Black in the Mud Roundtable – 9 September 2020.

Tiara Moore: Welcome to the Black in the Mud Roundtable. I am Dr Tiara Moore. I'm a postdoc at the Nature Conservancy and I have been co leading Black and biosphere day with Timnit. And so the whole purpose of this roundtable today is for us to just highlight the experiences that black scientists have in the field. Just the things that we go through day to day. And you know, people asked have asked, you know, where did this hashtag Black in the Mud come from? And I shared a little bit on Twitter if you're on Twitter with this story. And so now you get to hear the full story about this hashtag Black in the Mud. And so this event was inspired by this action. Ok, I did this, this event was inspired by this picture. And so it's so funny because this photo has been used. It's like almost like a stock photo on a lot of different websites on a lot of different event flyers, like, Oh, look at this black girl in the mud, look at this person doing research. And so you know, it's interesting, because no one ever really asked me, you know, who took this picture? Um, and, and it's because like, you know, there's no way I took it. Right. And so that the story starts with me just, you know, literally going out. Well, I guess it starts way with, well, before this is because I had to get a permit to actually work in this location. And if you're a field scientist, or scientist at all, you know, permitting takes time. So this was a very planned out situation for me. I was like, you know, I went on my way to get a permit to make sure that my, you know, my time out there was I was right, you know, make sure I had all the certifications. And so, I'm out in the field. And, you know, a woman comes up to me, a white woman. And she says, you know, immediately, like, what are you doing out here? You're not supposed to be out here. I can call the cops. And it's just like, whoa, like, it's such a jarring feeling. 'Cause for me and I, what I saw on Twitter is a lot of people, but oh, well, you know, I've been hassled by outsiders a lot. But I think the difference is the cops mean different things to different people. And so for me as a black woman, the cops being called now puts me in a life or death situation. But cops being called now no longer doesn't matter that I'm a scientist, I can't now be shy, simply because I was there in the place. Someone thought I didn't belong. And so of course, you know, I'm, you know, I'm like, trying to figure out how I'm going to navigate the situation. And so I tell her, I'm a scientist, I have a permit to be here. Um, you know, I'm just doing this research. Don't call the cops. And of course, she's like, Oh, my gosh, you're a scientist. Wow. Tell me all about your project. How can I do anything to help you? And I'm like, girl, what? My heart is beating fast. Like, I just thought, I just

thought my whole life flash. But now I have to entertain you. I have to talk with you now. And spend more time with you. And now I have to figure out a way for you to help me. So me being who I am, well, I'm out here, "can you take this photo, my phone is up there." So she gets my phone. I smile for the camera. And so this hashtag really, um, really embodies this whole experience because I had to really qualify while I was there. And then after she left, I had to continue my research. I had to continue my project after being shaken up after having that traumatic experience. I had to sit out there because I I was already there, I had driven to this field site, I had already gotten a permit. So I had to continue to do my work. So that's what it is. Maybe you've been hassled in the field, maybe somebody asked you weren't where you belong. But that experience as a black woman knowing that if the cops are called on me, that could be it. We could be saying my name. That's the difference. And that's what the purpose of this panel is today, for us to highlight the experiences being Black in the mud. Alrighty, so that's my introduction. That's honestly the most talking I really do want to do. I've been doing a lot today I'm going to turn this over to Timnit. We're going to ask the panelists to introduce themselves, say your pronouns and just give your current position and what you're doing right now. We have a great array of panelists. And then yeah, Timnit is going to get our questions going. All right. And Timnit, I guess you should start with the introduction.

Timnit Kefela: All right, awesome. Great to have you all here. It's great to see that we have such great attendance. But my name is Timnit Kefela. And it's like 'Tim is neat' without the 'is' in the middle. So Timnit Kefela, I am a rising fifth year PhD candidate at the Bren School of Environmental Science and Management at University of California, Santa Barbara, where I study how microplastics affect urban soil systems. So that is really what I focus on. And today, I'm pretty excited to be one of the co-moderators for this conversation. And we have such a great lineup of people. And we're really excited for you to get to hear all of these awesome perspectives. So I'm just going to call on the panelists to briefly introduce yourself, your pronouns, my pronouns, are she/her, by the way. My apologies for not saying that earlier. I'm gonna begin by calling on the different panelists to introduce themselves. And yeah, and then we can get this conversation started. All right, so first, Dr. Justin Richardson, would you mind introducing yourself?

Justin Richardson: Yeah. Hi, I'm Justin Richardson. He/his, I'm an assistant professor at the University of Massachusetts Amherst, and I call myself THE soil biogeochemist. I'm interested in organics and how they move in the environment, both as toxic elements and as nutrients.

TK: Awesome. Thank you, Justin. And next up LaTresse Snead.

LaTresse Snead: Hello, my name is LaTresse Snead, my pronouns are she/her. I'm probably the only person on this panel that is not a scientist. I snuck in! But I have worked at a science based organization formerly from the Nature Conservancy, with Tiara.

TK: Awesome. So happy to have you here. LaTresse. Next up, we have Alexis Wilson.

Alexis Wilson: Hi thank you for having me today. My name is Alexis Wilson. I'm a rising second year PhD student in Earth System Science at Stanford University. And I'm working on understanding soil biogeochemical processes in urban soils, specifically looking at urban gardens, located in food deserts and marginalized communities. So to have an environmental justice perspective.

TK: That's incredibly important. Next up, we have Dr. Teamrat A Ghezzehei. I'm a bad Eritrean, I apologize for my spelling!

Teamrat A Ghezzehei: Hey, my name is Teamrat A Ghezzehei, it's actually easier than it looks: 'Ghez-hei' G-e-z-h-a-y, my pronouns are he/him. I'm a Professor of Soil and Environmental Physics at University of California and Merced, I'm also the current Chair of Life and Environmental Sciences Department.

TK: Awesome. And definitely last but not least, is Dr. Treda Grayson.

Treda Grayson: Thank you, and thanks for having me here. So my name is Treda Grayson. I am currently a program manager at the Environmental Protection Agency in Washington, DC. That is where I manage a program where we do restoration work in the Gulf of Mexico. In in following the oil spill, in 2010, and my pronouns are she/her.

TK: Thanks. Awesome. Thank you all for agreeing to be part of this Roundtable. And I'll go ahead and begin with our first question. And this question will be directed to Justin, could you tell us a little about your journey and how you became a soil scientist?

JR: Um sure ah, no pressure, I became a soil scientist because I'm weird. I've been very interested in how things grew from little dots, little tiny seeds, you could barely see their eyes into full grown plants. And also just being a kid I love to make, bike jumps out of soil. So it's very interesting to think about the medium as how it supports life and you can have fun on it. I was very lucky that my parents let me or I was able to rebel and be hard headed enough to let my parents let me become a soil doctor. You know, it's very hard in African American communities to say like, 'Oh, I work in dirt professionally', like are you a farmer? So trying to you know, describe the profession as a scientist not as a labourer is something important because honestly, our, say that African American communities relationship with soils has been long defiled from long ago from all the slavery background, such and then serfdom, under agricultural purposes. So, you know, it's, it's a little bit tough to justify it, but it was a lot of fun.

TK: Absolutely, thank you that is incredibly valuable and great that you know, we get to have you in this space. Next up, Alexis, could you tell us a little bit about your journey to being a Black geoscientist?

AW: Yes, it was still is a journey, because I'm still early on in my career. But I'll give you the short version. I grew up in Chicago. And so I didn't really think about, I didn't think about nature, or what that could be. My idea was it was like a forest that I would never go into. Because why would I want to do that. And so in high school, I got introduced to Environmental Science and climate change. And I made my own aquaponic system. And I was just really into environmental science, fast forward, went to Cornell for undergrad and had this as my major, and was able to have multiple research experiences that just made me really in love with environmental research. Soil science, I'm still new to, being a biogeochemist, as my background was in forestry, and ecology in undergrad, but I'm really, really excited to still be progressing in this field. And just so thankful that I'm in Stanford now working on my PhD, and I finally have a research focus, I took my first year to kind of just play around and figure out what I wanted to focus on. So just merging soil biogeochemistry, environmental justice, and then looking at climate change impacts as well as something I'm, I'm excited to be doing now.

TK: Awesome. And we're excited that you get to pursue that and be one more Black geoscientist in this world, which we really do need,

AW: We really do!

TK: Really do need! We'll talk about that more. LaTresse, could you tell us a little bit about your journey into the sciences?

LS: Yes. So when I was younger, and I went to college, I never thought about science or that environment as a field of study for myself, I actually went into African American Studies and then also nonprofit management and so my career kind of took a turn all throughout youth organizations and being on kind of the corporate side of the world. And until I came to DC, where I started my environmental career, I would say at the Nature Conservancy, which is a large, global, nonprofit. And I was shocked I started there as the Director of their volunteer program. And so not being, coming from a scientific background not knowing conservation, I was, my first day I'm going, 'what is biodiversity? Can somebody please tell me!' um, but my job was to connect more people to nature, more people to their environment. So I had to quickly learn and working with different scientists in the organization. And I always had a personal love for nature, it just became a passion for me to see more People of Colour, especially Black people in that space, just knowing how not how it was not so diverse as I which was shocking to me when I started there. So I kind of ended up getting it by accident. I just recently left the Nature Conservancy to become the chief program officer at the National Park Foundation. So still very much in the in the nature space. And there's a large team that reports it to me now that's focused on resource management, conservation. So still engaging science, but specifically in the National Parks.

TK: Thank you. Thank you so much for that, and I love to hear that story. About pivoting into this world because we need diverse perspectives and like a diverse array of backgrounds in order for us to actually thrive in this space and have our science be understood. Right. And next up, Treda, would you mind telling us a little bit about your journey?

TG: Sure. So um, I am a marine, well was a marine ecologist by training both specifically a benthic ecologist. And for those who may not be familiar, I study the the bugs, the worms that live in the mud. And my research, my dissertation research was focused in Chesapeake Bay. And the reason how I got to that point is growing up in Central Virginia, so a suburb of Richmond. My days, my weekends, my summers were filled playing in streams. Out on the river on boats, we're fishing, we're crabbing, we're at the beach like I just water was what we do, and what we do. And when I was six, my parents, I think five or six, my parents took my family out to California for two week family vacation, and I went to Monterey Bay Aquarium. And that's where I learned about marine biologists. And I was like, that's

what I want to be, when I grow up! My parents, like, we don't even know what that is, but sure. And so when I came back, you know, like I was into the, I was reading books about the oceans and Chesapeake Bay. And that just, it was always a passion. So at five, six years old, I knew I wanted to do something in this field. And so that led me to go to Coastal Carolina University, undergrad, where I got a bachelor's degree in Marine Science. And then I went on to an also have to say, when I started that journey, I knew by the end of my undergrad journey, I was like, I don't want to do research all the time, I want to kind of do some of the science policy, you know, translating the science into policy, and, you know, communicating that. And so basically, from that point on, I went down the more environmental science track, but I still kept that, that heavy, technical focus. So I went on to get a, a Master's from Johns Hopkins in Environmental Science and Policy, and then a PhD at George Mason University in Environmental Science and Policy as well with that benthic ecology, focus of my research. And I'll talk I know, and I'll tell you a little bit more. I'm not in the field, per se. And I wasn't in the field per se for my research, but I'll let you know how that was relevant to what I do now.

TK: Absolutely. Hearing about that more. Teamrat, could you tell us a little bit about your journey?

TAG: Okay, uh so mine will be probably slightly different. Because I grew up, and I did my undergraduate education in Eritrea, Eritrea is a small country in East Africa, for those of you who don't remember. And a part of my decision making was actually elimination of things that I thought I didn't like back then. Right. So I knew that I was interested in science. But when I went to college, I realized that there was not much that I could do. If I went to the foundations, science disciplines like Biology, Chemistry, or Math. Back at least in Eritrea, there was not much career opportunity in those areas, and that I could think of at that time, so I look around and soil seemed interesting enough, and I thought I could do something with it doesn't require much resources, like at least that's what I thought back then. So I chose Soil and Water Conservation because it seemed more interesting than the other science disciplines. Two years into the program, though, I discovered that there is within the soil science, there is this very mathematical sub discipline, soil physics that actually I could pursue which was actually my main interest, math and physics. So halfway into my undergraduate degree, I started dreaming of going abroad and getting graduate degree in soil physics, and I was fortunate enough to get the opportunity and the rest was history. We'll come back to it later on. So yeah, it was mostly by eliminating things that I didn't think I was going to be good at, or I was going to enjoy is what led me to soil science. And I tell my students, I tell my

friends, knowing what I know now, if I had to repeat everything, I think I would not change a thing. I think I'd like that. That's the path I ended up choosing.

TK: Thank you. Thank you for sharing that. And that's awesome. It's awesome to hear what your journeys are like. And one thing I definitely did want to briefly ask you all you could just say yes or no is did you always envision yourselves as scientists? I feel like it was briefly touched upon in the conversations and what you've said thus far, but just just with a yes or no question, just answering yes or no. Do you feel like did you feel like from the very beginning, not the very beginning, from from the moment you had a conception of like, I would like to do something for the rest of my life. Did you think Did you envision yourself as a scientist?

TG: Yes.

TK: Yes? Okay.

AW: Yeah, I had many career aspirations. But scientist was one of the main ones.

TK: Okay.

TAG: It was a dream at some point. I didn't think I could be one I didn't think. But yes. It's a Yes, definitely.

TK: Yes. Awesome.

TG: Which I wanted to be either a marine biologist or an astronaut - up or down!

TK: I love that. I love that. Both important.

LS: Yes, it wasn't until later in my career that I regretted my choices. And I said, I should have done something related to the ocean in terms of being a scientist, but I'm here now it's okay!

TK: We're happy to have you here. Justin, did you feel like you were gonna be a scientist? And

JR: I always wanted to be a scientist and a Ferrari owner. And I'm one of those...!

TK: So the Ferrari owner, ‘cause clearly, yeah! Um, anyway, so how we're going to begin with this discussion is we'll talk about the perks of what we're pursuing and our scientific pursuits. So I'll begin with a question asking what brings you joy about your fields? LaTresse would you like to start?

LS: What brings me joy about the field is really connecting more people and a diverse base of people to nature in their environment. Like I said, in my journey, I wasn't exposed or saw scientists, Black scientists growing up. So I just never was in my reality to think that that was something that I could be or do when I grew up. And so knowing that now and knowing the woulda, coulda, shoulda's, you know, how can I inspire and highlight and amplify the voices of those that are in the space so that young people can also see that this is an opportunity, this is, this is an option for them. And so for me, that's what really inspires me and gets me excited about the work that I do.

TK: Absolutely, that's important, because connecting people with the environment is actually what inspires us to study the environment, right, of which the Black community, that is not something we're often given access to. And definitely like, I really appreciate you doing that work. It's incredibly important. And I'm glad that it gives you joy, because it gives us joy too! Alexis, could you briefly talk about what you love about your field?

AW: I think my, when I first started learning more about climate change and environmental science and things, it was actually really sad, because I realized how much was like messed up. But then what gave me hope was just learning that there are people and I could be one of those people who could work on finding solutions to some of these issues. And then once I learned about environmental justice and got involved, learning how I can use like, the technical scientific skills that I'm learning and use them to further environmental and racial justice, and that's really like a joy of my work is trying to connect those, those two things and like inaccessible academic science to actually push something positive forward. So that's something. And my Mom's always like, you're gonna save the world, like you have to and I'm like, 'Well, I can't stop climate change on my own, but I'll try my best'.

TK: Your works still incredibly important and is definitely making that happen. Right? And isn't that awesome that science to being a scientist can give us agency over having better environmental features for our communities? Like that is

incredibly empowering. And definitely a perk about pursuing what we pursue. Treda, would you like to talk about what gives you joy about your field?

TG: Um, I think the thing that gives me joy is the the connections, the colleagues, the friends that I have made in this field like throughout my journey. Some of my closest friends that you know, not only can we talk about life, we can talk about science. And I mean, you have someone you can just talk about science with, you know, which is really fulfilling. Um, I think also, and I really rely on that joy from that my colleagues and friends and in this field, given the climate we're in right now. And, you know, there's so many things being done to kind of stop environmental regulations and, and, and they're really impacting, especially communities of colour. Being able to talk to someone, you know, like, I'm feeling a certain way about this, and what can we do and having a group of people that I can go to and say, 'Okay, I have this idea, how can we implement this? How can we share knowledge?' Because I think it's, for me, it's all about what do I have? What can I, what can I give, to help someone else, help someone else.

TK: That's incredibly powerful. And honestly, like, to your point about fostering community and having that community and creating that community in the space and how that fuels your passion for the field. It's important, it's frankly, incredibly important to have people who understand how you feel about things, the passion that you feel, as well as, like how you would like to develop an idea or a project that would better the environment, for example. And that's important, and frankly, like, personally, I feel that without a community, I wouldn't be a scientist, because they're incredibly helpful, especially being Black in the STEM fields. Um, Justin, would you mind telling us what you love about this?

JR: Yeah, um, as a geochemist, I have a superpower. Through mass spectrometry, I can see atoms. And to me, that is the most awesome thing! I can see the periodic table in leaves, and rocks and soils, and water and animals, I can see that and to me, that is the most fascinating thing. And I love sharing, you know, if someone has nutrient deficiencies in their soils, or if there's toxic metals in their plants, or animals or soils, so to me, it's leveraging my superpower, you can do whatever you want. You can tackle esoteric questions that matter, not to humanity. But you can also do it to, as you've all mentioned, improve humanity and help people out. So if using that superpower for good,

TK: That's, that's such a great way to put it. It's a superpower that you can use for good. That's awesome. I'm Teamrat, would you briefly tell us what you love about your field?

TAG: Yes, thank you, there are a number of aspects of my career, my job that I really love. One is, I get to choose what I study, I have the freedom to say no to certain topics that I don't want to work on. And, therefore, I can align what I believe in, and what I want to make an impact on with what I do day to day, right? So that that aspects of my career is actually really fulfilling. When I think about it, sit, sit down and think about it, that really gives me joy. And then there is the other element of solving problems, right? Just this the process of solving problems. Even if the practical application of some of the research areas that I work on is 10, 20 years from now, it still feels like solving a puzzle. Right? So the process, the process of solving problems is really fun. And we find there is one element that I grew to appreciate even more, and that is working with students. We just cannot summarize easily with one or two sentences. But I've been fortunate to have had very kind and smart students in my career. And being there to shine light on their, on their path and help them grow to who they become is just amazing. So if I had to choose, I think that last one will be the main source of joy in my day to day activity.

TK: That's incredibly powerful, especially having the having the opportunity to mentor the next generation of scientists. And having them be compassionate and brilliant scientists at the same time. Recognizing that compassion shouldn't be something that doesn't come? Being a scientist that definitely is fulfilling. I agree with that. Delving into the more pragmatic but somewhat pessimistic, but pragmatic perspective, I'd like to ask you all, what brings you pain about being in this field? What pains you? What causes despair, in your field for you? And I'd like to start with Treda.

TG: The thing that is the most stressful and somewhat painful at times is that it's 2020, almost 2021, and as a Black woman I am questioned about what I do [being a scientist]. Yet it has gotten to the point where I am not the only one, like I could rattle off several other Black women and people of color in my particular field, but there still is this perception that we are outliers so it can be rough at times. I've been in majority situations pretty much my entire life. My parents worked hard for us to have a balance. School might have been a majority of my life, but home, church and family were connections we kept with our community. Having that connection to my community, i.e. Black being the majority, I sometimes do not realize or feel that [I am the minority] because I have a job to do and I am there for

a particular reason to do it and we move on. I do not think about it until somebody brings it up to me [being the only Black scientist]. I am like it's almost 2021, it would be great if we could move past that. It's going to take some time and one of the things that we can all do, which is tiring but we have to, is keep reminding people we are here, and we can do this too and teaching our peers that until it sinks in.

AW: Unfortunately, there's multiple things that I could address. I think one of the biggest challenges that I am facing now, in this stage of my career (and in undergrad), is being the only Black person...Black woman in any situation. Labs, conferences...just having that pressure of being both hypervisible and invisible at the same time. So, it's really like a struggle of trying to show that I belong there which I shouldn't have to prove to anyone. But you kind of always feel like you have to prove that you belong in that space. Being the only one can be difficult and its definitely not something I want more Black people in this field to experience. Being the only one is not a goal of mine and so I think that's one of the main difficulties that I am having at Stanford and the field in general.

TK: Being the first is not as sentimental as people think it is. It comes at a cost. Your mental, emotional and physical health is at cost. Navigating these different spaces is a very expensive thing for you as a person, because people believe that you being in that space is enough and you should not ask for more. Which is unfair, because we deserve more. I definitely can resonate with that.

JR: There's so many awesome aspects of geochemistry such as being a mentor. But I think the thing that unfortunately gets me down is when you look at and compare yourself to others. I think that geochemistry still has a huge colonial aspect to it, where the focus is on novelty. Who can get the rarest sample? Who can get Mars samples? Who can deep ocean samples? They will get a hundred thousand citations on it because no one else can get that data. To me, I am very interested in the questions that are very close to home like lead in soil and water. It's like haven't we solved that? No, not really. It's still a prevalent issue. We know the natural and human processes that govern it, but it's still a problem that plagues many communities. Some sciences are seen as far more valuable which trickles all the way up to funders and who they fund. No one wants to fund science that's been studied before because it's not cutting edge. But that work [studying lead in soils and waters] is so important in terms of translating that to science that relates to the communities (especially communities of color) that they can understand. There's no Nature paper saying I found lead in soils in LA, but I guarantee you if you say you found lead in some comet that's a Science paper for sure. I understand that it could

be seen as mundane and monitoring, but that is still important science and it doesn't get to shine as other fields do.

TK: I totally agree with how novelty seems to be what drives a lot of science, or rather drives prominence in science. This leaves us with questions like: who are we doing science for? Are we doing it for ourselves? Our communities? It is rarely is the latter. You put it nicely, we place too much weight on novelty and not really giving back to humanity.

TAG: I definitely agree with the previous panelists' sentiments. Especially with Alexis. Being visible and invisible at the same time is a really nicely put expression. The other things that pain as an environmental scientist who studies environmental damage, pollution and degradation is who are affected by it. Usually the people who suffer because of all those problems tend to also be people who are marginalized populations. Knowing that fact usually silences me, and somewhat related to that (as Justin said) working in those areas doesn't really get that much credit as some of those research areas that impact the well-to-do, the well-connected and the majority (in STEM). Even when you look at problems like climate change. The aspects of climate change or the solutions to climate change that get traction and attention are the ones that impact the well-connected and not the marginalized communities. That aspect really saddens me.

TK: Definitely, I can totally relate as someone who studies plastic pollution, where a lot of the sustainable solutions that are developed often don't envision an environmental future with communities like ours in them. It's often for affluent, well-to-do individuals both locally and abroad. The solutions do not consider marginalized communities that don't have access to these proposed solutions and it often makes me wonder, when we're developing environmental solutions who are we envisioning in the environmental future.

LS: One of my pains ties into something that Treda was saying earlier. My biggest frustration is around recruitment. You have these organizations that are predominantly white that you know say they this commitment to diversity and inclusion. Yet they always say we can't find a diverse candidate pool. When I started in the field, I went along with it. Like yeah, it's kind of hard to see more people of color in these spaces. But going to conferences and different events, I was running into people [of color] all the time in this field. Why aren't we finding these people? What our organizations are not doing is taking that extra step that they need to make their workplaces more diverse. You know there are Black scientists out there.

So, take a look at your job descriptions, do you really need 10 years' experience for an entry-level position? Have you reached out to the spaces and places where there are Black scientists? Are you cultivating those relationships when you go out to different conferences? Are you reaching out to the Alexises, the Tredas and introducing yourself and getting know them, then calling them when there is an opportunity at your organization? Those type of things weren't happening it was kind of just like, well you know we didn't get anybody [who was a person of color] that applied. I think organizations need to make a bigger effort because sometimes you don't even see yourself in that position or in that space. Sometimes it takes someone calling you and saying 'Hey, here's a position that I think you would be great for' and then turn around and advocate for you to be there. That was really frustration to in this space to see this "desire for more diversity" but not the effort to really cultivate the relationships and taking those next steps to really make it a more diverse workplace.

TK: Absolutely, it is a very big problem which we can all see. To add to that, I often personally wonder about when they're thinking about these jobs, do they envision a Black person taking that job, right? Yes or no? Often, no.

LS: Yeah and you'll hear, what I call code words, like 'Does this person fit our culture?', 'Will this person be a good fit for our team?'. Well, I am an advocate for having someone that's going to push you into a different direction. You don't want everyone on the same side that's going to think like you and the rest of the team. Don't you want to hire someone that's going to think a little bit different than you and come with a different perspective? To me, when I hear those code words of 'I don't think they fit our culture' and 'I don't know if they would be a good fit for our team', I think you need to reflect on why you feel that way. What are you expecting? In my role, I was very outspoken. Not a lot of people like that. So sometimes people hire based on what kind of energy they are feeling. They feel more comfortable with someone that looks and speaks like them. We have to break out of that if we truly want to have a diverse workplace.

TK: Couldn't have said it better. 100 percent agree. I am sure all panelists do as well. So, for the next question we are going to pivot a little. I wanted to ask you about what brings you hope about for this field.

AW: I think what brings me hope is seeing young Black people interested in environmental science. Showing that we exist as much as people think that we don't care about the environment. When I was back home, I had to a soil lab

through virtual class so I went out with my little sister, she's 10, and we dug out soil. I taught her how to do little soil experiments. It's just fun to see younger people engaging with environmental science. That brings me hope that we have plenty of people to choose from when it comes to filling these positions and getting more of us into the field. So that makes me hopeful.

TK: Absolutely! That is awesome, they are the next generation of environmental scientists. That gives me so much joy.

TG: I think being in coastal marine science, as a panelist stated before the areas of the country and the world where we do our research tends to be concentrated areas with people of color. So, my hope is not only do we increase the number of people who look like me who are doing this work, but we share with our non-PoC colleagues the importance of differing opinions, ways to do the research, think about questions and actually conducting the work. [And] not only thinking about that but also how you translate your results in a manner that people in those communities understand and can help make chances. I just hope that we continue having dialogues like this, we continue doing the hard work on not only being people of color and Black people to the field. We have to work on retention. Keeping them there, keeping them engaged and keeping us wanting to be there. It is work but it is work that's worth it.

TK: I definitely agree with that and that's something that people don't really take into consideration. Mentorship is necessary to ensure you have that retention. It not like you allow somebody in and you're like figure out. Hidden curricula result from this and people who don't come from those [academic] backgrounds aren't tapped into it potentially hindering their success. It's not a matter of just being like "okay yeah, you got this". No. You need to continuously mentor somebody as they go through this journey.

TAG: Things are getting better. I have seen things improving in part because people who are younger than me are more hopeful, active and engaged. There is also technology that didn't exist a decade ago and people are really taking advantage of connecting. I mean, just look at us. I can't walk freely outside my house without wearing a mask, but I am connected with all of you discussing such an important topic. So, I see people are taking advantage of all these opportunities and connecting. I think people who wouldn't get engaged, speak up and help mentor among other things are finding it easier to be engaged right now. So, I am hopeful. I think in a matter of time things will improve. It looks like things are improving even

though every now and then we are reminded how things have not changed at all. But on average, it seems like things are moving towards the right direction and we can continuously hope for that.

TK: We continuously hope for that.

LS: I just hope that people continue to speak up and use their authentic voice. I think that's what's causing a lot of change and discussion now. Black people in predominantly white spaces hold a lot In. There are times when you don't want to say what you really feel for the fear of either being seen, in my case, as the angry Black woman or not going along with the program. Let's face it, I know for me, when I grew up and got different positions my family said "That's a good job, girl! Don't do anything to mess that up". Then you're sitting there thinking "Well, this is a good job. I don't want to mess anything up. I don't want to hurt anybody's feelings.". But in order to change, we are going to have to say what we truly feel and believe when we need to call people out and when things are wrong. You need to share your feelings when you feel hurt and/or disrespected. When those microaggressions come up in the workplace and they're hitting you from day to day, you need to call out people on that. I think that more people are starting to use their authentic voice and I think more people are starting to receive that and realize that we are not going for that anymore. I think I am just hopeful that people continue to find the power in their voice. I know how hard it is but the more we do it, the more things will change as people hear stories and understand the things that people are going through.

TK: That builds up on something we discussed in an earlier event on 500 women scientists Instagram whereby by Ngozi [Oguguah] made a point that we have every right to ask for things. Just because we are in this space does not mean that the limit to what we can do for that space. We have the right to ask for better things. We have the right to ask for better outcomes and I couldn't agree more.

JR: Let's see, I hope that the next generation and younger scientists will be able to instill some change. Back in 2015, I went down to rural South Carolina like 30 miles away from the nearest waffle house. Somehow in the middle of nowhere and I was told that I cannot dig soil pits because I might disturb some unmarked slave burial grounds was a new level of hurt and sadness. During that drive seeing confederate statues and flags flying everywhere, it just really illustrated where America was. But now I see that America is changing. I mean, we are no longer putting up with that. The statues are coming down and I am starting to see some articles and books

about re-envisioning the Black experience working with soils and agriculture. So, I have a lot of hope that we can really reimagine what does it mean to Black and work with mud or work with soil and not have those ties to sharecropping and slavery. So, I look forward to fertile ground coming from that with future.

TK: Absolutely. That's really really powerful. One thing I wanted to ask all of you is what advice/actions would you suggest to allies to ensure that the geosciences are an inclusive space?

LS: I actually had someone that was a really good ally for me and really exemplified what I thought allies should encompass. He was on the call earlier, I am not sure if he is still there, but he is my old boss, Pascal. He actually was a true advocate. He wasn't a mentor or a sponsor, but he would listen and ask questions. He was very curious, but he took risks with me. He stood up for me, advocated for me with his peers. Even though he was my supervisor, and most supervisors kind of have their one-on-one with you and focus on project details, he took it a step further. He invited me to meetings that he was having with his peers to socialize me, because in his mind I should be a bigger leader. It's not only about saying that you should do this and that. He thought about what he should be doing to help me be seen as a leader. So, when we were in these meetings with his peers, one of his peers would asl him a question he [Pascual] would say "LaTresse, what do you think?". He [Pascual] would always defer to me so that his peers would look to me for the answer instead of always look to him. This is a white guy from Europe and this is how he saw himself as being an ally. Whenever he got invited to speak on panels or different engagements, he started to invite me. He would tell others "I can come speak but let me tell you about LaTresse. She can also speak; she should be there. She should come instead of me.". These are the things that people should do as allies. They should take action. They should think about actions that they can do to uplift others. That's just my experience but I appreciated that, and I think that's truly what got me to where I am at today.

TK: So putting value in who you are as a person and giving you the opportunities that they know you can thrive in. Absolutely

AW: First, I'd say it's not an easy thing to be an ally. It takes active work. You really have to work at it if you really want to change the way you think and act. This past quarter my PIs were surprisingly supportive during everything that was going on and checking in with me, asking if I needed time off from classes and lab. Just giving me the space to deal with everything that was going on, socially and culturally. I

would say advice that I have for PIs and labs is to actively support your students especially if you have Black students and students of color. Work to make sure that your lab space is inclusive, and you have values set up so that you're actually supporting students and not just admitting one us, leaving us to struggle for the next 4-5 years. That would be my advice, to really actively support your students.

TG: I'd have to say, and this kind of builds off what LaTresse said, share your power. Share your privilege. If you don't realize that you have that power and you have that privilege, I think it's worth taking time to recognize and accept it and then use it for good. It could be how you choose students for your lab, how you interview colleagues for positions at your job. There's a lot of resources out there. One of the scientific societies I am involved with, Coastal national research federation, had a diversity and hiring workshop and we went through how job announcements, grad student and intern solicitations are made. How the coding of the language depicts whether it is open to others or is very narrow in focus. Think about how you write job announcements and how you set up your interview panels. This is not just for jobs; this can be for anything. Think about how you set up panels and the questions that you ask. All of those things, whilst being aware and actively doing the work to make some changes go a long way.

TK: Absolutely. Have a much more encompassing perspective on who you envision to have this position.

JR: Nothing further to say, I think everyone else crushed it.

TK: Phenomenal advice thus far.

TAG: Nothing more to repeat really. They [advice give] reminded me of so many people who, out of the blue, have made large impacts in my career by connecting me with collaborators, inviting me to become an associate editor. They didn't even wait for me to ask. They just saw that I needed help and support at my career stage. They had faith in me and that I could do it.

TK: Thank you all so much for your great advice, your time and valuable narratives. I am sure everyone else thought your narratives helped them gain perspective. One thing I did want to add was a comment that Kuwanna [Dyer-Pietras] made in the chat. In order to show that you live up to the title of allyship you need to listen and believe your Black colleagues when they share their experiences of

microaggressions and even overly racist behavior. You need to be able to believe them. Don't dismiss it because you haven't lived it yourself. I definitely think that's something that resonates with a lot of us. This is advice that we hope that you, as allies, take with you. I wanted to thank all of you [panelists] for agreeing to be part of this roundtable. It was really great to have you here. It is great to be in awe of all the Black brilliance that is in front of us right. It gives me hope for our field. I just wanted to thank you much and tell you how heartwarming, pragmatic and validating this was.

TM: Listen to Black women is my whole mantra in life. Believe them. Do not put your own perspectives on our stories. There's nothing than telling someone what you've been through and you invalidate it [I know her, she wouldn't do that] despite my sharing a whole story. You need to listen and believe. Don't even respond. Maybe take a second to think about the things that this person [perpetrator] is capable of. Just talk about it with them, but don't really tell me in the moment that they are not capable of it, because they did. Thank you so much panelists for being here. Thank you everyone for joining.

Transcription by Timnit Kefela, with assistance from otter.ai transcription service.