

# Sidedoor Season 2 Ep. 25 Don't Call Me Extinct Final Transcription

[INTRO MUSIC]

Tony Cohn: This is Sidedoor. A podcast from the Smithsonian with support from PRX. I'm Tony Cohn.

Tony Cohn: Sidedoor producer Rachel Aronoff, welcome to the microphone.

Rachel Aronoff: Sidedoor host Tony Cohn, thanks so much for having me.

Tony Cohn: [laugh] Okay, so what do you have for me?

Rachel Aronoff: I have an idea. But before I tell you my idea, I also have a question for you.

Tony Cohn: Okay.

Rachel Aronoff: So in two words—one with a hyphen in it—can you tell me what this episode we're doing is about?

Tony Cohn: What this episode's about?

Rachel Aronoff: This one.

Tony Cohn: Uh, yeah, it's...

Rachel Aronoff: Was that enough of a clue for you?

Tony Cohn: It is enough of a clue. Um, scimitar-horned oryx.

Rachel Aronoff: You got it. You are playing right into my hands. Okay, second question. Do you think you knew what a scimitar-horned oryx was before we started research for this story?

Tony Cohn: No, no, no, no, no.

Rachel Aronoff: Me neither, right? It's like, I grew up with some weird animals in my household—a chinchilla, a parrot. We did not own a scimitar-horned oryx, you know?

Tony Cohn: It wasn't in the beanie baby collection.

Rachel Aronoff: It wasn't in the beanie baby collection. So this brings me to my idea. You ready?

Tony Cohn: I'm ready.

Rachel Aronoff: What if we go around the office, we pull people into our studio, and we ask them to play a little word association game with us.

Tony Cohn: Not pin-the-tail-on-the-oryx?

[laugh]

Tony Cohn: I think that sounds like a amazing idea. I think we should go do that.

[MUSIC TRANSITION]

Tony Cohn: Okay, so we're going to play a game. I'm gonna list some animals and I want you to describe them for me. Say, the first words that pop into your head.

[MONTAGE]

Tony Cohn: So, clearly, we're not alone. A lot of people don't know what a scimitar-horned oryx is.

Rachel Aronoff: And I think rightfully so. I mean, they're an extremely rare desert antelope from this remote part of Africa.

Tony Cohn: And for the record, there are a few different species of oryx. But in this story, we're only talking about the scimitar-horned oryx.

Tony Cohn: Most people also probably don't know that about 30 years ago, the scimitar-horned oryx went extinct in the wild. As in, they were all gone from their natural habitat. None left. No wild oryx eating. No wild oryx pooping. No wild oryx making baby wild oryx.

Rachel Aronoff: And for all the talk you hear about de-extinction—bringing back an animal using DNA and that type of thing that we all saw in Jurassic Park—that doesn't really exist yet, even though people think it does.

Tony Cohn: But in some very special cases, there is a way to bring animals back once they've gone extinct in the wild. It's the option of last resort and it only works if all of the proper ingredients are there. And for this oryx, that might just be the case.

Tony Cohn: So, after a quick break, we're going to look at what happens when scientists decide to try to turn back the clock on extinction and bring a species back, decades after the last wild one died. Stay tuned.

[BREAK]

Tony Cohn: Welcome back. So, 'scimitar-horned oryx.' It doesn't exactly conjure an image in the same way that an elephant or a monkey does. So, we're here, visiting the Smithsonian's National Zoo, where there's two of them, standing here behind me.

Tony Cohn: They have white bodies, brown necks, and white faces. They're about three and a half feet tall. They look a bit like an antelope or a deer, but not the running-and-jumping kind of antelope you might picture galloping away from cheetahs. Oryx have short legs and they're built a bit like a barrel.

Jared Stabach: They weigh roughly 200 to 400 pounds, so somewhere in the range of one to two times the size of an adult human. You know, they wouldn't be as large as a North American elk, but they would be larger than our whitetail deer, for instance.

Tony Cohn: This is Jared Stabach. He's a research ecologist at the Smithsonian Conservation Biology Institute. And Jared says that the oryx's most defining characteristic is its horns. They're named after the scimitar, a curved type of Arabian sword.

Jared Stabach: And they certainly know what to do with these horns. The folklore is that they are a lion killer. Historically, if they were attacked by a lion, they would lower their head and more or less swipe their head from either left to right, or right to left. And that has the effect of, essentially, could slice a lion in half at the belly.

Tony Cohn: I'm like, where was that in the Lion King? [laugh]

Jared Stabach: Yeah, that didn't quite make it in.

Tony Cohn: Where they live in the Sahel—which is the really dry grassland that sits on the fringes of North Africa's Sahara Desert—oryx manage to eke out a living on the thinnest margins. It doesn't rain often in the Sahel.

Jared Stabach: Dry to the point that the amount of water can be measured in tablespoons. So, you know, nine months out of the year, it essentially doesn't rain. And then there's generally a pulse of rain, right around July or August.

Tony Cohn: The oryx's solution? They kind of just don't drink very often. Or sweat.

Jared Stabach: And instead they somehow can allow their internal body temperature to fluctuate, potentially as high as 115 to 116 degrees. Somehow they're able to still keep their

organs and their brain cool, but they allow their extremities basically to fluctuate. They're tough, they can just deal with a lot of adversity.

Tony Cohn: It's like they were always walking a tightrope of survival, but they were really good tightrope walkers. That is, until the 20th century, when they ran into something that evolution left them totally unprepared for: people. Lots of us.

Tony Cohn: To give you perspective, N'Djamena—the capital city of Chad, one the countries that was historically home to the scimitar-horned oryx—in 1937 it had a population of fewer than 10,000 people. As of 2012, it had over a million people. That's an increase of more than 10,000. And that's been happening all over Central Africa.

Jared Stabach: Humans are able to access areas that 100 years ago, we were unable to do so. Right? You wouldn't find people that were living in the desert.

Tony Cohn: But more people also means more livestock. And the livestock directly compete with oryx for their meager resources.

Jared Stabach: And those those people are competing for the same habitat that the animals are also looking to exploit. The thing to remember is that the margins for survival in this landscape are very small. And so there certainly are tipping points.

Tony Cohn: So the first tipping point, as you've heard, is people and their livestock.

Tony Cohn: And there's the environmental changes. Because of climate change, the Sahara Desert has grown outward, swallowing the hot, dry grasslands that fed the oryx.

Jared Stabach: Which led to a decrease in the amount of habitat.

Tony Cohn: But ultimately, the story of the oryx's downfall is a human story.

Jared Stabach: The main thing, and the real piece that led to their sharp decline and eventual extinction, was civil unrest across the region.

Tony Cohn: During the 1960s and 70s in Chad, there was a brutal 15-year civil war. In bloody human conflicts, animals are often collateral damage. There were outside groups that came in with trucks and big weapons, hunting oryx in a way that was neither traditional nor sustainable. And the local people had other concerns. The disappearing oryx weren't really on their radar.

Jared Stabach: Even if you lived in the environment where these animals were, you wouldn't necessarily see them on a daily basis, right? So, you'd see them maybe during the wet season. But then the animals will move away because they need to find resources. It's a different perspective, right? If you're on the ground, your view of the world is quite limited. For instance, someone on the ground would just say, 'Oh, we haven't seen them in a few years, but then they

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might return.' And so it's kind of hard to convince someone that this animal is extinct, when they're used to not seeing them for long periods at a time.

Tony Cohn: So between the changing climate and people having problems concerning their own survival, the oryx just kinda slipped away.

Jared Stabach: So in the 1980s is when the last known oryx was seen in the wild.

Tony Cohn: For most animals, that's where the story ends. There isn't a backup that lets us reboot species that aren't alive anymore. Some can still be found in zoos or other places, but even then it's a bit like they're floating in a type of purgatory. They're not fully extinct; you can still see them. But they also don't really exist, not in the wild.

Tony Cohn: And it's not just the animal that's impacted. When a species goes extinct, the environment changes. Sometimes other animals take their place in the ecosystem, but most of the time that gap is filled by humans. Fences go up. Roads slice through the solitude. The whole area becomes tamer. But, fortunately, there are exceptions.

Tony Cohn: Coming up next, we'll hear about the faintest glimmer of hope that a handful of scientists saw and said, 'It's a long shot, but we think we can bring the oryx back home.'" So stick around.

[BREAK]

Tony Cohn: Welcome back. We've been hearing about the trials and tribulations of the scimitar-horned oryx, a burly kind of desert antelope with these beautiful, curved, long, sharp horns.

Tony Cohn: They lived on the smallest margins in very dry grasslands of Central Africa, just south of the Sahara desert. And not so long ago—some time in the early 1980s—the last wild oryx died. But they weren't gone. The oryx still had a small population living in captivity. One of those places the oryxes rode out extinction in the wild was the Smithsonian Institution.

Steve Monfort: Antelopes rock for me and for a lot of people like me that really like things with hooves.

Tony Cohn: That's Steve Monfort.

Steve Monfort: I'm the director of the National Zoological Park and Conservation Biology Institute.

Tony Cohn: Steve has been working with the scimitar-horned oryx for decades. He's studied them extensively and is one of the world's leading experts on the animal. And at the National Zoo, Steve's office is just a couple hundred feet from where they live.

Steve Monfort: Well honestly, they're not very hard to keep in captivity. They're just like a cow with horns. If you give them grass and water—they prefer water if they can get it, they don't actually need it which is one of the interesting biological facts about them—they do very well in human care.

Tony Cohn: Which is a good thing.

Steve Monfort: So zoos have a very strong role to play in being basically the Fort Knox of the genomics or the genetics of species, and those, one day, will become increasingly important as the threats to species intensify over time.

Tony Cohn: Perhaps the biggest break for the oryx happened through complete serendipity. So one day about 20 years ago, Steve was in his office working on some antelope research, minding his own business.

Steve Monfort: I got a call one day, literally a random call, back in the day when people just called on the telephone. And I picked it up and this guy said, 'My name is Khaled and I work for the crown prince of Abu Dhabi.'

Tony Cohn: The voice on the phone was talking about Sheik Zayed bin Sultan Al Nahyan, one of the founders of the United Arab Emirates.

Steve Monfort: And we would like to get your help on learning how to increase reproduction in a species of Arabian Tahr, a small, little goat-like antelope.

Tony Cohn: And Steve does the logical thing: when you receive a royal invitation to visit a country, you go.

Steve Monfort: I was invited over to visit Abu Dhabi, just to give them some advice and consultation. I took a team of other antelope experts with me, and they paid for our travel and so forth.

Steve Monfort: So one of the daily excursions, they wanted to take us to an island off the Arabian Gulf that was Sheikh Zayed's private island. He had a palace there. The island was full of 50,000 animals on this island. We were driving around, like a tourist, to tour the collection. And as we turned a corner, we saw this whitish looking antelope off in the distance. We asked the driver if he could take us over there, this is like a minibus. And as we got over there, we were astounded. This was some of the world's preeminent antelope experts to see 1500 scimitar-horned oryx in one massive enclosure, being fed giant bales of Alfalfa Hay.

Tony Cohn: Think about that: this is the motherlode. Steve was making a trip to help Abu Dhabi with their cute little mountain antelope. But then he practically tripped across thousands of scimitar-horned oryx, an animal that was completely extinct in the wild. Steve was floored.

Steve Monfort: And our jaws just dropped. We said, 'Oh my God,' you know, look at that, this doubled the known world population of scimitar-horned oryx in one instant, at least to us.

Tony Cohn: Before this, they knew there were some scimitar-horned oryx in captivity. But all of a sudden, there were way more of them than anyone would have ever guessed.

Steve Monfort: Turns out there were, you know, once we started looking, we realized they were maybe as many as 10,000 of these in human care, even though they were extinct in the wild since the mid-1980s.

Tony Cohn: And that happy accident gave Steve and a group of fellow antelope researchers an idea: 'Maybe we can get some of these scimitar-horned oryx back where they belong.'

Steve Monfort: The dream—everyone's dream working in zoos and conservation—is not to manage animals only in captivity. It's to restore a species to the wild, if possible. But how do we do that? That's the challenge.

Tony Cohn: So Steve and his team sat down to try to figure it out.

[MUSIC]

Tony Cohn: Steve Monfort says that once the decision to try to release the scimitar-horned oryx had been made, it took about three years of meetings and a lot of bureaucratic wrangling to create a plan.

Tony Cohn: One thing that they needed to decide: where would they put these free-roaming scimitar-horned oryx? Melissa Songer is a biologist at the Smithsonian Conservation Biology Institution and she studies how scimitar-horned oryx—and other animals—move and interact on a landscape. And she says location selection is very important.

Melissa Songer: First of all, you have to have a place to put them in, and that can be sometimes the most difficult thing because when a species becomes endangered, or even disappears from the wild and becomes extinct in the wild, there are many reasons why.

Tony Cohn: Since Chad had been the scimitar-horned oryx's last stronghold in the wild and was in a pretty stable period, Team Oryx figured that it would be a good spot to target for the reintroduction.

Melissa Songer: So what you need to do is address those threats in the place where they're being returned, to the point where you feel confident that you have a reasonable chance of

getting the species back there, even though it's a place where it did disappear. So finding that place, we were very fortunate with the oryx, because we had access to a game reserve: 80,000 square kilometers in central Chad, the place they were last seen in the wild, so theoretically one of the best places for them to continue to survive.

Tony Cohn: In case you missed that, the chunk of land they're looking at is 80,000 square kilometers, which is about the size of South Carolina.

Tony Cohn: Once Team Scimitar-Horned Oryx knew where they wanted to put them, they had to get the right combination of oryx in the same place. And it turns out that herd in Abu Dhabi was a pretty perfect place to start.

Tony Cohn: Since that visit that National Zoo director Steve Monfort made to Abu Dhabi back in the early 2000s, their herd had ballooned to about 3,000 oryx. But the Emirates didn't have much information about the original herd: how many there were or how related all of them might have been.

Justin Chuyen: Honestly, we just don't know. We think that it was, it was a handful, you know, I'm sure that it wasn't a huge number.

Tony Cohn: That's Justin Chuyen, who works on the oryx reintroduction program with the Environment Agency Abu Dhabi.

Tony Cohn: Not knowing the number doesn't sound like a big deal. But the problem is that researchers didn't really want to put in all this time, and spend all kinds of money, creating a new wild population if they're all siblings and first cousins. Very much like with humans, that's a bad recipe for long-term success.

Tony Cohn: So to account for this, they did extensive genetic tests on the oryx in Abu Dhabi.

Justin Chuyen: So the idea there was to increase the genetic diversity of the animals that we were going to reintroduce into the wild.

Tony Cohn: Then they went on a global oryx talent search, carefully selecting oryx with genetics that would complement the world herd in Abu Dhabi.

Justin Chuyen: We had obviously our original animals, from in the UAE, that had originally come from Chad, and then we sourced animals from all across the US and all over Europe as well.

Tony Cohn: So at this point, a huge chunk of land was picked in Chad. And the oryx crew knew the herd was diverse enough to thrive for generations without things getting weird.



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Tony Cohn: But the next question? How on Earth is this group of oryx going to get from the United Arab Emirates, 2,000 miles across Saudi Arabia, the Red Sea, Sudan and into Chad? The answer, of course, is to fly.

Justin Chuyen: If I can just back up for one second, if you don't mind. I'll just tell you our little journey. We start first thing in the morning, usually before the sun even comes up, and we'd just get the animals loaded into the crates very quickly, get them loaded onto the truck. Drive to the airport, and that takes about an hour. So as soon as we can get the animals through the customs and onto the plane, in their individual crates. So these planes are old Russian cargo planes called Ilyushin IL-76es. So it's one of those that the door opens in the back and it's a big ramp, and so all the animals get loaded from the back.

Tony Cohn: Then, the plane closed its doors, the scimitar-horned oryx put their seat backs and tray tables in the upright and locked position, and they were ready for takeoff.

[PLANE TAKEOFF SOUND]

Tony Cohn: For Steve Monfort, who accompanied the oryx on the flight from the United Arab Emirates all the way to Chad, that's when things got real.

Steve Monfort: I think that was the moment that I knew it was really happening, we were taking off but it was just surreal. We're flying to Chad, in the middle of nowhere, and this Ukrainian, you know, navigator is offering us shots of vodka in the back of the cargo plane. But when we landed and we unloaded these animals and we put them on trucks. We drove for 10 hours.

Tony Cohn: After 18 years of thinking about and planning for this moment, Steve Monfort and the scimitar-horned oryx were on the ground in the Sahel, after being gone for decades. It was an emotional journey for Steve, as much as a physical one for the oryx.

Steve Monfort: Very carefully, the animals were with a crane, were off-loaded and lined up in a row. I think there were about ten crates lined up side by side and a number of us were invited to climb up on top of the crates. They had a hatch door, and so somebody counted down and we lifted up the door simultaneously and then they all went running out.

Tony Cohn: The crates that the scimitar horned oryx were transported in, they look a bit like huge, vertical shoe boxes with air holes. The person who is releasing the oryx stands on top of it and slides a trap door up and out of the oryx's way.

Steve Monfort: As soon as I saw the animals running out, they were in unison, were immediately coming together like into a herd, and running full steam up a rise. That was when I was able to

visually take it all in. And I just, really, it was just joy. I know I'm a pretty emotional person anyway, but I was crying. I didn't know I was crying at the time, but I could just feel the tears streaming down my face. And I thought, 'Well, this is just absolute joy.' I mean, the definition of working your whole career and dreaming of doing something like that and that one condensed moment of having that happen, is just exceptional.

Tony Cohn: The oryx lived in these 50-acre holding pens for a few months. In this time, Melissa Songer—the Smithsonian biologist we met earlier—and her team monitored the oryx to make sure they were transitioning well from being captive animals to wild ones. Veterinarians watched them. And every one of the scimitar-horned oryx were fitted with tracking collars.

Melissa Songer: So putting satellite collars on all the animals, tracking them, and being able to use that data to understand what they're going to need and how they're moving. We can learn a lot about their ecology. So having that expertise, first of all with satellite tracking, but also in spatial analysis and data management, and all those pieces, are really important. Of course, veterinary care for the captive animals and also in the acclimatization period is critical.

Tony Cohn: On August 16, 2016, twenty-one scimitar-horned oryx were released from their holding pens into Chad's Wadi Rimay - Wadi Asheem Faunal Reserve.

Tony Cohn: I'm trying to understand. You have all these oryxes that are living in Chad and they go extinct. How do we make sure that they don't go extinct again?

Melissa Songer: Well, we need to understand why they went extinct. What we need to do is address those threats in the place where they're being returned. And so that really is tied in with the working with the local communities: getting their thoughts on, getting their input, making them a part of the process is really critical. Because even with 90 out there, if hunters or if outside people would come in and try to get the oryx—because they actually are worth a lot of money, the horns are—it really wouldn't take long to wipe them out again.

Tony Cohn: It's like 10,000 different ingredients.

Melissa: Yeah. [laugh] I like to say it takes a village to save a species.

Tony Cohn: Since August 2016, there have been two more releases. In all, 72 scimitar-horned oryx were reintroduced. And they seem to have taken to their new but very old home: 57 baby oryx have been born in Chad, bringing their total number to 111. And now there's another release planned of 74 oryx for summer 2018.

But that's not the end of the journey for the oryx. In a way, it's just the beginning. Time will tell whether or not these tough antelope can thrive, walking that tightrope between a desert that's creeping into their ecosystem and a booming human population. The odds for the scimitar-horned oryx are still long. But they have a dedicated team of people watching out for them. And, fortunately, they're great tightrope walkers.

[MUSIC]

Tony Cohn: You've been listening to Sidedoor, a podcast from the Smithsonian with support from PRX.

Tony Cohn: If you want to see the video of the oryx being released, check it out on our website, which is 'si dot edu slash sidedoor.'

Tony Cohn: Want to check out more of the work being done by the National Zoo and Smithsonian Conservation Biology Institute? Check out hashtag #WeSaveSpecies on Twitter, where you'll find Smithsonian scientists tackling some of today's most complex conservation challenges. And while you're at it, check out our Tweets by following us 'at' SidedoorPod.

Tony Cohn: And we wanted to give an extra special thank you and good luck to our musical wizard and friend Nico Porcaro. He won't be far, he's moving on to another Smithsonian gig, but we'll always leave a light on for him here at Sidedoor.

Tony Cohn: Our podcast team is Justin O'Neill, Rachel Aronoff, Jason Orfanon, Jess Sadeq, Greg Fisk, and Elisabeth Pilger.

Tony Cohn: Our show is mixed by Tarek Fouda.

Tony Cohn: Our theme song and other episode music are by Breakmaster Cylinder.

Tony Cohn: We're also supported, in part, by the Alfred P. Sloan Foundation, enhancing public understanding of science, technology, and economic performance. More information at 'sloan dot org.'

Tony Cohn: Extra support comes from John Barth and Genevieve Sponsler.

Tony Cohn: I'm your host, Tony Cohn. Thanks for listening!

[MUSIC]

Melissa Songer: Every time I check my email, every day I'm getting emails from elephants and oryx and horses.

Tony Cohn: Are they good typers?

Melissa Songer: Yeah. [laughs]

