

BriannaInterviewEpisode2.mp3

Dr. Sandra Rideout-Hanzak [00:00:08] Welcome to a talk on the wild side. Your biweekly tour, of all things, wild in Texas. I'm your host, Dr. Sandra Rideout-Hanzak.

Andrew Lowery [00:00:16] Howdy. Howdy. And I'm Andrew Lowery.

Dr. Sandra Rideout-Hanzak [00:00:19] Hello Andrew.

Andrew Lowery [00:00:19] Hey, how are you today, Dr. Rideout?

Dr. Sandra Rideout-Hanzak [00:00:20] I'm doing well, thank you. Today is a little bittersweet for us, I think, because this is going to be Brianna Slothower's last episode. Brian is usually our co-host. She's been our co-host for a while now, but she's graduated. Yay! She finished her master's degree and she's graduating and she's going to be part of our interview later. So this interview is a last hurrah for her. And so this is a little bit bittersweet for us.

Andrew Lowery [00:00:45] It really is. And Brianna has played such a big role with the project, and she's she's brought so much to the table. And we are so going to miss her. We are so happy for her to be moving on, to be doing something in the field and something she's already been doing. Like, that's such a awesome thing to see.

Dr. Sandra Rideout-Hanzak [00:01:00] Yes. And she's headed back to her home area, region, I suppose, and she's going to tell us more about that in the interview. But she will have like real trees and real winters and.

Andrew Lowery [00:01:13] a full season, set not summer, slightly less summer and then summer. Again.

Dr. Sandra Rideout-Hanza [00:01:19] Summer, super summer, not quite summer.

Andrew Lowery [00:01:21] Yeah, yeah.

Dr. Sandra Rideout-Hanzak [00:01:22] So she'll have real seasons. So we're very happy for her. But we're. But it's a little bit bittersweet today.

Andrew Lowery [00:01:28] Yeah, but hey, guess what, Dr. Rideout?

Dr. Sandra Rideout-Hanzak [00:01:31] What's that?

Andrew Lowery [00:01:32] You know, we talked about this a little bit before. It was what was it called? It was that Recovering America's Wildlife Act. It's actually made some progress, if I'm not mistaken. Have you heard about that?

Dr. Sandra Rideout-Hanzak [00:01:41] Yes, absolutely. When we spoke about it before, it had gone through the congressional committee and was preparing to go to the full Congress. Well, it's made it through the Senate committee as well. Very soon, in the next couple of weeks, it's going to be voted on by the full House of Representatives and by the full Senate. And so we wanted to update you on the Recovering America's Wildlife Act. That's what it's called. And it's great because this bill, unlike a lot of bills, this bill has really got bipartisan support. I mean, everybody can get behind wildlife, right? I hope. I hope so.

Yes. So it's enjoying some bipartisan support and we really hope that it will be successful. So what they did in the Senate committee was amended the language just a little bit to provide a multi-year ramp up in the funding. And it's going to be funding for state fish and wildlife agencies and also tribes for the nation. It's going to provide over \$1 billion annually for wildlife conservation, and Texas is going to receive over \$50 million per year to be used directly for wildlife and habitat conservation.

Andrew Lowery [00:02:52] That is a lot of jobs. Yes, that is a lot of work for biologists and scientists and people that we need in the work force. That is that is really cool. Yes, it could be very cool.

Dr. Sandra Rideout-Hanzak [00:03:04] Yeah. It's not just terrific for wildlife. It will provide a lot of jobs and other benefits as well. So in the Senate, what they did was amended the language just a little bit in the committee. Those amendments provide a multi-year ramp up in funding for the state and Fish and Wildlife agencies, and they also increase the original proposed budget just a little bit in the fourth year. Tribal funding is not going to be subjected to the ramp up, so tribal funding is going to be about 97 and a half million dollars annually to provide provided to tribes as soon as the legislation is passed. So that's going to be terrific for them as well. Specifically, the money can be used for certain things and not for other things. Of course it can be used for the development of threatened and endangered species recovery plans. It can be used for private land conservation efforts, for voluntary conservation agreements and also endangered species interagency consultation requirements. The money from the fund cannot, though, be used to make any listing or critical habitat determinations related to the status of a species or to acquire any federal land. It can't be used to recover nonessential experimental populations or to conserve species outside the United States or its territories. The amended language in the senate also helps to ensure accountability for the funds to make sure that they are used for their intended purpose. It places a 3% cap on administrative fees, so the vast majority of the money is going to go directly to conservation. So for the first time in history in the United States history, it's going to provide permanent, dedicated funding to states and to tribes to proactively conserve at risk species.

Andrew Lowery [00:04:58] And that is just so awesome. And some of our. The stars might not know how a lot of wildlife is currently funded. We have two big acts because I'm just going to put this into a nutshell. We have the Dingle Johnson, which is more for fishing and the fisheries, and then we have Pitman Robertson. Both of those are basically excise taxes, either on fishing gear, hunting equipment, firearms ammunition, and the funding goes directly to help wildlife conservation.

Dr. Sandra Rideout-Hanzak [00:05:23] Permanent funding is really big. It's huge. And so it's going to help restore wildlife habitat, grasslands, prairies, forests, rivers, all of that. It's going to specifically buy by being proactive with the conservation. It's going to help keep species off of the endangered species list. And in doing that, that helps to avoid business slowdowns, which is really, you know, is something big in Texas because sometimes, you know, as much as we want to conserve and preserve species, the endangered species legislation can bring commerce sometimes to a halt. And so this will help avoid that. Also for Texas specifically, you know, we have a multimillion dollar outdoor recreation industry, hunting and fishing and birdwatching. And so this is going to help protect all of that. And you mentioned earlier the jobs the jobs now not only are going to be protected, but there's going to be more of them. So positives all the way around it. So if you're interested, you know, we can't go into full detail here, but if you're interested in learning more about it, you can go to the Wildlife Society's Action page. So, you know, just Google the Wildlife

Society. They have an action page. You can get updates there and you can also find opportunities there to engage in a more active role there in the passing of the Recovering America's Wildlife Act.

Andrew Lowery [00:06:57] That's so fascinating. Dr. Rideout, like this is so cool to be able to see this legislature happening in real time in our lifetime and not just these big significant cases that we've read about it through the course, working through academia. It's something we're living through.

Dr. Sandra Rideout-Hanzak [00:07:11] Yeah, yeah. That's a good point. It is really making history, making history for wildlife and for conservation of their habitat. So that's a good point. As I mentioned, we do have an interview with Brianna and with Dr. David Wester coming up. Dr. Wester was her advisor for her master's thesis. I just want to mention a couple of things that they're going to talk about. One thing that they mentioned is a plant, a group of plants called Forbes and Forbes. If you're not familiar, Forbes are what a lot of us might call wildflowers or they're what a farmer might call a weed or a rancher might call a weed. So it's a herbaceous plant. A lot of them are annuals or biennials. Some of them are perennial. But they're not grasses, so not woody plants. Not cacti. Not grasses. Anything, you know, with that makes a flower like a thistle or an Indian blanket or prairie dahlia or something like that. That's what we mean by a form. And they also talk about drill seeding and broadcast seeding. And drill seeding is when you have you know, you're on a tractor pulling along this drill seeding implement behind you. And it actually drills little holes into the ground that the seed fall into. And that can sometimes make a big difference when we're seeding an area as opposed to broadcasting it. And by broadcasting, I mean just, you know, that the seed just gets tossed out there and it's sitting on top of the soil surface then. So broadcast is when it or when it's tossed out there and drill seeding is when it's actually drilled into the top layer of the soil. So when you hear those terms now, you'll know what they mean. Let's get on with our interview. Well, we're here today with Dr. David Wester and Miss Brianna Slothower they are both with the Caesar Kleberg Wildlife Research Institute here at Texas A&M Kingsville. Dr. Wester is the Francis and Peter Swanson Endowed Chair in Rangeland and Restoration Research. And Ms.. Brianna, you all know and love already. She's a graduate student here. So thank you for being here. Thanks for joining us.

Dr. Wester [00:09:24] Well, thank you for having us.

Brianna Slothower [00:09:25] Yeah, we're happy to be here today.

Dr. Sandra Rideout-Hanzak [00:09:27] It's our pleasure. So tell us a little bit about yourself. Let's start with you, Dr. Wester. Tell us what you do here at the Caesar Kleberg Institute here in Kingsville.

Dr. Wester [00:09:36] Well, I might be able to do that if I give you some background first. So when I went to school, I studied range and forest management as an undergraduate, and the focus was on range management. And then my graduate degrees were all range oriented. So most of my interest is on the plant end of range science, not on the animal sciences. And so with that as a background, most of what I've done here in Kingsville is work on plant ecology questions. Those have been dealing with individual plant responses to plant ecology questions. We would call that autecology, you know, in the ecology 101 class. Also, how groups of plants respond together, which we would call something like synecology. So with my students, we've looked at restoration, individual plant responses, plant community responses, largely in response to the energy extraction that the

disturbance that goes with that. I also had a chance early on to work with invasive grasses. And so we've done some work not only on the the interactions that they have with native plants, but on some soil microbial work. And then, as you know, Dr. Rideout, I've worked with you in a lot of your fire-related work.

Dr. Sandra Rideout-Hanzak [00:10:48] It's been fun, too. So, Brianna, tell us about yourself.

Brianna Slothower [00:10:52] Yeah. So I think, Dr. Wester, since I work under him, we do a lot of similar things. Obviously, he's done a lot more than me. But yeah, I think if I gave myself a fancy explanation, I'd say I do native plant restoration and human altered landscapes, but in reality, I just get to use a milk crate that Dr. Wester generously donated to my cause

Brianna Slothower [00:11:18] PVC pipe square and I go and sit on said milk crate for that square down and count some plants.

Brianna Slothower [00:11:24] So that's that's the gist of what I do here. Fancy seeing some.

Brianna Slothower [00:11:30] People do fancy science experiments with beakers and stuff.

Brianna Slothower [00:11:33] And I'm just out there having a good time.

Andrew Lowery [00:11:36] So, Dr. Wester, a lot of your restoration research is looking specifically at restoring pipeline roadways. Can you get us up to speed on pipeline issues here in Texas? What are the pipelines for? How many are there? Do you know how big of an issue is this really?

Dr. Wester [00:11:50] Sure. The first question is, is an easy one to answer. You asked, what are these pipelines for? Primarily, there are two transport energy products from the point of extraction across the field to a point of processing. So it's I think it's a straightforward thing to talk about what they're for in terms of how many there are. It's I think the easiest way to answer that is to think in terms of Miles and some of the latest statistics that I've looked at say that Texas alone has almost a half a million miles of pipelines. That actually represents about a sixth of all the pipeline mileage in the country. Really? Yeah, absolutely. You know, here in this state. So if you take one of these half a million miles of pipelines and then you wonder how wide it is that the pipeline width, the right of way width is really quite variable. And that's largely a contractual issue between the landowner and their energy partner. Just to say how wide is this pipeline going to be? So it might be as narrow as 20 feet, it might be as wide as 50 or 75 feet. So if you do just some basic math on that, a half million miles times, 50 feet wide, we're talking about over 2 million acres of area that these pipelines cover. So that's one answer to your question. You know, if again, you said how big of an issue that that's kind of a big issue. But I think if you think about how these pipelines are laid, it's not one big square of 2 million acres. It's these little threads of pipeline that crisscross all over in every direction. And so I think that that has lots of implications, just the physical layout of that. And then finally, how big of an issue you ask? Let's talk about timeframes. You know, when a pipeline goes in, that's an immediate disturbance, maybe a short term disturbance, but it has a really long lasting impact. And so that also is part of it, I think. I think this is a big issue, not only spatially, but temporally as well.

Andrew Lowery [00:13:57] Sorry. I don't mean to just stammer, but that I didn't realize the scale that it was on, at least when you put in the acreage. Something I can very much like visualize to an extent. Yeah.

Dr. Sandra Rideout-Hanzak [00:14:08] That's a that's a lot of fragmentation, too. When you talk about, like you say, these threads going across the landscape, that's a lot of fragmentation.

Andrew Lowery [00:14:18] So on that, what what kind of disturbance do you see to like the seedbeds when you put in a strip like this? Because I'm assuming it has to be dug up and then things are put in the soil.

Dr. Wester [00:14:28] Yeah. Yeah. So I don't know if you're asking and there's lots of ways we can do this, but if you're asking what is the restoration process itself? What is the pipeline process, if that's what we're thinking about. Um, we've already talked about the pipeline width. You might wonder, well, how deep do these things go? And, and that also depends on all kinds of things, you know, the topography and the soil types. But if we take is kind of a minimum depth of three feet, just imagine digging a three foot trench and that's a lot of soil to move. And I use that word really carefully, soil. It's this intact thing in in the ground. As soon as it's moved. It's dirt now, you know, dirt under the fingernail dirt. So you sweep off the floor. Dirt is disturbed soil. So as soon as you dig it out of the ground is dirt. So if you have to go three feet or more deep, you go right through and past the topsoil and into the subsoil. And you might end up in in the material, you know, the stuff that soil develops from. That's a lot of disturbance. And one of the biggest problems in that is what to do with that. And so sort of the best management practice is something that's called double ditching. So the backhoe operator has to pay attention when he or she is moving that dirt around and is that bucket goes into the soil. If you're in the topsoil layer, let's pick that up and push it off to the left side of the pipeline. And when you get past that and you get to the deeper soil, let's put that off to the right side of the pipeline. So let's separate these natural soil layers and let's just talk about two of them, topsoil and subsoil. Obviously, once the pipeline is laid down, you have to be very careful to put the subsoil back in the bottom, in the topsoil on the top. And that may sound obvious, but I don't know that that's nearly as easy as it sounds. So if there are problems that develop like that, we call those mixed soils because topsoil and subsoil are just fundamentally different things. They're different in texture, they're different in structure, they're different in chemistry. And so one of the problems with this whole process is, is by definition, it is this huge disturbance. But if you don't do that carefully, it's an even bigger disturbance. And when all that stuff is put back, even in the order that you're supposed to put it back in, and even if you have the topsoil going back on top where it belongs, it's been incredibly disturbed. And so the living components of that, so all the soil microbial populations are just in a mess right now because of the physical disturbance. When you're done laying all that back, it's incredibly compacted. And now we have 50 feet of bare compacted soil. And you wonder how is anything going to grow on that? And the first thing that comes to mind is, well, what's next to that right of way on either side? And if it's a bunch of invasive grasses and this is South Texas, so that's what it is, then you have this vacant lot that is just asking for easy establishment likely of the plants that you don't want, you know, just using the term invasive that describes the behavior. That's what they do. And now you've opened the door and invited them in.

Dr. Sandra Rideout-Hanzak [00:17:48] That's really interesting. That's why they need restoration, right? I guess because you've done this huge disturbance to the soil. When we

say that, then that this pipeline gets restored, what does that restoration look like? And I'm making air quotes again, like everybody can see that. But what does that restoration look like? What are the steps?

Dr. Wester [00:18:10] I think you have to start with knowing what sort of soil you're beginning with in the first place. So so if the question is, what are the steps, I'm going to number them. And I'm going to say step number one is, are you are you on the coastal plains where you have deep clay soils? Are you out in in the western Rio Grande Plains where you have, of course, soils? What climate are you in and what soils are you dealing with? I want to say that that's step number one. You have to know that before you can do anything else. So if you can define where you are. Brianna's study area is in San Patricio County on Victoria Clay. If you know that, then you know the climate and you know those soils. There's a resource here at the institute called the Texas Native Seeds Program. And this is in. Amazing resource because you can you can call those guys up and tell them what you need. Here's where my pipeline is, what we'll grow here and what they can do is develop a mix of locally adapted native grasses and. Forbes And now the, the key phrase there is locally adapted. What, what little bluestem looks like down here in South Texas and what little bluestem looks like in North Texas on the Canadian river breaks. Those are they have the same name, but they're very different little blue stems. So the Texas Native Seeds program can can come up with a recommended list of plants that are locally adapted to your site. That would be step number two. Step number one is giving that program the information they need. Mm hmm. And step number two is they give you a list of plants that would work there. Step number three to me is is harder to be succinct about. You've got this bare soil and do you drill seeds? Do you broadcast seeds? Do you use herbicides to control any weeds that might be cropping up before you seed? So there might be lots of preceding decisions to make. Step number four is what do you do after all of that if you've got grazing animals out there? Brianna can talk about this. You know what happens when grazers are going out there and in whack and the plants that you have just that you just put in the ground on top of all of those steps. And I think you can sort of enumerate those things on top of all of the steps. You say, well, this is a pipeline that just got finished and I want to say just got finished. When did it just get finished? In July or did it just get finished in December or did it just get finished in at the end of April? Because regardless of the time of year, you want to get plants growing and some times of the year that might be easier than other times of the year. That's what I think is a summary of that process. What are you dealing with? What are you going to put in the ground? What are you going to do pre and post management wise? And when does all that happen?

Dr. Sandra Rideout-Hanzak [00:21:04] Okay. So in a way, it's starting to sound like each one is different because different soils, different climate, different time of the year when you need to get something started.

Dr. Wester [00:21:18] Absolutely.

Dr. Sandra Rideout-Hanzak [00:21:19] So each one comes with its own unique set of circumstances that you have to that you have to deal with, right?

Dr. Wester [00:21:27] Oh, absolutely. And I like the way you were that unique. Almost one of a kind. Some of the work that we did out in Dimmitt County on on a private ranch cooperator pipeline that was restored two years before we got out there. Looks lovely. Our pipeline is covered with buffelgrass in there within a quarter of a mile of each other. Each restoration of anything.

Dr. Sandra Rideout-Hanzak [00:21:53] Yeah. So. Wow. So speaking of unique events, Brianna, you did your master's thesis on a specific pipeline restoration project. So would you tell us about your specific project and what you did for your thesis?

Dr. Sandra Rideout-Hanzak [00:22:11] Yeah. So I think Dr. Wester introduced it pretty nicely in terms of I'm at the Robin Vessey Wildfire Wildlife Refuge. Like you said, it's a lot of Victoria Clay there. The specific section of pipeline we're working on is Victoria Clay, and we worked with Texas Native Seeds to develop a seed mix. So after this pipeline got put in, we wanted to see a whole bunch of native grasses there and there was some work done previously looking at cover crops with assisting with this native grass establishment. And just to kind of give you an overview of cover crops, they're typically used in agricultural settings. So if you're a farmer or, you know, some sort of agricultural person, let's say you grow grapes, you may put a cover crop between your vines so invasive plants won't come in, or let's say you grow wheat and you harvest the wheat. There's a good portion of the year where that ground is bare. And so it's just really a welcome mat for invasive plants to come in or, you know, the soil can really erode away. So oftentimes farmers will use this cover crop as kind of this safety net before the next crop season comes in. So there's been some work with cover crops in more native systems, and we've seen that these cover crops have reduced invasive grass, biomass cover density. So we thought it may be a good strategy when trying to establish these native grasses. So that was kind of the main question of my thesis project.

Andrew Lowery [00:23:52] Okay. Looking at that.

Andrew Lowery [00:23:53] That's so cool. Brianna. Oh, we're so happy for you.

Brianna Slothower [00:23:57] This is such a healthy place.

Dr. Sandra Rideout-Hanzak [00:24:00] And it just you gave a little overview of a piece of it there, but you mentioned Victoria Clay a couple of times. Victoria Clay is a pretty good starting point. Absolutely. And so there could be a lot worse places to start, right, Dr. Weston?

Dr. Wester [00:24:16] Yeah, it's a deep soil. It's a fertile soil. It's on a level landscapes. So it's going to have generally good soil, water, holding capacity. All of that stuff is good grain.

Brianna Slothower [00:24:27] And we did have some native grasses come up. So I guess to your point, yeah, things can grow and it's nice for that reason. And there was some dancing den when we saw our first.

Brianna Slothower [00:24:37] Native seedlings.

Brianna Slothower [00:24:38] Come up.

Dr. Sandra Rideout-Hanzak [00:24:39] So yeah.

Andrew Lowery [00:24:41] So back to your research, Brianna. What did you find out with your research and did your results shed some light on what we should or should not do in the future?

Brianna Slothower [00:24:51] Yeah, I think a big thing to consider before I tell you what I find is, again, like Dr. Webster said, every restoration is unique. And so maybe what

happened at my pipeline to I guess consider that before saying this is definitely what you want to do no matter what, wherever you're at, whatever soil type you're on. But yeah, so one thing since we're talking about cover crops, specifically with this project, we did find in one of our season trials that we looked at grazing with the cover crops and so in each plot we would have a cage inside these plots. So, you know, graziers who came along and wanted to munch on some grass could avoid certain areas. And so we would go in there and count how many native grasses were in there. And then we would also compare that right next to the cage, outside the cage, how many native grasses were growing there? And for our summer trial, we saw that inside the cage. When there was a cover crop, we were finding the same amount of native grasses inside the cage compared to outside the cage. But what we thought was interesting is when we compared native grass density inside the cage, when a cover crop wasn't present, there was a lot more native grasses inside the cage when compared to outside the cage. And so what we're thinking is maybe happening there is that these cover crops may be acting as a shield against grazing. So the cover crops we planted in the summer were a lot more showy. And so we're thinking that grazers would come along and avoid those areas because of the cover crops, and therefore the native grasses would get passed over. And then similarly, when a cover crop wasn't present, they were going straight into those plots.

Andrew Lowery [00:26:44] Okay. So that's very.

Andrew Lowery [00:26:46] Interesting.

Brianna Slothower [00:26:47] Yeah. And then I think cover crops are important, but I think the main thing we've learned with this study too is that timing is such an important factor when it comes to these restoration events. So a big thing and I think that was my really big take home message that I hope, you know, if anyone could have learned anything from this project is just when you start seeding these native grasses, it's super critical to get going as soon as possible, especially on these productive soils, as you were mentioning earlier, because those invasive grasses really just become dominant so quickly. And so putting something in the ground, despite if rain is, you know, readily available, getting them in the ground can get a foothold and just be a better situation when restoring.

Andrew Lowery [00:27:38] Awesome. So what I took from this is timing and then planning that's that's that's the big to get on it and know what you're dealing with and understand it's a situation by situation basis and you're probably not going to have the exact thing same thing that you saw somebody else have. I get a question for both of you. We asked this question to everybody. We have a lot of young listeners who have an interest in the natural sciences who think that's what they want to do once they come out of high school or maybe they're out of high school and they're trying to figure out what path they want to take. We've we've asked this question very generally in the past, but we're trying to get more specific of if somebody wanted to do your job and your job, what advice would you give them? Coming from no experience of just starting out that sort of basis.

Brianna Slothower [00:28:27] You want to go for it?

Dr. Wester [00:28:28] Sure.

Dr. Wester [00:28:29] Sure. I think I can answer that question with a personal story. When I was in undergrad and yeah, I was probably a sophomore or junior at the time, and graduation may seem far away, but, you know, it's not. And that that to me was sort of a

big, scary world. And what I realized is I just did not have any experience. So it's just exactly what your question is. So I went into my advisor's office. You know, I said, I'm not looking for a job. I'm not asking for a paycheck. I just want some experience. Can I hang around with your graduate students if they need some help? Can I help? And so I was offering myself as a volunteer and my advisor and Joe to Lisa just responded in the best way possible. He said, I'm not going to take advantage of you. I'll hire you if you want some experience, I'll give you the experience and you can make a little money on the side. And so I hung around with his graduate students for a couple of years, and that's what opened up my eyes, because that led to me going to another instructor I had at the time and say, I'd like to do an independent project on something that he was teaching in class. And now that just cut to the chase, I ended up doing a greenhouse study on my own as an undergraduate that all started with wanting to volunteer and get experience. That's how I think you start. So that's my answer.

Andrew Lowery [00:29:57] Yes, that's wonderful advice then.

Dr. Sandra Rideout-Hanzak [00:30:00] That is great advice. A lot of people say, you know, volunteer or whatever, but nobody's brought up, you know, do your own project, you know, work with a work with a professor who has.

Dr. Sandra Rideout-Hanzak [00:30:11] Somebody.

Dr. Sandra Rideout-Hanzak [00:30:11] Who does something that you're interested in and just say, Hey, can I do a little project for you on the side? I think that's a terrific suggestion.

Dr. Wester [00:30:20] What Dr. Lisa did on this is say, okay, now you remember I'm a junior now, and he said, so you want to do a project? What do you want to do it on? So it wasn't me going in and saying, I'd like to do something, give me some ideas. I said, I would like to do a project, can I? And he said, yes, and as you tell me what you have in mind. So I had to come up with the idea this wasn't just doing something that he had in mind.

Dr. Wester [00:30:48] That's great.

Dr. Wester [00:30:49] So I came up with this idea and I went to him and he said, Write me a proposal. And I just gave him a blank look. I don't know what that means. And so he reached into his file and he gave me a copy of a proposal that one of his graduate students wrote, and he said, Write something like this. So every time I came up with something, he threw it right back in my life. And so I had to write this proposal. And I went back to him and he and I worked on that a little bit. And, and, and so we ended up doing this greenhouse study. And when it was over with, you said you're not finished yet. You need to analyze those data and I don't know how to do that. And so he put me in touch with another one of his graduate students who helped me analyze the data. And he said, you have to write a report. So I wrote a report up and he said, You're not done yet. You need to take that and presented at a professional meeting. And so I went to the first range meeting I ever went to as a senior in college and gave that paper. And when I got back he said, You're not done yet. You need to write that up as a publication. So he took what was this, you know, just this sort of wide-eyed, "gee, I'd like to do something." And he made sure that did it was finished up, that there was closure, and it ended up as a publication from an undergraduate project. It started as a volunteer. Now, this is not about me. This is about my advisor. That's what this is about. He saw. Well, maybe. Let's see if this kid

wants to really do what he says he wants to do. So that that takes a special advisor to recognize that there's a student who's who who might be able to do something.

Dr. Sandra Rideout-Hanzak [00:32:26] It does that's that's a really cool story to that he was able to just keep encouraging you to do that next step.

Dr. Wester [00:32:35] Yeah.

Dr. Sandra Rideout-Hanzak [00:32:37] Pretty awesome. So Brianna, before you answer this question, I want you to tell everybody what your new job is going to be. I just mentioned that you've finished up. You just graduated. Yeah. You have a.

Dr. Sandra Rideout-Hanzak [00:32:51] We have a button for that.

Dr. Sandra Rideout-Hanzak [00:32:55] You have a real job. Now tell us what your job is going to be.

Brianna Slothower [00:32:59] Yeah, I'm going to be overseeing some prairie restoration up there, over the police area and then some new stuff that's going in the Great Plains. So good to be outside, have a happy time and I have a lot to learn.

Dr. Sandra Rideout-Hanzak [00:33:12] So awesome.

Dr. Sandra Rideout-Hanzak [00:33:13] So more more restoration work.

Brianna Slothower [00:33:15] Yep, yep. I'm glad I get to stay in this.

Andrew Lowery [00:33:17] So it always makes me so happy to see people, whether you're coming from like a bachelor's or a master's or come out of school, out of academia and do what they studied. Yeah, it's a beautiful thing to see that that come full circle and.

Brianna Slothower [00:33:32] Yeah, yeah, I just never thought it could happen. So I just am completely in awe that it's happening like dreams.

Brianna Slothower [00:33:40] Come true, you know? Like so.

Dr. Sandra Rideout-Hanzak [00:33:43] So what's your advice?

Brianna Slothower [00:33:45] Yeah, you know, I think Dr. Wester's advice is right on the money where it comes to, you know, getting experience because you find out what you like and what you don't like. I started out in nursing thinking. That was for me. And, you know, I enjoyed it enough. But having experience allowed me to know, is it something for me or not? But I think if I can add anything to that, I think the important thing in restoration work for me is just having a passion for it. I think sometimes this work can be dismal, but it also can be extremely hopeful. And so, you know, kind of keeping that hope and excitement and willingness to learn and ask questions like it's such a neat field to work in because I think most people who are in this field are excited for it. And so if you can kind of join in with that, you can learn so much. And yeah, and as I mentioned before, you know, with every restorations unique taking time to sit and learn, these systems seem supercritical in terms of doing a good job.

Dr. Sandra Rideout-Hanzak [00:34:51] I love that. I like it. Well, okay. So now we we do. As you know, Brianna, we have a favorite question that we like to ask around here about biology blunders. And so now we have to do some exciting biology blunders.

Dr. Wester [00:35:12] Brianna, do you want to go first?

Dr. Wester [00:35:14] Yeah. Okay. You go first.

Brianna Slothower [00:35:16] Yeah. You know, I was trying to think I know this is everyone's thing is like, gosh, like I've done a lot of stupid little things, like like collecting soil and knocking the bucket down the hill and you're like, oh, you know, or tripping over lots of things. But the only story I could think of that would last more than like 3 seconds was my first day here at school, and I grossly underestimated the heat of South Texas when I came down here. And so, yeah, the cool thing about working in this lab is we get to go to a lot of different places and so shout out to Dustin and Emily for letting me join them. But yeah, so on my first day, the first day I met Destin, this is like the second time I had met Dr. Wester. We went out to Dustin's project site, which is past Catarina. I don't know what county.

Dr. Wester [00:36:10] It's in the Dimmitt county, actually. What's the time of year now for your story?

Brianna Slothower [00:36:15] July, yeah.

Dr. Wester [00:36:18] It's important.

Dr. Sandra Rideout-Hanzak [00:36:19] That is important.

Brianna Slothower [00:36:20] So July is hot, and it sounds.

Brianna Slothower [00:36:23] Like something.

Brianna Slothower [00:36:25] That I might have thought.

Dr. Sandra Rideout-Hanzak [00:36:26] About with this situation. Hashtag July is hot. Yeah.

Brianna Slothower [00:36:33] And so Dr. Wester and I, he let me follow him around. And like, we were identifying plants and, you know, that's another thing crazy about Texas is how many plants are here. Like in Idaho, we have like two plants. So coming down.

Brianna Slothower [00:36:48] Yeah, right, yeah. That's all, that's all we have anyways.

Brianna Slothower [00:36:54] So we, we were walking around and I noticed I was getting warm but it wasn't, you know, I was like, oh, be tough. Brianna. And so we, we got through it was getting hot. And Dr. Westerners like, how about you go sit in the truck and turn on the air conditioning? And I was like, okay, yeah, that's probably a good idea. And then we came out and did some more work and I thought I was fine. Like, I was like, okay, I've made it through 110 degrees field work. I've got this, you know, this is super great. And I feel like anytime someone gets proud is when a fall is about to come. And so we started driving back to Kingsville and probably about like 10 minutes in the ride I started getting super nauseous and I was like, Why am I not? It's like, this doesn't make any sense.

Andrew Lowery [00:37:46] Were you, like, super dizzy as well?

Brianna Slothower [00:37:48] Maybe. Who knows?

Brianna Slothower [00:37:52] And the good thing was Doctor Webster and Dustin were talking and they said, Oh, we'll stop at this gas station. Like, Oh, good. Like, that's going to help me out. And we pull into the gas station and I'm just not feeling good. I'm like, Oh, no, like, I'm going to throw up. And I was like, Okay, I think I can hold it till I get to the restroom at least. So I was pleased with that. So I opened the door and try to, you know, like casually be cool, like walk super fast because, you know, second day with Dr. Wester, first day with Dustin. I'm like, okay, hold it together. And so I start walking to the gas station to get to the restroom and then explosion was about to happen. And so I get almost to a trash can and I don't make it and I just unload. And oh. Poor Dr. Wester. He sees me. He's like, Oh, no. And if you know Dr. Wester is the gentle, kindest, most wonderful man in the world, and he's like, Oh, well, I'll get some paper towels. And I'm like, okay, like that would be helpful so I can. Stand with my mess. My situation. So no one steps in it until people, you know, avoid this. And so he comes out with the paper towels and I think he's just going to hand them to me. But he proceeds to come and help me clean and like. Please don't if anything, please let me do this by myself in shame. Please go away. And so anyways,. So that was my first day of work here. So that's all I got.

Dr. Wester [00:39:24] I was just I was very, very grateful that she came back today because that can be hard.

Dr. Sandra Rideout-Hanzak [00:39:32] Yes. Yes. Well, you...

Brianna Slothower [00:39:34] Know so well that's. Yeah, well. And then, you know. Literally did literally. Yes and no. No, it happened. And I think what made me come back is I knew you'd be helping me. I'm like, if you can get through this, you can definitely get you through my masters degree.

Dr. Sandra Rideout-Hanzak [00:39:51] So that's true. That is a pretty good litmus test for the new advisor.

Brianna Slothower [00:39:56] Yeah, right. Yeah, I did it on purpose to see how you would react. There you go.

Brianna Slothower [00:40:02] I had never experienced anything like that, so I'm like, this is just normal, right? You know, like, this is what working out, you know.

Brianna Slothower [00:40:07] It's not normal. Take care of yourself, drink water, take your shoes off. You go, like sit in the truck with air conditioning. Listen to your peers. Oh, my gosh.

Brianna Slothower [00:40:19] Well, I'm glad we have a.

Brianna Slothower [00:40:20] Mutual bond of sadness, I guess.

Andrew Lowery [00:40:22] Heat exhaustion. Yeah.

Andrew Lowery [00:40:23] Yeah.

Dr. Sandra Rideout-Hanzak [00:40:26] Okay. Well, Dr. Wester, do you want to share a biology blunder? I personally know that you have one.

Dr. Wester [00:40:33] I do have one, but I'm not going to tell it. I want you to tell it.

Dr. Sandra Rideout-Hanzak [00:40:37] Oh, my God.

Dr. Wester [00:40:40] And I'm doing that for a reason. You can tell it better than I can. It's a shared blunder.

Dr. Sandra Rideout-Hanzak [00:40:45] It is a shared blunder. We were both complicit in this blunder.

Dr. Wester [00:40:49] And so. So I would rather you tell this story because you can do it.

Dr. Sandra Rideout-Hanzak [00:40:54] Oh, my gosh.

Dr. Wester [00:40:54] Better than I.

Dr. Wester [00:40:55] Can. Okay.

Dr. Sandra Rideout-Hanzak [00:40:57] No, no. I'm going to embarrass myself. So as Dr. Wester, you mentioned, we studied some fires together and we were up in the panhandle. This is probably, I don't know, 27, maybe 2000. Yeah, probably 27. And we had been studying we were studying the East Amarillo complex wildfires. One one of the things that we did on those fires was, like Brianna mentioned, we put up disclosures and these disclosures for grazers so that we could avoid the confounding effects of fire plus grazing. So we built some exclusions, closures out of cattle panel. And these cattle panels are 16 feet long and about five feet high. Okay. So we built enclosures out of like eight of those things. And, you know, we had picked up a whole trailer full of them one time before driving up there. And those guys were loaded up with arm. I don't even know what forklift. Thank you. They were loaded up with a forklift and probably the one on the bottom got crumpled a little bit. And so when we got into the field site, we had just dumped that thing on the ground. And because it wasn't because it wasn't as long as the others. So we couldn't really use it to make our our perfect square. And so we would come back every once in a while to the site in that crumpled piece of cattle panel is lying on the ground. And we just kept ignoring it for a while. And then one day Dr. Wester had a brilliant idea.

Dr. Wester [00:42:38] So this was my idea?

Dr. Sandra Rideout-Hanzak [00:42:39] Yes. Let's make that clear. It was his idea. It was his idea. We're going to straighten out this cattle panel so that we can use it, because it's just I mean, it's sitting here, it's in the way and it's it's crumpled. So we need to straighten this out.

Dr. Wester [00:42:51] Are these, by the way, are these pliable? Okay. In case someone doesn't know.

Dr. Sandra Rideout-Hanza [00:42:57] We're about to find out. But but here's the thing. Here's the thing to keep in mind. These panels are created to keep cows. You know, I

mean, cattle panel is the name of this of this thing. And so made out of wire that's kind of sturdy. Okay. So and a little bit stiff, you might say. Yes, because that's keep cows in.

Dr. Wester [00:43:23] You might say a bit too rigid. You might you might say.

Andrew Lowery [00:43:28] If we're going up the mohs scale. Yes, we're at like a six, right.

Dr. Wester [00:43:34] Yeah.

Dr. Sandra Rideout-Hanzak [00:43:35] So Dr. Wester and I've I've just been working with him for, I don't know, like a year now. And I've got the utmost respect for this guy and I know how smart he is. And so he says, I have an idea, let's straighten this caterpillar out. And I'm like, All right. And I'm wondering how we're going to. Do this, and he says, so go down there and stand on that end. He just says Go down there, stand on that end. And I'm going to I'm going to pull on this almost straight. And I say, Okay. and I walk down there and I stand. I go and I stand on the straight end. It's not crumpled in. And I for a split second, I think. Oh. This could head south. But I'm like, no, it's fine. This is fine. I'm standing I'm standing solidly on this piece of cattle panel.

Dr. Wester [00:44:30] This was a good idea, by the way.

Dr. Sandra Rideout-Hanzak [00:44:32] It was an excellent idea. And so he says he's going to pull on it, but he didn't pull on it. He yanked on it. So, like, if you've ever seen the video of the kid, you know, like like the Thanksgiving table is set and the kid just yanks the tablecloth out from everything and leaves it standing there. That's what Dr. Wester did. He just yanked as hard as he could. But I didn't stay standing was the thing. The next thing that happens, I kid you not. The next thing that happens. I'm looking at my boots. And my boots are I'm not looking down. I'm still looking out across at Dr. West or my boots are eye level and I'm like, What do you know? There's my boots. There's my boots right there at eye level. And I'm thinking this this is going to this is going to be problematic. But so. Yeah, I just basically I just basically bent at the hips and my, you know, like my upper half was upright and my legs just came right up and there's my boots. And I will never forget that pair of boots because I saw them at eye level. Then I just landed on my back. Yes. So I started it laughing. I was laughing before I hit the ground and I was just thinking, oh, I hope I don't land on a cactus, because we had just been remarking about all these little, teeny, tiny cacti that were growing up everywhere after the wildfire. So, yeah, luckily I did not land on a cactus, but I did land hard on my rear end and I was laughing so hard. And here's Dr. Wester, as you mentioned, huge gentleman. He would hold the door for me to get into the truck, to go to the field. I'm like, What? What is going on? So yeah, I end up on my rear end with Dr. Wester standing over me. Are you okay? Are you okay? And I'm just laughing so hard that I couldn't even I couldn't even respond. But yeah, I will never forget that, that idea. And every time, to this day, every time I think of that, I mean, I can be in church and think of that and just start giggling because it was the stupidest thing that two PhDs have ever done. I'm fairly certain I can say that or have ever attempted. We actually didn't.

Dr. Wester [00:46:56] It didn't straighten out.

Dr. Sandra Rideout-Hanzak [00:46:57] No, it did'nt. And it's probably still sitting out there right on that Ranch and it's probably just still crumpled up.

Dr. Wester [00:47:07] Yeah, I thought it would work.

Brianna Slothower [00:47:09] Well what part?

Dr. Wester [00:47:12] Well, I'd like to do one part of that. I guess that would work. I don't know. I guess it was just the end of a long day. I think this is. That's a good excuse.

Dr. Sandra Rideout-Hanza [00:47:23] Yeah, it was July. It was hot and it was hot. And yeah, we both just thought, okay, yeah, we can do this, we can do this well. But yeah, that's so that's our, our shared Biology Blender and Can you even imagine though, Dr. Wester just pulling something out from under you so that you land on your rear end? How funny it would be.

Brianna Slothower [00:47:57] Well, you said it. It's 16 feet away, too. Yes. Yes. I thinking of, you know, how many people does it take to screw in a light bulb, but how many people?

Dr. Sandra Rideout-Hanza [00:48:11] Well, we still don't know.

Dr. Wester [00:48:12] Yeah, more than two. Yeah, we can run into that question today. There's no cattle panel back behind that as well.

Dr. Sandra Rideout-Hanza [00:48:21] It takes it takes more than he and I, you know that. We know that. And he did it together, though. Yeah. Yeah.

Dr. Wester [00:48:29] I'm glad she didn't get hurt. She came back out to the field the next day, too.

Dr. Sandra Rideout-Hanza [00:48:34] Yeah, suckers.

Dr. Sandra Rideout-Hanza [00:48:46] Well, do you guys have anything else that you would like to share with our listeners today?

Dr. Wester [00:48:52] No, I don't. Except thank you for this opportunity and to thank all the supporters of CKWRI who let us do what it is that we do. And they do it so generously.

Dr. Sandra Rideout-Hanza [00:49:04] That's very true. Yeah.

Dr. Sandra Rideout-Hanza [00:49:06] Collaboration is the key to this game. And it's nice that, you know, I mean, you're on my committee and Dr. Webster's my advisor. There's just been a lot of helping hands. And so it's neat to see when, you know, science gets to work. Well, it's because a lot of hands are in it. So.

Dr. Sandra Rideout-Hanza [00:49:21] That's true. That's a good point. Absolutely. Thank you both so much for being here. Appreciate it.

Dr. Sandra Rideout-Hanza [00:49:27] Thank you. Thank you.

Dr. Sandra Rideout-Hanza [00:49:30] A Talk on the Wild Side is a production of the Caesar Kleberg Wildlife Research Institute of Texas A&M University-Kingsville. Funding for this project is provided by the Harvey Weil Sportsman Conservationist Award by the Rotary Club of Corpus Christi. Editing was completed by the talented Gaby Olivas, Andrew Lowery and Tre' Kendall. We thank the TAMUK Distance Learning Lab for all their help and cooperation.

