- Just the kindest communities we've been working with in Ranomafana National Park, that's sort of in southeastern Madagascar. And it's a really tough field environment, it's pretty remote, but it is just amazing working in the forest and then having lemurs come flying overhead. Yeah, I just, yeah, there's no place like it on the planet. This is the "ORISE Featurecast." Join host, Michael Holtz, for conversations with ORISE experts on STEM workforce development, scientific and technical reviews, and the evaluation of radiation exposure and environmental contamination. You'll also hear from ORISE research program participants and their mentors as they talk about their experiences and how they are helping shape the future of science. Welcome to the "ORISE Featurecast."

- Welcome to another episode of the "ORISE Featurecast." As ever, it's me, your host, Michael Holtz, in the Communications and Marketing Department of the Oak Ridge Institute for Science and Education. And I am happy to have back my co-host for these conversations, Mr. Matthew Underwood, also from the Communications and Marketing Department at ORISE. Matthew, how are you?

- I'm good today, how are you doing?

- I am good. We're recording this on a Monday, so to be able to say, "we're good," on a Monday is kind of a good deal.

- It is, well, the good news is, here in beautiful East Tennessee, it's February and it's actually kind of spring-like outside so that's a plus today.

- Amen to that, absolutely. So and we have another great conversation on the way with another great ORISE fellow. Today we have Jake Krauss, who is a fellow in the Environmental Protection Agency Office of Water. He's a biologist, and we're gonna talk about his research, what he's doing, all that great stuff. Jake Krauss, welcome to the "ORISE Featurecast."

- Thank you so much for having me, great to be here.

- We're so glad you're here. So Jake, you're with the EPA, you're in the Office of Water. Talk about what your fellowship focuses on.

- So I'm with the communications team in the Office of Water, and we're basically, like the public relations side of the Office of Water. And I help out with the team, doing all sorts of communications products from social media to video, to helping with scripts and managing the website.

- Awesome, so we're a team very familiar with that kind of work so.

- You're one of us, in the communications field.

- That's right.

- Exactly, yeah, we gotta get a podcast going though. I've been trying to push for that so.

- Oh, excellent. Well, maybe we can help you out at some point. We can talk about that, that'd be great. So Jake, how did you get to the EPA Office of Water? What does the road to where you are today, what does that road look like?

- Well, I had just finished my graduate program. I was studying tropical biology, it was very much a traditional research focus. But over the years in my research journey, focusing on wildlife conservation projects, I had also been dabbling with science communication.

- Okay.

- And I'd done various media internships with research organizations, but also with nonprofits, and I'd previously worked at the National Environmental Education Foundation, and that's the nonprofit partner of the EPA. So I'd done work for the Office of Water before, producing-

- Okay.

- So that really prepared me for this specific role after graduation, and it made sense. And I wanted to stick around the DC area, that's where I'm originally from. And so I wanted to move back here and this position seemed to fit that.

- Awesome, so what came first for you, Jake? Science or communications, or did they sort of come together?

- Well, I started with doing my undergrad degree in ecology and evolutionary biology. And I was very much, doing wildlife conservation research, bouncing from continent to continent on different research projects. But after I graduated I thought about, you know, I knew traditional academic research was not gonna be my path. And so I started experimenting with different media components. When I did a research fellowship after graduation, I teamed up with my brother, who's a filmmaker, and we created this short film. And that was sort of the moment that sort of showed how I could be in the conservation space but in a different capacity.

- So you kind of go back to, you know, that first step with the ecology stuff. Has science always been an interest to you, growing up as a kid or where did that first come into play?

- Well, I've always liked the environment and I always was doing outdoor activities with my family, but it never really extended upon that. I mean, I knew I liked animals, but I took an AP biology course in high school and that was sort of the extent of anything I'd done with respect to science. But I figured, you know, if I'm gonna study something in college, I might as well study something with the environment. And that's when I reached that science degree. But before that, you know, I was always science curious. I'd say, you know, I liked science fiction and that sort of thing. But I was, yeah, I would always, you know, do different activities in school that wasn't necessarily related to science.

- Cool. What about the role of mentorship in your career? Have you had strong mentors that have helped you get to where you are?

- Yeah, so what really helped me a lot was the professor that I worked with, my freshman year in college. I looked at her website before I even applied to my school, Rice University in Houston, and I saw that there was this researcher doing work in Madagascar. I thought that would be really cool so I got involved first thing, freshman year, to join her lab. And I was lucky enough to have her support, she helped me get my first research opportunity to go to Madagascar with one of her PhD students and that really set me off on a path towards research. 'Cause once you get, you know, one opportunity, it sort of builds off of each other.

- Sure.

- What was that experience like, going to Madagascar?

- Yeah, I went a couple times, it was fantastic. I mean, just the kindest communities we've been working with in Ranomafana National Park, that's sort of in southeast Madagascar. And it's a really tough field environment, it's pretty remote, but it is just amazing working in the forest and then having lemurs come flying overhead. Yeah, I just, yeah, there's no place like it on the planet.

- That sounds amazing. And in your focus on science communication, you know, I know, ORISE puts a premium on helping scientists understand soft skills like communication, right? 'Cause it's not always easy to communicate the science that you're doing. Is that part of the attraction for you, is helping people understand what scientists are doing? And, or is the attraction helping you, helping to tell the story of the science that is going on?

- Yeah, I mean, it is all about storytelling, I think. And getting the stories either of the scientists or of the communities that are being impacted by the science, I think, is pretty key to that. So yeah, for me, it's all about the storytelling. It's all about, sorry, my notifications are going off.

- That's all right.

- Hopefully, you can edit that part out. It's all about how we can get the stories out there.

- Is there a favorite story that you have so far, to tell about the work that you've done?

- With respect to what specifically, just in general?

- Well, either, you know, whether it's your work in Madagascar or with the Office of Water, is there a particular story that you've enjoyed telling, either about a scientist or about work in general?

- Yeah, so I particularly loved highlighting, this was when I was working in Australia, I got to interview a scientist that was doing similar research to me at the time, but she was a little bit further along. She was finishing her PhD and she was doing a study looking at how we can train potoroos to be better at avoiding cats. And so it was really fun getting to interview her, she had a great personality. And it was just, we had this great conversation about how we can help preserve endangered species that are just being gobbled up, left and right, by cats and foxes in Australia.

- Oh wow.

- So it was a really timely conversation, but also, yeah, it was just a really fun story to tell.

- That's awesome, I love that.

- That is so cool. Yeah, so you know, with you being in the communications aspect of the storytelling and that, you understand, you know, the collaboration between the science itself and then getting that message across. Talk about, you know, some of the people that you've worked with and how that collaboration works to kind of tell the whole story of the work that's going on?

- Yeah, I mean, especially in the research world, those collaborations with the local communities are key. I mean, that's where really, these relationships have to come in because I mean, you can't just come in with, you know, a project idea and if the community is not on board, it's not gonna happen. So I mean, when it comes to conservation, yes, it has to come from within the community, but then also telling the stories, you know, getting that local perspective is key as well.

- That's great, and I have to imagine, and I know, Matthew and I deal with this in our organization, like collaborating, you can't really tell the story without other people's voices, right? Without sort of bringing people to the table to help you understand what's going on. So collaboration, I'm sure, plays a huge role in being able to tell those stories well.

- Yeah, and getting, you know, the expert perspective and highlighting, you know, their, you know, getting important quotes from them, I think, is also a way to bring the story to life.

- Right, right. Jake, have there been obstacles for you to overcome, that you've had to overcome to get where you are?

- Yeah, for sure. So, I mean, it was, I guess, I mean, it was easy sort of getting through university, I feel, because I had that support and I was sort of pursuing my passions. But I sort of struggled a bit after graduation with sort of finding, you know, just sort of going from opportunity to opportunity. I mean, I was pursuing my interest, but I sort of felt like I was sort of always chasing the next thing.

- Hmm.

- And yeah, it sort of got me into a little bit of trouble with, I started a PhD program and knowing, you know, that academia really wasn't for me but at the same time I was sort of thinking, well, maybe it'll help me on my science communication career. And it was very, it sort of unfolded pretty catastrophically and yeah, and had to take some time to recover from that. But it actually then led me to getting back into the science communications space. So overall, I think it was a necessary struggle to overcome.

* Gotcha.

- Yeah, that's awesome. You know, you talked a little bit earlier about your mentors, you know, throughout this process. Have you had the opportunity to mentor anyone else? And, you know, what did that experience teach you, you know, getting to show other people kind of the ropes and how things go?

- Yeah, so not so much as, you know, in ORISE, but in the past I've done positions where, you know, as a researcher coming in, there are often volunteers who, maybe, this is their first research project or they haven't done field work before. And so it was kind of cool getting to teach people, often who are even older than me, so it's not necessarily about age, but I mean, anyone can be a mentor and a mentee for somebody else because everyone has different strengths and weaknesses. So in this case, I was able to share my strengths with research and following protocol and sort of helping people to get a specific research protocol under their belt. And you know, they were able to teach me different things about, you know, their background. So it's an opportunity for exchange really, I think.

- Jake, what do you tell a young and upcoming, whether it's a scientist or a prospective science communicator, what do you tell them about what they can do, what they can accomplish, what they need to do to get to the spot where you are today?

- I think it's important to remember that you don't have to choose just one thing. I think, a lot of what allows, you know, content or whatever field you're interested in, to become great, is really working at those intersections. So think about the intersections of your interest. What are the overlaps and how can you bring your strengths to that? And also, I think, the more you pursue your interests and activities that you know, you're passionate about, the more you attract other opportunities that you're passionate about. And that just brings you so much closer to your goals than if you just settle for something else.

- Right, right, right, right.

- That's awesome. You know, you talk about, you know, the different avenues of, of course, in the communications world there's so many different things that play into, you know, telling the stories that you wanna tell. Is there something that you enjoy more than the other? Do you enjoy the video side? Do you enjoy social media? What's kind of your sweet spot of how you enjoy the communications world?

- Yeah, I really like working as a presenter and actually, I host a civic science news show in addition to my job at the EPA. And for me, that sweet spot is really taking my presenting skills and bringing it to showcase either these, well, with my show, civic science innovations or conservation, and helping get that message out there.

- That sounds really cool. So I'm gonna deviate a little bit, how did you get into presenting and I guess, creating your own mark with civic science?

- Well, so I mean, I've always had a theater background, and so I was, you know, acting and presenting well, science presentations and in that capacity, throughout high school and college. But I started, you know, just doing videos on Instagram and I eventually got hired for this position with the Civic Science TV Network.

- Okay.

- Which is part of Civic Science Media collaborative. And yeah, so for the past year now, we've just been doing weekly Civic Science roundups to get the latest news out there to people.

- Awesome, and I'm assuming, making it accessible so anybody can understand what the innovations are that you're discussing and presenting?

- Yeah, a lot of times there can be pretty convoluted social science research, which myself, you know, that's not my background necessarily-

- Sure.

- So I have to really take it down and say, okay, well, what does this mean and why is it relevant to people?

- That really sounds amazing, I'm gonna have to go look for that.

- I was gonna say, it sounds very interesting.

- Yeah, yeah, it's been a fun project and it's been nice to get to use my presenting skills in that capacity.

- More of those soft skills that we like to talk about, presenting skills, communication skills, they're all important, right?

- Yeah, for sure.

- Jake, last question for you, what brings you joy?

- What brings me joy? I just, anytime I see an animal, really, a fox or raccoon just outside, I get so excited. And if I can take a picture of it and get some video, even better. So that's really, what brings me joy, no matter how miserable the weather out.

- I have to imagine, in Madagascar, with lemurs flying around, that had to be a pretty joyful experience.

- Oh yeah, well, that's the great thing about being in a tropical forest, there's so much biodiversity there. And so the tropics are really my happy place because, you know, you just look left and right, there are animals everywhere.

- Awesome, awesome, well, Jake, I'm gonna leave it right there. Thank you so much for spending this time with us and giving us a little time to get to know you. And I hope we can have you back at some point and talk about how your work and your research have progressed.

- Thank you so much for having me, I really appreciate it.

- Absolutely. Have a great day.

- [Presenter] Thank you for listening to the "ORISE FeatureCast." To learn more about the Oak Ridge Institute for Science and Education, visit orise.orau.gov, or find us on Facebook, Twitter, and Instagram, @oriseconnect. If you like the "ORISE FeatureCast," give us a review wherever you listen to podcasts.

- [Announcer] The Oak Ridge Institute for Science and Education is managed by ORAU for the US Department of Energy.