

## Episode17OswaldFire.mp3

**Dr. Rideout** [00:00:21] 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,

**Brianna Slothower** [00:00:29] And I'm your co-host Brianna Slothower

**Dr. Rideout** [00:00:32] And Andrew Lowery is with us today also. Hi, everybody.

**Andrew Lowery** [00:00:35] Howdy. Howdy.

**Brianna Slothower** [00:00:36] Hi. Hi.

**Dr. Rideout** [00:00:37] How are you guys.

**Brianna Slothower** [00:00:38] Im going to copy your two (greetings)

**Andrew Lowery** [00:00:40] Im doing OK? It was a solid Christmas had some awesome breakfast. Got to spend some time with my wife. Cool. No complaints.

**Brianna Slothower** [00:00:50] Yeah. My dad came down from Washington, so it was nice to, well, Washington state. I should clarify. And we got to spend some time together, so that was really nice for us. How about you?

**Dr. Rideout** [00:01:01] Right before Christmas, my daughter and I went up to Dallas to see my my son and grandbabies and daughter in law. And so, yeah, that was that was nice to. All around, good Christmas is then good to see, family . No complaints. Yes, very nice to see family. OK, so let's just jump right in with our what's wild and new, I think. Andrew, you have something wild, a new force this time.

**Andrew Lowery** [00:01:24] I do. But it's what wild, new and sad, sadly today. Our story this episode is about the threatened Florida manatees. Manatees were actually enjoying a bit of a comeback and had even been upgraded from endangered to threatened in 2017. But recently they've run into some difficulties again. Apparently, food has been so scarce for them this year that they're starving in record numbers. Over a thousand have already died this year as of November. So the U.S. Fish and Wildlife Service is working on a plan to feed them this winter at one of their biggest wintering spots. You see, a lot of manatees will gather each winter at a Florida power and light plant in Cape Canaveral along the Indian River Lagoon. The water is warm because there's discharge from the plant. The plan is to feed the manatees delivering lettuce, cabbage and other greens with a conveyor belt. Hopefully, the use of the conveyor belt will prevent the manatees from recognizing the food is coming from humans and then expecting handouts in the future.

**Dr. Rideout** [00:02:22] So what was the problem this year that caused this emergency?

**Andrew Lowery** [00:02:27] You know, manatees have kind of been struggling for a while and they always struggle to get along where people are plentiful. Many of them are injured every year by boats because they moves too slowly to get out of the way. But the problem this year, as I mentioned, was starvation. It was mainly caused by runoff from farms, urban areas and sewage. The runoff causes growth of blue green algae that chokes out the light that's needed for seagrass to grow, and the seagrass is the primary food source for manatees. This is one reason the feeding plan is acceptable to us fish and wildlife

because the problem was actually caused by humans. Climate change also makes the algae problem worse, and sadly, manatees aren't the only ones affected by it. A wide range of species from crabs to dolphins are affected by algal blooms.

**Dr. Rideout** [00:03:13] I feel like some of our topics are starting to run together. We just interviewed Dr. Jeffrey Turner a few a few episodes back about runoff and sewage pollution and all that stuff, too. So yeah, we're starting to. These themes are coming together, but this is a really drastic plan that the fishermen, the fish and wildlife has to feed a wild animal.

**Andrew Lowery** [00:03:34] Yeah, they usually really stray away from, oh yeah, any sort of direct interaction, if they can keep from it. You know, it's

**Dr. Rideout** [00:03:42] don't feed the don't feed the wildlife,

**Andrew Lowery** [00:03:44] don't feed the wildlife. But sometimes you have to feed the wildlife, sadly.

**Dr. Rideout** [00:03:48] Yeah, that is sad. I hope it works for keeping those populations healthy. Hopefully, yeah. Well, today with our interview, we're going to be discussing fire and fuels in the piney woods of East Texas. Brianna, do you have anything to get us in the mood for today's interview?

**Brianna Slothower** [00:04:05] I sure do. So we have been talking recently more about myths and legends, so I thought we could kind of dove into that with Smokey Bear. I think a lot of people think the legend of Smokey started with a little bear cub that was found in a wildfire, but actually the fictional character came first. Smokey Bear was created by a advertising agency, Foote Cone and Belding, which still works on this campaign to this day. This represents the longest running pro bono advertising relationship in the United States. The U.S. Forest Service engaged the agency with the purpose of creating an ad campaign to encourage people to be careful not to start wildfires. Smokey Bear first appeared in a wildfire prevention poster in 1940 for. The original poster read, care will prevent nine out of 10 forest fires, but it didn't take long for this agency to come up with Smokies famous slogan. Only you can prevent forest fires that showed up on posters in the forties also. But in 1950, the Smokey Bear campaign was already well underway when a live bear cub was found in a wildfire in the Kapitan Mountains of New Mexico. The couple was burned on his paws and his hind legs, but he was nursed back to health and sent to the National Zoo in Washington, D.C., to live out his days as a living symbol of smokey. The Smokey Bear ad campaign was wildly successful, likely too successful. In fact, Smokey Bear came in at number 21 in the 2000 book titled The 101 Most Influential People. Or Let's include bears on this list who never lived by Lazaar, Carlin and Salter to this day. Eight out of 10 of adults in the U.S. believe that they can make a difference in the prevention of wildfires. The problem with Smokey's memorable motto, though, was that it didn't leave room for prescribed fires or even wildfires that agencies deemed beneficial to the ecosystem and harmless to people. Thus, in 2001, smokey slogan was tweaked to only you can prevent wildfires. According to the Forest Service, the tweak was intended to clarify his message of preventing unwanted and unplanned outdoor fires versus prescribed fires. Smokey Bear still engages with the public on behalf of the Forest Service. He has his own zip code, advisory board and legal counsel, as well as his own Twitter, Facebook and Instagram accounts. So I guess subscribe to his those accounts.

**Brianna Slothower** [00:06:39] Follow Smokey, yeah follow smokey.

**Brianna Slothower** [00:06:41] By the way, Smokey Bear has never had an official middle name, but in 1952, Steve Nelson and Jack Rollins wrote what became a successful song named Smokey the Bear. According to the songwriters, adding the "the" between Smokey and Bear enhance the song's rhythm. Thus, his perpetual misnomer was born. Now let's head over to the piney woods and learn about Fire's role in the forest.

**Dr. Rideout** [00:07:07] Well, we're here today with Dr. Brian Oswald, Dr. Oswald is the Josie Denman Distinguished Professor of forestry at the Arthur Temple College of Forestry and Agriculture at Stephen F. Austin State University. Hello, Dr Oswald, welcome to our podcast.

**Dr. Oswald** [00:07:23] Hi, Sandra. Good to be here.

**Dr. Rideout** [00:07:25] It's great to have you here. And just so that everybody knows full disclosure here, you might learn things about me that you really didn't want to learn because Dr Oswald was my co advisor for my Ph.D. So so he knows some things. However, he has been warned that I do have ultimate editing power. So, so we'll see. This is going to be fun. Yeah. So why don't we start with what you do a little bit about yourself as well? So introduce yourself to our audience, please.

**Dr. Oswald** [00:08:05] Yeah, OK. I'm glad to get a place to start. Yeah, I born and raised in Michigan and got my bachelor's degree in forestry at Michigan State after I graduated. From there, I went to Northern Arizona University, where I

**Dr. Oswald** [00:08:23] studied

**Dr. Oswald** [00:08:23] under the supervision of Dr. Wally Covington. I got a degree in forestry, but our focus was on understory

**Dr. Oswald** [00:08:32] fire

**Dr. Oswald** [00:08:33] ecology. And then I spent five years working on the Navajo reservation

**Dr. Oswald** [00:08:40] at a two

**Dr. Oswald** [00:08:41] year college there

**Dr. Oswald** [00:08:42] in Ganado and then

**Dr. Oswald** [00:08:44] went to University of Idaho for my Ph.D., where under the supervision of Leon Noon Quander, I did a fire ecology silver culture dissertation. And after that, I went to Alabama A&M University, where I was on the faculty for three and a half years and then took a position at SFA and arrived here in December 1995 and just been working my way up. The professor ranks and I've been on the faculty here ever since. Now all my teaching responsibilities are focused on fire, but also on some silver culture and a little bit of range management. And so I teach a full load of courses here at SFA, plus do my own research and supervise graduate students. I currently have seven of them and over the twenty seven years I've been here at, I think I'm in the high thirties and students that have graduated just got my six Ph.D. student finished up, walked across the stage last week.

**Dr. Rideout** [00:10:05] But who was your favorite that's really the important thing here, right?

**Dr. Oswald** [00:10:08] Well, it's hard to say and now you could have been the most recent one or Mahomed or Amanda.

**Dr. Rideout** [00:10:15] Whatever.

**Dr. Oswald** [00:10:16] There is a there is another one in there someplace.

**Dr. Oswald** [00:10:19] But yeah,

**Dr. Oswald** [00:10:22] when she did the babysitting, she was my favorite, but

**Dr. Rideout** [00:10:26] I babysat the cutest two little girls, nicest little girls that ever were until my own, of course.

**Dr. Oswald** [00:10:31] Yeah, yeah.

**Dr. Rideout** [00:10:34] So Brianna Sloth, is my co-host, and she got her undergraduate in forestry and fire at Idaho.

**Brianna Slothower** [00:10:44] Yeah, so we're almost like we're neighbors of brain. Yeah, I don't know who to call that.

**Dr. Rideout** [00:10:49] Brain Neighbors?

**Brianna Slothower** [00:10:52] Yeah. So with that, I'm interested in one, I guess I'm just curious how you became interested in studying fire and fuels, like did you get interested in it during school or was it prior to that that you got involved with learning about that?

**Dr. Oswald** [00:11:11] You know, that's that's a really good question, because sometimes you never know where you start this stuff and it's not like I was a juvenile delinquent had just started arson fires all over the place. But I did in forestry, I had to do a career notebook in eighth grade. They thought they let people start thinking about what they wanted to do. And like most guys in eighth grade, I had no idea I thought that I was going to be a baseball player but couldn't hit, couldn't throw and couldn't catch. That's a problem. Yeah, that seems to limit my options a little bit. So I did that and I said, Well, forestry is pretty, pretty neat and I just kind of stuck with that. And Michigan State was the family college, and it has a forestry program, an old one. So I went there and we had a class and fire that was that was pretty interesting. And. And then we had had to do a independent study for an elective and kind of investigated the role of fire in rangelands around the world, and that got me really interested in it. And then when when I was getting close to graduating in 1979, I needed to either find a job or go to school. And we're in a whole lot of jobs in forestry in 1979. So I went to grad school and got that started working on fire out there. And it just it's it is fun as long as things don't go wrong. And it's it just became more and more interesting. And that interaction of fire with the environment just became more and more fascinating to me.

**Brianna Slothower** [00:12:52] Yeah. And so it sounds like you've studied fire in multiple locations going to these different schools. And but you have been in East Texas for many years now or maybe a couple of years, however, you want to say that. I think it

**Dr. Oswald** [00:13:09] would be decades, a few decades

**Dr. Oswald** [00:13:10] now. Yes.

**Brianna Slothower** [00:13:13] So one thing we're also curious about is since you're in East Texas, what is what role does fire play in the piney woods in the Southeast Texas area? And can you tell us how important fire is to the pine forests in Texas?

**Dr. Oswald** [00:13:31] Yeah, it has. It has number of roles. You think about fire as a process and when you say about the pine forests in the piney woods, well, as soon as you start talking about pines in the southeast, if you don't have fire and don't do other things, you're going to get hardwoods and not pines. Most of the time, and it was that relationship that historically allowed us to have a 100 million acres of longleaf pine stretch across the southeast. But to manage the hardwood in the competition, fire is an important tool, but it's also an ecological process that helps maintain these pine piney, pine dominated forests that we have in the southeast United States. It also has a role in the heart upland hardwood components that would that are still around. You can have an argument on whether it has any role in bottomland hardwood, but fire is an important role, and it's a little different than it is out west, where fire is basically the decomposer for the down woody material. The fuels here are fuels are the lye fuels, and the fire is basically a competition control mechanism. So it has a similar but distinctly different role in these ecosystems.

**Dr. Rideout** [00:15:01] Hmm.

**Dr. Rideout** [00:15:02] A lot of our listeners are really interested in wildlife, of course. Tell us about the relationship between fire and wildlife and how wildlife have adapted to fire over the years, et cetera.

**Dr. Oswald** [00:15:17] Okay. Yeah.

**Dr. Oswald** [00:15:19] You know, when you talk about wildlife and for coming from a forestry standpoint, what I'm looking at is habitat. And then the wildlife response to the habitat. And that's where a fire comes. In my intro to fire class, I teach that the the role of the interaction between wildlife and fire is the wildlife move or they die. But it's the habitat that they're responding to and what happens to the fire. So with that vegetation, so the hardwoods that I just talked about are liable to usually sprout that becomes brown for white tailed deer, and that's the habitat requirements. So they have the food resource. Fires aren't going to be really contiguous on the ground, so it give cover if you maintain a grassy understory of native grasses with the role of fire. That's a great benefit for quail. We have an endangered bird in the southeast United States, a red cockaded woodpecker, and that needs a clear mids story and live trees with red heart disease because it's the only woodpecker that makes cavities in live pine trees. And so fire has a does a great job of maintaining that ecosystem as well. Gopher tortoises the same thing down in the Panhandle and South Alabama, that habitat, they need the fire to go through there. So most, you know, in the southeast, almost every animal has a reaction. Who the presence of fire on the landscape, whether it's a direct or a return in a couple of years or just the return very quickly to it, in some cases it moves because it becomes a negative impact on their habitat.

**Dr. Rideout** [00:17:21] Hmm. Well, what's what's the deal with wildfires lately in the East Texas force we're all familiar with, you know, wildfires of the West. We see that all the time every year have wildfires been increasing in East Texas forests as well or what's happening with them lately?

**Dr. Oswald** [00:17:43] It's the numbers are are kind of interesting in East Texas and across the southeastern United States. Part of it has to do with what's your definition of wildfires, which is basically a fire which occurs where you don't want it, when you don't want it? Mm-Hmm. And and how you don't want it. And so we do get those, but we've also fragmented the landscape a lot. So when we have a lightning strike or incendiary fire started intentionally or accidentally by humans, we have a different dynamic here in the southeast because it's easier to get to them because the fragmentation the fuels are in a landscape level as they are in in the western United States, so it's a little bit different. I haven't seen any numbers that suggest that our incidents are going up in the southeastern United States, but that could change a lot if some of these parts, like we think what's going to happen in East Texas, if we do with changing climate, get a little drier and a little warmer. I think that role of scale becomes more important, potentially.

**Dr. Rideout** [00:19:04] Mm-Hmm. You know, it's been 20 years since I was in the piney woods. Are people using prescribed burning a lot or are they using substitutes for prescribed burning?

**Dr. Oswald** [00:19:17] Industry is using, for the most part, other than using fire as a site preparation tool in some cases has gone away from fire and other plate. Other stages of development of, say, a pine plantation, mainly because the hazard of the fire may kill their trees, which is their money.

**Dr. Rideout** [00:19:38] Mm-Hmm.

**Dr. Oswald** [00:19:40] Landowners are doing more. They're working with the Texas A&M Forest Service a little bit more on outreach programs and putting fire in in place. There is a scribe fire groups of various types that are working together on that to use fire on their land. The fire wise program that's a national program is, I think, has done a great job of alerting people who live in the piney woods and not in a city where hazards are. And we're doing a really good job of mediating potential hazards on that. And prescribed fire can be used to actually reduce the chance of more devastating wildfires. So there's a lot going on. It's really impressive of how that is loaded in the last 10 years on land owners looking at that.

**Brianna Slothower** [00:20:44] Mm-Hmm. Okay. Yeah. Well, and fire plays a pretty big role in the United States and in Texas. But also, I heard you've done some fire and fuel work in the Netherlands. Do you, would you care to share some of some of your experiences over there?

**Dr. Oswald** [00:21:03] Yeah, yeah. That was an interesting sequence of events. I was at a fire conference back in 2009 and saw a presentation by a staff person from one of their emergency preparedness agencies talking about the growing wildfire issue they have in the Netherlands and all of Northwest Europe and Netherlands. Its number of fires and the size of the fires are increasing about four percent a year. That part of Europe is drying a lot more rapidly than we've seen a lot of our areas here in the United States. And and they don't have any fire history. So it's kind of a blank slate. They don't have a fire culture there.

They have no history of fire on the landscape, especially since Netherlands. Two thirds of it is below sea level and and so kind of wrangled a trip over there and talk to them a little bit. And then I started working with this agency on First Class, find some of the more hazardous communities they have there on. Assessing what are the potential for fire behavior? Over there, looking at the different fuel, so we look at some of their hardwood forests and their Scots pine Douglas FIR that they brought over from the United States and planted all over the place. Some of their native grasslands, ants and more. A lot of our focus was on their shrublands, especially their hether communities, which is pretty volatile shrub, it's got a lot of oils in it and along the coast they have this nasty shrub called sea buckthorn, which is appropriately named and and it's it's really got some nasty thorns on this thing. And so when that burns with wind coming off the North Sea or the English Channel, it it explodes into flame. And and so we started working with them and getting a lot of this running through, especially I use Behave Plus just which is a software program just to get an idea what the potentials are on fire behavior there. And then we've done some work with Canopy Fuels. And what happens if the fire gets into the canopy of these, especially Scots pine, but also some of the Douglas FIR stands? It's a small country, so but a big fire for them is we would probably not even make the news here in the United States on the size.

**Dr. Rideout** [00:23:55] Mm-Hmm.

**Dr. Oswald** [00:23:57] Back in 2012, they had a fire in their largest national forest. called, the Easter fire and I forget what the total acreage was on the fire. But if you compare the size of that fire to the total country size of the Netherlands, it'd be equivalent of the state of Kentucky burning up in one event. Wow. For the lower 48 states in the United States, it was obviously was a big, big event for them. So it's been a pretty rewarding and interesting experience working from that. Their forestry people don't see fire as a tool. They don't use prescribed fire as a management tool. They're getting closer to doing it. But they have to educate the public as well as what the role of fire is in some of these ecosystems. So it's been an interesting nine years working with them.

**Brianna Slothower** [00:24:49] Yeah, that is really interesting. I didn't realize there was, you know, that much wildfire stuff that was happening up there. So that's thanks for sharing that.

**Dr. Oswald** [00:25:00] Sure.

**Brianna Slothower** [00:25:01] And then one thing I'm also curious is if you know you've spent a lot of time there as well. Do you think any of those lessons that you've learned with your work over in the Netherlands, can then apply to any of your work here in Texas?

**Dr. Oswald** [00:25:17] It has made me be a little more conscious of the fuel volatility, the oils and everything, and some of these fuels, especially our invasive species. So my Ph.D. student who just finished who only because his most recent one, he's my most favorite. But anyway. Yeah, see, there you go. But Mike Taylor did both his masters and then expanded on the in his PhD and looking at the volatility of Invasives here in East Texas and native plants and compared it we also grabbed some samples in the Netherlands that sea buckthorn and their hether and compare that to what we had in East Texas and also some. Vegetation that makes up some of California's chaparral. Dr Chris Dyck is from Cal Poly, sent me some samples of that and the ignition rate and decomposition rate and volatility of the vegetation in in some of our invasive here and also in California is equivalent to what we saw on a sea buckthorn. Some something on yeah, they got a

potential problem. And it makes me really conscious of how some of our ornamentals that we use in yards and next to houses that are basically pretty hazardous. And so when you people plant privet and around, it's probably not the best thing to plant and some of the Hollies and things. So it makes me a little conscious on that as well.

**Dr. Rideout** [00:26:53] Hmm. So if you think they have a potential problem there, do you do you in East Texas have a potential problem too?

**Dr. Oswald** [00:27:06] I think the fragmentation of the landscape is helping us. You know, it's what we're going to do with some of these. Invasive species and how they expand on the landscape that has me concerned things like. Not so much Chinese tallow, but. Native Plant Yopougon and Chinese and Japanese Privet, they tend to really have high densities along the roads and they're volatile, and that's where more people are probably going to start a fire accidentally or intentionally. So I could see where some problems might occur along those ways. I'm more interested in how this happens on the edges of development areas that urban interface, wildland urban interface that we see all over East Texas and even in across the United States, where wild lands of whatever term you want. however you want to describe those coming up against human development. And that's where they get more sunlight. So those species, they could burn in the woods or more there. Or we have some ornamentals that people plant in yards that tend to be flammable. So I know this is an issue that people are looking at across the United States on how to educate landowners on that. So as East Texas gets, you know, more people move here. interestingly, retire here. It gets to be a little bit of a challenge, making sure they understand it's different than if they live in a city. And I think we're on the edge of the piney woods, the southern pine forests, and we're going to be going a little drier, a little bit warmer based on every climate model I've seen. And so what we've known before could change and become more hazardous, so I'll be retired before it, that hits, hits, hits the fan, so to speak, but I'll be interested to see how that plays out.

**Dr. Rideout** [00:29:15] I guess that'll be something for Mike to look at them.

**Dr. Oswald** [00:29:19] Yeah, I think he's kicking around just so he's waiting for me to retire.

**Dr. Rideout** [00:29:23] Yeah.

**Dr. Rideout** [00:29:26] Well, we've talked about prescribed burning just a little bit. And I know there are a lot of in IPF owners there, that's non-industrial primary forest landowners there. Most of East Texas, I guess, is still in IPF. Is that right?

**Dr. Oswald** [00:29:43] Yeah. Or you know what they call it PMOS and the reads, the companies that are they're not an industry, they're they're not managing straight straight for growing trees to feed mills. They're considering it as an investment. So that's still the smaller line. Landowners or larger private landowners are still pretty prevalent here in East Texas. They talk to each other, so we get some landowners that burn all the time just south of Nacogdoches here. We got the Winstons and they burn some of their areas \every year. Yeah. And so it's a great demo just to see

**Dr. Oswald** [00:30:25] that's what happens if you just burn every year and that's what it looks like and then their neighbors don't bring it all to see what happens when you don't. So the word of mouth is getting there. And like I said, Texas Forest Service, I'm not going to use Texas A&M for service every time, but anyway, they're doing a great job at the



county level, having workshops and everything with the landowners and kind of promoting the possible use and coordinating that. It's okay. Like I said, they do a lot. There's a lot going on in private and then we got consulting firms that'll work with just about everybody to burn.

**Dr. Rideout** [00:31:01] Sure. So are the those would be the biggest resources then for somebody if they were wanting to learn how to burn their property and wanting to get into burning, even if they only have a hundred acres or five hundred acres or something like that,

**Dr. Rideout** [00:31:15] would it be?

**Dr. Oswald** [00:31:17] yeah, that's where I tell everybody to start reach reach out of the district forester for the Texas Forest Service. The fact that majority of them in East Texas were in my classes. I know quarter of a century, and that's kind of I don't know if it's a good thing or a bad thing, but you know, they've done a great job. I really am IRA. I sometimes people ask me from other parts of the country, what's the state forestry agency like? And I said, I think it's maybe the best one in the country.

**Dr. Rideout** [00:31:48] Wow.

**Dr. Oswald** [00:31:50] And because they they really embrace well, they don't do prescribed burning themselves anymore like they did when I got here. Yeah, there are resources available on their website is really phenomenal and helping landowners figure out this is what they want to do and where can they go and where are the workshops and who to talk to and who to coordinate with it? It really is good.

**Dr. Rideout** [00:32:17] Well, that sounds good. And they do. They help you write a plan and that sort of thing.

**Dr. Oswald** [00:32:22] Yeah, they'll they've got a template on how to do a plan. They got one for forest management, but they also have a template on a fire plan, larger acreage. They may help you a little bit just because they want to put in their records that they were fire boss type of thing. But you have to take there's a lot of things going on there, but they're really good at helping the landowner understand what happens or if the landowner doesn't want to do it themselves, give them a list of people that might be available to help them for a price. So right?

**Dr. Rideout** [00:33:00] Certified burners? Maybe.

**Dr. Oswald** [00:33:01] Yeah, you certainly don't want to just pick off somebody down there at the Kroger's and say, Hey, you want to burn? Yeah, that'd be fun. You know, that's probably not the one you want to do.

**Dr. Oswald** [00:33:10] Yes, it would be fun. It'd be

**Dr. Oswald** [00:33:12] fun, but it probably won't give you the results you were looking for

**Dr. Rideout** [00:33:14] No. You might make the news, though, but

**Dr. Oswald** [00:33:17] yeah, they could make it. They could. They could mention you many times, on the news.

**Dr. Rideout** [00:33:21] Could be, it could be that fire that you always warned me about the one you never want the fire to be named after you.

**Dr. Oswald** [00:33:28] Right? Oh yes,

**Dr. Rideout** [00:33:31] that's the one you don't want. What about shared resources? Are there places where people can check out like drip torches and sprayers and things like that?

**Dr. Oswald** [00:33:40] There there are some. If the areas are organized and then, like Texas for service, also have their trailers that they can make available. They have a trailer down in Hudson, for example, that they'll go, and it is possible to check out a lot of other places. Have the prescribed burn in council organization. It's not that much in East Texas, but I know it's more common in central and south.

**Dr. Rideout** [00:34:07] Mm hmm. And so

**Dr. Rideout** [00:34:10] rangelands.

**Dr. Oswald** [00:34:11] Yeah. Yeah.

**Dr. Oswald** [00:34:12] And and so they are those are available. What's nice is that there are some grants available for private landowners that I often suggest landowners do in East Texas that would give them financial support to meet certain needs if that's their goal in land management that can help cover the cost of hiring someone to do some prescribed burning. So.

**Dr. Rideout** [00:34:38] Oh yeah,

**Dr. Oswald** [00:34:41] that way you don't have to own the torch and stuff there. Yeah. And a company does. And I'm like, I can't imagine any companies because that would be promoting so.

**Dr. Rideout** [00:34:49] Right, exactly. No, I mean, and it's it's not something that you can just do on your own the very first time you have to, you have to get some exposure. Well, you

**Dr. Oswald** [00:34:58] could, but it's not a recommended practice

**Dr. Rideout** [00:35:01] again, the one that gets named after you. So, yeah, yeah.

**Brianna Slothower** [00:35:07] So speaking of making some fun decisions, have you had any biology blunders? So this is kind of fun story where everything went south and hilarity ensued.

**Dr. Oswald** [00:35:22] Well, there's a couple, and Sandra's kind of hinted at that when I was a student at Idaho on the experimental forest. They generally would if you were, if you were the the boss of the fire and it didn't do what it was supposed to do. They would name it after, you know, and and so this was the Leon Numshombre tradition that he started. So a just retired faculty member out there, Penny Morgan, had one named after her. I did have one named after me when we were doing a site prep burn for a seed tree approach

to its mix of conifers out there, and I did a great job. We started burning instead of early late morning. We started late afternoon because we didn't want to expose all the mineral soil with the burn, and I managed to kill all the Douglas FIR on the site, which obviously I don't know. We still don't know how it was pretty good. I don't know why it happened, and no one else did either. We did have a burn in Idaho. We were doing a site prep burn about a 12 acre clear cut. That. We had three grad students dragging. Torches across, and we're supposed to be at a diagonal, so we weren't stacked up right underneath each other. But the people at the bottom, the person, the third person who was lowest down didn't have as much to walk through, so they walk faster, which brought them their fire closer to the one that was above them. And that person walked faster, which got closer to the answer pretty soon. Instead of being kind of on an angle, we were all stacked on top of each other with, you know, probably about three acres of flash burning all at the same time. We spent more of their time swearing at each other. At that point, and then we got a few fire whirls that moved around. That was fun out of that. And then I think the more interesting one I had, I can't remember if Sander was here and when we were doing this site prep for Lisa Merinos project, maybe I should have been.

**Dr. Oswald** [00:37:35] Yeah, yeah, well, we were trying to do. It was a mid rotation study with using fire versus herbicide, and we were burning. We were burning the plots and I did something I tell all the students not to do. If you have a thunderstorm coming in, stop burning because the winds are going to get real erratic. But I didn't want to haul the crew out there for another day, so I try to squeeze it in. And then the wind came in and jumped across the line instead of the block, the blocks that we were supposed to randomly not burn. We end up burning those two, so we had to reallocate all those. So that was that was that was fun. And I said, OK, now. So I immediately switched that to a. This is why I tell you, don't do this and learn. Yes, very good lesson learned. See, I did. I did it. Experiential learning and it's best, you know, but it didn't kill anybody. So that's good.

**Dr. Rideout** [00:38:28] But it's always a win when you come home with everybody that you left with.

**Dr. Oswald** [00:38:33] Yeah. Yeah, it was always positive. And this just didn't tell the dean at the time how that happened. So I don't know. Yeah, those were. Those were fun.

**Dr. Rideout** [00:38:41] Yeah, fun times.

**Brianna Slothower** [00:38:44] Interesting definition of fun.

**Dr. Oswald** [00:38:47] Well, that's you know, he had fire on the ground. You were doing some stuff. No one died. It was fun.

**Dr. Rideout** [00:38:53] Yeah, yeah.

**Dr. Rideout** [00:38:58] No, it's not. Too bad. What about and what did Leon think of that? Did you ever get to share those escapades with him?

**Dr. Oswald** [00:39:08] Oh yeah. The time when we had the clear cut that we were burning, he didn't really want out on that burn that was Penny Morgan. Again, that was one of her first burns when she was a non tenured faculty member.

**Dr. Rideout** [00:39:21] Oh my gosh.

**Dr. Oswald** [00:39:22] And and so, you know, three of us almost died. You know, we didn't. But it was it was just kind of annoying. And and so we always took pictures and and had a tradition where you would have all the students involved over at his house for a beer and pizza, and then he'd look at the back. Then it was slides and penny and never told them what happened on this burn. So he was looking at these pictures and you could see the whole. Watershed side on fire type of thing, you can see where we are standing. Type of thing, he wasn't very happy. Have you ever gotten somebody call you and want to know if you knew what you were doing?

**Dr. Rideout** [00:40:02] No, no, I haven't gotten that, but I will. I will tell all. Tell a little funny story on myself right here when I was at Texas Tech again. So, you know, not tenured burner, but and I was there and Carlton Britton taught me how to burn in the rangelands. Or I would have started hundreds of wildfires in rangelands because it's so very different than southern pine forests. But but so I was I was out on my own one day with the students and we were just burning a little. I think it was just a quarter section up in plain view, Texas and a truck came just barreling past this and I thought, Dude, slow down. But I just didn't think anything. I thought, whatever, you know, we were out on some County Road and it's just Collegio Road, and so does going up everywhere. And then that truck comes barreling past again. And then one of the students, Micah, you remember Mike? Mike Jones? Oh, yeah, Micah gets on the phone on the radio and he says, Boss, somebody wants to speak to the big man in charge and oh OK, send him my way. And as the man starts my direction, I realize that that's the driver of this truck that's been barreling back and forth passes. And while we have a second or two before he gets there, Micah gets back on the radio and he says, Yeah, he wants to speak to the boss man. It's like, OK, so he's so he's walking out toward me and he is walking with a purpose. Let's just say he is walking with a purpose headed straight for me, so I pull my hand out of my glove and I stick my hand out before you can do anything else with his hands and and shake his hand. And he just listen to me about how, you know, he's seen our smoke. And so the thing was he was several neighbors down the road. But we're in plain view. We're in rangelands and you can see the smoke forever. And it looks like you're right on top of something when you're miles and miles away, you know? And if you look down the road, you can see a place where there's a couple of horses out front. You can see this place and you can see the horses and everybody's fine and the horses aren't alarmed or anything. But he is just flipping out because his horses are out, and we didn't tell him that we were going to burn. And I explained, Sir, you know the landowner, the landowner notified all of the neighbors, you're three or four neighbors down. That's why you didn't get a notification. But we've done everything legally, and the landowner has every right to burn and so on. So I'm just explaining everything, and he uses extremely unhappy, and he says, Well, I'm working over a Cargill and I'm seeing this smoke and I'm just mad as hell. And Cargill, if you don't know, is is a meat packing plant, and I'm thinking, Well, I'd be mad as hell to if I was working at Cargill. So I'm going to go get this guy some slack, right? But anyway, he just cussed at me for a little while and he finally left. But I know for a fact if I had been a man that day, I'd been punched in the face because he was not a happy camper. So, yeah, I've had a few incidences like that, but luckily so sorry. Once in a while, being being female, you know, works in your favor.

**Dr. Rideout** [00:43:26] Apparently, you

**Dr. Oswald** [00:43:28] did Carlton ever tell you, Henry, right? His idea of a burn plan?

**Dr. Rideout** [00:43:34] So, but I know that you would just jump out of the truck and start burning while they were still talking about what they were going to do.

**Dr. Oswald** [00:43:42] Yeah, well, for those that are listening, you know, Henry Wright was one of the I consider fathers of fire ecology and and he was out at Texas Tech and Carleton worked for him for a long time. Dr. Wright, we just go out there and do exactly what Sandra just described. Go out there and just let's start. Had some people out there. Let's go ahead and burn it, just start a fire. And then they go, What are we doing as well? This go over there and deal with the fire type of thing?

**Dr. Rideout** [00:44:06] Yeah.

**Dr. Oswald** [00:44:07] And and then either a sheriff or a county judge or someone would call up Dr. Wright and say, Doctor, right, you just can't let go ahead and do a burn. We got to have some document to us saying, you're going to do this, you have one for this burn. You just did today. And Henry said, Yeah, so he pulls out a napkin out of his truck and writes down wind was blowing, Sun was shining. Good day to burn.

**Dr. Rideout** [00:44:37] Sounds about right. I wish. I wish I'd met Henry because you sound like a hoot. But yeah, apparently he would just jump out of the truck and start going,

**Dr. Oswald** [00:44:48] Yeah, well, that's who I met him twice because he was Leon Noon Schröder and Steve Bunning's adviser. And then they both ended up at Idaho. So yeah, I've met him a couple of times when he was retired and went up fishing with those guys, so.

**Dr. Rideout** [00:45:02] Oh, that's awesome. Yeah, he has quite the reputation.

**Dr. Rideout** [00:45:07] Quite a guy. Yeah.

**Dr. Rideout** [00:45:10] Well, is there anything else you want to share with us today?

**Dr. Oswald** [00:45:14] No, I'm going to

**Dr. Oswald** [00:45:14] leave you off the hook and not telling a story about you.

**Dr. Rideout** [00:45:17] Thank you. I appreciate. You're welcome. I appreciate that. A lot

**Dr. Oswald** [00:45:21] those are only reserved for those who are going to fire me

**Dr. Oswald** [00:45:22] for people who are going to fire meetings where I

**Dr. Oswald** [00:45:24] can tell what

**Dr. Oswald** [00:45:26] people do at meetings.

**Dr. Rideout** [00:45:27] And that's right. That's good. Thank you so much for spending time with us. Really appreciate

**Dr. Oswald** [00:45:34] not a problem. Glad to do it.

**Dr. Rideout** [00:45:37] A talk on the wildside 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 White Sportsman Conservationist Award by the Rotary Club of Corpus

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