

TRANSCRIPT

INTERVIEWEE: Sarah Mitchell

INTERVIEWER: David Todd

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David Todd [00:00:04] OK, well, good day, good afternoon, Sarah Mitchell. With your permission, Ms. Mitchell, we plan on recording this interview for research and educational work on behalf of a non-profit group, the Conservation History Association of Texas, for a book and a website for Texas A&M University Press and for an archive at the Briscoe Center for American History at the University of Texas here in Austin. You would have all equal rights to use the recording as you see fit, also. And I just wanted to make sure that that sounds like a good plan and is acceptable to you.

Sarah Mitchell [00:00:52] Absolutely. Thanks for having me.

David Todd [00:00:54] Oh, this is great. Thank you.

David Todd [00:00:57] Well, let me just lay out when and where and what we're doing. And then maybe we can jump into some questions and hear what Ms. Mitchell has to say.

David Todd [00:01:09] It is Friday, August 20th, 2021. It's about 12:30 in the afternoon. My name is David Todd. I am representing the Conservation History Association of Texas. I'm here in Austin. We are very fortunate to be conducting an interview with Sarah Mitchell. I believe she's located in Austin as well.

Sarah Mitchell [00:01:33] I am.

David Todd [00:01:35] OK. We're doing this remotely, though. Now she is the executive director and vice president of the Cook's Branch Conservancy, which manages a long-term habitat preservation project, and a field laboratory in East Texas, maybe ten miles west of Conroe, I believe. And this Conservancy is, is a project of the Cynthia and George Mitchell Foundation. The Conservancy is a pretty extraordinary thing. It's received the Leopold Award, which is Texas' highest recognition for habitat management and wildlife conservation on private land.

David Todd [00:02:18] And one of the signature efforts that the Conservancy has been involved in is restoration of the red-cockaded woodpecker there. And so that's definitely something we'd like to touch on during this interview.

David Todd [00:02:33] So today, I think we'll be talking about Ms. Mitchell's life and career, to date, and especially focus, as kind of an example of that, that kind of conservation arc, look at her work with the Cook's Branch Conservancy and the restoration of the red-cockaded woodpecker. So that's a little introduction.

David Todd [00:02:59] And I thought we could just segue into asking you about your upbringing, your, how you were reared and, and if there might have been some early events or influences in your childhood that would have maybe given you an interest and concern for nature.

Sarah Mitchell [00:03:21] Absolutely, there definitely were. Wow. Well, I grew up in Austin, Texas, and the time I was born in the late 70s, my family was already the owners of what became Cook's Branch Conservancy. So my grandparents put it together and carved out a piece for their family in 1964. It was originally part of a much larger parcel that was slated to be phase two of the Woodland's Development Corporation planned community. But that never came to be.

Sarah Mitchell [00:04:03] And meanwhile, I grew up going annually, but of course, much more often because I lived in Texas, to this piece of East Texas. And I grew up being influenced by the forest there and influenced by my family's love of that particular piece of nature. So it's, it's kind of beautiful and ironic that I ended up working there for my career. But I would say in my early childhood, my biggest influences, family-wise, were my own parents and my Aunt Sheridan, who you'll speak with because she's an important part of the story.

Sarah Mitchell [00:04:46] But my mom was one of the first native plant specialists in Austin back when it was hard to find native plants for your landscaping needs, et cetera. She was out collecting seed and she was a grower. So when I was very tiny, I spent years among native plants being propagated for the first time. And that was really impactful because my mom often took me to work with her. I often went on her consulting jobs and I learned, I mean, she just would talk to me. That's sort of her nature anyway. She just talked to me about everything. So I felt I was really learning via osmosis this whole world of native plants in central Texas and why they mattered and her efforts to kind of introduce them into the market and get people to understand the whole system and why it mattered to use native plants.

Sarah Mitchell [00:05:50] And, and that was something that was also shared by my dad and my grandparents, sort of their love of natural systems. And my dad is just sort of an innate naturalist, as was my grandfather. I assume he got it from his dad. And my dad was the one that would take me hiking and spend all day in the woods with me and look at birds. And we still share that today. And I think it's probably our most special connection - is our, our love of nature. But he did that with me a lot at Cook's Branch, so in the woods of East Texas, because he, at the time, was working and developing the Woodlands with, with my grandfather. He had his own, he's an architect. So he had his own design/build firm there. So we would spend a lot of time in that geography and a lot of time in the woods.

Sarah Mitchell [00:06:53] So I think I really just kind of picked those things up passively at that age. You know, I was exposed to a lot of nature, probably a lot more than the current generation gets, which is, which was a luxury and really a gift, because it did end up shaping my life, my interests, my passions, my curiosity, my understanding of myself as a part of the whole.

Sarah Mitchell [00:07:23] And then my Aunt Sheridan, who you'll interview, she also, she's my dad's sister, and she kind of helped raise me really. She lived two blocks away. And I spent most of my days with her and her two children. And she was also just an avid naturalist and environmentalist from the earliest of days. And she started a program while we were young called Children's Alliance for the Protection of the Environment. And it did many things, and

she can elaborate on it, but it was sort of a recycling club and a gardening club and it taught children about all of these concepts of growing and, and just the cycle of life in plants and the cycle of materials. And what are we doing? Are we throwing it in the trash? Where's it going? Are we recycling it?

Sarah Mitchell [00:08:21] And being the amazing person that she is, somehow it was elevated to quite a high level of recognition and she ended up taking us to the UN to speak. So by 11 years old, I was speaking to the UN on behalf of Children's Alliance for the Protection of the Environment, and that was obviously wildly impactful, right? Here I was as a child looking around this room, representatives from the entire globe, speaking on behalf of children everywhere about the importance of the environment. So those were the early days.

Sarah Mitchell [00:09:04] I also just grew up like any kid in Austin, loving Barton Springs. I mean, my cousins and I went to Barton Springs every day in the evening and we, we decided, I remember distinctly, we decided that if there were a heaven, it was being underwater at Barton Springs. So we named it heaven. And we would go down and open our eyes and see the springs and swim around and the fish and the turtles.

Sarah Mitchell [00:09:32] And we also rode horses in Onion Creek and we would swim the horses in Driftwood. We just spent our lives being outdoors in the Hill Country and in the waterways. And then when we, when we could, in the forests of East Texas.

Sarah Mitchell [00:09:49] And we had our most special family reunion every year at Cook's Branch and all of us would come. My dad and aunt: there were 10 of them. So my grandparents had 10 children and all 10 children would come and gather at Cook's Branch for Thanksgiving. So we all grew up spending a week together every year. And that was just so impactful in all ways. It was impactful to family unity and shared values and shared experiences, in knowing my cousins all over the globe, knowing my aunts and uncles better, than I probably would have, because we were scattered around. But we were making those memories and sharing those experiences in this piece of incredible forest.

Sarah Mitchell [00:10:41] And at that time, there was still a lot of forest left in east Texas, right? It wasn't that unusual. But it was beautiful and it was a full-immersion experience. I mean, at that time, you would drive through a tunnel of trees for an hour to get there. And we'd just, I don't know, we just soaked it up. You know, we were kids, we rode bikes and took hikes and found animals and gathered plants and built forts, and we just did it all there. We learned to fish. We learned to observe birds. Even back then, the bald eagles, et cetera, would be nesting and we would watch them. And it was just a magical place. I mean, it still is. But even then, with the eyes of a child, it was so incredible and just wondrous and I don't know, it was my favorite place on earth. I would venture to say it still is, although things have changed quite a bit since then.

Sarah Mitchell [00:11:41] But my generation of the Mitchell family, we tend to say we were imprinted at Cook's Branch. And I I've said that before. And I think it's very true. And I think that those shared experiences and being there together so much is what brought our family to a place of unity around protecting it long-term. When we, when it came time to make a plan for the property, we were all aligned in wanting to protect it above all else. And I can attribute those that, that unity really to those experiences.

David Todd [00:12:28] Well, very eloquent. And it's neat how it ties together the past and the present, and your cousins and aunts and uncles. And so much of it, those threads seem to go through Cook's Branch.

David Todd [00:12:46] Well, so tell me a little bit about your schooling - the formal schooling. It sounds like you had a lot of outdoor schooling with your aunts, and your, your uncles, and your parents. But, you know, tell me a little bit about high school and college and if there might have been some conservation lessons there that were valuable to you.

Sarah Mitchell [00:13:12] Yes, so I went to school in Austin and I was part of the first sixth grade class at St. Stephen's, so I was a day student there, but I stayed through 12th grade. So my earliest educational experiences around the sciences were really there, once they got to be more rigorous.

Sarah Mitchell [00:13:34] I do remember in particular my eighth grade science teacher. His name was Mr. Pearson. And he gave us an assignment that ended up taking a turn that I think shaped my vision and interest in studying ecology. So at that time, my mom, who again was a native plant person in Austin, she had gone back to take some courses at LBJ in the graduate school. And she had met a friend named Bonnie there who was also studying botany and working on her Ph.D. And I spent time with them when I was young. And when this assignment came up, we dialogued about research design and what kind of project I might put together. And this was a big report. It was probably my first big science project / report where I was going to submit, you know, a document and I had done research over time. And so it was a big learning experience for me.

Sarah Mitchell [00:14:39] And I remember just having the resources of my mom and this woman, Bonnie, meant that they really elevated my thinking around comparing two ecologies, one in Austin along the riparian zone of Bull Creek, which was near where I lived at that time, and one along the creek, a corresponding piece, along the creek of Cook's Branch in East Texas. And the concept was comparing the two riparian areas, measuring the trees and the species composition and drawing conclusions about the differences of the habitat types, et cetera.

Sarah Mitchell [00:15:22] And so I move forward with this project. And I had a great time doing it. And I was also just lucky to have them in the field with me, because you coincidentally, for example, Bonnie discovered a rare plant at Cook's Branch that she then went on to document and turn into the library at LBJ. And so it was a real, true field learning experience for me at a really early age.

Sarah Mitchell [00:15:54] But I think what struck me most about it was turning that project in to Mr. Pearson and his reaction. So when he was giving us our grades and returning the projects to the class, he took a moment in front of the whole class to really celebrate my work and to acknowledge that I thought it was above and beyond the assignment, but that it was fantastic and that he was so excited to see that my curiosity had led to this level of research and rigor and documentation, et cetera. And I mean, I was, it's not like I was a stand-out. St. Stephen's is full of incredible academics. But his reaction really struck me and really encouraged me. And I remember being so moved like, "Wow, he noticed!" You know, he noticed that I loved it and that I tried and that I really worked hard at it. And I think that that was the first time that I had received really significant recognition for my love of ecology. And I felt inspired and I felt encouraged and, you know, felt seen and all those things that a 13 year old kid needs to feel to work hard in school.

Sarah Mitchell [00:17:17] So I really love that memory of him. And in fact, we're still friends today. I should catch up with him.

Sarah Mitchell [00:17:26] But there were always teachers along the way inspiring me, I mean, as you would imagine.

Sarah Mitchell [00:17:32] And I had another similar experience when I was... So my formal education, I think you asked about college, ended up being in physical geography because I loved all the sciences. I mean, I went into college thinking I wanted to be a physics major. One of my favorite professors, Dr. Jones said, well, it's going to be all math and I'm not sure you're going to love that. And I, and then I, then I thought it was going to be anthropology. And then I got into geology and fell in love. And anyway, I just cycled through all the sciences and I couldn't decide because I loved them all. So I ended up choosing physical geography, which essentially allowed me to study all the physical sciences - climatology, ecology, geology. Anthropology was my minor. So I fit a little bit of human stuff into there. But it was mostly the hard sciences and I really fell in love with it. And I loved the systems level thinking and I loved thinking about all the processes impacting each other and how they work together and what it meant for the environment and the habitat and just all of it. I thought it was wonderful.

Sarah Mitchell [00:18:46] And along the way, I met a man named Professor Eyton, who I just loved, and he taught me remote sensing, which ended up being what I pursued and studied in graduate school. So remote sensing uses satellite imagery analysis for different reasons. I mean, it's a, it's a tool, right? But I kind of thought of it as the study of light and interpretation. And I specified in habitat identification and analysis using remote sensing. And at the time, you know, spatial imagery was much harder to come by and harder to process, etc. Now everyone in the world can get satellite imagery on their handheld device. And, and it wasn't the case back then.

Sarah Mitchell [00:19:34] So but I fell in love with the technology. I fell in love with the research on what you could look at, because you could look at the health of the ecology beyond the visible spectrum. And for me, that was just mind blowing. I thought, oh, my gosh, I can look in the near infrared. I can look at the health of plants. I can look at some of these questions that I've always been wondering about that have come up in my exposure to nature, and specifically in my exposure to Cook's Branch. And we can circle back to that later because it does involve the red-cockaded woodpecker.

Sarah Mitchell [00:20:09] But specifically, I got excited about looking at, is there more potential habitat for the red-cockaded woodpecker? Because I was in college right when Sheridan was recognizing and implementing restoration efforts related to the red-cockaded woodpecker. So I was hearing about it. I was seeing it and learning it. It was not yet my career, but I was fascinated. I wanted to study it more.

Sarah Mitchell [00:20:38] And I ended up interning for the environmental management group that Sheridan had hired. They're called RAVEN Environmental Services, and a man named Ross Carrie, who I consider a true mentor over all these decades. You know, he took me in as a young student and I worked in his office in Huntsville for a semester. And I got to see sort of from the inside what environmental management looked like as applied, in a practice, and what they were wondering about the red-cockaded woodpecker and how they were analyzing and monitoring success and all of those things. And so that experience really helped me decide, wow, I want to know more about, I want to know more about this.

Sarah Mitchell [00:21:29] And I wanted to know why, how the red-cockaded woodpeckers knew and identified old-growth trees that had red heart fungus. And I had a theory that maybe it could be seen outside of the visible spectrum in the health of the pine tree, maybe you could actually see in the near infrared what, whether a tree was diseased or not, because they tend to target those trees, since they are easier to excavate for their cavities. And so that question sort of fueled my directed research around, was there additional potential habitat for the red-cockaded woodpecker to expand in, beyond the land that our family still owned? And what did it look like and what were the spectral signatures associated with that, et cetera?

Sarah Mitchell [00:22:22] So that really led me very quickly into my graduate research. And then I met a man named Dr. Eyton, who, again, was extremely encouraging. I remember feeling very frustrated in this graduate-level modeling class and saying I'm just not sure that I have the mind for this. And he said, "You absolutely have the mind for this. You just don't realize you do." And he was so encouraging along the way. And he was tough. I mean, he, many of his students cried working with him. I remember him just yelling at me one day saying, you know, "This work is great, but it's late, so I'm not going to give you full credit." And he just sort of helped keep me on track and keep me motivated. And he saw the potential in me as a student. And it really encouraged me to stick with and pursue my interests in understanding sort of habitat through remote sensing. So I stayed on and worked with him.

Sarah Mitchell [00:23:33] And yeah, so my training ended up being specifically relevant because I had done so much academic research utilizing Cook's Branch as a field lab because I had access and it was large enough to groundtruth relative to the satellite imagery of the time, which was, you know, pretty coarse pixel data. And I needed a large area of land to do my groundtruthing and compare habitat types with what I was seeing spectrally.

Sarah Mitchell [00:24:04] And so I just had essentially years of research into the specifics of Cook's Branch, and I had interned for the environmental management that at the time was doing most of the ecological work. And so when the family started evolving their thinking about what to do next with Cook's Branch, they hired me as a consultant to be the go-between between the family and the environmental team about what we were doing and why and sort of guiding that programing.

Sarah Mitchell [00:24:38] And anyway, it evolved from there. I mean, it's been there essentially since my 20s. I've been working on this project and it's really changed over time and it's become something much more lasting and more impactful over the decade-plus. And I'm really excited and proud to be part of it. And I'm very grateful because obviously the family brought me along with them and Sheridan and Meredith and my father. You know, many people in my family specifically gave me the opportunity to join their efforts that they had already started and then to elevate them and continue them and expand them, which is where we are now. It's pretty exciting, actually. It's sort of the world's best job.

David Todd [00:25:25] Well, it sounds like you've earned it. So it's just so interesting to hear how your education and your family and, and then school, you know, informal and formal, has, has led you along and supported you and encouraged you.

David Todd [00:25:48] Sometimes people find a lot of inspiration from books. I was curious if there are any things that you've read that, that have been, you know, pretty unusually helpful to you or encouraging for you.

Sarah Mitchell [00:26:11] Well, I mean, gosh, books, there's so many great ones. That's a tough question.

David Todd [00:26:17] It is.

Sarah Mitchell [00:26:17] I think, is my academic background included? The environmental sciences - of course, I read all the classics - Carson and "Cradle to Cradle" and so many of the formative texts that were inspiring. But I think if I were going to, I have given a certain book to sort of interested lay people, if you will, that I found really touching and it was about Aldo Leopold. And it was, it wasn't "The Sand County Almanac", which everyone hears about, but it was called "A Fierce Green Fire". Have you read that book?

David Todd [00:27:00] About the wolf's eye, right?

Sarah Mitchell [00:27:01] I mean, exactly. It was such a beautiful story. And I found that they, they really humanized his transformation from, yes, being a naturalist, but being sort of somewhat naive in the beginning, and sort of his evolution, his evolution of thinking as he went through his career and life, and how he moved from, you know, hunting top predators on public lands to protecting the system in a more holistic way. And even his death, although it was unrelated, but being in the middle of a prescribed fire that he was conducting himself on his own property. I just, the whole story I found beautiful and inspirational, but also really accessible and no dry language around the science. It was just so, I don't know, I thought it was great. And I've given it to a couple of people.

Sarah Mitchell [00:28:08] Since, since it was given to me as a gift by my aunt Meredith, who was also instrumental in getting Cook's Branch off the ground and protected long-term within the family. So she and Sheridan worked very close together, closely together on that project. And she's an archeologist herself. And she and I share a lot of love of nature. And she gave me that book as a gift when I was in my thirties and I just loved it. So I've given it to several others and I would recommend it.

David Todd [00:28:41] Thank you. That's a good tip. I mean, Leopold seems to have been a father to a lot of the conservation work that's been going on, but of course, your family carries that award, so I'm sure it has a special meaning for you.

David Todd [00:29:03] You've mentioned several times this tract of land along Cook's Branch that later, I guess, came under the umbrella of the Cook's Branch Conservancy. Could, could you tell us about this piece of land? I mean, it seems like you're so familiar with it. How would you describe it to somebody who had never been there?

Sarah Mitchell [00:29:28] Well, it's just incredibly beautiful. And it's become increasingly rare and difficult to see a century-old forest. So now it's really an anomaly. But back then, when it first got started in the '60s, it wasn't, right? It was just a carve out of 23,000 acres of raw forest land, essentially, that had this particular area that my grandfather selected and chose as sort of a family holding and retreat, had been owned by several different families. It has an incredible cultural history and sharecropping history. The oldest home on the properties was built in 1890 by some sharecroppers, and it was the second house on the same site. The original house became a smokehouse and they had built that, we think, we know it was in existence by the 1870s, but we don't know possibly how early before that.

Sarah Mitchell [00:30:40] But originally the land was a land grant for fighting in the battle of San Jacinto. I mean, it has this just incredible story. And it was granted to a man named Cook and his brother for fighting in the battle. And the rumor is that they traded their land grant to get this one. But we don't know that for sure.

Sarah Mitchell [00:31:08] And it was the site of an old settlement in the mid-1800s and, or late 1800s. We know there were at least five houses there. There was a school along the creek of Cook's Branch, an old school. Most of these, most of these places we know about from just historical writings, et cetera, or they'll be a piece of foundation or a piece of a chimney or, you know, there's very little left of most of them, with the exception of the house that was built in 1890, which we call the Sunday House.

Sarah Mitchell [00:31:47] And a boy who grew up there, we actually have a full interview by him, which would be incredible to archive, too, but a boy that grew up there as a grandchild of one of the builders of the Sunday House. He came back to Cook's Branch when he was, I think, 98, to talk to us about his boyhood there and tell us what he saw or what he remembered of the crops they grew and where the forest line used to be and how he had befriended a wolf. But when it bit him once his mother sent it to the Houston Zoo. And we were able to confirm that that really happened. It's kind of just, anyway, there's this amazing cultural history there. There was an old kiln on the property to the north, which is a different project we're working on conserving right now that we call the Mayer tract. And it just it had a vibrant community in the late 1800s. And then it went on to remain in agriculture and timber and then through the decades, cattle grazing was introduced.

Sarah Mitchell [00:33:02] So when my grandfather became the steward, it had grazing and mostly forestry operations happening at that time. And he continued those things. He used to, he just had some great instincts. He never wanted to cut old trees. And he, so he would tell his timber manager, "OK, take six percent this year, but leave the old trees." And so his instinct to do that and just based on his love of nature and his love of old things, really, actually laid the groundwork for the red-cockaded woodpecker being able to flourish there. And he didn't know what he was doing, really. That was just ... he had no idea he was retaining just the the potential for that species. But he was.

Sarah Mitchell [00:34:02] And so that carried on, you know, from mid-60s, mid-1960s to mid-1990s. And then by the end of the 1990s was when Sheridan and Meredith, a few of my grandfather's children, came to understand that we had the endangered red-cockaded woodpecker on the property. And so I would say at the moment that we discovered that, the property had really just been in protection. There had been no restoration efforts yet, but, but because of my grandfather's instincts, it just hadn't been as degraded as others that were timbering and grazing. But it did have improved pastures planted, which we all know are a disaster for the environment. And they were logging, but at a set amount and they weren't taking old trees, et cetera.

Sarah Mitchell [00:35:04] And so once the red-cockaded woodpecker was identified, that really launched into the learning and sort of the journey from then on changed course, because we realized from the visiting consultants and scientists that came out from Parks and Wildlife and Fish and Wildlife and, you know, Texas Forest Service, et cetera, a lot of wonderful people - Donna Work, Ricky Maxey, Ike McWhorter - some of the classic names came to the property. And I remember Ike McWhorter in particular had a conversation with my aunt where he said, "Hey, this forest is in decline and you've got to do something about it." Because at that time, there was still fire suppression, there was no fire on the landscape and

things were in a pretty artificial state, obviously, because they had regrown from the last clear cut, which records indicate were in 1916 or so. A lot of it had been clear cut and then it had been regenerating as a single-age forest and they had been timbering all along, but not in a way that was designed to, you know, promote regeneration of a diverse forest or diverse species composition, et cetera.

Sarah Mitchell [00:36:30] So the property had been originally predominantly short-leaf pine, and that had been altered between the clearcut and the fire suppression and then the timbering for profit. You know, loblolly had taken over as the dominant species. So, so I guess I would say by the late '90s, we needed to get rid of the cattle. We needed to restore the native grasses. We needed to reintroduce fire. We needed to take on all kinds of different strategies related to rebalancing the vegetation, et cetera, and all of those ideas were coming together at once with the help of the amazing people that took interest, you know, and that came out and were requested and hired, et cetera.

Sarah Mitchell [00:37:24] And then Parks and Wildlife and Fish and Wildlife recommended that we partner with Ross Carey, who I mentioned earlier, who was doing a lot of work for the Park Service at that time as a contractor. And so his firm got involved at the end of the '90s and that's when the restoration really began. And from then on, we were doing this sort of slow, painful process of reducing fuels and, you know, mechanical mulching, et cetera, preparing to reintroduce fire, fire rotation, designing the fire regime, which I worked on when I was interning for Ross's company.

Sarah Mitchell [00:38:12] And so, another ten, decade of learning from those experiences led the family to eventually look at what is the future of this structure, how do we protect it in perpetuity, you know, et cetera, et cetera. And we didn't, I think it took, I don't know, two or three years to really explore how to best structure the property to be protected long-term and, make decisions as a family about whether we are willing to do those things and make those trade-offs. And so in 2012, after a lot of hard work, we did decide to donate 90% of that land to the foundation. And that became Cook's Branch Conservancy and that became the operating program that we have today.

Sarah Mitchell [00:39:12] And I'm just so proud, I mean, I'm just so proud that my dad and his siblings were all able to come together and vote unanimously to protect the property, instead of benefiting from pretty enormous financial gain that would have come from selling it for development, for example, because it's right on the outskirts of Houston and we know, we know how that growth trajectory has gone. So I think that was a really critical inflection point: 2012 was really sort of a rebirth into what we want to be when we're grown up and into the future.

Sarah Mitchell [00:39:54] And, yes. So I think, I think it's a classic tale of the landscape of Texas, right, because it was it had been grazed for decades. It had been clearcut at the turn of the century. We were dealing with single-age forest regeneration and how to manage that. And we just got lucky that we had a family that wanted to protect it and worked really hard and made some sacrifices to make that decision. And now it's put us in an amazing position of asking ourselves and really designing strategically what we want to do for the community. And that is really where we've entered the phase of being more of an ecological research and restoration lab and adding a layer of advocacy for conservation, which of course is about outreach and education and supporting our partners and data collection and assessment, et cetera. So we've really, we've really put a lot of work and thought into what Cook's Branch could be for the community and for the future, and I'm really proud of that because it is so

rare to find a forest with trees that are over 100 years old, so. I'm just grateful to be a part of that really.

David Todd [00:41:25] Well, you know, it's extraordinary that, that your family shares so many of these same values that you're talking about that are important to you, because it does sound like it was a move of great sacrifice to set this land aside.

David Todd [00:41:44] And, you know, I would like, if you don't mind, since it sounds like the whole arc of the protection of this piece of land may have started when, or really gelled maybe, when y'all noticed that there were red-cockaded woodpeckers there and that there was really something significant and rare about this forest that y'all had been stewarding. Could you talk a little bit about the, the red-headed woodpecker, just a, you know, a brief layperson explanation of its life history and how it finds itself in Cook's Branch?

Sarah Mitchell [00:42:26] Yeah. So, it's really the only woodpecker in North America that uses living pines. And that's really key because it requires, they require, as a species, older-growth pines for their excavation and foraging. So they tend, as we touched on earlier, they tend to look for trees that are over 80 years old because the older ones are more likely to be eligible for excavation. And if they have red heart fungus, which is more common with age, then they're easier to excavate. They have a softer core and the birds can complete their nest cavities quicker, which is interesting because as a species they, they can spend anywhere from six months to, I've read, 14 years is the longest documented, excavating a cavity. But often a bird is excavating a cavity for future generations.

Sarah Mitchell [00:43:34] So these old-growth trees are really critical to the species. And it's the reason that their range has been declining so dramatically because where do you find 100 year old forests anymore? You just don't. All the old trees have been cut, for better or worse. I mean, it's definitely not for the better for this species. So maybe for humans?

Sarah Mitchell [00:44:03] But, yeah, so the red-cockaded woodpecker, or one of the things I love about them is that they live in family groups, which I found really interesting when I was first learning about them. They're, a male and a female will keep one of their sons around as a helper and the daughters leave to find other mates in other territories. But the son will stay and the three of them will work together to raise other young and excavate cavities and defend their territory, etc. So the family size is one of the indicators that we monitor to see if they're doing well.

Sarah Mitchell [00:44:48] But it's a keystone species. It excavates in these old pines and other species use those cavities like bluebirds, titmice, other woodpeckers like ... we we have to put little plates on them actually so other birds don't blow out their cavities and make them too large because you have birds like the pileated that will come in and destroy the cavity by making the hole too large. Anyway, I think they're a good indicator of healthy old-growth forest, and we just don't have healthy old-growth forest anymore. So that led the species straight into trouble.

David Todd [00:45:32] Got you. Well, that's so interesting to have this bird that's really been an indicator for an ecosystem that I guess covered millions of acres and but it tells a pretty powerful story and you do a good job of explaining that.

David Todd [00:45:50] You know, as we've talked, you have talked in, in, in passing about some of the things that you have done with your family, and the bird. Can, can you talk a little

bit, maybe in more detail, you know, about the efforts to monitor the bird and to provide these I guess you do some artificial nest boxes and using prescribed fire, changing how you log the area? If there's any more detail you can give there, I think it'd be really fascinating.

Sarah Mitchell [00:46:29] Oh, yeah. Well, of course I could talk to you for three hours about that. But if I'm going to try to summarize sort of, some of the key restoration tools that we landed on, keep in mind, fire was not reintroduced until the late '90s. And at that time, when we first discovered the RCW population was on the property, the birds had mostly been, they mostly remained only on the open roads because that's where they could find open flyways and go about business as usual, because the mid-story and the density of the forest were so artificial from fire suppression and logging, etc., that they really weren't functioning well in the interior of the forest anymore. So they had found a way to sort of survive along the roadways and the logging roads and the main roads, et cetera.

Sarah Mitchell [00:47:35] So one of the first things we had to do was to start to control the mid-story vegetation. And in the beginning that had to be a lot of mechanical work because fuel loads were so high and density was so high. I mean, if we had, you know, started prescribed fire without a lot of pre work, obviously it would have been catastrophic. So we had to start the slow process of using mulchers and handwork and machine work to reduce the mid-story.

Sarah Mitchell [00:48:09] And, and we did do, and still occasionally, based on restoration needs, do select harvests with sort of the restoration goals in mind. So logging was a tool we use and we still do when needed, although we no longer do it for income reasons, we now only do it if the tools required to achieve our conservation goals and our restoration goals.

Sarah Mitchell [00:48:34] But, but at the time, we had to do some thinning, basically, some select harvesting, and in that process we tried to really focus on rebalancing which species were aware and looking at what would have historically been on any given parcel. What were the, what was the soil moisture like? What was the available light? All this stuff.

Sarah Mitchell [00:49:03] And so trying to kind of select for, for example, shortleaf pine in the upland areas that would have been predominant before all of the changes from humans, and some loblolly would have been in the lower elevations of the pine forest, and rebalancing the oaks to be along the riparian corridors more predominantly, and removing loblolly from the creek sides, et cetera. So the thinning allowed us to hand-select and remove things that were kind of working against the restoration goals.

Sarah Mitchell [00:49:41] And so once we, once we systematically reduced the density and brought the mid-story under control, we started introducing prescribed fire. And of course, that is the most useful tool once you can start to use it because it maintains those open conditions. But it also really stimulates the understory and the herbaceous health and the biodiversity of that understory. So grasses and forbs can return to the forest floor, which is really critical for insect health, which obviously is the food source of the red-cockaded woodpecker.

Sarah Mitchell [00:50:22] And like any keystone species, of course, the suite of species in the forest, everything that's native is going to benefit from those restoration efforts. Right? But we were just focused on the red-cockaded woodpecker because that's really what made sense to guide the protocols. And it's also where we were able to get assistance through expert advice and cost-sharing grants and awards and et cetera, et cetera.

Sarah Mitchell [00:50:50] So, so even though the red-cockaded woodpecker was the focus, we were always considering the entire suite of native species. And so mid-story control, reintroduction of fire, we still to this day do both of those things quite a bit.

Sarah Mitchell [00:51:11] And now we're able to increase our fire frequency, and kind of push the envelope on fire intensity. And you know, whereas we had to start with cooler dormant season burns, all the cautious things, reducing the fuels, being careful, doing it on a moist day, all those variables that you look at. Now, we've been burning for 20 years, so we're able to push into hotter burns and growing season burns, et cetera. And that's really important for resilience, because, I mean, I visited a project in Bastrop after the Bastrop fires of 2011 where one side of the road had received a really intense summer burn and the other side hadn't. And one was decimated and one was fine. And so part of our goal in sort of creating a long-term success is preparing our forests for hotter and frequent and more intense fires, as best we can, of course. Right?

Sarah Mitchell [00:52:14] We also used artificial cavities to expand the range of the RCW quickly. So the red-cockaded woodpeckers will immediately inhabit an artificial cavity or a nest box that you put into a pine. And you can put those into younger trees because obviously you're doing it with a chainsaw and not a beak. So we were able to artificially expand their opportunities very quickly and we've put hundreds of artificial cavities out. And they'll use them right away if they want to move into a territory or if they need more boxes for their grouping of nest cavities. But then they will also immediately start excavating their own natural cavity, which I find fascinating. I mean, they clearly know the difference, you know. I mean, not surprisingly, to anybody who's into birds. But so we use nest boxes quite a bit, we still do that too.

Sarah Mitchell [00:53:17] And we, you know, with the, the prairie restoration work, which was, I think, the most beautiful and the most readily appreciated by anybody coming out to visit, because it's just dramatic visually and it's dramatic with the species change, and the composition and the use by all the animals. We really did a lot of testing on how to convert, how to best and most efficiently convert those bahia and bermuda postures, which a lot of people in Texas have from grazing history. And they're very hard to eradicate, as most invasive species are.

Sarah Mitchell [00:53:56] And I should say that invasive species mitigation in general is part of our annual budget. We can never relax about that. We're always fighting Chinese tallow and privet and chinaberry, et cetera, like you name it. We, it's going to be trying to come into the forest.

Sarah Mitchell [00:54:12] But we very intentionally transformed what had been grazing pastures and agricultural land into restored native prairie. And that was just, we experimented with how to best do that because, of course, none of us wanted to use herbicides and glyphosate, et cetera. But it turned out that really was the quickest and most efficient way to to jump start the restoration. So we found we developed our own protocols based on test sites, and we had to herbicide multiple times, and we also used fire multiple times before using a no-till seed drill and reintroducing native seed.

Sarah Mitchell [00:54:55] And when we first did our first restoration of native prairie, you know, there really weren't even commercially available seed sources for some of the things we needed. And so Native American Seed, who has been great to work with, they harvested

from the closest intact prairie system, which was Attwater, and they harvested the seed and our first project was done with that seed.

Sarah Mitchell [00:55:21] And since then, we've worked on projects. We co-funded and founded a project with NRCS and the Forest Service to produce commercially available seed sources. And also the market has driven that demand a little bit. So there are a few more options now. And we have also been able to bring in, we've been able to also harvest from our established prairies, and use those, those seeds to expand our restoration efforts. So we've restored over 400 acres of native prairie, and that's been really important and impactful piece of our transition.

Sarah Mitchell [00:56:19] And then after that, we've moved into in-woods plantings of some of those species. But also with the reintroduction of fire, the seed bank has really delivered on, you know, bringing back a lot of the endemic species. So increasing fire frequency over those 20 years has led to areas where we haven't seeded. But all the natives are appearing.

Sarah Mitchell [00:56:45] And in fact, we do a lot of experiments for research reasons. And one of our experiments has been what we call the annual burn unit that we burn every year as a test. We also have control units that we never burn. And then most of the property is on a three to five year cycle and most of the prairies are on a one to three year cycle. But our annual burn unit to date, which we've been burning for about a decade, has the most botanical diversity of all, so it just goes to show you that the natural fire regime was probably very frequent and quite a bit more frequent even than we imagined when we set out to understand how to best restore this forest.

Sarah Mitchell [00:57:31] So we've been learning as we go and anyway, I think, I think as far as the logging processes, I would just say we used it in the beginning to thin and prepare the units for restoration and now we only do it every handful of years as, as restoration kind of demands it, if we can't achieve it in another way.

David Todd [00:57:57] OK. You know what's really intriguing to hear you talk about your efforts out there is that it may have started with the red-headed woodpecker and, you know, that was so critically endangered, but it sounds like y'all have, have spread out to include efforts that have benefited other species - a lot of grassland creatures. I mean, you mentioned the insects, but I gather that you've got Eastern wild turkeys, grassland sparrows and bobwhite quail. Can you talk about some of these sort of collateral benefits that you've started to see?

Sarah Mitchell [00:58:40] Yeah, the, I mean restoring the native prairies has been just incredibly transformational for the bird communities, and we did start our monitoring pretty exclusively in the beginning with red-cockaded woodpecker. But since then, over the years, we've expanded and we do several types of monitoring now, including, I think our most interesting programs are we participate, well, we partner, I guess I should say, with the Institute for Bird Populations, and they have a program called MoSI, which is basically monitoring over-winter survival. And that, combined with MAPS, which is Monitoring Avian Productivity and Survivorship, which is a summer program, the winter and the summer surveys have really taught us a lot about how beneficial the prairie restorations have been because of what we're seeing there and, and the trend analysis we're seeing within the species composition and the guilds.

Sarah Mitchell [00:59:46] So I think some interesting, let's see, what would be the highlight? I think the highlight might be the grasshopper sparrow, which is one of the species that we found to be using our prairies in the winter and they, they have experienced a 70% decline across their range, and we are seeing them increase at Cook's Branch over the years. And we attribute that really to the restoration work of the prairie, but also the frequent fire regime. Another commonly known one is the Henslow's sparrow, which has been in decline as well. It's also a winter resident that we're seeing in our net, our mist nets.

Sarah Mitchell [01:00:39] And yeah, so I think that the MoSI and the MAPS programs have really helped us understand how the use of our habitat is shifting over time. So we're getting, and we're moving from, I would say, more bush-nesting birds to more grass-nesting birds, et cetera, and we're seeing these, these things slowly happen over time.

Sarah Mitchell [01:01:07] But we're also seeing evidence of the birds that require mature riparian forest habitat and mature pine habitat, like the pileated woodpecker. I mean, we have different test zones in different habitat types. And of course, each one collects different birds. But we, we've been doing it long enough now that we see repeat migratory birds coming back. Recently, I was working with a group of videographers and a camera person, or a photographer, I should say, to update some content for our website. And we, we visited one of the nesting sites at the beginning of summer and we captured a white-eyed vireo that had been banded in the same spot, in the same net, six seasons previously at Cook's Branch. So that bird had potentially crossed the Gulf of Mexico 12 times and come right back to the same bush on the same piece of habitat, which I just find unbelievable.

Sarah Mitchell [01:02:18] It's an incredible story, but it's also so validating that the work we're doing is working: that bird's coming back every year. It's not going anywhere else. And, and it's surviving. Right? It's flourishing.

Sarah Mitchell [01:02:33] So I think that the bird surveys have just given us a ton of input about what is working, and what isn't working, and, and giving us ideas about metrics for monitoring future progress too.

David Todd [01:02:48] You know, it's, it's, it's really intriguing to hear you talk about these, these creatures and, and my mind goes back to your family. I mean, the, the, the family structure that so intrigued you about the red-cockaded woodpecker and then the fidelity of the white-eyed vireo, it sounds like something that has been a trait in your family too - your loyalty to one another and a loyalty to this place.

David Todd [01:03:24] I was wondering if you could talk some about what this piece of land, and the restoration effort for the wildlife there, has meant to your family. And maybe you can touch on also, you know, if there are differences or similarities in how your grandfather might have felt about it, or how your parents and aunts and uncles, and then your generation, you know, how things change or stay the same as the years go on.

Sarah Mitchell [01:03:57] Yeah, well, I've always been very struck by how similarly we value the land. And of course, our ideas about its highest and best potential have evolved, right? But, but my grandfather, one of his, I guess, one of the things that we talked about closest to the end of his life with us was his, his commitment and desire to make it into a research station. And he wanted, he specifically told me, I want to see students out here in the field. So he had that vision early. I mean, he had the vision all along and of course, he was inspired by watching his daughters elevate the project and gain recognition and et cetera. And by that

point, I was working and he was, he was really proud of the things we were accomplishing. But he also saw that there was more, and there was more potential in the research lab area, and we, we as a family, and now as a committee and a board of the foundation agree. And I think that's been a really exciting evolution, is to watch, watch sort of the increase in the academic partnership component and watch the kids coming into the, you know, the lot, into the field for an entomology lab or designing their graduate research program around what they can study - you know, soil carbon or forest carbon, et cetera.

Sarah Mitchell [01:05:36] And so, I think I was impressed that my grandfather, he was always, always had great vision about these things. But he saw something that everyone else did agree with and ultimately moved forward. And I think my dad's generation, they were the ones that really made the trade-off and decided to protect it long-term. And they feel very committed to seeing that through. And they feel really, they believe in it a lot. They believe in the potential. They believe in it as a demonstration project. They believe in its, sort of, in its power to inspire someone if you come and experience the land. Because, of course, we were all motivated by our love of the land. Right? And not everybody gets the chance to even be exposed to land. And so I think they believe a lot in, you know, improving outreach and education and being this field lab for others, and also the advocacy piece, of course, around being land stewards, et cetera.

Sarah Mitchell [01:06:42] And I think that when the family won the Land Steward Award, the Sand County and Parks and Wildlife collaboration around the Lone Star Award, the Leopold Award, which we won after the Lone Star Award. They, they really surprised me by saying, wow, now we understand that it's our duty to be stewards of these concepts and we really want this to be a platform of sharing those ideas around land conservation and, and what the forest is like and what's happening to it and how is it transitioning and are people learning from it and are they being inspired and, and how is that elevating to policy and et cetera? And so I think winning that award in 2012 really kind of changed the family's thinking around, OK, if our duty to spread the word, if you will, and to facilitate others in their research and to share data with partners. And you know, if we can help landowners with their projects, we want to do that. So I think out of just their sense of commitment to protecting the land, but also stewarding the land into a future generation, and to the community, really, I think that they really, they've just done the hard work to position it to be a world-class research center and also to be a place where you can go and be really inspired.

David Todd [01:08:25] That is great. Well, you know, I'd actually had some questions about what it means to be a private landowner in a state that's 95 % privately-owned and the kind of burden and opportunity that presents if you have a restoration or conservation kind of mindset. And I think you've really explained how that works.

David Todd [01:08:55] I think maybe one other thing that might be good to touch on here is, you know, private lands are owned out in west Texas. It's maybe not as, as dramatic as, as what you all have done, you know, within commuting distance of Houston. And I was curious if you could talk a little bit about your family's effort to preserve open space and habitat and this sort of historical tie to the Cook family and to the Mayer family and, and to a whole other way that Texas once looked in the midst of an area that's developing so fast.

Sarah Mitchell [01:09:36] Well, yeah. I mean, gosh, we all know the obstacles to protecting land are pretty, there are a lot of them. Right? And some of them are financial and some of them are other. But I mean, I think land fragmentation, my dad's generation, having grown up in Houston and having spent weekends in the forest, they really watched that transition

happen quite quickly. And I think that that really impacted them in their thinking. And I think they realized we have to do it now while we all agree, you know, which I think is, is one message that I hope a lot of private landowners in Texas will really consider is that, if they have the will and the interest to conserve their land, they need to formalize that. Right? They need to really cement their wishes and their will into restricting the development rights, because as you get down the generations and you got more people involved, and if we were to make the same decision today, we'd have to get 75 people around the world to agree.

Sarah Mitchell [01:11:00] So I think for a family, it's really important that if you believe in protecting your land, that you find a legal way to do it. And, you know, some of the best tools we have right now available are conservation easements, which are pretty powerful. And they can also help you hold on to the land longer as a family. Right?

Sarah Mitchell [01:11:24] So, I think that private landowners in Texas have a really particular set of challenges because there are not a lot, there's not a lot of public funding for land conservation in Texas. Some other states are in a different position. But most private landowners really can't, they can't sell their development rights and they can't, and a lot of landowners don't have enough income to benefit from the federal tax incentives to do a conservation easement because they can't write it off against income. So you have a lot of landowners in Texas that really do care about their land, but they can't figure out how to best protect it and afford to do that, which I think is particularly tough and unique to Texas.

Sarah Mitchell [01:12:21] So, I mean, one of our family's interests is in bringing more money to land conservation in Texas, more public funds to conservation, or private funds, but in general, more investment in land conservation and more funding streams that would enable private landowners to protect their property and at a minimum, to offset the costs associated with protecting it, because you're going to spend money creating those legal documents and surveys and et cetera.

Sarah Mitchell [01:12:55] I think there's also an important opportunity for people to, to do, you know, I really wish we were working more in the space of continuing legal education and accounting education, et cetera, for landowners because, and for attorneys, and estate planners, and CPAs, because there are benefits and there are write-offs, et cetera. Those don't apply to everyone, of course, but it can make, it can enable a family to hold on to a piece of land longer and then find the right stewards for their land into the future.

Sarah Mitchell [01:13:36] And I also think Texas is slowly coming around to the idea of being buyers of conserved land. So the conservation buyer movement is sort of gaining traction. And I think that's a really interesting market to watch and pay attention to. I don't see Texas getting a bunch of new federal lands or open space. But I do see the potential for private landowners to protect their land or to restrict it before they resell it as being a huge opportunity.

David Todd [01:14:16] That is a great summary of the state of play, I guess, in land development and protection. And thanks for giving us that view.

Sarah Mitchell [01:14:28] So you know, your family has been hugely generous, in lots of respects, through the Cynthia and George Mitchell Foundation as one example. And I'm curious if you could talk a little bit about the Cook's Branch Conservancy is an element of philanthropy. How, how would you describe that?

Sarah Mitchell [01:14:57] Sure. Well, the foundation as a whole does really amazing work, and there's, most of our programmatic efforts, I would say fall under the umbrella of what we call "sustainability", and specifically that would be land, water, energy policy in Texas, or Texas-plus, as we say internally, because, of course, if you need to go federal, et cetera, you do. And we have partners from out of Texas all the time. But we tend to focus most of our efforts on Texas, which is a great place to be doing this work, because whether you're looking at water, energy or land, Texas is pretty unique and very impactful.

Sarah Mitchell [01:15:44] So, I think that Cook's Branch is a really interesting complement to what we're doing elsewhere, because, of course there are land, water and energy components to our work at Cook's Branch. But it's the only operating program and it's really the only thing that we are running ourselves that will be a demonstration, and where active research is really happening on the ground, where people can go and see some of the impacts of this work, where we can talk about the policy needs from both a landowner perspective, but also just an open space perspective and a public funding perspective. I see it as a complement because, you know, things that are happening on the ground at Cook's Branch, whether it's through our research or through the surrounding landowners or our work with the county or anything, that can sort of inform up the chain what we're, what we think the needs are in land conservation policy, and where are the gaps and, and what are the voters care about around water quality and what do they care about around energy policy, et cetera.

Sarah Mitchell [01:17:01] So and then, of course, from the top-down, we can design programs and test them on site at Cook's Branch. So I really think it's a unique complement that's beneficial because it can inform our programs that are operating at a higher, more state-wide impact level.

Sarah Mitchell [01:17:22] But it also really gets into the tangible, you know. You can show up and see the change in the species composition and get excited. Or you could see what a restored prairie would look like if that were, for example, included in a damages act or a reclamation act or a case where if you're considering planting native species in areas that have been damaged by oil and gas and are being reclaimed, you could actually see what that would look like.

Sarah Mitchell [01:17:57] I think it's, I think it's just a really important asset to have something on the ground, especially for the research component - this field lab concept. I mean, Texas does have some other research stations and forests, but we are within an hour of more than five research universities and being accessible for their work, I think is just an incredible gift to the community and one that we plan to expand.

[01:18:29] And I just think, I don't know but that's something that you don't get long-term consistency if you're only supporting it through grants. So the fact that we can commit a field research site to, say, a 15-year project, a research project, as we have recently, that is really hard to come by as a researcher. So I think that, and we, we can do it with less bureaucracy and less red tape because we aren't a federal institution. So I think that we offer something really appealing to researchers and we hope we're just helping further, you know, land conservation in multiple ways - both inspiring and educating landowners, but also just through literal research on the ground. And the findings that come out of that, whether it be about management practices or how the forest is using carbon or what's happening with the hydrology with increased, you know, heat and water stress and all that. So, I mean, there just there's there are countless things that can be explored that I think are valuable and we can make that available to people.

David Todd [01:19:47] Yeah. You know, one thing that sort of strikes me is that Cook's Branch is probably a wonderful place to, to learn, you know, factual things about the environment, but it also seems like it's been a wonderful lesson in resiliency and just that there is hope for turning around a legacy of, you know, overgrazing and clearcutting and so on. And maybe as we start to wind this town, could you talk a little bit about what this means in your heart to see this - the prairies come back and the birds come back?

Sarah Mitchell [01:20:27] Yeah, we, I mean, as a, from childhood to adulthood, I watched our own family go through this transition. And so I look to our neighbors and think, well, they could be just 15 years behind us. You know? This could be something they choose to do on their property. And in fact, we've had a really amazing number of surrounding landowners adopt some of these practices and even hire some of our consultants, et cetera. And that is really encouraging. And so I think that seeing it happen over, you know, ecologically, a very quick turnaround for our family and our land - went from cattle and timber to this amazing refuge in really 20 years. And that's doable. So I don't know. I hope that we can serve as an inspiration to other landowners and, you know, that they can just feel that it's not that far off. They could just get started. And one thing leads to the next, of course, and it can happen pretty quickly.

David Todd [01:21:47] Well, it seems like, you know, the sacrifices that y'all made, there's, there's just maybe you're now in a kind of a virtuous circle where things build on one another and get better and better.

Sarah Mitchell [01:21:59] Well, in looking into the future, what, what do you foresee for the red-cockaded woodpecker and for the place that it calls home at Cook's Branch?

Sarah Mitchell [01:22:12] Well, the population has been doing so great. It's improved and grown and been thriving, and no one knows for sure, but I assume that we are approaching carrying capacity on our exact footprint of forest that we manage. But that doesn't mean they can't be expanding into the neighbors and into new forests that maybe don't even exist yet. So what I see for the future, in our work, is really expanding the amount of protected acreage around us, not that we own, but on other people's private lands and sort of building the political will and helping the people that already have the inclination to protect their land and hopefully building the political will to bring more public funding to the county and to the state and to the region so that other landowners can afford to protect their land and restore their land actively, which I think is doable. And we see it happening in other places. So enhancing the sort of the efficacy.

Sarah Mitchell [01:23:26] And I do think it'll take some policy change and a little bit of, sort of, well, some attitudes are evolving, right, and people are caring more now about water quality and they're seeing the impact of flash flooding and the floods are becoming more dramatic and more frequent. And they're seeing what happens when we get a year like the 2011 drought and we have fire threatening the entire system.

Sarah Mitchell [01:23:57] And people are waking up to wanting to be part of the solution. And whether you call it climate change or you call it stewarding God's creation, whatever it means to you as a person that's part of this system, I do see people becoming more interested in doing their part, more interested in seeing nature return, more interested in minimizing impervious cover and reducing flash flooding and being proactive instead of just being stuck in this reactive place.

Sarah Mitchell [01:24:33] You know, we're finally seeing funding of land protection for water resources. And we're seeing, we're seeing even utility companies, instead of just trying to, you know, filter the water supply at Lake Houston, they're going to start protecting filtration forests upstream.

Sarah Mitchell [01:24:52] So as the whole culture and especially, you know, the stakeholders that can make a difference, at a policy and a funding level, as people start to really embrace how holistic an approach that really looks at protecting the systems of nature for our benefit and putting a cost to destroying the habitat versus keeping it intact or maybe even reintroducing it, I think as we evolve in those financial models and we get more sophisticated with being strategic instead of reactive, we're going to see a shift. I think we're going to see a return of these habitats.

Sarah Mitchell [01:25:34] And I think we're going to see continuity that that isn't there now. I mean, imagine we could have a corridor between Cook's Branch and the Sam Houston Forest and over to the Jones Forest. Those populations could be reconnected by the time, you know, my kids are wondering what the state of the red-cockaded woodpecker is.

Sarah Mitchell [01:25:57] So I guess I'm feeling hopeful. I think that we're really seeing a change in ethics and in values and in just, just the very human reality that you miss something once it's gone. And with the state of Texas forests, with everything sort of being on the table, as far as there aren't millions of acres of forest land surrounding these communities that were once, you know, paper operations, et cetera. And now they're being chopped up and sold off as ranchettes and cleared.

Sarah Mitchell [01:26:34] And so with the disappearance of the habitats that people have revered and loved all their life, there's a new commitment and a new passion for bringing that back and for protecting what's left. And I think I just feel hopeful about that and I feel inspired by that. And yeah, I'm just looking forward to the next 30 years, see what happens before I'm gone.

David Todd [01:26:59] Aw. Well, many more years to do good things and you're off to a wonderful start.

Sarah Mitchell [01:27:06] I know you need to leave very shortly. Is there anything you would like to add before we end this call?

Sarah Mitchell [01:27:19] Well, I would just say, "thank you", I think it's a great project. I hope that all the people out there working in not only the natural sciences and conservation, but specifically on these species like the red-cockaded woodpecker, just keep hope alive and keep pouring their heart into this mission of seeing a better future, because I do think it's possible I it's within our reach. And I know that we are very committed to our efforts and we plan to keep doing them into the future.

Sarah Mitchell [01:27:56] And I think something we didn't have time to talk about, but that is also powerful, is the possibility of foundations working together as investors in some of these practices. We have a pilot experimental project right now which we alluded to earlier called Mayer, where we have invested in a property that we will restrict and restore, hopefully, and resell one day to recoup some of our investment capital. And that's being done out of the corpus of the foundation. I find this a very powerful and very underutilized tool in Texas, and I

think there's incredible opportunity for funders across the space to collaborate on land conservation and restoration investments. And I think getting creative about our land conservation financing tools and what's available to us is going to be really critical in Texas since it is a private land state.

Sarah Mitchell [01:29:05] So I think, I'm just really excited and hopeful that we can all work together to find ways to accomplish these things that we've worked on for decades, you know, to see them grow and expand and to bring, you know, private equity investment and to bring commercial investment and to bring public funding and just bring new sources of energy and and finance into the world of private land conservation and private land restoration. I just hope we can all continue to work together and be creative.

David Todd [01:29:41] Yeah, so well said! Sarah, this is inspiring, educational, really helpful. Thank you for your time.

Sarah Mitchell [01:29:51] Thank you.

David Todd [01:29:51] If you could just hold on a moment, what will happen is that through the miracle of the Internets, your recording will upload, mine will, and then we'll stitch it together and we'll have a nice record of this wonderful conversation. So thank you very much. It's almost two o'clock. You need to run. Thank you so much for your time. I hope our paths cross really soon.

Sarah Mitchell [01:30:24] Oh, thank you. It was such a great conversation. And thanks for your work on the project. It sounds really important. And I'm here, if you want to talk about anything else.

David Todd [01:30:33] I'd love to talk again. This has been a great start to a nice relationship. Thank you very much.

Sarah Mitchell [01:30:40] Bye bye.

David Todd [01:30:41] All right. Bye, Sarah.