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David Todd [00:00:03] Well, good afternoon. I am David Todd, and I have the distinct privilege of being on the line with Shelia Hargis.

David Todd [00:00:15] And, with her permission, we plan on recording this interview for research and educational work on behalf of a non-profit group called the Conservation History Association of Texas, and for a book and a website for Texas A&M University Press, and for an archive at the Briscoe Center for American History, which is at the University of Texas at Austin.

David Todd [00:00:40] And, I wanted to emphasize that she would have all rights to use the recording as she sees fit. It is hers.

David Todd [00:00:50] And other than that, I just want to make sure that that sounds like a good plan to you. Is that all right?

Shelia Hargis [00:00:57] Sure. Yes.

David Todd [00:00:59] All right. Well, okay, let's get started.

David Todd [00:01:02] It is Sunday, March 12th, 2023. It's about 3:20 PM, Central Time. And my name, as I said, is David Todd, and I am representing the Conservation History Association of Texas. And I'm here in Austin and we are conducting a remote audio interview with Shelia Hargis and she is also in the Austin area.

David Todd [00:01:31] So, as a brief introduction to her, I should explain that by day, during the week, Ms Hargis is a crime intelligence analyst supervisor for the Austin Police Department, where she oversees investigations of a variety of crimes, including homicides, sex crimes, robberies, assaults, burglaries, and even organized crime.

David Todd [00:01:57] But on the side, she volunteers in the birding and conservation world, where she teaches bird classes, gives presentations on bird topics. Many times she leads birding field trips. She works at improving bird habitat at Commons Ford Metropolitan Park, and she has served as the president of the Travis Audubon Society and the Texas Ornithological Society. And in the midst of all that, she's also earned a certificate as a master naturalist.

David Todd [00:02:31] So today, we plan on talking about Ms. Hargis' life and career to date, and especially get the chance to focus on her work with the chimney swift and the Eastern purple martin, as examples of her conservation experience and perspective.

David Todd [00:02:50] So, I wanted to start in with some questions. And, as a beginning, I was hoping that you might be able to tell us about your childhood and early years and if there were some people or events in your life that might have influenced your interest in nature and birds in particular.

Shelia Hargis [00:03:13] Well, sadly, I didn't discover birds until I was about 35 years old. And that's, you know, if I could go back and do anything again, it would be that I would discover birds when I was a child growing up in East Texas.

Shelia Hargis [00:03:29] But, I look back on my childhood and my parents. We had a lake house. We had a quote unquote, "farm". We were regularly out in the woods and camping in state parks in our travel trailer. My mother loved to garden, and so she instilled in me that love of plants. I still remember the dogwoods and the wildflowers. So I think all of that played into my love of nature.

Shelia Hargis [00:04:02] But, birds for some reason were missing from that. I had dogs. I even had a few, I'm kind of embarrassed to say this because I didn't know any different back then, but I had a few raccoons that we actually purchased from, like, the flea market as babies, you know. But and then I had a rabbit. So I definitely loved animals. But it was more like mammal-type animals for the most part.

David Todd [00:04:37] That's interesting.

David Todd [00:04:38] So, you mentioned your mother and that she was a gardener. And I was curious if you remember any visits to her garden, any work with her. Were you ever put to task on weeding maybe, or some other useful bit of help?

Shelia Hargis [00:05:02] Well, back in those days, you know, native gardening wasn't really a thing, or at least in East Texas in my life, it wasn't a thing. Right? But we had azaleas that bloomed in the spring and were beautiful. I don't remember her putting me to work. Actually. I remember my dad making me and my brother pick up those sweet gumballs out of the yard. And of course, that usually led to some throwing of sweet gumballs at each other and such. But the gardening part, I don't remember it being an arduous thing. It was more a fun thing.

David Todd [00:05:45] Okay. And then these trips that you took in your family's travel trailer, I understand you went to some state parks. Do you recall any of those trips?

Shelia Hargis [00:05:59] Really the only one that I remember, and I don't know why I remember this one, is Tyler State Park, I believe. But, but I think we went to quite a few.

David Todd [00:06:13] Yeah, and nice to be able to do that as a family no matter where you go. Just that time together. So precious.

Shelia Hargis [00:06:21] Right.

David Todd [00:06:23] Well, so you told us a little bit about your childhood. And I was curious if maybe we could kind of replay this same sort of question, but maybe focus it more on schooling. Was there anybody, or some episode, at grade school or during your time at Stephen F. Austin State University, where teachers or classmates might have helped encourage your interest in wildlife and birds?

Shelia Hargis [00:06:56] I don't remember any. I took a botany class as part of my degree at SFA, but I think by that point in time I was really focused on getting my criminal justice degree and I wasn't so, I wasn't spending much time focused on wildlife or birds.

David Todd [00:07:18] Okay. You know, some people have a, you know, really structured exposure to conservation and wildlife through their family or, you know, their schooling. And then some folks just follow their own star and they read a lot or they watch TV or see movies that treat some of those same topics. And I was wondering if that's the case with you.

Shelia Hargis [00:07:50] Well, I love to read. I loved to read as a child. I still love to read. I remember reading Charlotte's Web and All Creatures Great and Small, but I can't remember other nature-type or animal-related type books that I read. I watch all sorts of nature shows now, but I don't remember any from, you know, as a child.

David Todd [00:08:15] Okay. So you've mentioned in passing that that you studied criminal justice at SFA and I gather that led you into your work as a crime intelligence analyst at the Austin Police Department. And I think earlier, were you doing patrols as well?

Shelia Hargis [00:08:39] Yes, I started out as a police officer.

David Todd [00:08:42] Okay. Well, I'm curious how you got started there. And then, maybe as a lead-up question, if you could tell us if you see some sort of overlap between that career that you've held for several decades now and then the birding and conservation work, that's also taken a good deal of your time.

Shelia Hargis [00:09:06] Yeah, I remember as a teenager, there was a point in time where I was either going to be a veterinarian or a cop. And somehow I got involved with the police explorers at Nacogdoches PD, and this was a group, kind of a part of the Boy Scouts, to where, you know, teenagers could go and hang out with the police officers and do, you know, various little things here and there, like maybe direct traffic or other things like that.

Shelia Hargis [00:09:44] And so, that pretty much sealed my fate. It's like that's the route that I took.

Shelia Hargis [00:09:48] And, I, I guess I was probably also kind of worried about being a veterinarian because I have a big heart for animals. And to see them in pain or die is pretty hard on me.

Shelia Hargis [00:10:02] But anyway, I decided to go the police officer route and so I got a criminal justice degree from Texas State, not Texas State, from SFA. And then I was a cop for about four years. I kept burning out on that. I realize now that I really thrive at a job that makes me think. And patrol work in East Texas was not one of those types of jobs. So I burned out after working two years in Nacogdoches, after working two years in Lufkin.

Shelia Hargis [00:10:45] And then, I went off and did other things. Like I was doing some drafting and design work, and then I was working as a technician at Motorola for a while.

Shelia Hargis [00:10:59] But then around 2000, I, I discovered crime analysis. And this was an aspect of law enforcement that didn't exist when I was a cop. And I really, I got hired at Austin Police Department. And it's really been a wonderful job for me. I mean, I help to put

bad guys in jail. I help to keep Austin safer. And I get to think a lot. So it's been a wonderful job for me.

Shelia Hargis [00:11:34] As far as the overlap, I don't really see there being much overlap. It's really a situation of I have two passions, and I was able to pursue both of them in some way.

David Todd [00:11:50] Well, it's intriguing because we were fortunate to interview, I guess probably a friend and colleague of yours, Greg Lasley. And he, too, had many years with the police department and then had this very serious and consuming interest in birds. And so I, I was curious, you know, how you balance the two sides of your life.

Shelia Hargis [00:12:22] Yes, it's funny because Greg had already left. He had already retired from Austin Police Department by the time I got there. But when people learned that I was a birder, then they would immediately go, "Oh, do you know Greg Lasley?" As if I should know all birders in the world, right? And yes, I had heard of Greg, but I don't think I had met Greg at that point. But it was it was still pretty fun to kind of, in a way, follow in his footsteps at APD.

David Todd [00:12:52] Well, sure. Well, I think it's a reminder that, you know, people are complicated, and they can do more than one thing. So there doesn't need to be any overlap. But I was just curious about that.

David Todd [00:13:08] So, one of the things I think has been really intriguing about what I've learned about your life is that there's this, I think, real instinct and enthusiasm for sharing your love and knowledge of birds. I've seen that you've served on Travis Audubon's education community. You've led bird field trips. You've taught some of your Audubon colleagues about bird behavior. You know, you've worked at giving community presentations about birds. And I'm curious how you first got started teaching and what your goals might be about that kind of work. And, and, you know, really how teaching makes you feel.

Shelia Hargis [00:14:01] Well, I'll start off by saying that I'm very clear that birds transformed my life. My connection to birds transformed my life. I went from having a fine life to having an amazing life because of my connection to and love of birds.

Shelia Hargis [00:14:19] And, this passion in me is both intellectually and sometimes physically challenging. It provides emotional peace and a deep connection to something bigger than myself. It gives my life meaning. And it's also great fun. And I want that for everyone.

Shelia Hargis [00:14:42] And so, part of the way, one of the ways that I try to do that is by sharing my knowledge and my love of birds with others. I also love to learn, so I just kind of expect that others love to learn also. And so, being able to be part of that process for other people is really cool.

Shelia Hargis [00:15:08] The way that it started was that in my early days with Travis Audubon, my birding buddy Roxie Rochat, invited me at some point to join the Travis Audubon Education Committee. I really only joined it, or I joined it mainly, because I wanted a heads-up on the upcoming classes and so that I would be ready to register for them as soon as they opened.

Shelia Hargis [00:15:33] But, I stuck it out beyond just that and eventually became Education Committee chair. And I just, I just think that Travis Audubon members are so, well, they just

have it really, really good because Travis Audubon offers so many wonderful classes. And I took advantage of them for many years and still do. Some of them I've taken advantage of multiple times, such as sparrows and those more difficult IDs.

Shelia Hargis [00:16:05] But, as far as going from education committee chair to actually teaching a class, Jean Martin, who is one of my birding mentors in the early days, had been teaching the Introduction to Birds class for quite a few years, and she was getting to the point that she wanted to pass the reins on to someone else. And so, she asked me if I was interested, and I kind of thought about it for a while and realized that I was. And so, I was able to take that class from her and continue to teach it for several years after that.

David Todd [00:16:47] You know, it's intriguing to me that while you, of course, have this strong interest in birds and learning about them and sharing that knowledge, you seem to have a wider horizon as well. I mean, I understand that you recently joined the Texas Master Naturalists, and I was hoping you could tell us a little bit about that group, and how you came to join it and what you've gained from it.

Shelia Hargis [00:17:20] Yeah, I had friends that would go through the Master Naturalist program and they would tell me how wonderful it was and all the different topics that were covered. And so, I'd been wanting to do it, to go through the training for quite a few years now. But, it's a pretty intensive training. I think there's like ten sessions with some field trips also. And, and it's usually during the winter and spring, which, spring is like the super busy time for me.

Shelia Hargis [00:17:55] So, so for many years it's like, oh gosh, you know, when I retire, I'm going to do that. But maybe it was the pandemic. Maybe it was just me coming to my senses. I decided in 2021 that I was going to apply for the Master Naturalist program through Capital Area Master Naturalists. And if I got accepted into the program, I would, I would just make it work. I would somehow arrange my schedule to just make it work.

Shelia Hargis [00:18:23] And so, fortunately, I was accepted. And it was great because the, I mean, it's like a fast-paced course, and a lot of topics coming at you, but it's more an introduction to all of those topics.

Shelia Hargis [00:18:38] So I was exposed to topics that I really didn't know much about, such as interpretation, geology and soil, weather, archeology, aquatic and wetlands ecology, and fish. But, it also taught me more about some things that I already knew a little bit about, like mammals and spiders, insects and herps. And then there were a few situations in which what I thought I knew was actually challenged to some degree, which caused me to rethink things. So it was, it was really good as an introduction. And then if there were any of those topics that I was really, really interested in more than the others, then I could go off and learn more through various routes.

Shelia Hargis [00:19:30] So, I'm very happy to finally be a Master Naturalist. Our chapter, I think all chapters, but our chapter has monthly meetings and they bring in speakers to talk about more interesting topics or maybe more in-depth on some of the topics that we've covered before. And kind of as icing on the cake, I got to teach the bird section for the class of 2023. So that was a wonderful opportunity for me to give back to this organization that I, that I care about.

David Todd [00:20:03] Well, that's super. It is a wonderful thing to, you know, have this community of learners I bet.

Shelia Hargis [00:20:12] Mmm hmm.

David Todd [00:20:12] So I was struck by one thing you mentioned is that, you know, you'd learned about new things, you reviewed old things, and then in some cases, you challenged some things you thought you had a sort of preconceived notion of, but you learned that maybe that was not quite right, or that you kind of adapted a little bit. And so I was wondering If you could give us an example of what you mean there.

Shelia Hargis [00:20:41] Well, Dr. Kevin Anderson, who works for the City of Austin at the Center for Environmental Research, gave the presentation on "Texacology". And there were a couple of things that he said that made me really think through some things.

Shelia Hargis [00:20:58] One, I love bluebonnets, and they are in full bloom around the Austin area right now. But the comment that he made about them is that they're actually not good for like cows to browse on. I mean, they're gorgeous, but they don't, they're not good for much else. And I think he may have even said that they're kind of in soil that maybe is not so great. Don't hold me to that one. But anyway, it had me think about bluebonnets with more information, not necessarily in a bad way, but it was just more information that I had before.

Shelia Hargis [00:21:37] And then, the other thing that he mentioned was something along the lines of, well, we talk about restoring habitat, but at what point in time is the habitat you're trying to restore? Like, for instance, the prairie out at Commons Ford, which we're about to talk about, when, when I knew it, or when I first started going out there, it was this open grasslands that was basically all non-natives. But in thinking about it, it's like, "Well, what, at that point in time, it was a grassland. But, maybe not too far back from that point, maybe it was all wooded. You know, maybe that land had been cleared. Likely, that land had been cleared at some point for cows or whatever. So it's just like, at what point do you want to restore this piece of land?

David Todd [00:22:43] Yes, that's such a good, interesting point. You know, what is your baseline? What's the point in time you want to turn the clock back to?

Shelia Hargis [00:22:51] Yes, exactly.

David Todd [00:22:53] Well, let's talk about that, because I think it's, you know, from what I've heard, Commons Ford is just a poster child for the kind of successful habitat restoration that can be done with a lot of help and hard work. I think you've been involved with that one as well as the Hooks Woods tract that the Texas Ornithological Society has on High Island. And I thought this would be a good moment, if you can help us, to, you know, talk about how those sites were recovered and improved and how you get volunteers to do this work. It's not easy!

Shelia Hargis [00:23:37] Right? Yes. Yes. So my good birding buddy, Ed Fair, really started the prairie, quote unquote "restoration" efforts at Commons Ford. And I got involved mainly to support his efforts. So sometimes that's how you get volunteers is you just kind of nudge your friends into helping you out.

Shelia Hargis [00:23:58] But the efforts there was - it involved a lot of research. It involved consultation with experts, and it involved some professional help. Like we had to raise money and pay for professionals to come in and help us with part of that.

Shelia Hargis [00:24:18] The first thing that had to be done was you had to get rid of whatever you're trying to get rid of. So, in this case, there were, I think, like maybe three main non-native grasses that were on this prairie. And then we had to prepare the soil. And then we planted over 70 species of native grasses, wildflowers and forbs that were, that are native to this area and to that soil type. And so that was the big initial push.

Shelia Hargis [00:24:50] And, now it involves maintenance work. That has been mainly prescribed fire. But we're starting to talk about other things like herbicide treatment for woody vegetation that hasn't been killed by the fire, and maybe some other ways to continually maintain and maybe even enhance the prairie.

Shelia Hargis [00:25:14] But, at least around here, it seems like prairies, unless they get regular fire, don't stay as prairies. They revert to woodlands, if you're not doing something.

Shelia Hargis [00:25:28] So, that's kind of the situation at Commons Ford.

Shelia Hargis [00:25:34] For Hooks Woods, this is a Texas Ornithological Society sanctuary that is in High Island, Texas. It's, I think it's about two acres, so it's really small, but, it's in a critical location. As migrating songbirds migrate north, many of them fly across the Gulf of Mexico. And, depending on the weather conditions, that can be either a very arduous journey or a pretty easy journey. If it's arduous, then a lot of, well, the birds, once they see land along the Gulf Coast, they come down and they need to rest. They need to eat to restore their energy. They need to bathe and get a drink.

Shelia Hargis [00:26:23] And so, Hooks Woods is one of those places that they can do that. And, most of our work there has been to improve, or at least so far, has been to improve the birding experience. We've installed two small ponds with little streams and running water so that the birds have a place to take a bath and get a drink and that birders can see them doing this. We've installed bleachers so the birders can sit and watch the action at these water features. And last year we were able to install a bird blind in honor of Steve Gross, a past president of the TOS.

Shelia Hargis [00:27:06] Now, as far as the habitat itself, one of the big challenges there is this stand of bamboo. For years we kind of watched it continue to expand, as bamboo does. And we've been now waging war with it for over a year. It is a long-term effort, but it's, I believe it will be very worthwhile in that the native trees and other vegetation that's coming up there will be much better, much more useful to the birds than the bamboo was.

Shelia Hargis [00:27:44] And, in one of our latest exciting developments is that the board approved the fee for a professional landscaper, who is also a birder, to develop a habitat improvement plant for us at that sanctuary. So, once we have that in hand, we'll have a goal to work for, a defined goal to work for, and we'll have a plan that lays out how we go about improving the habitat for the birds, as well as the birders.

David Todd [00:28:19] That seems so smart. I mean, these restorations can be so labor-intensive and costly and slow. And it sounds like a great idea to have a pro who has a plan. Well, well super.

David Todd [00:28:39] Well, you know, it's intriguing to me that you have, you've done a lot of things on your own, I'm sure. But you've also been really engaged in some non-profit groups that have helped, I guess, magnify what you do. You served as president of the Texas Ornithological Society for three years and then, of course, were also president of Travis Audubon. So I thought maybe we could start with Texas Ornithological. And, you know, for those who aren't familiar with the group, could you give us a little bit of an introduction to it? You know, what it's about and how it got started?

Shelia Hargis [00:29:26] Well, to be honest, I don't know a lot about the history of TOS, except that it was created in 1953, mainly by efforts from Charles McNeese and fellow enthusiasts in the Outdoor Nature Club of Houston. The original purposes were observation, study and conservation of the birds of Texas, and to create a community among quote unquote, "ornithologists of Texas and the Southwest".

Shelia Hargis [00:29:56] And I think that actually that term, "ornithologist", potentially makes it a challenge for us these days to get amateur birders involved in, engaged in the organization because they're little, that term is a little daunting. But, I think what it's always meant is both amateur and professional ornithologists of Texas.

Shelia Hargis [00:30:21] So, throughout the years, the organization has encouraged scientific study of Texas birds. We published a scientific journal each year with some of that research. We've encouraged the enjoyment of birds and birding and built community through to quote unquote, "meetings" that we have in different places of Texas where we basically go out and spend a long weekend going on field trips to see the birds of that area and learning about various aspects of that area of Texas and the birds there by local people.

Shelia Hargis [00:31:03] And, we also protected critical habitat by acquiring and protecting five sanctuaries.

Shelia Hargis [00:31:13] And then, the Texas Bird Records Committee is a committee of TOS. And this group provides rigorous evaluation of new and rare bird sightings within Texas and maintains the official list of accepted bird species for Texas.

Shelia Hargis [00:31:32] So, that's some of the history of the organization.

David Todd [00:31:38] Well, that's neat. And, it's not easy to keep one of these volunteer groups going. And to think that this is in its 70th year is impressive.

David Todd [00:31:52] So, tell me now, if you would, about Travis Audubon, this other group that you've been active with and have served as leader for. What can you tell us about its history and maybe some of the stages that it's gone through recently where it shifted from being a volunteer group to a staffed organization and has gotten involved in, you know, acquiring lands as they can as sanctuaries?

Shelia Hargis [00:32:23] Yes.

Shelia Hargis [00:32:24] And, if I could, David, can I go back and adds just a little bit more information about TOS?

David Todd [00:32:29] Of course, please.

Shelia Hargis [00:32:31] Okay. So currently, I think we have a little over 900 members, but basically our goals and activities haven't changed much from the things I mentioned earlier.

Shelia Hargis [00:32:43] We continue to hold those meetings and it's a great way to get birders from one area of Texas out into another area of Texas with knowledgeable leaders for those field trips. We continue to publish journals and magazines. We recently released a new and improved website which will hopefully be more welcoming to new birders and non-TOS members. Our goal is to get them into the fold of TOS, but we have to appeal to them where they are first.

Shelia Hargis [00:33:16] And, we're doing a much better job, I think, of managing our sanctuaries to improve the habitat for the birds as well as the visitors.

Shelia Hargis [00:33:24] And, kind of as a segue way into Travis Audubon, the board is exploring the idea of hiring professional staff, potentially, an executive director. Kind of like the situation was when I was involved with Travis Audubon.

Shelia Hargis [00:33:42] So, so I can pick that up now if you'd like.

David Todd [00:33:46] Yes, yes, let's talk about Travis Audubon - certainly lots of commonalities between it and Texas Ornithological, but differences as well. So, maybe you can give us a little bit of insight into Travis Audubon.

Shelia Hargis [00:34:05] Yes. So, one of the big differences between the two is Texas Ornithological Society is a statewide organization, and Travis Audubon is the local bird conservation group around the Austin area. It was established in 1952, I believe. And again, I don't know a lot of the early history, but overall, it has a, I think, a very proud history of offering amazing classes, field trips, protecting habitat and advocating for birds.

Shelia Hargis [00:34:39] And, during the time that I was president, I remember very clearly a board meeting where I basically told the board that we either had to hire an executive director to help us accomplish our goals, or we had to cut back on what we were doing. And secretively, well, I'm not a person that is good at cutting back. So I pushed for the executive director route. And fortunately, the board agreed. And we were so lucky to hire an experienced executive director who loved birds. And I worked closely with her for the remainder of my presidency.

Shelia Hargis [00:35:24] It wasn't a smooth path. Like, I mean, we had great ideas and wanted to change things rapidly. And it's just not how organizations usually operate. But I think it was a really good start toward a more professional organization.

Shelia Hargis [00:35:42] And, one of the things that is very clear in my mind as to what an executive director brought to the organization is that this person provided stability between presidents and boards, which really helped us be more efficient and effective at accomplishing what we said we wanted to accomplish.

Shelia Hargis [00:36:03] And so, now I look at the current executive director and her amazing staff (I think we have five staff members and the executive director now), and it's just night and day difference. We're able to raise significant money for our projects and goals, and we can take on bigger projects than we could have as an all-volunteer organization.

Shelia Hargis [00:36:27] So, it's, yeah, it's been, I think, definitely a good decision that that board made to, a scary one, but a very good one to make.

David Todd [00:36:44] Well, and I guess the reason for both Texas Ornithological and Travis Audubon is, of course, the birds.

Shelia Hargis [00:36:52] Yes.

David Todd [00:36:53] And so I thought maybe just to give us an example of the kind of work that you and these groups have been busy with is we could talk about two examples, the Chimney Swift and the Eastern Purple Martin, and maybe through talking about those two birds, we'll get a more complete picture of wildlife conservation in the state.

David Todd [00:37:21] And so, if you can maybe start us off, by just maybe giving a little discussion about chimney swifts, I think that would be really helpful. What was your first encounter with a Chimney Swift? Do you recall?

Shelia Hargis [00:37:38] Well, I don't remember my first encounter, but I started using eBird, which is an online database, in 2007, kind of sporadically, in 2007. So, I looked back in my eBird data, and the first record I have in there of noting a Chimney Swift was October the fifth of 2008. But when I think back on Chimney Swifts, what stands out to me is at some point going to Chaetura Canyon and having Paul and Georgean Kyle, the owners of that property, tell us about these amazing birds and watching the birds drop into their chimney to spend the night.

David Todd [00:38:24] That's interesting. Sometimes it is not just the animal, it's the interpreter, the expert, the advocate for the bird, that maybe helps us understand and appreciate a little bit more.

Shelia Hargis [00:38:40] Exactly.

David Todd [00:38:43] Well, we'll definitely want to talk more about the Kyles as time goes on, but maybe you can just fill in a little bit of the picture of the Chimney Swift and its very distinctive life history and ecological niche. Is that something you could help us with?

Shelia Hargis [00:39:03] Sure. So Chimney Swifts are one of the birds that breed in our area and they breed basically all over the eastern United States, so roughly east of the Rocky Mountains. They spend our winter in South America and they return to the Austin area in March. So they, I haven't seen my first one this season yet, but I'm anxiously awaiting their arrival, which should be any time now.

Shelia Hargis [00:39:32] They are what's called an aerial insectivore, which means that they eat insects that they catch in the air. And they have also kind of an unusual aspect to them is that they have evolved to be able to cling vertically to surfaces. And so they nest in that position. They actually cannot perch like most of the birds we're familiar with: they cling to these vertical surfaces.

Shelia Hargis [00:39:59] So, that leads them to need vertical surfaces to attach their nest and breed. They can sometimes use tree snags, but I think probably the majority of them are now

using human structures such as masonry chimneys or maybe vertical concrete pipes or these structures that are called Chimney Swift towers that are built especially for them.

Shelia Hargis [00:40:29] One of the cool things about their nests is that they use their saliva to hold, as a type of glue, to hold the sticks of their nests together.

Shelia Hargis [00:40:42] So, they typically raise 3 to 5 young each spring and summer. And then as they migrate south in the fall, they will come together in these appropriate structures to spend the night. And sometimes it can be hundreds or maybe even thousands of birds in this one roost location.

Shelia Hargis [00:41:02] And, they're usually gone from the Austin area by late October.

David Todd [00:41:09] And then, they do the whole thing all over again.

Shelia Hargis [00:41:13] Exactly. Yes.

David Todd [00:41:15] I love this cycle of time and travel. That's so interesting.

David Todd [00:41:25] So you were pointing out that the Chimney Swift tends to roost in some of these artificial structures now and they seem to have, I guess, adapted or in some cases less successfully than others. Can you talk a little bit about the decline of the Swift that I think has been observed for the past several decades?

Shelia Hargis [00:41:59] Yes, unfortunately, they've been in a long-term, range-wide decline of about 2% per year between 1966 and at least 2019. That has resulted in a cumulative decline of over 67%, according to the North American Breeding Bird Survey.

Shelia Hargis [00:42:22] And, if you think about it, it's a very sad decline, in my opinion, but it's not that surprising. So if, you know, their nest habitat is declining, then you would expect the species population to decline.

Shelia Hargis [00:42:40] So, those masonry chimneys that used to be the standard chimney in houses is no longer how they build chimneys now, right? Those older chimneys that had the masonry on the inside - they're either deteriorating or they're being destroyed or maybe they're being capped by the homeowner. And so now the newer homes have these chimneys that are basically a metal opening that does not provide habitat for nesting.

Shelia Hargis [00:43:16] For birds that would have nested in dead trees, we regularly cut those trees down and we don't leave them standing to provide habitat for all sorts of wildlife. And so, there's that aspect from the nesting portion of their life.

Shelia Hargis [00:43:34] But, there's so much more to understand and so many more challenges when you're dealing with migratory birds. So not only do we have to make sure that they have suitable nesting habitat, but we have to make sure that they have the habitat that they need to migrate along their migration journey. We also have to make sure that wherever they're spending our winter, that the habitat that they need down there is in place also. So all of that is very challenging.

Shelia Hargis [00:44:08] And then, in this case, you have a bird that eats insects. So with populations of insects crashing, then, of course, the birds that rely on that as their food source

are going to struggle. So it's, it's, there's so many things at play here. It's so challenging to reverse that decline.

David Todd [00:44:32] Well, so I think you explained a little bit about how snags are being removed and masonry chimneys are no longer being built or they're being capped or removed entirely. You mentioned two other factors in their decline, which I'd love to hear more about. One is, is this issue of making sure that they have enough habitat to forage over, I guess both during summer and winter. And then secondly, the issue of what's happening to the insect populations. Can you talk about either of those?

Shelia Hargis [00:45:16] I can't remember how long ago, but it had been quite a, well, maybe, let's just say five years ago, there was a big study that was published that showed, at least in one area of the world, they had done a pretty intensive study of insect populations between current times and I guess some research that had done, that someone had done, many years previously. And they compared the two and it showed that there were significantly fewer insects now than there were back in the earlier days of the research, the initial research.

Shelia Hargis [00:45:59] And again, that shouldn't really be surprising. You know, we like, well, we use pesticides potentially way more than we need to. And there's impacts to that. Right?

Shelia Hargis [00:46:14] And so, we think of killing these quote unquote, "pests". But those pests are the food source for these birds.

David Todd [00:46:30] And then, this second issue that you mentioned: the birds, I guess, disappear from our part of the world, but then go down to South America. And I understood that you were concerned that some of the habitat in South America where they spend the winters may be facing challenges as well.

Shelia Hargis [00:46:57] I don't know. I think the big challenge there is that there's so much that we don't know about what the birds are doing down there. I want to say it's been within the last few, potentially within my birding lifetime, that we've actually learned where the majority of them go within South America, and I think it's in the Peru area mainly. But the big challenge there, the big questions there, is are there researchers down there who are studying these birds and really understanding how they're using that habitat? Maybe they're acting the same way down there as they do when they're up here with us, but maybe not. And so I think that's the big challenge there, is we just don't, there's so many unanswered questions yet to be answered.

David Todd [00:47:50] I see. So it may be one of those situations where there's things you know you don't know. There are things you know, you do know, and then there are things you don't know that you don't know.

Shelia Hargis [00:48:02] Exactly. We don't even know the right questions to ask in some cases.

David Todd [00:48:07] I see. Okay.

David Todd [00:48:09] Well, I think that that you've been involved in trying to at least understand more about those birds that come through the Austin area. And I was hoping that

you might be able to talk some about the Swift Night Out program that you've helped with monitoring the Swifts as they pass through our part of the world.

Shelia Hargis [00:48:38] Yes. So as an analyst, I love data. And so citizen science projects are great fun to me. The Swift Night Out project is a citizen science project, and it's an event that happens in August and September. It's where observers have identified these roost locations that the birds are using, and then an observer goes out and counts the swifts as they drop into, say, this chimney. And then they come up with a total number of birds that that were there that night.

Shelia Hargis [00:49:18] And, they enter that data into eBird, which again is this online database for bird sightings. And in doing so, researchers or anybody else who's interested in chimney swifts can go and use that data for their research to answer whatever questions they have, maybe.

Shelia Hargis [00:49:39] And so, I have been involved with that. This is a program that Paul and Georgean Kyle started many years ago as a way to get some sense of the population numbers of chimney swifts. And so, now we have the data from the observers that are monitoring in Swift Night Out and monitoring these locations. We have quite a few in Austin and I, I try to monitor or visit them regularly in August, September and maybe even into October.

Shelia Hargis [00:50:17] I don't know if anybody has done any analysis on the Swift Night Out data itself. I've looked at my observations over the years and it's, doing just a very basic analysis of trends. There's a lot of variation in the numbers over time, even throughout a season. So I think that data alone is not sufficient for us to get a sense of the population trend.

Shelia Hargis [00:50:51] I think you would have to take the data, the cumulative data that we have, which would be Swift Night Out data, all of the eBird data, the Breeding Bird Survey data and any information coming out of specific research on chimney swifts and kind of throw that all together and to really get a better understanding of what's happening with the birds.

David Todd [00:51:15] I see. So it's, the jury is still out because the data is there, but it needs to be looked at more, more carefully.

Shelia Hargis [00:51:26] Yeah, the Breeding Bird Survey data itself definitely shows that decline that I mentioned earlier. So, I'm confident that the population is declining. But, but what does the Swift Night Out data, does the Swift Night Out data change that understanding? Maybe it does. Maybe it doesn't. Maybe it shows that, well, maybe the decline is not as drastic as we thought. Or, or maybe it confirms that decline.

David Todd [00:52:03] Well so that that seems like an issue with the science part of the citizen science effort here. What do you think about this sort of public amateur aspect of Swift Night Out - the citizen part of that equation?

Shelia Hargis [00:52:26] Well, I think one aspect of it is that there's not enough biologists being biologists to do all the research that's needed. So if you can involve volunteers or amateur birders in some of this, that's a good thing, because that gives you many more eyes and ears out there on the ground.

Shelia Hargis [00:52:52] But, having tried to count Chimney Swifts at Swift Night Out, I know it can be challenging. I mean, sometimes, as we both know, because we've both been at Becker Elementary trying to count those Swifts as they drop in. And sometimes it's really easy. They drop in, you know, basically one bird at a time. And it's very easy to end up with a count. But other nights they wait until it's nearly dark and about 20 of them drop in every second. And so it becomes much more challenging. So maybe somebody who does this regularly as part of their job could do a better job of it. But again, maybe a volunteer is not very experienced at it, so the accuracy of the data would not be as good as maybe a professional doing it or maybe even technology somehow doing it for us.

Shelia Hargis [00:53:49] But again, we don't have enough biologists or researchers out there to answer all the questions. So there has to we have to find a balance, I think.

Shelia Hargis [00:53:58] One of the ways that eBird has approached this, which is that's basically the question, an early question about this online database of bird sightings, is like, well, these are all amateurs entering this data. How do we know they got it right? Well, we don't. We can't say 100% that they got it right. But the way that eBird has set it up is that the expected species, we're going to let people put those in and we're not going to really review those, unless they reach a certain limit. Like, for instance, if like a Yellow-throated Warbler is unusual in Travis County, but Shelia reports one at Commons Ford from this morning, then we're going to flag that bird and we're going to make her write a description and tell us more about why she thinks that her observation is correct.

Shelia Hargis [00:54:58] Or, if you report, say, 500 Chimney Swifts at a certain location, that's not a normal number of chimney swifts. So we're going to ask for more details in those situations. And so in that case, I would write this is a Chimney Swift roost, and this is a known location for them to roost. And this is how I counted and this is how I came up with 500.

Shelia Hargis [00:55:25] So, I don't know how that would apply to Swift Night Out. But, it is a challenge and it may be something that a balance has to be found between having the professionals do the work, versus having less-trained amateurs do the work.

David Todd [00:55:48] Okay. So you mentioned Becker Elementary, where indeed we both have had the pleasure of seeing hundreds, even sometimes over a thousand birds enter the chimney. And my understanding is that we're lucky to have Becker because a number of similar incinerator towers at other schools, even in the Austin area, which has a great birding culture, have been closed. And I was hoping that you might be able to tell us a little bit about that kind of a risk, and then the sort of efforts that Swift fans have gone to to try to preserve these roost sites.

Shelia Hargis [00:56:42] Yes, I'm very familiar with one that was capped - it was at Travis High School, and that was a site that before they capped that chimney, there would be 1600 or 2000 birds roosting there. I'm not sure why. Maybe some type of safety concerns led them to cap that chimney. But they did. And so, those birds no longer have that as an option for a place to roost. There was, I don't know, we just actually showed up there one season and discovered that, oh, my gosh, it does have a cap on it.

Shelia Hargis [00:57:21] So, I think there's an opportunity for us to be more engaged with the AISD, Austin Independent School District. Quite a few of their schools that were built in the 1950s had these old incinerator chimneys, and that's where the birds roost. But they recently

had to remove one from, I think, Becker Elementary, not Becker - Brentwood Elementary for? I think it was kind of deteriorating and they had to take it down.

Shelia Hargis [00:58:01] At Zilker Elementary, they ended up removing the chimney part. But there was fortunately a parent who had a kid go in there, saw that and raised kind of a stink. And so they ended up building it back up a little bit, not as high as it was, but building it back up. And so now the birds are able to use it again.

Shelia Hargis [00:58:26] But, Paul and Georgean Kyle are really, in my opinion, the experts on Chimney Swifts, and they have done a great job of educating homeowners, schools, business owners, pretty much anyone who will listen to about the amazing lives of Chimney Swifts and what they need to survive and thrive.

Shelia Hargis [00:58:49] But, I think there's still opportunities for us. On some of those towers at the schools, or the chimneys at the schools, we have little plaques that educate people. They can just come up and read this little plaque and tell about the importance of the structure for the birds. But I think there's still a lot of room for more, more effort in this regard.

David Todd [00:59:14] You mentioned the Kyles and I know that one of their efforts, of course, has been to protect existing roost sites at some of these chimneys that you've described, but that they've also been involved with, you know, a network of other people, in efforts to design and test and build artificial towers that are, you know, specifically developed to host these Chimney Swifts. And I know you're very deferential to the Kyles, but if there's anything you could tell us about these artificial towers would be great to hear.

Shelia Hargis [00:59:57] Yes, Paul and Georgean have had this property out near Mansfield Dam and they named it Chaetura Canyon, which, and on that site, they, over years, built all of these different structures, tower-like structures, that, they were experimenting to see what the birds use. And was there one design that was better than the other?

Shelia Hargis [01:00:25] And so, what I think they have determined as the best design, the most, the easiest to build, is a wooden structure that's usually about 8 to 12 feet tall, and it's maybe about 20, 20 to 24 inches square. And it's basically hollow on the inside with rough siding. That allows the birds to drop into that chimney, that tower, and cling to the sides, and then they can build their nest and raise their young in these structures. And so those structures, Paul and Georgean have built and installed many of those towers in parks and businesses and probably other places. But they've also published a book about how to build these structures. And so me as a homeowner, I could buy that book and build a Chimney Swift tower and put it in my backyard.

David Todd [01:01:31] That's so exciting that are folks who care about these creatures can do something tangible. And I think a lot of times folks just don't know how they can intervene in a way that's really, you know, effective and tangible. And so that's really heartening to hear.

Shelia Hargis [01:01:51] Yes, this is definitely a tangible way to help these birds.

David Todd [01:01:55] That's great.

David Todd [01:01:57] So, something that you mentioned just in passing, was it that these, many of these towers, were built and tested out at Chaetura Canyon. And I believe that when

you were very active with Travis Audubon, the Society took on the canyon as a sanctuary and to make sure that there's permanent protection of the site. Can you talk a little bit about how that came about?

Shelia Hargis [01:02:28] Yes, I think Paul and Georgan Kyle, you know, as they got older, I think they started thinking about, well, how does this property that they had invested so much time and effort and money into, how do they, how does it continue? And so they talked with, I think, several organizations,Travis Audubon being one of those.

Shelia Hargis [01:02:55] And they eventually decided that Travis Audubon was the organization that they wanted to donate their land to, with a life estate. And I happened to be the president at the time that they decided to make that happen. I think it was a situation of well, I like to think that it was a situation of they saw what we were doing as far as hiring an executive director to make the organization more professional. And they just liked what they were seeing as far as our goals and the projects that we were doing. So I was very honored to be the one that got to sign that, you know, that document saying that this this property would become a sanctuary of Travis Audubon.

David Todd [01:03:44] I see. And, was, so, the legalities of it - you all received a fee simple right to the property. But the Kyles kept back this life estate which allowed them to live out their years on the site with all, you know, rights and uses of the place?

Shelia Hargis [01:04:07] Right. Yes. Yes. And it's wonderful having them out there, obviously, for they have workdays out there where people can come out and help manage the property. They offer different opportunities for people to come out and view the Chimney Swifts as they're both nesting and during their migration south. So it's not a sanctuary that's open all the time. You have to go out on these events to these events, but having the Kyles there is, really makes this pretty easy on Travis Audubon.

David Todd [01:04:46] That's wonderful. Well, and, you know, before we move on to talking about the Purple Martin, which I hope you can help us with, can you sort of map out what you see in the future for the Chimney Swift?

Shelia Hargis [01:05:04] Yeah. And I'll say, David, that this is probably the hardest question that you are going to ask me today. You know, my initial instinct was, "Oh, I must see a bright future for the Chimney Swifts." And there are definitely great things happening. I mean, we have people such as the Kyles and we have groups such as Chimney Swift Working Group that are doing research and increasing our understanding of these birds.

Shelia Hargis [01:05:35] But, the future is uncertain, in my opinion, for many of our beloved birds. I believe it's very critical to their survival and our own survival that we respect and value the services that nature provides for us. We can't continue to act as if there's no consequences for destroying our natural world. We inhabit the Earth due in large part to the services that nature and the flora and fauna provide for us. And to me, this is so obvious. So it's really kind of perplexing to me why all humans don't get this.

Shelia Hargis [01:06:22] So I think the future of chimney swifts and humans is sadly not assured unless we start a new chapter in how we view and respect the natural world.

Shelia Hargis [01:06:35] Now, I've read stories about how, you know, our environment was in very sad shape in the past and we turned it around so we can. But, with climate change under way, it seems like it's really much more pressing than it has ever been before.

Shelia Hargis [01:06:52] So, I wish I had as a solution for snapping my fingers or telling this story in a way that resonated with everyone. But, I don't have that yet. So, so, it's a challenging, challenging future to envision.

David Todd [01:07:16] Well, it's definitely concerning, but it's nice that you are frank about it. You know, nobody can fix it if they don't believe from credible people that it's a problem that needs more attention.

David Todd [01:07:33] Well, let's switch gears a little bit here and talk about the Purple Martin, and again, just curious how your life and the Purple Martin first crossed paths. What, do you remember your first encounter with the Purple Martin?

Shelia Hargis [01:07:50] Well, kind of like with Chimney Swifts, I don't remember my earliest encounter, but looking at my eBird data, I have my first record as September, the first of 2007. But my earliest memory, thinking back, right, the thing that stands out is seeing them at the migration roost at Highland Mall one summer.

David Todd [01:08:14] And what did you see there?

Shelia Hargis [01:08:20] Well, so a migration roost ... these are birds that like to be together. They migrate during the day. And so at night they come together in these roosts to spend the night. And so, when they're coming into the roost, you'll see them coming in from nearly every direction over time. And the numbers build and build and build until, well, and as the numbers build, the birds don't just come in and perch in the trees. They swirl around and pretty much put on an aerial show for everyone.

Shelia Hargis [01:09:01] And so, what I saw was that: of these thousands, potentially thousands, of birds coming in over 30 or 45 minutes and then swirling around in the air and eventually going to perch in a few little trees, basically packed in shoulder-to-shoulder to spend the night.

David Todd [01:09:24] What a phenomenon. I mean, just such a spectacle.

Shelia Hargis [01:09:28] Absolutely.

David Todd [01:09:31] Well. And that's maybe one of the more dramatic things that we are lucky to see.

David Todd [01:09:38] Can you sort of give us a little bit of the maybe not so obvious life history and ecological aspects of the bird?

Shelia Hargis [01:09:48] Well, they're kind of similar in many ways to the Chimney Swifts, but they're different in other ways.

Shelia Hargis [01:09:54] Again, this this is also a species that doesn't spend the whole winter with, or doesn't spend the whole year with us. They spend only part of the year with us. They are here to breed in our area. And basically another species that breeds east of the Rocky

Mountains up into Canada to some degree. They spend the non-breeding season in basically the Amazon basin of South America. They are one of our earliest migrants to come back. They can sometimes show up in the Austin area in February.

Shelia Hargis [01:10:30] They are also aerial insectivores. And like the Chimneys Swifts, right, eating those insects that they catch in the air. And the eastern population is totally dependent on human-made housing. They, the housing is different than the Chimney Swifts, but it's mainly these Purple Martin houses or these plastic gourds that people can put out for them to nest in.

Shelia Hargis [01:10:58] They're very social birds, and so they like to nest in colonies with other purple martins. They raise their young, which is like 3 to 7, depending on the age of the female. And then they start preparing to fly back to South America.

Shelia Hargis [01:11:15] They are a species that are called diurnal migrants. So this means that they migrate during the day and then at night they come into those roosts to spend the night.

Shelia Hargis [01:11:26] And, because we've got birds that are breeding all the way up into Canada, all of those northern birds come south, obviously, to head to South America. And so the southern roosts can be very large, with thousands of birds coming in to roost and swirling around before they go to bed, so to speak.

David Todd [01:11:51] So, this is years ago, so I guess none of us have immediate knowledge of it, but I've read, and I imagine you have too, that this relationship between people and Purple Martins goes back at least hundreds of years and that apparently Native Americans were also landlords for these Martins, just as people are now. Can you talk a little bit about, you know, what the nature of that was, this relationship between earlier peoples in North America and the bird?

Shelia Hargis [01:12:32] Right. Well, I don't know if you've seen this painting, but I've seen a painting that showed Native Americans, outside their tepees, with these gourds, these natural gourds hanging off of this tall pole and Purple Martins flying around. And I saw that for quite a while, and I just really thought it was somebody's imagination, right, the artist's imagination of what may happen.

Shelia Hargis [01:13:01] But actually, I was reading a book at some point, and they noted that Alexander Wilson, who was an early American naturalist, had notes in his journal about seeing that exact thing. So this was in the 1800s and so it's not just our theory about what happened. He actually made notes of seeing this in real life.

Shelia Hargis [01:13:27] So, it's thought that, in that situation, that both parties, both the birds and the people, benefited from this arrangement. I don't know if anybody knows how it really started, like, who had this initial idea. But, it developed that the Native Americans would put up these gourds and the birds would come and nest there. And, maybe because they were close to the people, this would cut down on the number of predators that would predate the Martins. But also the Martins would potentially sound the alarm on any predators that might be coming in to maybe take advantage of that meat that the Native Americans had out drying.

Shelia Hargis [01:14:15] So, it was potentially a situation that benefited both the birds and the people.

David Todd [01:14:25] Sounds like synergy.

Shelia Hargis [01:14:27] Exactly.

David Todd [01:14:27] It's nice that they're both benefiting one another.

Shelia Hargis [01:14:31] Yes.

David Todd [01:14:32] So, despite the I guess humans' attempts to help the bird, my understanding is that these Martins have faltered and that some of their numbers are in decline too. I was wondering if you could lay out some of the factors there.

Shelia Hargis [01:14:54] Right. So I actually checked this, and they are listed as a species of least concern in the overall ranking system, but their numbers have declined also. So they're not to the point that they're, you know, that it's, like they're a species of conservation concern or an endangered species. But, they're still, their populations are still declining.

Shelia Hargis [01:15:19] And so, it's good for us to take note and try to reverse that now, before they get to the point of being an endangered species, and then it takes a huge effort and lots of money to turn that around.

Shelia Hargis [01:15:32] But, similar to Chimney Swifts, the factors that are likely to be limiting to the species is nesting habitat. You know, they are now very dependent on human-made housing. So we need landlords to provide that housing. And if the number of people doing that declines, then the birds would obviously decline.

Shelia Hargis [01:15:57] The declining insect populations are a concern for this bird also, and then, you know, pesticide use is probably related to that insect population decline, too.

Shelia Hargis [01:16:09] So, all of those things are playing a part here, as well as the challenges that I mentioned before with migrating species. These birds... the Purple Martin Conservation Association, is working with researchers in Brazil to start to understand what's happening with these birds down there. But it's a recent effort. And so, again, it's a situation of, "Wow, we have to protect the habitat that they cover throughout their life, not just the habitat here. And so what does that entail?" And there's still a lot of things that we need to learn.

David Todd [01:16:50] That's interesting. So, given that these birds can migrate thousands of miles, that you may have good habitat, friendly landlords across 3000 miles of their route, but there may be a 500-mile or 100-mile gap where these birds don't have the kind of habitat they need - that there could be a missing link? Is that what you're trying to say?

Shelia Hargis [01:17:21] Yes. It's like, they don't nest in Brazil, they spend our winter down there. But, but what are they looking for appropriate habitat down there? I understand that they roost in groups down there, but we're just now starting to learn more that, well, individual birds move from roost to roost. They don't migrate as a group out of a nest colony. They migrate individually.

Shelia Hargis [01:17:54] So, there's just so much that we don't know. Again, back to, you know, we don't know what we don't know.

Shelia Hargis [01:18:03] And so, but, fortunately, we do have people who are actively doing that research so that we do get a better sense of what their needs are when they're in South America, versus their needs that are here, versus their needs along the way as they migrate between here and South America.

David Todd [01:18:23] Gotcha. So given these challenges that the bird has, I think it's been interesting to learn a little bit about the lengths that Purple Martin landlords will go to provide some safe housing, and even provide food and drink for these birds, and to protect them against predators. You know, from what little I know, it sounds like there's this amazing culture of mentors and mentees, teachers and students, to try to learn better ways to protect Martins as they pass through Texas. Are you familiar with some of these landlords and what they do?

Shelia Hargis [01:19:11] Yes. Landlords are the people who will put up these colonies. Right? They're typically these structures that are on tall poles. They can either be these house-looking rectangular houses that that have multiple nest cavities within them, or they can be these plastic gourds that hang individually, but still are all together on this rack that the birds nest in.

Shelia Hargis [01:19:41] And, it's not a matter of you just put these structures up and then you just leave them. They really have to be managed. And so, the best managers are these landlords that regularly check the nest cavities. They evict house sparrows and European starlings that will take over the nest cavities if left to their own devices. And the really best landlords are those who are gathering data. Every time they go out regularly and monitor what's happening in each cavity. So, they make note that, "Okay, in this cavity, on this date, there was one egg laid and then another one had three eggs at this date." And then they follow those throughout the nesting season.

Shelia Hargis [01:20:38] And, they send their data in to the Purple Martin Conservation Association. And so, all of this data from all of these landlords across the country, it becomes one big database for researchers and others to use. And that helps us understand what the needs are of these birds as they're nesting, but also the nesting sequence itself. You know, how long does it take for the adult to incubate the eggs? How long does it take once the birds have hatched before they fledge and leave the nest, those type of things.

Shelia Hargis [01:21:20] And so, those are the type people that are gathering this data.

Shelia Hargis [01:21:23] And, my experience of landlords is that they love their birds. They have this very, nearly intimate, connection with them because they're out there with them regularly. And so when the birds migrate in the summer and fall, you know, the landlords miss them greatly and they can't wait for them to return. And they anxiously watch for that first bird to come back. And if they're contributing to this citizen science project, they'll actually note in the Purple Martin Conservation Association's scout arrival Citizen Science project, when this bird, their first bird, shows up. So it's just a yeah, it's a very special group of people that love Purple Martins.

David Todd [01:22:12] That's great. Well, thanks for filling us in on that.

David Todd [01:22:17] So, I understand that one of the other ways that people are learning more about Purple Martins is by using Doppler radar to find and track Martin roosting and migrating patterns and get a sense maybe of their numbers and some of the trends over the years. But this is all Greek to me, so I'd love to hear anything you might be able to explain about the process of using radar.

Shelia Hargis [01:22:48] Yes. So a roost can be a very large gathering of Purple Martins. It can potentially be thousands of birds. And a birder on the ground, although some of us kind of try to estimate the numbers, we really, there's really no method for determining an accurate number. But because there's so many birds at these sites, Doppler radar sees that. And if researchers are looking, they know what type of quote unquote, "signature" to look for to indicate that there's some type of roost.

Shelia Hargis [01:23:25] And, it's basically a situation where early in the morning, maybe pre-dawn, they'll see this kind of red area start to show up on the radar. And that's when the birds are starting to get up and fly around a little bit. And then, over the next few hours, as more and more birds get up and actually start to leave the roost to go forage or fly south, then the signature starts to look like a red donut. So, the red has expanded out from the center and the birds are moving away from the roost site.

Shelia Hargis [01:24:08] And so, when a researcher sees that image, they can say, okay, this looks like a bird roost.

Shelia Hargis [01:24:16] But, the next step is for somebody to actually go out and say, "Okay, yes, those are Purple Martins", or "Nope, those are not Purple Martins, they're Great-tailed Grackles or some other species." And so, it takes both of those.

Shelia Hargis [01:24:31] And now, so the ability to see this on Doppler radar has been with us since, I guess Doppler radar was developed.

Shelia Hargis [01:24:40] But the most recent advancements I think, in this approach is that researchers and students from Colorado State University, and maybe some other places, but Colorado State, have developed a process for obtaining estimates of the number of birds using this radar imagery. Now, there's some caveats. It's not it's not great at telling, "Oh, there were a thousand birds at that roost site on this day", because it's not that precise. But it's great for comparing how the change over time is happening.

Shelia Hargis [01:25:20] So, maybe you see an image on this date and then you compare that to two days later, or five days later and you can see that, "Well, yes, the roost is still there, but there are many more birds there than there were two days ago."

Shelia Hargis [01:25:37] So it's great for trying to determine the trends across maybe even multiple seasons, but definitely within a season.

Shelia Hargis [01:25:46] Now, I've been told that this can be done, but it takes some coding and data processing to get the estimates. So I haven't gone there yet to see exactly what is entailed in that part. But it's pretty cool advance in our ability to at least get a somewhat accurate estimate of what's happening with the numbers at a roost site.

David Todd [01:26:12] Okay.

David Todd [01:26:14] So, I think you mentioned that one of your earliest really memorable encounters with Purple Martins was at a, on this pre-migration roost that was at Highland Mall here in Austin. And, I think in years since you've helped organize these kind of roost spectacles into a party where Travis Audubon hosts an event where folks can come and learn more about the birds and just see the marvel. And, I was hoping you could sort of talk about how that came about and what the experience is like to have all these people there in the parking lot watching these crazy birds.

Shelia Hargis [01:27:04] Yes. For several years, my good birding friends Julia and Andy Balinsky tried to convince me to come see the Purple Martin roost at Highland Mall. But I'm very much a morning person, and so this was like a nighttime thing. And I live in southwest Austin, so I just couldn't see leaving my house at nearly bedtime to go up and see these birds. I mean, they were birds, so I was intrigued, but I just put it off for several years. But I finally gave in and I went and just like they knew it would happen, I was blown away by the number, the show that these thousands of birds put on.

Shelia Hargis [01:27:42] And, this was like in a mall parking lot. So where would you not expect to have this amazing spectacle of nature? Well, in a mall parking lot. Right.

Shelia Hargis [01:27:52] And so, anyway, it was spectacular. And, I think that most of the birders in Austin at that time knew about this roost and they would come up, you know, and see it if, you know, if they wanted to. But at some point it dawned on me, and I started talking with others about, "Oh my God, this is spectacular. Everyone should see this." And so we agreed that we would hold a Purple Martin party and we would send out press releases. We would invite everybody, whether they were birders or not, to come see this amazing event.

Shelia Hargis [01:28:35] And so, we started doing that. We invited the media to come out, and we just spread the word about this, this thing that was happening in downtown Austin. And the Purple Martin parties took off. We had hundreds of people come out over, we would hold them usually four or five weekends in July and maybe into early August. And, people would come out, people who in no way would consider themselves to be birders, or maybe even naturalists, but they would come out. It was a cool thing to do in Austin. And so the parties continued up till now.

Shelia Hargis [01:29:17] And, it's, we have volunteers that talk to people and answer their questions. And it's really super cool because people are usually just hungry for this information to know more about what's happening here, what's up with these birds? And so, we get to educate them on that.

Shelia Hargis [01:29:38] And my always my personal goal is that I want to get everyone hooked on birds. So, I see this as a first step in doing that.

David Todd [01:29:49] That's great. Well, it's wonderful to share this.

David Todd [01:29:53] So, let's circle back just a little bit because there's a issue that I've heard people talk about, and I thought maybe you could add to the discussion. And that is that, you know, as you noted earlier, climate change has become a, you know, a really serious challenge for a lot of wildlife, and I think the Martin is no exception. There have been these bouts of, you know, really severe cold and then and then extended series of very hot days and dry days. And, you know, this has been a real challenge for the Martins and their landlords.

David Todd [01:30:36] And I was hoping that you could talk to us a little bit about what they've seen as far as this risk goes, but also what they try to do to alleviate the birds' problems.

Shelia Hargis [01:30:50] Yes. So, because Purple Martins arrived so early in Texas, most of the time there's not a problem with that. But the snowpocalypse of 2021 definitely killed the birds that were back. And it wasn't so much the cold itself, but it was the duration of the cold that went on for like many days. And obviously there were no insects. So the birds, they ran out of fuel. They have high metabolisms to begin with. And so they need to eat a lot, and regularly. And so there was nothing for them to eat. So unfortunately, a lot of them, well, all of them died.

Shelia Hargis [01:31:34] I heard of one location where the landlord went in and captured the birds and took them to a rehabber. And those birds survived, but there was no way for the birds to survive out in the cold weather.

Shelia Hargis [01:31:51] And there really wasn't much that most landlords could do in that situation.

Shelia Hargis [01:31:58] On the other hand, the extended heat and drought impacts the birds in several ways. So, because of the drought, there's potentially fewer insects for them to eat and so fewer insects and potentially maybe dryer insects makes it hard for the nestlings to get the water that they need, that they're going to get most, all of the, well, all of the water that they need from the insects that they eat.

Shelia Hargis [01:32:26] Also, the structures that they're nesting in heat up moreso. I mean, they're already hot, right, in a Texas summer. But when you have a 100-plus degree weather, temperatures, it's even hotter in those structures. And so the birds will get dehydrated and they will just perish from those high temperatures.

Shelia Hargis [01:32:51] Some of them, some landlords would put up, like, structures to try to shade the nest cavities, and that would provide some relief. And some would even provide water and supplemental food to the nestlings to get them to the point of fledging. And maybe they were able to go from there.

David Todd [01:33:15] Gosh. Difficult to do. I mean, you got to intervene in habits and behaviors they've developed over, you know, millennia. That's really troubling.

David Todd [01:33:30] Well, again, sort of a similar question to what we talked about before. What do you foresee for the future of the Purple Martin, given what you've seen over the years?

Shelia Hargis [01:33:43] Well, everything I said about the chimneys was kind of applies here, too, right? But I hope that our purple mountain parties spark an interest in people and to the point that they want to become landlords and they provide that nesting habitat for birds. The Purple Martin Conservation Association is doing wonderful and amazing research on this species, both in the US and in South America.

Shelia Hargis [01:34:16] There's even an international Purple Martin Working Group that have members from South America, North America and Canada. So lots of very exciting work there.

Shelia Hargis [01:34:28] But again, I believe that the challenges of this species are similar to the challenges of many other species, and it is much bigger than the Purple Martin.

Shelia Hargis [01:34:38] So, we have to get serious about protecting our, and valuing, our natural world.

David Todd [01:34:46] You know, you said in passing when we were talking about the Doppler radar monitoring that it's important to go out there and do, I guess, what you'd call a windshield survey to just confirm that those are Martins they're not Great-tailed Grackles, for instance. And so, I was hoping that you might be able to give us a little bit of an insight into why some birds seem to be very successful these days - grackles, I think, come to mind.

Shelia Hargis [01:35:17] Sure.

David Todd [01:35:19] While some of these other birds, such as the Chimney Swift and the Purple Martins struggle.

Shelia Hargis [01:35:26] Yes. It seems to me that the species that are more generalist in nature do better than those that are specialist. Right? And some birds just for whatever reason, are able to adapt, whereas others aren't.

Shelia Hargis [01:35:47] For instance, the Great-tailed Grackle, for some reason they were, they have adapted very well to our man-made environment. Right? I mean, they've adapted to where they'll eat, you know, your French fries at an outdoor restaurant. Right?

Shelia Hargis [01:36:06] Whereas, on the other hand, other species like, say, Golden-cheeked Warbler, are very much a specialist species. The only way that we save that bird is by protecting old-growth juniper trees, because that bark that peels off so easily is what the female uses to build her nest. She has not adapted to use anything else.

Shelia Hargis [01:36:29] So what's at play to make one species change versus another species that does not change? I don't know what that is, but that's, I think, at the root of all of the differences between how some species can adapt and others can't.

David Todd [01:36:54] Yeah. Well, this has given us lots of good insight.

David Todd [01:37:03] I thought we might just, as we start to wrap up, talk a little bit about general themes and I'm curious about how you think about, you know, your avocation and your vocation, your avocation with wildlife study and protection, you know, has great importance, but it doesn't have that same sort of immediate, life-and-death, public-safety sort of aspect that, you know, we rely on our police department to protect us from. And so I'm curious how you talk about, or think about, the value of wildlife on the one hand and, you know, this sort of, you know, crime and law enforcement on the other, which, you know, they're both important, but in very different ways, it seems to me.

Shelia Hargis [01:38:05] Yes, I think about this regularly. Like I said earlier, I want everyone to be able to reap the benefits of having a connection to birds. Right? But I, I regularly end up thinking about this through Maslow's hierarchy of needs. And this is, he envisions this as a pyramid. And you basically work your way up to the top, or you work your way up, and some people make it all the way to the top and some don't.

Shelia Hargis [01:38:41] So, the bottom level of this pyramid is physiological needs such as air, water, food, shelter, sleep.

Shelia Hargis [01:38:53] And then once you had those needs met, then you can potentially go up to the next level, which is safety needs, such as personal safety, employment, resources, health and property.

Shelia Hargis [01:39:08] So, once you have those needs, the next level is love and belonging. That includes friendship, intimacy, family, a sense of connection.

Shelia Hargis [01:39:18] Then the next level, and you're getting pretty close to the top of the pyramid now, is esteem. So that's respect, that's self-esteem, that's status, recognition, strength and freedom.

Shelia Hargis [01:39:30] And then, last, the very top of the pyramid is self-actualization, which is the desire to become the one that, the most that one can be.

Shelia Hargis [01:39:42] So, bringing this back down to your question is like I feel that many of the people that we in law enforcement deal with are struggling to meet their most basic needs at the bottom levels of that hierarchy.

Shelia Hargis [01:39:58] And so, it seems that much more attention and effort should be placed on identifying the root cause of why people are involved in in crime - reasons such as systemic racism and poverty - and address those issues so that all people can prosper and live a safe and fulfilling life.

Shelia Hargis [01:40:23] And then, once those bottom levels or needs are met, then there's a map, there's a situation of providing access to natural areas for everyone to enjoy and explore.

Shelia Hargis [01:40:41] I recently read "City in a Garden: Environmental Transformations and Racial Justice in 20th Century Austin, Texas", by Andrew M Bush. And it was very eye-opening and very sad to learn the history of how access to nature has not been equal, even in liberal and supposedly progressive Austin, Texas.

Shelia Hargis [01:41:07] So, I think there's so many things at play, that it's really a challenge.

David Todd [01:41:18] Well, that that helps a lot just to understand, that there's this sort of hierarchy of needs and it's all important, but they build upon one another, they're related, if I'm following you right.

Shelia Hargis [01:41:36] Yes. If someone doesn't, if somebody is worried about not being able to put food on their table, I think it's unrealistic for me to expect them to be able to go out and spend a day birding at some nice park.

David Todd [01:41:52] Sure. Well, so you talked about, I guess, Maslow's hierarchy, which I think of as being sort of a society-wide way of looking at things. I'm curious if you could talk a little bit about, just as we wrap up here, how your birding interests work in your own life? I mean, you know, what is it that you take from it that may sort of balance with what you do during your working day, which seems very different to me. Or maybe they're very similar: that you're using, you know, analytical skills, both in analyzing crime and in understanding

more about bird behavior and identification. But I'd love as we close out here, if you could just sort of help us understand how you see these two aspects of your life.

Shelia Hargis [01:43:04] Well, my analytical leaning definitely benefits me both in my law enforcement profession as well as my birding obsession. And I definitely see that birds and being in nature allows me to kind of lose, you know, forget about, the bad side of society that I see on a regular basis at work. It provides me with a needed respite from that.

Shelia Hargis [01:43:37] But, I also feel sad for many of the people that APD interacts with that don't have access to that respite and the beauty that I have access to. You know, I think that if everyone was connected to nature as I am, the world would be a significantly different and better place.

Shelia Hargis [01:44:00] But I think, ultimately, I've been fortunate to have two passions and I pursued both of them. So there's some overlap, but it's basically just, you know, an obsession is an obsession. And so you just find a way to do both.

David Todd [01:44:20] That's a nice way to sum it up. Sometimes it's hard to analyze it. It's just that we do what we enjoy doing and what fulfills us.

Shelia Hargis [01:44:30] Exactly.

David Todd [01:44:31] So, well, this has been really interesting for me, and I would just have one last question. If there's anything that we might have overlooked that, we somehow bypassed, that we should mention here before closing out, I'd love to hear your thoughts.

Shelia Hargis [01:44:52] Well, potentially nothing that we've really missed. I've pointed these things out before, but I would just sum up by saying that I believe very strongly that our birds and other wildlife are super cool and very special, and they are absolutely worth saving for future generations to enjoy. And in saving them, we actually make the earth a better place for us as humans too.

Shelia Hargis [01:45:16] So, thank you very much, David, for this opportunity. I consider it an honor to be able to answer your questions and to share a little bit about my life with others.

David Todd [01:45:31] Well, thank you so much, Shelia, and thank you for for taking time out on a lovely Sunday. And I imagine your dog is eager to regroup with you and maybe even get some dinner. So I'll let you tend to that.

David Todd [01:45:47] And again, thank you very much for your time.

Shelia Hargis [01:45:51] Yes, you're welcome. Hopefully, you weren't able to hear my dog, you know, licking and coughing and such, or at least it wasn't too distracting in the background.

David Todd [01:46:00] It was music to my ears. If I heard anything, I'm a dog fan, so not a problem.

David Todd [01:46:06] Well, I hope our paths cross soon. It was great talking to you.

Shelia Hargis [01:46:11] Great. Thank you.

David Todd [01:46:12] All right. Take care. Bye now.

Shelia Hargis [01:46:13] Bye bye.