and

move a protected area. So we're trying to figure out like, OK, well, what's a thousand miles north of there, right? Is it a big city where this animal can't live

Zakiya when we consider climate change and the overall warming of the planet? If you need to be in a cooler area, usually what we're seeing is around the equator, all that area is warmer. So the cooler areas are shifting higher north or further south away from the equator. Dr Wynn-Grant used an example of the Javan Rhino, which is one of the most threatened rhino species is living in the Ujung Kulon National Park on the island of Java, Indonesia. That rhino has been there for a long time and it's evolved in order to inhabit that very specific ecosystem.

Dr. Rae Wynn-Grant And so if that specific ecosystem shifts because of climate change to somewhere else, the rhino can't just like, walk on over there. And so when we're thinking of wildlife conservation and climate change, does that mean we're thinking of like airlifting rhinos to this new place? All of them, like all over the world, like flying animals to like their new home? No, that's crazy. And also like what's north of here? You know, when we're talking about like East Asian islands, there might be like cities in the way or, you know, people, just all kinds of stuff.

Titi Dr. Wynn-Grant said that reimagining conservation is also going to require a huge focus on human wildlife coexistence.

Dr. Rae Wynn-Grant One thing that I really believe is that cities are going to remain cities. You know, it appears from what we understand so far that cities are really good for the environment. Right? It's actually it's good for the environment to condense, you know, a lot of people together and like a lot of like human activity and human development together, because there's an argument that that can kind of spare human development in places that aren't cities, and maybe those can be good places for nature to thrive. That's, I think, easy to conceptualize in Western societies, but it's not applicable in a lot of places, too. And there's a lot of places where there's people who really want and deserve to live on the land and not in urban spaces, and that needs to be protected as well.

Zakiya There's been a lot of conversation about what is the best environmentally friendly consideration of biodiversity type of set up for human and animal interface look like. Is it that most of us are living in cities? And is that fair then to folks who live and grew up in rural areas or who desire to live in rural areas like I just wonder how we will begin to manage these types of things. And this is not something that's unique to the United States. You know, the United Nations has, I think, 14 Sustainable Development Goals, things that everybody is working towards. And one of those things is a balance of how much land is used for farmland and agriculture versus human development for a living, versus undisturbed and protected areas for wildlife in every country. It feels like it's a pretty big deal if the United Nations is saying this is something that we need to all figure out.

Dr. Rae Wynn-Grant What we have to hold on to is hope that there's still a chance. And I have that hope. I'm I'm an optimist. I think there's still a lot of reason to believe that our environment will be OK and that we can create balance in this planet and that we can save more species from going extinct. I really, truly think that today and in the future is going to be more of this intersection of understanding climate change and how that's changing our world. We're already getting more humans on this planet and we're trying to get more wildlife on this planet. And so if it's going to be more of everything, we've got to figure out how to live in harmony together sustainably. And that's the big question, I think of the time.

Zakiya All right. It's time for our one thing. What's your one thing this week?

Titi My one thing this week is a clothing brand. It's black owned. It's called Thoughtless. Now, it sounds like it wouldn't be that great, but thoughtless is actually a really thoughtful brand. So it's founded by a Black woman. Her name is Brooke, and she makes basic pieces that are meant to fit people with natural curves. So she has really great basic things that you can use for layering. She has really beautiful dresses. She has sweats. She has leggings, tees, dresses. But they're all really beautifully made. I got a couple of pieces and they're very, very high quality and they fit like a dream. Oh my gosh. Like, I got these pair of biker shorts from Thoughtless and usually put those things on you like it fits well. It's a little tight, you know? And these ones, they slid on and I said, Wow, I have never put on something like this and it fit me so well, like a glove. So, yeah, Thoughtless. You can find them on Instagram @shopthoughtless or you can go to shophthoughtless.com.

Zakiya Awesome.

Titi What's your one thing?

Zakiya My one thing this week is a poem, and this month is National Poetry Month. And one of my favorite poems is by Eve L. Ewing. And it's called What I Mean When I say I'm Sharpening My Oyster Knife. Yes, and I really love that poem. I posted it a couple of times, but it also is a reference to a quote from Zora Neale Hurston, which is, "No, I do not weep at the world. I am too busy sharpening my oyster knife," and it felt really fitting because we're talking about conservation in oysters are an incredible conservation resource for our waterways and a great economic resource as well. So I just want to put all those things together in the package. I'll share a link to the poem in the show notes. Maybe I'll perform it for you. All right. That's it for lab 059. Did you learn something new? Are you worried about the gray wolf like I am? Call us at 202-567-7028, and tell us what you thought, or you can give us an idea for another lab you think we should do. We love hearing from you, so give us a call. That's 202-567-7028.

Titi And don't forget that there is so much more to dig into on our website. There will be a cheat sheet for today's lab, additional links and resources in the show notes. Plus, you can sign up for our newsletter. Check it out at dopelabspodcast.com. Special thanks to today's guest expert, Dr. Rae Wynn-Grant.

Zakiya Want to learn more about Dr. Rae Wynn-Grant? You can listen to her podcast Going Wild on Spotify, or you can check her out on social media on Twitter, Instagram or Tik Tok @raewynngrant And for even more info, check her out at raewynngrant.com

Titi You can find us on Twitter and Instagram @DopeLabspodcast.

Zakiya And Titi's on Twitter and Instagram @dr_tsho.

Titi You can find Zakiya on Twitter and Instagram @zsaidso. Dope Labs is a Spotify original production from MEGAOHM Media Group.

Zakiya Our producers are Jenny Radelet Mast and Lydia Smith of Wave Runner Studios.

Titi Editing and Sound Design by Rob Marczak.

Zakiya Mixing by Hannis Brown.

Titi Original Music composed and produced by Taka Yasuzawa and AlexSugiura from Spotify. Creative producers Candice Manriquez Wrenn and Corinne Gilliard. Special thanks to Shirley Ramos, Yasmeen Afifi, Kimu Eloia, Teal Kratky and Brian Marquis.

Zakiya Executive producers for MegaOhm Media Group are us.

Zakiya Titi Shodiya.

Zakiya And Zakiya Watley.