The Taproot Podcast

Season 5, Episode 1

Guest: Tanisha Williams

Hosted by Liz Haswell and Ivan Baxter

Transcribed by Jo Stormer

[Theme music]

00:31

Liz Haswell: Hello everyone. Welcome back to the Taproot podcast, where we dig beneath the surface of a scientific publication to tell the stories behind the science. I'm Liz Haswell,

00:43

Ivan Baxter: And I'm Ivan Baxter. It's a new year at a time for a fresh start, including a fresh season of The Taproot. But you can't move forward without looking back, so this season, we talked to four guests about their experiences in 2020. We discussed the effects of the pandemic, racial reckoning, online teaching, remote research, and ever-changing immigration rules, and much, much more,

01:08

Liz: But it's not all about the bad stuff. Some great things came out of 2020 and our first guest of the season, Tanisha Williams, was part of one of those great things: the #Blackbotanists movement. Listen on to learn how her love for plants and her optimistic spirit got her through what was a very dark year.

01:29

Ivan: One note before we begin: we recorded these episodes in October aaaaaand then life intervened. So any references to recent or upcoming events

may not match our current, slightly strange environment. And with that, onto our episode.

[Theme music]

02:00

Ivan: Today's guest is Tanisha Williams. Tanisha got her BS from Penn State and a masters from Cal State LA, and then earned a PhD last year in Evolutionary Biology and Ecology at UConn with Kent Holsinger and Carl Schlichting. She's currently the Burpee postdoctoral fellow at Bucknell university, working with Chris Martine. She has already received a dazzling number of awards in her young career and is a founding member of the Black Botanists Week, which we are going to talk about more later. Welcome to The Taproot, Tanisha.

02:34

Tanisha Williams: Thank you so much for having me.

Liz: We are so happy to have you here. So often we start a Taproot episode talking about a paper, but because you're early in your career we thought maybe we would open it up to everything that you're interested in and working on. So can you just give us a brief overview of what your current research interests are and what you're working on now in the Martine Lab?

03:00

Tanisha: Sure. I'll just briefly talk about my PhD research, which was to understand how plants respond to climate change using this kind of timeline framework - which is past, present and future. So in the past, looking at flower phenology; the future, using species distribution modeling. And so now currently, I'm a member of the Martine lab. We have two tracks in the lab; we have a Conservation Biology track where we're trying to update the conservation status of rare plants in Pennsylvania; and then we have a Australia *Solanum* track. So the genus *Solanum* encompasses your potatoes, tomatoes, and eggplants; I'm also describing a new tomato species here. And then one of the projects that I'm

really excited about is we're trying to understand how indigenous groups throughout northern Australia move plants and what that means for the plant genetics and gene flow.

04:01

Liz: That all sounds super interesting. One of the things that I wanted to ask you about (and this is totally out of my own ignorance about how your kind of work is done), it feels to me like over the last couple of years I've heard about people using new ways to look at things like climate change. I know you're interested in how you can use herbaria as resources to understand climate change. I think now I don't know how you're going to go about studying what's happening in Australia, but it seems like again you'd need to sort of develop some new databases. Can you tell us more about that sort of aspect of your work?

04:42

Tanisha: Yes. I'm really pumped up and jazzed about highlighting the importance of herbaria in biological collections. We have about 3.5 billion specimens worldwide of plants, animals, and fossils.

Ivan: That's *billion* with a *B*?

Tanisha: *Billion* with a *B*, [laughing] so many specimens. I like to think of them as just timestamps through time. And if we gather all these timestamps together, we can look at changes in flowering phenology, changes in leaf burst and bud bursting and things like that. So it's really a neat way to use old data actually, and bring it into the modern era of climate change and trying to understand how plants are responding. It's a really fascinating field.

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Liz: It's so cool. An old colleague of mine Tiffany Knight (some time ago back when she was here at WashU) had done a study of pollination patterns by looking at insect collections and looking at the pollen that was attached to this historical collection of bees.

Tanisha: That's so cool!

Liz: I may have some of the details wrong. I have to have to look it up and if I can find that paper, I'll put it in the show notes, but I remember just thinking it was such a revelation to me, this idea that these collections weren't just something to look at or to store for history, but were sources of information. I think you've been working on a project to use herbaria. Tell us a little bit about that project.

Tanisha: Yes. I'm looking at flowering phenology throughout South Africa in the genus *Pelargonium* - the flowering plant. It's a sister genus to geraniums that we have here in the United States. Most people have seen geraniums cause they're sold at your local hardware stores, at Giant and Safeway grocery stores - so geraniums are everywhere. *Pelargonium* smelled lovely. Actually a lot of things that have rose scented or rose in them are actually coming from *Pelargonium citronellum*; that's coming from *Pelargonium*. So they smell pretty neat. I have a couple on my porch and I love rubbing the leaves and smelling them.

06:54

Ivan: I'm really curious about this idea of flowering phonology and timing in herbaria. Cause obviously, flowering time is some flowering time is something people really do study a lot across many plant species, but it's usually because you look at it, then you see it flowering. You have literally a snapshot in time of this one plant. Are you just sort of just inferring from collection dates and how big the flowers are to make some estimate? How do you do 1780s flowering times flowering times in 2020?

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Tanisha: That's a good question. We're looking to make sure, one, the specimen has flowers. Then from there we're referencing a monograph. So a monograph is just a scientist that's really enthusiastic about one group of plants and they write all of the species descriptions (when it's in flower, the habitat type, and things like that), so also using the *Pelargonium* monograph to see when the

species are flowering. That's how we compare between species and also across time

08:03

Ivan: Okay. So it's not necessarily just the herbaria species you're getting an estimate on your you're really looking at sort of these collections where somebody spent enough time to sort of document this.

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Tanisha: Yes! And we want to make sure that we have enough collections per species, right? We want to make sure through time we have hundreds, hopefully (or in the fifties to hundreds), timestamps through time in order to assess patterns of success.

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Ivan: I mean, obviously three and a half billion species at at botanic gardens and collections across the world, and you mentioned you have a big project in Australia. This is international research. How do you do that in how do you do that in 2020?

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Tanisha: That is a excellent question [laughing]. Well, we definitely cannot go there. That was one impact of the pandemic. Our lab, and a group of us, we are partnering with Penn State as far as this Australia project and also universities throughout Australia. We were all going to come together and actually visit the Martu people, their land (the Martu lands in Northern Australia), meet the elders and people in the community and actually spend a week with them learning more about them, them learning about the project that we're proposing to do on their land. That was going to be phenomenal. I was so excited to meet the Martu people that actually use these plants that I study. That didn't happen this summer, but we are trying to continue on. We do have collections from 2017-2018 that I'm actually currently doing DNA extractions on. We're going to do a

population genomics work on these plants. We're getting started, but we're just locked [laughs] into the United States right now. We can't travel

09:49

Ivan: So you're hoping that you're able to do it next summer to travel?

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Tanisha: That's our plan. We're moving ahead now, but we're not sure if we're going to,

09:58

Ivan: We really are this season trying to focus on the last six months and how that might change so much for us. Talk us through how you experience the pandemic and the shutdown in terms of your research and what that led to.

10:11

Tanisha: Well, everything shut down at one point where we couldn't even be on campus and couldn't just do any lab work. Luckily for me at Bucknell, we have a greenhouse where we are growing *Solanum* plants. We just moved our plants into a off-campus greenhouse so we were able to keep our plants alive (which is great) that was away from people. My boss and I just switched days on when we went, to cut down on exposure and contact and things like that. I do a lot of work on my computers. I mentioned species distribution modeling and this genomics work. Once we get the sequences back, all of it is computer work and running things through the R language - this statistical open source program.

It was rough. I have a lot to be thankful fr, as far as being able to work from home, but I definitely was disappointed not being able to meet the Martu people and going to Australia, and looking at these really cool plants.

Liz: Sounds like it set your work back by a year, in a way.

Tanisha: Yeah, it did. It did. Hopefully not by too much more because I really, really love this project, so I would love to be involved in it.

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Ivan: So how long has your funding your funding on this project?

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Tanisha: With the postdoc that I'm currently in, it's one year with chance of renewal and that can go on as long as Chris and I see fit, but as a post-doc you normally stay in a position from two-to-three years. It's kind of like one year lost of field season.

11:42

Ivan: I mean, I think that's the thing that's still just so hard. We have so many short-term short positions in sessions and we're just that setting here. I don't feel like we've been able to been able to get the granting agencies or any funding agencies to really just say, "No, we're going to give you an extra year to account for this." That puts so many people in such a precarious position; it's really, really frustrating among the thousands of other things that are just . . .

Tanisha: Right!

12:15

Liz: You see across the nation pre-tenure faculty members getting an extra year to tenure (which is essentially an extra year of funding), but I haven't seen similar movements to giving post-docs an extra year of funding or graduate students an extra year of funding. I don't know if that idea is that we can't relax the standards for tenure, but the understanding will be that everybody was struggling for a year so when it comes to applying for jobs, "Oh, well, everybody will know." There's just this one year on your CV where you have no meetings and everything took you longer to get your papers out. But it doesn't seem like that is a good calculation there.

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Tanisha: I do know just by talking to people and friends and things like that, there are a couple graduate student programs that are okay with prolonging their

graduation by a semester or a year. I've heard a couple of friends say that

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Ivan: Yeah, I think almost everybody appropriate paid everybody through the shutdowns (which they absolutely should do) but that means that the money's gone, mostly.

Tanisha: Yeah, it's a tough time for all.

13:36

Liz: Tanisha, this was not just the pandemic hap-, not the only thing that was happening over the summer in the United States and actually across the world. There was a massive racial reckoning after the deaths of George Floyd and Breonna Taylor on the tail of so many other deaths related to police violence. I find it hard to believe this did not affect you on top of everything else that was going on. So tell us a little bit about that.

14:04

Tanisha: Yes, for sure. It's a heavy and tough subject to think about, to talk about, and to experience. I am a Black woman in the United States, so that's something (I'll those two things) I'll never forget, which I don't *want* to forget. But they are things that cause me to think about where I go - think about where I hike and things like that. But wrapping around to your question about what was going on, it's tough because it has been going on. It's just, as you said, an awakening for some people, but this has always been Black/brown people of color's reality in nightmare for so long. It's nice to hear people actually starting to think about Black people (that's a good thing) but we need to move fast and way past just thinking about us and seeing these horrific events online. We need to move towards actions.

I'm tired. I'm tired of feeling this way. I'm tired of worrying about my family and friends, and also worrying about myself when I have mostly been in predominantly white spaces for all of my academic career (except for Cal State

LA, which is a Hispanic serving institution). But most of my career has been in white serving institutions. Being the only one of and not seeing anyone that looks like me, it's really tough. Representation is really something important and I didn't know about this community of Black botanists until my post-doc. This whole entire time I've been studying these plants, going to conferences, interacting with people, but there's a *huge* population of Black people and brown people and other peoples of colors that love plants. It's been nice to connect with those people.

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Liz: How did you connect with other Black botanists? How did you find that community and develop it?

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Tanisha: It all started actually after the murder of George Floyd and Breonna Taylor. Then there was another incident in New York Central Park. A Black birder, Christian Cooper (a part of Audubon and a science writer) asked a white woman to leash her dog in a portion of the park that that is the rules; you have to have your animals on a leash. She proceeds to falsely call the police on Christian Cooper and he has it on tape. She's calling the cops saying that a Black man is harassing her and she's using calling the cop as a weapon. Luckily, no one was harmed, but it's it's always been a scary time to be a Black person in the United States, in Europe, Canada, and other places. It's very scary. So from that incident, there was a group of Black birders that started Black Birders Week in May (May 31st to June 5th) and the first day of that interaction was "Black in nature". This wasn't only exclusively for birders. This was any Black person that loves to hike, be out in nature, and I participated in that day. It just brought me a lot of joy to see so many Black people who love nature and plants and things like that. So interacting with that, we just bought a sense of joy and a time that was just so (and *is* still so) dire as far as the pandemic and racial equality.

17:30

Liz: So this is happening; this is a social media event. This is happening on Twitter and on Instagram.

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Tanisha: Yeah. They're interacting with us there. They have different panels throughout this week, so it's really a lively discussion. It's not kind of like you're watching it happen; you're interacting with these awesome Black birders, that range from hobbyists all the way up to PhDs. Jason Ward has his own birding show. It was a really nice community, and I wanted to bring that community to botanists and we're defining "botanists" within Black Botanists Week as any Black person that loves plants - whether it be that you love your house plants or you're a postdoc like me or a professor, but anyone that loves plants.

18:15

Liz: I love the inclusivity of that term, "botanists". When we were first talking about this and you were saying, "We picked botanists to be inclusive," I had been thinking that you were being inclusive within academia (that like people who were molecular biologists and people who were evolutionary or ecologists who loved plants) but you really mean academics and the lay person who just has an orchid collection or somebody who just likes to go walk out in the forest and look at the trees. All of those people count as botanists.

18:48

Tanisha: Yeah, we wanted to just open up that term. We actually had many meetings before the week in July happened and we spent about one meeting just talking about what a botanists is and how we're going to define this term, because we definitely wanted to be inclusive. We didn't want this to only be about academic botanists, because there are farmers and horticulturalists and all sorts of forestry industry, and all sorts of jobs that you can have focusing on plants. We wanted to tap into all of those networks and bring us together.

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Liz: Let's go back in time a little bit and tell us how you got from appreciating Black In Nature and Black birders to basically starting Black Botanists Week, which I have to tell you was a joy to watch.

Tanisha: Thank you.

Liz: I want to hear how that happened.

19:41

Tanisha: It was about two weeks after Black Birders Week and I was still online interacting with people. I sent out a tweet message and said, "Hey, is anyone interested in Black Botanists Week?" Eleven other people contacted me, and then the rest is history. I always like to point out that for Black Birders Week and also Black Botanists Week, our committee members are very diverse. For Black Botanists Week, there's twelve of us from the United States, South Africa and the UK, and we range from botanical illustrator to middle school science teacher; to PhD students all the way up to professors.

Liz: All the way up to Beronda [Montgomery].

Tanisha: [Laughing] Yes, she's at the top.

20:25

Liz: You send out this text, you find some people who are interested. Is the idea you're going to develop social media programming for a week?

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Tanisha: That's right. We wanted to model our week after Black Birders Week, focusing on plants. We had a lot of zoom meetings trying to figure out what days we wanted to have to make sure that each day was inclusive to anyone that wanted to participate. Our last day actually . . . we're called Black Botanists Week but we know that Black people aren't the only people that are experiencing trauma and racism within the field of botany or just in general, so the last day we opened up that Black term to "Black, Indigenous and People of Color in Nature". Following from Black Birders Week, but wanted just to open it up - open the door

up wider.

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Liz: Right. So tell us what happened that week and tell us what you're doing now.

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Tanisha: Yes. So for that week, each day had a special theme. So one day was "Black botanical legacy and Black roots"; it took two different pathways. So some of it was who are the Black people in botany historically. Who are these people that we don't know about? There were some people that took that approach. The other approach was saying that, "Right now, I am a Black person in botany. I am the 'Black botanical legacy,'" and just discussing our own pathways to this. We had a "Black plant love day" where you showed your love for your favorite plant. You can write a plant love story or poetry or things like that. We got some poems and it was really nice to see that.

21:58

Liz: I think that was my favorite day. I loved seeing all of these people. For example, I saw some young scientists I know at their home with all their houseplants behind them, sort of telling the story of how their love for plants was a springboard to get them into plant science.

Tanisha: Yes!

Liz: I just love that.

22:16

Tanisha: We also got a lot of houseplant enthusiasts on that day, as well. We got a lot of pictures of how those plants. I even shared some of my house plants as well, because I've really gotten into it since the pandemic. I think there's been a spike in people buying plants during the pandemic. We did "Botanizing while Black", sharing more of the stories (good and bad) of being a Black person and enjoying nature and doing research. We ended on "Black Indigenous people of

color in nature". One of our hashtags during that day was #DiverseCommunitiesAreStrongCommunities.

22:53

Ivan: I think one of the things that was really important (I think you touched on this in saying that, you know, this is not new for you - that you've had to worry about being in nature while Black for your entire life, or whenever you started doing these trips. Tell me a little bit about what that's like. When you start thinking about going into the field, what are the things that you have to think about that are not what I or Liz would have to think about?

23:16

Tanisha: Yeah. The biggest concern for me is safety and also women, in general, we have to worry about safety. A lot of my field work I did by myself and so being by myself in sometimes remote areas - just worrying about people (also other animals, too), but mainly worried about people prejudging me and then things escalating from there. Whether that be a person or a cop, it's something that I'm always aware of, because during the pandemic Ahmaud Arbery was just jogging in his neighborhood and got accosted by three white males that were also from the same neighborhood who killed him for, just jogging in his own neighborhood. Breonna Taylor, the police came into her apartment with a no-knock warning and they didn't announce themselves and shot thirty-two rounds in her apartment; she was hit by *six* and killed. So it's very scary because it doesn't matter; the stories go on and on. You could be walking with candy like Trayvon Martin, you could be laying in your bed. You could be outside having a good time. Anywhere and everywhere, we have stories where a Black person is murdered. It's very worrying for me and so I carry protection as far as pepper spray, making sure I am always looking around my surroundings. Normally in nature, you want to go in and you want to enjoy it. You want to kind of relax and breathe in the air, but I can't relax. To some extent, depending on where I am I can, but I can never fully relax while being Black in most countries,

24:49

Ivan: Danielle Lee, who's a mammalogist in the St Louis area, was talking about doing field work in Africa and how freeing that felt for her in terms of at least that one aspect of being Black and nature was no longer an issue for her. Again, it's one of those things that just doesn't entered my mind in thinking about it.

25:11

Liz: I was just thinking as you were speaking, I'm drawn in by this Black While Botanizing idea - the thought that while you are doing your work, you have this whole other layer of fear and anxiety and preparation that you have to do. But as you were just talking, that's your whole life - not just while you're doing your field work. That let's walk into the store; that's sleeping in your home; that's being to the mall. It's maybe a bit ironic that I and other people like me really grab onto that experience only when for some reason it's intersecting with your work - rather than when it's intersecting with your ability to sleep safely in your own home or whatever.

Why is that? Is that because there's always some way we can have an excuse like, "Oh, well, Breonna Taylor's past boyfriend had been problematic, and so . . ." I mean, I'm not saying these are real reasons; I feel like white people can come up with these reasons. But when it comes to "I'm in a forest counting plants", there we have no excuse. Do you know what I'm saying?

26:11

Tanisha: I do understand. I think what it is is we've all been conditioned by this racist system that we're in. It not only conditions Black people to always fear for their lives (because it feels like no one cares about us); it also conditions white people to only care about white people and to not care or empathize or try to put themselves in the shoes of someone that's not like them. A lot of times these stories that have been happening since forever, Black people know about them. We've been saying this for a long time, but this grand awakening in the pandemic (which I think it's great), but how long has it taken for people to wake up and see

that this is happening and was a problem? It's a huge problem that we need to get straight before more lives are lost. It's something that I always talk about with my family, where I always say my ending quote for these discussions that we have, "When is enough enough? How many more people have to die before we wake up and realize that this is a huge worldwide problem?"

I don't know. I don't know the answer to that, but I've been saying it since as long as I can remember and have been reading about the trauma that Black people have been put through across the world.

Liz: Do they have to be a scientist for me to relate to them and to see how unfair it is for them to be frightened, to do their work? It's a very disturbing question.

Tanisha: Yeah, it's the system we're born into and so we have to find a way to unlearn some of the things that we're taught that aren't actually correct and harming others, and also yourself. That's the thing about racism; it's not only harming the oppressed people, but it's also harming the oppressors as well. They're benefiting greatly, but if we can tell you to stifle voices and murder people, it's just not good for society as a whole. It's not good morally (just number one to that), but it's now also not good for society as a whole. Me being a scientist thinking about science, we've learned everything from indigenous groups and not highlighting that or acknowledging that knowledge (what we've learned and then added upon). We're still learning things from indigenous peoples, and I just think we should be highlighting that.

28:29

Ivan: So one of the things we really want to get all of our guests this season to tell us is really some advice for upcoming scientists. Since you really are sort of right at that stage and you've really done an amazing job getting there, we wanted to ask you a few questions about what you would say to people coming up. I'd like to start with just asking about your feelings about social media and using it in general. There are obviously some real downsides in terms of

harassment, and just the trolling and the intrusiveness of these platforms in our lives. While at the same time, I think for you, you mentioned how if you hadn't had this revelation during the Black In Nature day where you were seeing all these other Black people who are in botany posting on the internet and realizing that even though you've been in these very white spaces for the last ten years, you are not really alone in being a Black botanist. There's obviously some incredibly positive things out of there. Do you think there's a balance? You know, how much would you recommend someone coming up an undergrad to be online and talking about research or their lived experiences on Twitter or Instagram, or any of these places?

29:47

Tanisha: I would highly recommend it. I wouldn't say censor yourself, but also just be mindful that this is information that a lot of people can see. So that's the first thing: just be mindful of your posts. I have connected to a large community of Black botanists and other scientists (not only Black botany, other fields of science). I've curated my Twitter to be mostly academic, and just making sure that my Twitter feed is diverse in its topic, and I think that it's great that young people can tap into that. Now there are scientists that are actively wanting to help young students and actively sharing information and job opportunities. I think social media is a great thing, but I do agree with you that there are quite a number of negatives to it. But if you curate your social media information, you're going to get more things that are tailored to what you want to see.

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Liz: True, but that whole curation aspect also produces these echo chambers. I mean, one of the cool things about what happened sort of this summer was there was a big movement (at least in a lot of the folks that I follow on Instagram) to hand their feed over to a person of color so that you could see what the content was there and then follow new people. So my feeds, especially on Instagram, completely different than they used to. And I love it.

31:11

Tanisha: That's a really great point. Yes. So I do try to diversify my timelines across social media platforms. Like you said, you want to know the pros and the cons, the one side versus another side; you want to know all of the facts. I think that's such a great point in making sure that you're not only following people that think like you (that look like you), but following people from different life experiences, different research, or just different areas in life. I follow a lot of people that do travel photography because I'm dreaming through them. [Laughs]

31:46

Liz: I understand. So, one of the cool things about this Black In Botanists group that you put together is that it created this community that was there, but just not so connected. Now I feel like you seem so connected for the long haul. That was not just a transient experience. You will always have these people to connect to forever through social media, but still not on the ground, help and support on a day-to-day basis. So what would you advise a young Black scientist (a young trainee somewhere) who is feeling very isolated? How do they find their community? I know you're going to say, "Look on Twitter," but how else can they find a community to help them feel a connection?

32:29

Tanisha: Good question. I was going to use those exact same words, "find your community", and not only on social media. There are people that are actually mentoring through social media and things like that, but also look around where you are. And it would be nice if your mentor is someone that looks like you and has a similar lived experience, but that may not be the case. It's also good to have mentors that don't look like you; I think you should have both. So trying to find a mentor, step one. I would also highly recommend googling who's in your area that you may want to talk to - who is the head of some type of club or some group; it may be outside of your institution or within. Just looking far and wide

for a type of community. Now with everything being online, as far as like zoom and things like that, you can actually chat to people face-to-face.

Something that I always tell students when they ask about different tips is also doing, like, coffee; I call them coffee dates. It's really you're interviewing a senior personnel or someone whose job you think is interesting (whose research you think is interesting), getting that type of information. You can ask them how do they get to their job and about their research. I think that's really important is to interview as much people as you can, because you'll find out about different opportunities that are not widely know. That's how I found out about different programs. I didn't know anything about Cal State LA until I talked to a woman working for NSF when I was doing the internship that told me to look into that program.

Liz: So essentially informational interviews.

Tanisha: Yes. Those are really, really great. And I still stay in contact with a lot of the interviewers that I've had. They're mentors now.

34:17

Ivan: So this Black botanists group, you had your week, but obviously that did not fix all the systemic racism in botany. So what is the group doing now? How are you taking this awesome energy that you guys had and building on it?

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Tanisha: Great question. So we've decided that this is going to be an annual event (a week long event) every year to highlight Black botanists. And then on top of that, many of us are giving seminar presentations and lectures and being invited to things that I don't think would have happened if it weren't for Black Botanist Week; I definitely have seen an uptick and interview requests. Also we're partnering with the Holden Arboretum in Ohio. Every second Wednesday for a year (now, from October all the way through April, 2021), a Black Botanists Week committee member is giving a lecture.

The title of the Holden Arboretum lecture series is "Growing Black Roots". Just yesterday, Maya Allen from the University of New Mexico (who's a PhD student and also a Black Botanists Week committee member) talked about dry farming in New Mexico. Looking at this, the first settlement (the first Black settlement) in New Mexico called Blackdom, and looking at how farmed in this really dry environment. It was a really fascinating talk and we have *so* much more to come.

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Liz: I just really want to congratulate you on being the catalyzing factor in that whole movement. You're going to impact so many people. It's incredible.

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Tanisha: Thank you. Yeah, it was really . . . it was just a wonderful week. It was really heartwarming and just nice to connect with people in that way. Having a common interest centered around plants (something that I love so dearly), it's been nice to connect

36:12

Ivan: Well, **Tanisha:** this was fantastic. We really, really enjoyed talking with you about all the great stuff you're doing both at Bucknell and with the Black Botanists Week. If people want to get in touch, find out more about Black Botanists Week, find out more about your research; how should they get in touch with you?

36:28

Tanisha: Both my Twitter and Instagram handles are the same. It's @T_Marie_WMS.

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Ivan: Okay. And **Liz:** how can people get in touch with you?

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Liz: You can reach me on Twitter at @EHaswell

36:46

Ivan: And you can reach me on Twitter at @BaxterTwi. You can reach the podcast on Twitter @TaprootPodcast, and we have an email address which is Taproot@Plantae.org. And with that **Tanisha:** thank you again for a wonderful conversation.

37:03

Liz: It was wonderful to have you - wonderful and inspiring.

37:07

Tanisha: Thank you so much for inviting me. It was so nice to be here.

[Theme music]

Ivan: The Taproot is produced by the hosts in collaboration with the Plantae team of Katie Rogers and Mary Williams at the American Society of Plant Biologists. On this episode, we received editing help from Plantae fellow Sienna Wessel. Jo Stormer provides out transcripts. Thanks for listening, and we will return next week with another episode.

[Theme music]