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**Sandra Rideout-Hanzak** [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.

**Andrew Lowery** [00:00:28] And I'm your co-host Brianna Slothower. OK, I think that us Andrew Lowery, Howdy! Howdy!

**Sandra Rideout-Hanzak** [00:00:35] Right! Brianna is going to join us later. So how are you doing, Andrew?

**Andrew Lowery** [00:00:40] You know, I am. I am doing good Dr. Rideout. And I just got married, very happy. Yes, I'm living on a cloud right now.

**Sandra Rideout-Hanzak** [00:00:49] Congratulations. Yes. Andrew just married the woman of his dreams, and we're very happy for both of them. So I want to start out today by asking each of our listeners to do us a big favor. Hopefully, you're here because you like listening to us. So if you enjoy what we do, please subscribe to us on your favorite podcast app and leave us a rating and review. These things can really help us gain more listeners. So if you're not sure where you can do that, you can leave ratings and write a review on Apple Podcasts if you're using that app. You can also leave ratings on Spotify on Castbox. You can write comments about a podcast, and these effectively become reviews on Castbox. You can also click the Heart button to like an individual episode, so please do those things because those are going to help us out.

**Andrew Lowery** [00:01:39] We have an official and a fan page on Instagram, Twitter and Facebook. If you guys would like to follow us that we post all day, every day, much between the two of us. Also, make sure to check us out on Good Pod's Good Paths is a new app that's come out recently that it's kind of like a podcast community. It's still new, so we're still checking it out, too, but we really like it so far.

**Sandra Rideout-Hanzak** [00:02:00] Yeah, I forgot about good pods. All right, Andrew, I think you have something to do for us today, right?

**Andrew Lowery** [00:02:06] Yes, I do. OK, guys. So the eastern whippoorwills, which that was..., can we just talk about what a whippoorwill is? Really quick, Dr. Rideout?

**Sandra Rideout-Hanzak** [00:02:16] Yes, sure. And so whippoorwills are in the Nightjar family, OK? You can see nightjars down here in South Texas, so they're in that family. They almost look to me like a tawny frogmouth, (that probably didn't help folks at all) without the frogmouth part. So, yeah, that probably didn't help anybody. But anyway, it's an iconic species of the Midwest. I grew up in Indiana, and at dusk and dawn, especially they forage at night. It's sort of a thing that you hear in the evening, but in those crepuscular hours at dusk and dawn, you hear that whip-poor-will, whip-poor-will. And that's how it got its name. So, yes, very iconic species in the Midwest.

**Andrew Lowery** [00:02:59] Very cool. Thank you so much. So the eastern whippoorwills have been declining at some of their Midwestern breeding grounds. The biologists, though, are not sure why they appear to be doing well in some places, but not in others. So Dr. Christopher Tonra of the Ohio State University set out to investigate the cause of their decline. Initially, he and his team thought the problem may be at the Whippoorwill wintering grounds. To test this idea, they put GPS tags on 95 whippoorwills while they were at their breeding sites in Wisconsin, Illinois, Missouri and Ohio, so they could track their migrations. They found that nearly all the birds were wintering in southern Mexico or Guatemala, regardless of where they spent the summer. And this doesn't lend any support to the idea that the population decline is in the wintering grounds. These things might not explain all the decline in the populations, but they could be a factor since the birds arrive in East Texas about the same time. Lights out programs, which turn off urban lights during key migration times, could help. Researchers also found that moths on the breeding grounds may be a factor in whippoorwill decline, as breeding grounds are in areas that are largely agricultural and pesticide. Use in these areas may be reducing the moth population significantly, resulting in less food for the Whippoorwill.

**Sandra Rideout-Hanzak** [00:04:11] Wow. So yeah, this when I heard this, I was like, what? No, not whippoorwill too! That whippoorwill sound. You know, it's one of those sounds of nature that just makes you feel like all is right with the world. You know, when you hear that

**Andrew Lowery** [00:04:23] it's like the crickets and the frog croak with the rain.

**Sandra Rideout-Hanzak** [00:04:25] Yes, it's that. And I remember that from my childhood so fondly and also from my time in East Texas, because you do hear them in East Texas, too. Yeah. So our interview today is all about desert bighorn sheep, and I've always been fascinated by their spiral horns. The honest Aussie people who are the ancestors of the current Pueblo people must have also been really fond of the sheep and their horns because their petroglyphs and their pictographs often feature bighorn sheep or just spiral patterns. And they aren't the only native people who put the bighorn sheep in the spiral pattern front and center. In their lives and their culture, the Hopi God of fertility is depicted as a bighorn sheep, and the Hopi also have two deities who control the rotation of the Earth. They live at the Earth's poles and they create the spiral forces that rotate the planet each day. Each one represents one horn of the eternal ram. The horns are always in motion, directing the earth in the sky. Many native peoples, including the Pueblo, often feature spirals in the artwork on their pottery and other items, and in many cultures all over the world. That spiral symbol denotes balance, progress, direction, centering, journeying or growing. We find spiral patterns in many places in nature. For example, hurricanes nautilus shells the center of a flower as its petals unfold. And, of course, bighorn sheep horns. All of these things follow what's called the golden mean spiral. This pattern was defined by the Italian mathematician Leonardo of Pisa, who later became known as Fibonacci. Although the spiral pattern had been discovered in India centuries before, it had not made it into modern texts until Fibonacci published his findings in 1148. This formula that creates the golden mean spiral is called the PHI ratio, and it is 1:1.6180339. So, 1:1.6 And some change. The mathematical rule is that each number in the series is the sum of the previous two numbers. Fibonacci's numbers start at zero and one is next. Well, one plus zero is one. So one is also the next number in the series. One plus one is two. So two is next. Two plus one is three, and so on. So the beginning of the series is0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, and it continues ad infinitum. But regardless of how large the spiral becomes, that ratio of its dimensions remains constant. And I've always been fascinated that this perfect mathematical formula, known as the Phi ratio, is found in so many places in nature that we often consider to be just chaos places from the ocean to the land and the air. We even see the golden mean spiral in the galaxies, in the images that are sent home from Hubble and other telescopes. So let's learn more about these spiral horns and the bighorn sheep that sport them.

**Sandra Rideout-Hanzak** [00:07:51] Well, we are here with Froylan Hernandez. He is the desert bighorn sheep program leader with Texas Parks and Wildlife Department. Hello, Froylan. Welcome to our podcast! It's really nice to talk to you.

**Froylan Hernandez** [00:08:05] Yes. Hello, Sandra. All of you are in the room and it's great to be here. Appreciate the opportunity.

**Sandra Rideout-Hanzak** [00:08:11] Yeah. Well, we're just excited to have you.

**Froylan Hernandez** [00:08:14] I'm excited to share the story. Yes.

**Sandra Rideout-Hanzak** [00:08:17] Well, we haven't. We haven't talked about bighorn sheep. So this is really this is really cool for me. Let's just get started with yourself and your work. Tell us what you do with Texas Parks and Wildlife.

**Froylan Hernandez** [00:08:29] As you said, I am the desert bighorn program leader for Texas Parks and Wildlife, and what that entails is the program lead for Bighorn Restoration Management. We partner with a lot of universities where we conduct their research. We're heavily involved with it. But again, I oversee the management and restoration of desert bighorn sheep here in Texas.

**Sandra Rideout-Hanzak** [00:08:50] Mm-Hmm. And how did you get started in this career with Texas Parks and Wildlife Department?

**Froylan Hernandez** [00:08:57] Well, I'll try and keep a complicated story short. And most people I would, would say they grow up aspiring to be something or someone or somebody to work in, in a situation or in a profession. And that's that really, you know, admittedly, that hasn't been my case. I was fortunate enough to have had guidance when I initially started my college career, and I say career because it took me, took me several years to go through it, although I started really late in life. But my first exposure to it takes parks and wildlife was when I was working on my masters out here at Sul Ross in Alpine. My master's work was on quail and up until that point, I kind of consider myself an upland game bird guy. And my first exposure of my first two exposure sites, Parks and Wildlife and cheap and bighorns was when I again when I was doing a masters up here. It's all Ross. The intern for Elephant Mountain, and that was just a four months of this appointment, and then, you know, and then I left. In fact, I went and I was working for reason as a research associate. I spent about two years to three years down there, and then the position itself came open and I was contacted and asked to apply and I applied. And fortunately, was selected for the position, and so those 16, 17 years later, here I am.

**Sandra Rideout-Hanzak** [00:10:34] Wow. That's neat.

**Brianna Slothower** [00:10:37] Yeah, it's cool how, you know, starting one path typically leads to another path of like fun things you get to experience in a career.

**Froylan Hernandez** [00:10:46] You know, it really is, and I'll share this with you. We're with you. I considered consider it an interesting factor, I guess, about my path is so I worked in the wildlife. After graduating with my bachelor's and master's and working in the in the wider profession for a few years, I kind of got disillusioned with the profession. And so I completely left, completely left, and I was working construction. The building houses in San Antonio, and I was totally loving and totally loving it because every day you'd go to work and when you left, you could look back and you could see you could see the progress. I mean, that was instant gratification, almost instant gratification, because you could see progress like that. So I was totally loving it, started my own little business, and I was also a salesman and I was selling at that time there was Time Warner Cable and I was a door-to-door salesman, so, you know, offering cable service to someone, services to the public. And so I was loving that as well. So I was completely remove myself from the from the wider profession. But again, then this this job opportunity came up and the way I was, quote unquote encouraged to to apply is another story in itself. But again, fortunately, I did that. I came back and in. I'm totally loving it.

**Brianna Slothower** [00:12:21] As you mentioned earlier, you are the Texas program leader for desert bighorn sheep. And to me, it seems like also the state's leading expert. But it probably is true that a lot of people in Texas don't know a whole lot about this species. Can you tell us a little bit about the natural history of the bighorn sheep?

**Froylan Hernandez** [00:12:42] Well, well, I would like to clarify that I am far from being an expert. You know, I wouldn't want that title on me. I might receive a check for it, but I certainly don't think so. Yeah, but I certainly don't consider myself an expert, and I think that has allowed me to continue seeking to learn and learn about the species. But you're right, you know, you're absolutely right. In fact, it's not uncommon, particularly even out here in West Texas, to encounter folks that don't know that Texas has bighorn sheep in the Arctic desert bighorn sheep. Hmm. And so I do know that I suspect that there's lots of people out there like the not familiar. They don't know that Texas does have desert bighorn sheep on the landscape. And so, you know, there there are medium, I would say, medium-sized animal, maybe about the size of a deer, and rams, which are the males. They can weigh anywhere from one hundred fifteen pounds from up there closer to 200 pounds. The females or the ewes, they weigh considerably less, but their body size are very similar. They live in very inhospitable places, rough terrain. In fact, when people describe the habitat, it's often or they often use words broken up convoluted canyons, bluffs, just very rough topography. And because we are the desert subspecies, you know, it's it's very arid conditions in a very arid environment. You know, they so they go through periods of the year. Well, there they will. The Rams, they formed bachelor groups and by that, I mean, it's essentially all rams and no ewes and are all by themselves together with their offspring's or their lambs. As lambs grow in the U.S. Are ready to begin mating again, then the Rams disperse and they go in search of a potential mate. And like any other species or something similar to deer, they'll go through a rough period. But on average, and for the most part, the tail end of February, March, April and May, or probably our heaviest lambing months. And then it begins to taper off in June and July. And so we'll see something else some very young lambs and in August. But again, the bulk of it is March, April, April and May.

**Brianna Slothower** [00:15:28] That's yeah, that's really interesting that I'm curious about when I think of the desert, I think of, you know, these really wonderful pictures or videos where they show, you know, rainfall and then after that, the desert really blooms. They cope with that. Like how they eat. Do they, you know, select for certain things during different seasons in terms of eating?

**Froylan Hernandez** [00:15:49] Well, you know, you're absolutely right, because it's in their arid environment. Some plant species are not available year round, and so while bighorn desert bighorns are essentially cheap and so they're graziers, not considered graziers. Out here, because you know that we know that we against the precipitation of the rain patterns are the scarce rain, I guess I should say. So there's not the same plant foods around year round. And so they, you know, they're primarily considered grazes, but they know the primarily browses out here. And so they'll eat on broad species plants such as, you know, mountain mahogany, silk tassel, fender bush, you know, those kinds of things. And then when their records are available, they make use of those forms as well. And then they'll switch are their diet back the grass whenever the forms are gone and the leaves off, a lot of those brown plant species are or also so they have a varied diet. But it's but it's, I would say, somewhat specialized because it, you know, it's all plants that occur out here on the on the dry landscape as far as the water needs. So they're adapted to do these conditions.

**Brianna Slothower** [00:17:13] Another thing I was thinking about, too, when I think of these bighorn sheep is I think of, you know, these, you know, kind of charismatic big horns that curl around their heads. And when I think of that, I also think of maybe like a Dodge RAM. And, you know, when they show images of these rams butting up against each other, do is that all what they use the horns for or are there other reasons for that? And is that head butting behavior normal for these species?

**Froylan Hernandez** [00:17:44] Yes. So the horns are, I guess, primarily they use it for defense mechanisms or, as you mentioned, head butting to establish dominance, whether it's ewes or rams. We typically associate that head butting behavior with with the Rams, but the ewes will also do that. And again, they'll but each other, then that's they'll use horns to establish establish dominance. And so, you know, that's when one thinks of horns. That's exactly what most people think of is, okay, they're going to butt heads. And so they do use that, but they also use it in other ways and they'll use it to knock down. So, for example, yucca plants? Yeah, because whenever they bloom, you know, they've got the younger blooms up on top. And so they can't because the Yuccas are, you know, the plant is has those long spines. They can't really, you know, quote unquote climb up to the top or reach up to the top and get those those. And so what they'll do is they'll but they'll put the yucca in a lot of these yucca are more than 6 foot tall. So they're butt the yucca there, but the younger, they'll bite it. But it still may not get older. And once they get older, they'll go and then they'll go in and start eating a opinion on the younger ones. They'll also do that for some of these cacti that are on the ground. And while you can reach them, you know they do have all those spines. And so what they'll do is they'll rub their horns to rub the spines off and then they'll cut into the actual meat of of the cactus. Or they do use their horns primarily for fighting and defense, making it as a defense mechanism. But they also use it for to enable them to get some of these plant species and feed on them.

**Sandra Rideout-Hanzak** [00:19:38] That's really interesting, I didn't know that.

**Froylan Hernandez** [00:19:40] Yeah, I think seen pictures of that or anything, you know, so you know, that's that we commonly commonly see that again, particularly whenever the yucca blooms are out, whenever the yucca blooms are out. And you know, there's there's big words around. If you focus on the yucca nine times out of 10, you'll get a ramp coming up and the start button there and then meeting up those yoga blooms because it's really it's almost like, I guess, one of the delicacies for for them. I believe you asked if the head butting, you know, if it hurts them. And I'm sure that that might happen on certain occasions where they do it a little too hard and they might get a get a headache, or maybe it's maybe even a wrong hit and they'll break your neck. Those kinds of things. But that's what they're designed to do, and the bodies are designed to withstand that, that impact. I will say that we're right now in conversations with researchers from from University of Texas in San Antonio. And he's a neuroscientist, and so he is interested in. Well, so he's looking at concussions and those kinds of things in humans. And so what he wants to look into is to see what it is about a ram's brain and head and how it's protected that those animals appear not to have concussions or things of that nature. And so I'm very excited about that because again, it's just another thing that we never think of it in the wider profession or what this researcher finds potentially help us humans in know with concussions and whatnot. So that's just kind of on a on a side note, but I came to my mind when we started talking about it, but

**Sandra Rideout-Hanzak** [00:21:39] that is exciting. I, yeah, I would have never thought of that, too. But yeah, they've got to have some sort of difference in their brain or their skull or something, or it doesn't doesn't impact their brain like it would ours if we but to get something that's right.

**Froylan Hernandez** [00:21:56] There's there's a feature behind the head in between the horns, and it's almost like a bulbous feature. And you don't really see that in pictures unless, you know we're really up close to the animal. But it's believed that you know that that bulbous thing is somewhat of a of a bit of a shock absorber, if you will. and so I'm interested to see if if the researcher does the find evidence to support that? Yeah. Again, I haven't and maybe I haven't done my research well enough, but I have never seen anything that that says that's what that picture is for. But I suspect that it has some use with regard to head butting and again, as a shock absorber because you really don't see that feature in the U.S. And they while they do head butt the head but a lot less degree.

**Brianna Slothower** [00:23:00] it seems like these desert bighorn sheep are a subspecies of bighorn sheep. Am I right?

**Froylan Hernandez** [00:23:08] Right. So there's so I guess. There's broad category, and so when we say bighorn sheep, that includes all the other subspecies, and so we have, I guess when you say bighorn sheep, it's either Rocky Mountains, which are the devil with the name, imply that it'd be in the in the Rocky Mountains, higher elevations and then we have desert sheep. And again, as the name says, they're the desert sheep. They occur in the southwestern states and into into Mexico. And so while the elevations are still high, the you know, the. The environment is an arid environment, and then within within the desert of sheep, there's the subspecies below that. And then the difference, I guess the major difference or noticeable difference between deserts and Rockies is that the Rockies tend to be a lot large and they're very, very similar. But Rockies tend to be just a lot larger bodied animals. And bighorn occur in different types of habitat. But the animals themselves look very, very similar. But again, then you have the different subspecies, depending on Rockies and deserts.

**Brianna Slothower** [00:24:30] This is a bigger size for the Rocky Mountain sheep, I guess. How is it advantageous for a like a bigger sheep in that climate versus a smaller sheep?

**Froylan Hernandez** [00:24:41] So, so it's it's a great question. You know, the bigger-bodied animals, they're able to sustain colder conditions, you know, possibly even with this. You know, other other types of predators, avoid other types of predators or fight off other types of predators. So the only the main predator that we have here in Texas is the mountain lion or the Puma. So the smaller animals may be taken by bobcats. When I say small animals, I'm talking, you know, the lambs are maybe yearling animals might be taken by a bobcat or possibly even coyote. But the main predator that we have out here is because there's a mountain lion. Whereas in other states, well, now you're talking wolves and you have also have mountain lions and whatnot. So I could see that the bigger-bodied animal, it might be just provide them with just a little bit more advantage as far as protecting themselves from the elements as well as from the competitors that occur on the landscape.

**Brianna Slothower** [00:25:47] Yeah, that makes sense.

**Sandra Rideout-Hanzak** [00:25:52] Changing the subject a little bit. There have been some desert bighorn sheep releases in Texas several times over the years. Are are these animals native to Texas and why are the releases necessary?

**Froylan Hernandez** [00:26:08] Yes, the desert bighorn sheep is native to Texas. No, they well, they've been out on the landscape for years. However, our native desert, because we're it back in the in the early 1960s. So I'll try and briefly walk through you kind of a timeline back in the late eighteen hundreds by 1880. It was estimated that we had fifteen hundred and possibly up to 3000 animals out on the West Texas landscape and about 17, 16, 17 mountain ranges out here. But again, by the early 1960s now all of our native bighorns were gone and then it was in October of 1961 that the last bighorn was spotted, or Native Desert Bighorn was spotted north of north of Van Horn in the showdown in the mountains. And things that they attribute that to is unregulated hunting, meaning people could hunt them year round without regard, the bag limits or anything like that so they could hunt them whenever, wherever or however many they wanted. You know, there were regulations in place that just nobody really there to enforce them. So a lot of unregulated hunting played a part. And there really was what was their demise of the introduction of domestic sheep and goats through the habitat out here and the diseases associated to the domestic sheep and goats that big ones had not been exposed to probably not developed immunity for. And so they, you know, those diseases they played a huge part in knocking our bighorns kind of out of place. Now that is still ongoing and in a lot of western states where there are domestic sheep and goat interaction with wild sheep. And so. Well, that's an issue that plagues the western states. Oh hey, we're out here in Texas, particularly in West Texas. No, the domestic sheep and goat industry have kind of played out. And so the big one is that we have now. But you know, they don't have those, those domestic sheep and goat interactions. OK, but maybe so those are the things that brought about their native desert demise, and so the reason why we continue to do restoration now. Is because there are still lots of mountain ranges that are void of Bighorn, and so I think it's our responsibility to make sure that we put them, you know, if we took them out, proceed and I think it's our responsibility to make sure that they that we put them back in. And so that's the reason why we we we do these captures of translocation so that we can restore the the landscape to sort of like, yes. So what we consider are they once were. Mm-Hmm. And so that is our goal, our goal, we're right now, we're currently standing at essentially eight levels because I guess our current population of population projections is anywhere from 12 to 500 animals. So we're currently at 18 under levels. But because there's still lots of mountain ranges without desert, because we could possibly hold the 2,000 to 2,500 animals and maybe even 3,000. So we have we know we're kind of halfway there as far as numbers go. Yeah.

**Sandra Rideout-Hanzak** [00:29:44] OK, so you want to bring back more to those other mountain ranges? Are there any other conservation issues that the bighorn sheep are, that the Desert Bighorn are currently facing in Texas?

**Froylan Hernandez** [00:29:58] Now there are there's there's two challenges really well now, three, there were up until now we have two challenges there so that we were facing any here recently, another third one above. And those two challenges are. One is as I did and all that is. It's an exotic bullet from the northern coast of Africa, they're also known as if Barbary sheep, so they're from the Barbary coast of Africa. They are in some of these mountain ranges, they occur in extremely high density, high numbers. It's not uncommon to encounter a group of 100 or 200 animals in one of that herd.

**Sandra Rideout-Hanzak** [00:30:47] Wow.

**Froylan Hernandez** [00:30:48] And so, you know, obviously the first thing that comes to mind is competition competition for resources, whether that be space or or as I like to call it, groceries of food items and whatnot. Yeah. So so you have, you know, that competition going on. And and then the other challenge is also associated to the better Barbary sheep. Is that a? Oh, that hunting has been growing in popularity within the last several years. I mean, it's almost exploded really a hard hunt that would cost somebody say. Two, three, four, five hundred bucks. Is now going for six, 7000, but And so because of their growing popularity, you know it, you know that challenges have become a financial game, if you will. In other words, landowners and outfitters and people that hunt them, you know, they want them on the landscape when they want them on the landscape because it's in the supplemental income, it's additional income. Sure. For instance, if, if, if they're it's okay just to throw a number out there. If 10 hunts occur out there on the landscape at that 7000 a piece. You know, you're you're you're looking at some pretty good supplemental income. Yeah. And you know, and so I, you know, I get it. You know, I completely understand it. I know the reasons behind the hunting aspect of it and supplemental income. You know, I totally get it. And so I cannot in my right mind. Ask the landowner to remove all the dead because we need to make room for probate court. Yeah, I just I just can't. The landowners and they can take $70,000 on those hunts. And so it's, no it's a it's a huge challenge over all the time. And so again. But I completely understand, you know, the the reasons, the reasons behind it. Yes, and then it's also the third challenge that just came up, we had always talked about that and the potential for wealth or the competition aspect of it, but really the potential for disease transmission. And so while we have looked into that or we had looked into that. Taking tissue samples and looking at what types of pathogens that might be carrying that could be detrimental to she. But we never found anything that doesn't already occur naturally out on the landscape. In other words, that that other native species don't can. However, here more recently, we have found bacteria and bacteria. We call it Emovi mycoplasma open pneumoniae. And even as the name implies, it leads to pneumonia in big horn and it's deadly. It's nine times out of 10. It's deadly to the bighorn sheep. And that is the same bacteria that plagues the Western states, and so once you have disease event that set in, they oftentimes if it if it does locally wipe out the bigger population, the effects of it are felt for four years, become effective areas in some areas in the western states that have seen these disease die offs. Because of this bacteria or these pneumonia diet that 30 years later, the population isn't fully recovered. Hmm. And so we just now found that bacteria in some of these tissue samples that we've collected, you know, enable. So now it's gone from we think they could carry a bacteria that could be detrimental to sheep that now, okay, we have found it. And while we have found it in a few samples, we know that it's out there on the left. And so the potential is this concerning is really concerning to us.

**Sandra Rideout-Hanzak** [00:35:06] Definitely. My husband and I saw a show of about the the native sheep in western states and that pneumonia that they've been dealing with. And yeah, the effects that have lasted for decades. So that that's got to be a little bit scary to you guys.

**Froylan Hernandez** [00:35:22] It is. And so in fact, we Texas, no, we had we had boasted about being, you know, quote unquote disease free. And you know, we will tolerate, you know, our Texas sheep are great and we don't have any diseases that will wipe us out. But in 2019, we had our first disease event come through, and we found that it was a. And then again, in 2020, the two distinct populations went through went through a die off because of because of the bacteria. Now we weren't able to connect that through all of that, and I'll be the first. They weren't able to make that thought out or do any any other species of other species, but nonetheless know that bacteria has made its way into our Texas sheep. And so in the Van Horn Mountains, then we had a die off there and then found it down at ??. One of our management is we had another day of a disease die off there and again that Emovi that mycoplasma over pneumonia was found and in those in those tissues collected from those from those animals that that had died. So, you know, the disease is here. The bacteria serious should say in how we move forward with translocation. That present, you know, some some real life challenges because of because of the bacteria, so we're now in the same boat that all the other Western states are in.

**Andrew Lowery** [00:37:05] OK, so I actually have a question for you, sir. What's your favorite little known fact about bighorn sheep?

**Froylan Hernandez** [00:37:11] Oh, that's true. That's that's an interesting question. While you know there's like a little, lots of little things out there. One of my favorite and it's one I think that anybody or everybody can envision is is that, you know, their hooves while one thinks of hooves being, you know, just a hard surface thing or when they're made out of hard surface material, they are. But the underside of their hooves, they're kind of a spongy cushion almost. And so that is what allows them to have real firm grips on these rocky landscapes. And that's why they're great climbers, because if it was just a hard, solid surface, it'd be easier for them to slide off those inclined rocky surfaces. But but again, those cushioned bottoms of their hooves allows them to essentially, you know, grip onto those rocky, rocky slopes or rocky faces. And that's why they're they're great climbers, if you've ever seen them, you know, and again, I've got luckily fortunate enough to be able to be out there with them. I've got video of them going up almost a straight up slope, straight up incline. And when you see them, I think there's no way they can go up there. And then all of a sudden just, you know, they're up there and it's their hooves. And the way their hooves are, the way, I guess the spongy material on the underside of their hooves are made that, you know, that allows and allows them to do this.

**Andrew Lowery** [00:38:47] That's that's just fascinating, I guess. Completely concur on what you're saying, I worked with Nubian Ibex for a few years and they will go up a vertical wall. It's mind boggling.

**Froylan Hernandez** [00:38:58] It is. I mean, it really is. If one sees it as a there's absolutely no way that you know that they can do that and you know, absolutely. There they go. In fact, I guess, in New Mexico. And you know, they're, as you say, almost on a vertical surface, but they're, you know, they're doing their thing and they're they're they're happy when they're doing their thing.

**Brianna Slothower** [00:39:24] We kind of touched on this a little bit earlier about kind of unconventional career paths. And I think a lot of our listeners, if they're listening, I think, you know, they're probably interested in some sort of wildlife job. And since you have a career with the Texas Parks and Wildlife Department, do you have any advice to get into this, you know, competitive career or entry level positions?

**Froylan Hernandez** [00:39:48] You are absolutely in fact, I just had a conversation with the with the student three or four days ago. And I don't know where to start, so I might ramble a little bit, but I'll try and make some sense of my rambling. Typically, we, as Texans, are very proud, and most most of us, if not all of us want to stay in Texas, want to work in Texas. And so I'm going to try and I guess, limit my my. I guess my suggestion to the wider profession. So again, most everybody you meet, they want to stay in Texas within again, within a while, a profession. My recommendation would be to think a little bit outside the box and for us to get outside of our comfort zone and by that, I mean. Look at seasonal jobs or temporary jobs elsewhere in other states, there's there's lots of wildlife opportunities. If if you just focus on Texas, you know, you said it. It's a very, very competitive field again because all of us want to stay in Texas. And so if you focus elsewhere that those two things, well, really three, but let's say two things. You know, it allows you to get outside the box in the comfort zone. It also, you know, you're exposed to the more experiences. In other words, you couldn't work with wolves or moose or caribou or any other wildlife species here in Texas. Whereas if you if you look elsewhere in other states, you have that opportunity. So you'll get you'll gain that experience. You'll have a broader experience than you will if you just focus here, here in Texas. And so that brings me to my second thing is experience. Whether it's paid experience, typically when we talk about experience, it's it's it's paid experience, but it's also volunteer unpaid experience that counts. And so while you're here, if you're not able to go outside of Texas and look at volunteer opportunities here in Texas and you could build your experience that way, because what I like to tell people is when just let's say you graduate in four years. Everybody graduating that year has the same amount of of, you know, they went through the same curriculum, whether a different school, but essentially the same curriculum. So you're competing with everybody else that graduated that year with the same curriculum. So we're all you're all at the essentially at the same level. However, if throughout those four years. You volunteered and you gained experience. Now you're a level above everybody else that didn't do that. So experience is very, very important. So there's lots of good schools out there at one time. School might have been an advantage or the, I guess, the school you attended, you were graduated from might have been an advantage. But now wildlife programs and well, right there in Gainesville here are so raw that tech, even though then mark as A&M, you know, there's lots of there's lots of universities and colleges that are opposed it, you know, there's lots of colleges and universities that are that have good wildlife or wildlife management oriented curriculum. And so because of that, the next, you know, the next thing that would put those young folks to an advantage or give them an advantage would be is is that experience? And then and then the other thing is. So this was my case. The other thing is, you don't I shouldn't say it's. It's a it's a common belief that we should finish college in four years. However, if you take a semester off to work a seasonal job, you did experience in getting paid or take a whole year off again to work with temp job and get experience and get paid. It might take you a little longer to graduate, but I've always seen that as an investment and investment and into your experience as a when you graduate. Yet it might have taken five years to go, three to six years to graduate. But you graduated with that experience, and I cannot stress this enough experience is what is the experience in getting your name out there? It's what? Nine times out of 10 will get you the job.

**Brianna Slothower** [00:44:35] That's extremely good advice.

**Sandra Rideout-Hanzak** [00:44:36] I love the advice to think about going to other states, too, because you can always come back later after you've gotten some really good experience and then you'd be more competitive in Texas.

**Froylan Hernandez** [00:44:50] That's absolutely right. And that's that's what I tell them. You can always come back. Sure. And as you said, you come back, you come back with, you know, not just with the experience, but also a wider breadth of knowledge because you've worked with other species that typically don't, don't, you know, don't occur here in the like, we had a different set of challenges than the challenges we have here. So again, your your knowledge base is, you know, the breadth of your knowledge base is wider because of it.

**Sandra Rideout-Hanzak** [00:45:19] I love that. Here's something fun, Froylan, when I googled your name to find your exact title with TPWD, the very first thing that pops up is Froylan Hernandez actor's profile. How cool is that? Share with our listeners. You know, what was this acting career and tell them where they can find your shows?

**Froylan Hernandez** [00:45:50] Yeah, well. And so, yeah, I'll share this with you. I hate to hear my voice. I hate to see my face. It's one of those things that you're right. There's there's a few films and most of the interviews and whatnot out there, but I try not to listen to them because I just I just hate to hear my voice.

**Sandra Rideout-Hanzak** [00:46:15] That is such a common thing.

**Froylan Hernandez** [00:46:18] Yeah, yeah. I don't like the spotlight. I don't like the focus. I like to share the story. And so I know if I'm gonna do that, then you have to somehow at some point be in the spotlight or be the no BS. I get the focus, because I don't like that. I rarely rarely see or see those those shows. One thing I will say is I appreciate the, you know, there's this opportunity, and what I really appreciated is that you all have made it a conversation. You know, and oftentimes, yeah, oftentimes it becomes almost a question and answer type of deal, but but y'all have done a real good job of making it a conversation, and so that I greatly appreciate that again because I I hate to be so to hear my voice and whatnot. Yeah, but yeah, but there's there's a couple of shows out there. We've partnered with Ben Masters and, as you all know, Ben Masters. Oh yeah. You know, he again, he did his own branded thing, and he's done this several other shows. In fact, I think he featured one of his upcoming films at the recent the Texas Chapter Wildlife Society meeting. Yes. And so we've partnered with him. And so there's there's a couple of films that he's done that, you know, that focus that are essentially big horn centric or take this big one centric film to also partner with Sitgo. You know, and they've done a couple of films. And I guess one of the more well, sort of the Discovery Channel that come up, there's a lot of our shows are even our own and we've done in-house shows or films and you can find those on the PBS channel. Don't ask me exactly how, but I think if you go to PBS and look, take part for a while, they'll show they'll feature all types of films, not just big one, but all types of films are related to protect the wildlife. So, you know, there's the several several films out there, but there specific ones that I can think of a I'd have to google myself to go find those, you know, there's I guess there's an episode and what they call wildlife law or, yeah, it just la sultana that North Carolina, okay, that sort of thing. So it's the feature in Texas game wardens, and I think there's no there's an episode where they do feature in the Big One program and what we do and we're doing aerial story, I believe, at the time. But again, you know, because I don't like to hear myself, I don't go looking for those things. But but but they're out there. Yeah, for better or for worse, right? If I was trying to stay low key and fly under the radar. It'd be a little difficult.

**Sandra Rideout-Hanzak** [00:49:11] No, I love it. I think we should. I mean, I understand completely what you're saying, and I absolutely hate to hear my voice, too after 20 or so episodes I've kind of gotten over it or I'm starting to get over it, I guess. But every single time you're like, "Is that what my voice sounds like?"

**Froylan Hernandez** [00:49:29] That's so funny.

**Sandra Rideout-Hanzak** [00:49:32] But I think at some point you just got to get over that because I mean, it's important to talk about wildlife and it's important to talk about conservation. And so, you know, if we if we don't do that, if we don't do these kind of things, then nobody hears the stories.

**Froylan Hernandez** [00:49:48] Yeah, you're you know, you're absolutely right. And that's why I, I willingly agreed to do these things. So I hate to see and hear myself, you know? You know, I can overcome that if the benefit is I'm going to be able to share the story, right?

**Sandra Rideout-Hanzak** [00:50:06] That's the point. Well, we're glad you got over it to talk to us today, and we have another question for you too.

**Brianna Slothower** [00:50:14] Yeah. Well, I guess if you have this repertoire of fun activities you've done under your job description as actor or, you know, wildlife such as we have this common question, we ask all of our guests and that, you know, sometimes things don't really work out well in the field due to equipment or weather. We've had some boat stories recently that have gone bad. Do you have what we call this, I guess, is a biology blunder. And you know, our listeners love to hear these stories. Do you have one you'd like to share with us today?

**Froylan Hernandez** [00:50:46] Oh, yeah. Yes, and so. Yeah, I'll throw a little disclaimer out there, I guess it's rated PG, maybe. So, you know, I guess on the program, the big one, I like to help out in as many projects as I can. And so I hope my strong grade, my counterpart with the media and our program leader now, I help him on his projects often. And so we were up in the Panhandle several years back capturing pronghorn, and we're going to capture them and transport them down here to the of. And as you can imagine, the Panhandle is essentially flat. There's a couple of places a little rolling but virtually flat, and so we've got 450 people at the processing station and there were no the helicopters swinging in the four or five six seven one at a time. And so people rush out and they grab the animals and bring them, put them on the processing tables. And so we take all these samples and any other. And, you know, so it's, say it's a day-long process. And with a little bit of downtime in between, but it was, but it's really nonstop. And so. And again, this was several years back up in the Panhandle. And so I got the, you know, after about midday and we just had lunch, and so my hooking up with this, so I had the urge to go. We didn't have outhouses, but it's up,

**Sandra Rideout-Hanzak** [00:52:32] you had to find the men's room.

**Froylan Hernandez** [00:52:34] Yes, exactly. Thank you. Thank you. That play, that that's how you made it through. So yeah, I had to eject you like that. So I had to find the men's room in the Panhandle out in the. And so I was trying to time it perfectly. There were. You know, the job I was doing wouldn't be meant. Well, but really, where I could go out and be a little private. You know, because again, it's it's out in the open. So, you know, I look around and I heard I saw the helicopter come in and I this is my chance, I'm going to make a break for it. So I did. I walked away from where I thought nobody could see me. There were some pens close by and I thought, Well, that afforded a bit of privacy. So I go by the pens. And so the helicopter comes in and drops, you know, by the time I get to the fans, it's like, All right, everybody's actually doing something, nobody's going to be paying attention. So, you know, I'm in the men's room and then, uh, you know, there's noise in the background. And I think that's, you know, that's that's still the helicopter. Some minding my own business didn't know deep in my own part, and then that the noise so the rumble gets closer and closer and closer is like one. And I thought maybe the helicopter because we joke around with the pilots, we have a real close relation with the pilot thought that maybe he's going to come and. And investigate what the what's going on out here, so it gives the rumbles getting closer and closer and closer. And as I look back. It wasn't a helicopter. It was the landowner and his wife, and they were they were driving through. They were driving through the pan. And as I look back, as I look back, there are, you know, 20 yards away just looking at me like, what is this guy doing? And I'm looking back and looking at them is what are you all doing? So all I can do, all I can do is I just raised my hand up and wave. I continue on in the men's room. Luckily, he realized what was going on, and so he drove drove on. The thing is, when I got back, you know, I when I was getting back, everybody was looking at me. There were a few that had seen that where I had gone, and they knew that the land owner was coming up and they decided not to say anything. So when I come back, I get up in the blood and I wouldn't see a standing ovation. But it was like, Yeah, yeah, yeah, I was told holding that way too well. But it was a it was an awkward moment, to say the least.

**Sandra Rideout-Hanzak** [00:55:27] Yeah, but I can imagine. Oh my gosh.

**Brianna Slothower** [00:55:30] Yeah, I'm glad it's got this credential.

**Sandra Rideout-Hanzak** [00:55:33] No, no.

**Froylan Hernandez** [00:55:35] But but I but I'll tell you what. From that day forward, we got porta-potty. Yeah.

**Brianna Slothower** [00:55:43] Oh, that's good.

**Sandra Rideout-Hanzak** [00:55:44] That's one way to get it done, I guess. Yeah.

**Froylan Hernandez** [00:55:47] And I, you know, and I had asked for them multiple times. I'd ask them multiple times because usually when you go to the Panhandle, but I because we use them, yeah, we use and when we do see Kony captured out here. And so I ask for them, that would be alright. We'll be alright. We'll be alright. Like, Alright, well, I was like, you said that was one way of getting it done.

**Brianna Slothower** [00:56:09] Yeah, you really took one for the team there. Yeah, there you go.

**Sandra Rideout-Hanzak** [00:56:12] Yeah, that's funny. Well, is there anything else you'd like to talk with us about today?

**Froylan Hernandez** [00:56:19] Yeah. Yeah, there's there's no there's. So there's a couple of things. And one is, again, I completely understand so on that issue and I completely understand landowners and the, I guess, the supplemental income part of it. I completely understand those things. And so there's no sometimes because of some of the activities that we do, we're labeled as well. On that, killers, because we'll go out and dispatch ordered a real gun in order to reduce the numbers of those high density. And so we're often called that killers, but the way I would like people to look at that is if I was on the Ivory Coast of Africa and I was a knob that biologist and desert bighorn were introduced into that area, then it would be my job to do those things that would benefit the order in the Barbary Coast of Africa. And I would try and reduce the desert bighorn numbers.

**Sandra Rideout-Hanzak** [00:57:29] Well, thank you so much for talking with us today, I thoroughly enjoyed it, and I learned a lot about desert bighorn sheep.

**Froylan Hernandez** [00:57:35] That's all I know. Absolutely. Yeah, yeah, yeah, I absolutely no. In fact, on the contrary, I thank you all for allowing me the opportunity to share this story. And I hope the story is is told beyond beyond. Just this this segment here. I hope some of the listeners are engaged and looking into being involved and sharing the story as well.

**Sandra Rideout-Hanzak** [00:58:01] That's that's always our hope that that will inspire some people to get involved and in their corner of the world. Thank you so much.

**Brianna Slothower** [00:58:10] Yeah, and that warm and fuzzy feeling. Yes, I know.

**Froylan Hernandez** [00:58:13] Yes. Yes. Well, you know, that's good. That means having you. Y'all are doing a great job and appreciate everything you all do. Well, thank you.

**Sandra Rideout-Hanzak** [00:58:23] We appreciate your time so much. A Talk on the Wild Side is a production of the Caesar Kleberg Wildlife Research Institute of Texas A&M University-Kingsville. Funding for this project is provided by the Harvey Weil Sportsman Conservationist Award by the Rotary Club of Corpus Christi. Editing was completed by the talented Gaby Olivas, Andrew Lowery and Tre' Kendall. We thank the team at Distance Learning Lab for all their help and cooperation.