

TRANSCRIPT

INTERVIEWEE: Carl Franklin

INTERVIEWER: David Todd

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David Todd [00:00:02] All right. Well, good evening. David Todd here.

David Todd [00:00:07] And I have the privilege of being on the line with Carl Franklin. And with his 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, as well as for a book and a website for Texas A&M University Press, and finally, for preservation and public access at an archive at the Briscoe Center for American History, which is at the University of Texas at Austin.

David Todd [00:00:38] And I'd like to stress that Mr. Franklin would have all equal rights to use the recording as he sees fit as well.

David Todd [00:00:45] And before we went any further, I just want to make sure that that's okay with you.

Carl Franklin [00:00:50] That's all right with me, man.

David Todd [00:00:51] All right. Super.

David Todd [00:00:52] Well, let's get started, then.

David Todd [00:00:55] It is Thursday, August 31st, 2023. It's about 7:30 p.m. Central Time. My name is David Todd. I am representing the Conservation History Association of Texas. And I'm in Austin, and this is a remote audio interview with Carl Franklin, who is based in the Grand Prairie, Texas area.

Carl Franklin [00:01:17] Mr. Franklin is an FAA-qualified wildlife specialist at Dallas Love Field International Airport, and earlier was the biological curator and collections manager of the Amphibian and Reptile Diversity Research Center at the University of Texas at Arlington.

Carl Franklin [00:01:39] In addition, Mr. Franklin has long been interested in the alligator snapping turtle and has conducted a number of research projects on the turtle, doing everything from population assessments and studies of their geographic distributions and their temporal activities, and also looking at their special issues, their diet, their eyes, their lingual lures, reproduction blood chemistry, anthropogenic threats, listing proposals, etc. And in the midst of all this, he is also the president of the non-profit, Texas Turtles, which is dedicated to expanding knowledge and conservation of turtles in the state.

David Todd [00:02:19] So today, we'll be talking about Mr. Franklin's life and career to date, and especially focus on what he's learned about the history of alligator snapping turtles and their study and their possible restoration and conservation.

David Todd [00:02:35] So that is a little introduction to the project and Mr. Franklin.

David Todd [00:02:42] And with that, I thought we might start by asking him about his childhood and early years, and if there might be some people or events in your life that might have influenced your interest in animals in general and turtles and maybe even alligator snapping turtles in particular.

Carl Franklin [00:03:01] Yeah, I got to say, David, thank you for having me.

Carl Franklin [00:03:05] And, you know, getting to talk about my childhood, they were happy years. It was a lot of fun. The thing I think about with my childhood, compared to how a lot of Texans coming up these days might be experiencing theirs, is that I'm old enough to where there were just simply a lot more animals around. And so day-to-day wonder with wildlife was such a more frequent and common thing for youth. And most people who were, you know, you might call lay people about wildlife diversity seem to have a fairer grasp on a lot of what they were seeing.

Carl Franklin [00:03:47] When I was a kid, of course, turtles, they figured into my childhood scope of interest and everything. I think they do, it's a easy picking for enthusiasm and getting kids excited about just the world we live in.

Carl Franklin [00:04:04] But yeah, I remember I was about three years old with the first box turtle. And ornate box turtles crossing the road here in Texas back then were a really common sight.

Carl Franklin [00:04:16] And, you know, my parents, they told me what it was and everything, and it seemed very positive and I sure liked it.

Carl Franklin [00:04:24] So, I think that my childhood did play some role in it, in that we simply had more stuff to go around with. Along with that, you know, horned lizards, horny toads. That's something else that's just kind of a hallmark of that era that we got to experience. And those were things that drove me.

Carl Franklin [00:04:46] Whenever I was in school, I never really had anybody encourage me to pursue a study in herpetology or anything. I knew it's what I wanted to do. I was fascinated with these animals since the age of three.

Carl Franklin [00:05:02] And with regards to the topic of tonight - alligator snapping turtles - I distinctly remember it was when I was four years old, 1976, we made a visit to the Dallas Aquarium and the Dallas Zoo that day. And I remember just sitting on my dad's shoulders looking at this giant alligator snapping turtle that they had there. And so my fascination with them, and I reckon a lot of people also have an interest that date back to whenever they were that kid, seeing that just gawking at this gargantuan there in an aquarium, motionless, I might add. But that kind of maybe added to the allure of it.

Carl Franklin [00:05:47] When I was a boy coming up in school, I really liked science and it was fun to do things. I spent a lot of time outdoors.

Carl Franklin [00:05:55] And I just, I kind of discovered the Peterson series field guide when I was 12. And I checked it out from the local library and that was really cool. I remember

looking at the plates of various reptiles and amphibians and seeing how much, how many of those I could find in my yard, how many I could find in the neighborhood. Whenever the lights, when the sun would start going down, I used to get on my bicycle and hold a flashlight on the handlebars and do bicycle road-cruising for snakes.

Carl Franklin [00:06:36] So yeah, it was, it definitely played a, I guess you could say, some influence on what I wound up doing as an adult.

David Todd [00:06:48] It sounds like this was kind of a self-motivated, self-guided activity. I mean, your dad clearly was carrying you around at the Dallas Zoo, but was this something that really you explored on your own, on your bike with the flashlight, or were there, you know, older people who guided you or, you know, peers that went along with you on your bike rides around the neighborhood?

Carl Franklin [00:07:12] No, I, not really. You know, my brothers would sometimes, you know, be around, but really not. I mean, I guess everybody else had cool stuff they wanted to do. And, you know, it was just one of those things where I think my parents thought, well, it's at least not a harmful interest. I mean, of course, I let them think that because I didn't tell them everything I brought home. But no, it was I think was a lot of self.

Carl Franklin [00:07:47] And then there weren't many options for that professionally. I told my old man one day, I thought, All right, I'm on going to level with the guy and tell the big man what I really want to do. And I didn't tell him the other options. I had other options in mind. One was I thought I'd make a pretty good rock star. If that didn't work out, I figured professional wrestling or a rodeo clown. I always really thought, those guys are cool. And, but no, it was none of the things that probably would have earned me a living. It was herpetology.

Carl Franklin [00:08:27] And back in my youth and I guess kind of stretching a short distance out of my childhood, I got married at the age of 19 and my wife and I, we just had our, gosh, yeah, 32nd anniversary about a week ago. And whenever we were talking and stuff about plans and everything, I confided in her, I said, "You know, I don't know how in the world this could ever even be a thing, but if there was some way I could become a curator at a herpetology museum, that would just be the coolest thing ever." And the other thing I told her is I said, "I'd really, really like to do a lot with turtles in Texas."

Carl Franklin [00:09:12] And I'm really fortunate to have had a partner like that. And in a way, her and I, you know, we were technically young adults, but we grew up together. And so, we had that that kind of wellspring of fearlessness of flopping, I guess you might say. And boy, it was fun in poverty.

Carl Franklin [00:09:36] But no, it, that, that's kind of my youth.

Carl Franklin [00:09:39] Then what happened was we were at school here at the local university, right here, UT-Arlington. And whenever I told her that, she said, "Well, guess what, you're not going to believe this, honey. They got a herpetology museum." And so, I was like, "Oh, my gosh."

Carl Franklin [00:09:59] And I put on my cleanest dirty shirt and I walked myself over to the location and I saw a room full of jars and specimens and all this stuff celebrating herpetology. And I was just electrified by it.

Carl Franklin [00:10:17] I walked up to the door. I gently knocked. I didn't want to disturb these important folks. And a lady got up and just slammed the door right in my face. It landed like less than an inch from my nose, this big solid door.

Carl Franklin [00:10:36] And so I got the message and I left.

Carl Franklin [00:10:39] But I came back the next week. And she came up and did it again.

Carl Franklin [00:10:47] I thought, "Well, I caught this lady at a wrong time."

Carl Franklin [00:10:51] But I guess I was a little tougher than what she was used to, because I came back a third time and it was someone else. Oh, that was good. And this person was really nice and sweet.

Carl Franklin [00:11:06] And I asked if they hired work study students, and she said, "Well, we could." I said, "Well, you have to hire me and you just got to hire me. You can't hire anybody else. You got to take me." And she said, "Why?" And I said, "Nobody's going to be able to sweep and mop as good as I can."

Carl Franklin [00:11:24] And that's how I got my foot in the door of the business. I really actually had my foot in the door because I thought it was going to be that other woman. And gosh, glad I never saw her again.

Carl Franklin [00:11:35] But no, that was a, I was a work-study student at the UT-Arlington Herpetology collection. And I had the privilege of helping out down there. And that was going along with my studies and I wound up getting, that was a part-time work-study job.

Carl Franklin [00:11:57] Then I got a part-time job out at Fort Worth Zoo Herpetarium. And my job was cleaning the gharial pool. And I just thought, "Wow, what a cool year that was." 1995 was a fun one for yours truly.

Carl Franklin [00:12:16] Then about a year of that, and then I went on and became the research technician out at Dallas Zoo Herpetarium.

Carl Franklin [00:12:26] And around that time I had too much stuff to do with reptiles, so I dropped out of school.

Carl Franklin [00:12:31] And I was working. And my wife was working as well. And so I just started traveling around and collecting specimens for study. And then I started going to the Mosquito Coast of Honduras and spending time out there and collecting specimens. And we did wind up discovering one new species of snake from there, which was nice.

Carl Franklin [00:12:57] But that's kind of a ... I'm sorry, I might have jumped the gun on some of what you wanted to ask. I didn't have too many friends, I guess you might say, that were saying, "Hey, buddy...", I did have pals that would go along with me in the field: Dave Killpack, later on, when we were like in our thirties, so I'm jumping years here.

Carl Franklin [00:13:18] Sorry if I messed up your question there.

David Todd [00:13:21] No, no, this is good. This is good. You've got a flow. And I don't want to, you know, make you take any wrong turns or detours.

David Todd [00:13:33] I am curious. You mentioned the 16 linear feet of books, and I can see it in the video here.

Carl Franklin [00:13:42] Yeah.

David Todd [00:13:43] Quite a collection, quite a library. And I'm curious if, when you were a very young person, if there were any books or TV shows or movies you might have attended that inspired this interest in nature and wildlife and reptiles.

Carl Franklin [00:14:02] Tarzan, all the different varieties of Tarzan movies, then a Mutual of Omaha, with Marlin Perkins and Jim. And then, after that, you know, I remember, well, Jacques Cousteau. We had Jacques back then. And, you know, you couldn't fast forward past the French dudes with the beanies and just sitting around in their Speedos playing guitar and smoking. But oh, well, we dealt with it. We became tougher because of it.

Carl Franklin [00:14:37] There was, yeah, there were decent shows. National Geographic specials back then were a different cut than what they are today. Of course, there was also BBC Planet Earth type programming that came along as well, and that was good.

Carl Franklin [00:14:53] Books were something that was, you know, for a kid, a little more of a challenge to get. I was able to get a hold of World Book encyclopedias - I wore those out then. For herpetology: the field guides - Peterson series, then later on the Audubon Series. But I always liked the Peterson over the Audubon series myself.

Carl Franklin [00:15:18] But then pretty much anything I could get my hands on, you know?

Carl Franklin [00:15:24] Herpetology kind of took a slight second in part of my youth - you know, girls and cars and stuff. But it was always there and then it came back with a vengeance.

Carl Franklin [00:15:43] So, other than the woman who was slamming the door, were there any older people, adults, grownups who might have acted as mentors, teachers, guides, you know, who would kind of encourage this and help orient you in a way that's been productive for you?

Carl Franklin [00:16:04] Well, prior to getting in to the business, there was really nobody at all. And it's one of those times, you know, in a lot of young people's lives when they leave home and everything. Some kids might be carrying like some type of conscientious burden, not wanting to upset their parents, but still wanting to have their own selfish identity. There could be, there was I think some of that that I had. And so, my parents looked at it like I wasn't a burden on them. So, I didn't want to be.

Carl Franklin [00:16:40] And then I didn't want to get any heat for having an interest that wasn't one that, you know, you thought, "Well, you know, my son's going to be starting at that engineering firm over there." And, you know, instead, it was like, "Well, my son really likes sexual differences between salamanders." You know, that was not that was not a conversation that was going to happen.

Carl Franklin [00:17:03] I think what it was that whenever I got into the business of it and everything as a work-study, I'd say that there was faculty there at the university. And then I

worked for a lot of years with Jonathan Campbell. And what he did, he was basically a mega-star in herpetology and still widely recognized and everything.

Carl Franklin [00:17:34] But what I appreciated was that, you know, and I had coming into this, I had experience with working blue collar jobs where I was the youngest guy on the totem pole, and there were guys you just don't want to piss off. And so, I kind of knew how not to piss off those guys. I knew how to hold the flashlight for my dad under the hood. OK? So, I think that helped me going in with it. And I recognized like, "Hey, just don't piss this guy off."

Carl Franklin [00:18:00] And just, you know, I enjoyed doing the work so much. It could be anything from sorting specimens back then, doing data entry, jar labels, whatever. I just was so happy and excited to be part of it.

Carl Franklin [00:18:14] And through that, I think I impressed (well, I heard that I impressed him), he told some folks later on that hired me first at the zoo that they said, "Well, what do you make of this guy?" And he said, "I think he's totally nuts. He'll never leave. He's just always there, but he's crazy enough to do this stuff."

Carl Franklin [00:18:36] So, yeah, years later, some guys that had hired me over at Fort Worth Zoo told me that that was a conversation they had.

Carl Franklin [00:18:46] And so, yeah, I don't, I can't really say there was a blueprint for what I did to get a paycheck, but I worked my butt off doing it and loved almost every minute of it.

Carl Franklin [00:18:58] Later on, of course, you run into folks in your career that kind of serve as folks that either they validate you in ways. And I have to say, I've been very, very fortunate that I've had that experience with people that have even served as proxy mentors.

Carl Franklin [00:19:19] The direct mentorship things I've had, like Jon [Campbell], like I mentioned. There's a former curator at the, from the Dallas Zoo Herpetarium - Ardell Mitchell, and he was a really good mentor as far as aspects of herpetoculture, as well as a broader appreciation for things Texana. And yeah, so Ardell was great and we're friends to this day.

Carl Franklin [00:19:52] But yeah, so I guess I've had a, I've had a couple and I've had many that even though they haven't, they may not be aware of the fact that I've just appreciated what they've done or how they've helped out or the pat on the back or, or whatnot.

David Todd [00:20:11] That's nice. Yeah. Sometimes, you know, just having somebody who validates your interests is enough, you know. They don't need to be tutoring and hectoring you.

David Todd [00:20:22] Well, this might be a good time to just help those of us who haven't lived the purpose of herpetological life, like you have, to understand just some basics about this particular animal that we're hoping to talk about, and that's that alligator snapping turtle. And I was curious if you could kind of fill us in on the basic life history and the ecological niche you think this animal fills.

Carl Franklin [00:20:54] I'd be happy to. For those of you who may not be familiar with what is unquestionably, undeniably considered the Paul Bunyan of Western Hemisphere turtles, we have it right here. Not only is it endemic to the United States, there's two species: one that's

exclusively found in Florida, and the other the remainder part of the range, the Western snapping turtle, alligator snapper. That's the one we've got right here in Texas.

Carl Franklin [00:21:28] These things are lurking leviathans. They are benthic behemoths. They are just amazing creatures. They are movers and shakers of the ecology. They are the true kings of the bayous.

Carl Franklin [00:21:43] They don't even take smack from alligators. Whenever you have an adult male alligator snapping turtle, he can easily tell an adult American alligator who's boss. And that's an interesting dynamic there.

Carl Franklin [00:21:56] They don't really have any foe or anything that's threatening them except, you know, some of our activities.

Carl Franklin [00:22:00] So a little more specific about them.

Carl Franklin [00:22:06] They get really big. Males, the biggest male, here in Texas was at 212 pounds. And that was that was captured during a survey a year ago, a year or two ago, by some folks out of Stephen F. Austin University. And our crew, we got one, a big male, back in April - weighed 154 pounds.

Carl Franklin [00:22:31] A turtle that size, from the tip of the snout to the tip of the tail, is right at five feet long. And that's about the biggest size for males.

Carl Franklin [00:22:40] Females, - a really, really big girl - she'll be a stand-out beauty at about 70, 70-plus pounds. But those are the, that's the more extreme end of the spectrum for the big girls.

Carl Franklin [00:22:55] Males use this size because we think that they're pretty territorial. And there's some, there are some ecological patterns that are known between organisms where you have these big sexual size differences.

Carl Franklin [00:23:10] The males do engage in combat, and I don't know how ritualized it might be. That would be cool if it was, but it'd also be just as fascinating if it was guerrilla warfare style - you know, Royal Rumble, King of the Ring, man.

Carl Franklin [00:23:30] Because we'll be surveying for these turtles in the spring and, well, throughout the year, but during the spring, whenever their peak reproductive activity is going on, that's when we find the males with the battle scars.

Carl Franklin [00:23:43] And these are not anything to scoff at. They'll bite each other discriminately, and indiscriminately, but also discriminately. And they'll do it with extreme prejudice towards one another as well. But it's their thick skins and their shells and their bony heads that ultimately keep them safe from their own interspecific quarrels that they have.

Carl Franklin [00:24:09] Males, we find them with lacerations across the head, sometimes missing the tip of the nose. We can find them every now and then missing a digit or a tip of the tail. Parts of the shell could be nicked and such, but, man, the lowest blow of all: it's the low blow that they will deal with one another and they go there. And during their combat, we've, resulting combat wounds, we've seen deep scarifications and lacerations directly to the location of the phallus, right there on the cloaca.

Carl Franklin [00:24:46] And it's something that has happened, that's been observed, with other species of captive turtles, where, and on this, I've got to tell you that I'm kind of taking our natural scope of observations. And I'm going to look over here at just use an example from the artifact of captivity, where you can have two male turtles that are stressed out and just too close for comfort.

Carl Franklin [00:25:10] And one will repeatedly just bite and bite and bite and bite the cloaca and thus causing the penis, the phallus, to express. And he'll go and attack that. And he'll attack it to where he either removes it all the way or just damages it to the point of no use. And ultimately, he's going to win the game of biology. That's what it comes down to with these guys. They're not playing around. So, there is that exciting element to their life.

Carl Franklin [00:25:37] You know, to fuel such a powerful machine, you got to be able to get the food in. And they start early on. We had the privilege of, a year ago, of documenting the first ever successful wild nesting and hatching, subsequent hatching, of a nest of baby alligator snappers out in East Texas.

Carl Franklin [00:26:00] And that, right there, we had the animal. We went and recorded data from the babies. And after that, we held on to them for about a week. And during that time, we did that because some of these babies had umbilical spots on their tummies that were still really sensitive. So, just that time allowed it to seal up to where they could go off to the creek.

Carl Franklin [00:26:29] And whenever we released them, they hit the water and they were inquisitive. And they started munching on anything that they could find. And we noticed that one of them started chewing on a bit of prickly ash bark, toothache tree. And I just, I couldn't help but wondering, is there anything in that piece of bark causing any sort of neurological register with the baby?

Carl Franklin [00:26:55] But anyhow, so I digress.

Carl Franklin [00:26:57] But they start off munching away early on. And these things are, they just eat and eat and eat.

Carl Franklin [00:27:08] They're omnivores - big, major omnivores. With dietary analysis of adults, we've found a few fish. We found actually, we found more remains of turtles, other species of turtles, than we have fish in their diet. We've gotten one duck we found the remains of.

Carl Franklin [00:27:31] But then a vast amount of it is going to be acorns, pecans, wild grapes. And from personal observations in the wild from folks, alligator snapping turtles will often go and hang out underneath muscadine grapes and wait for them to fall. They'll eat cat tails and mussels.

Carl Franklin [00:27:55] And, you know, in the course of that, just ingesting all this stuff, so you're looking at animals that are movers and shakers of the ecosystem. They help keep things clean. They're dispersing seeds, they're doing their part out there, just being alligator snapping turtles.

Carl Franklin [00:28:11] And they're quite remarkable. And probably one of the most interesting gimmicks that they have up their predatory sleeve, so to speak, is they're the only turtle in the world that has a predatory lure built in right there on the end of the tongue.

Carl Franklin [00:28:30] And it's a bifurcated lure that, there's about six pairs of muscles there on the floor of the mouth that twitch and cause that lure to undulate. And it'll writhe and wiggle and jiggle and shake and bake. And that thing looks like a drowning earthworm in the water.

Carl Franklin [00:28:50] However, something interesting to realize about fish, and these turtles, is that they're not always living in places that the water has good visibility. And those shakes and twitches and all, those register on lateral line systems of fish. So, they're able to lure in prey such as that.

Carl Franklin [00:29:12] And they've got a nice recurve beak that whenever they slam it down, it's going to really help anything from escaping that grasp. And yeah, and they can get a meal that way.

Carl Franklin [00:29:24] That's, that's the, that's their most celebrated cool thing and it really is cool to watch. You can see it in aquariums if you ever get a chance to visit an alligator snapping turtle in captivity. Often, if they're just sitting there, and you could have some fish just swimming around, they'll just be sitting passing the time wiggling the tongue.

Carl Franklin [00:29:46] So they pretty much are active. We've gotten them almost, we've gotten them every month of the year. Not every time - because here in Texas, we're lucky - we get some Januarys that we've actually hit seventies and maybe eighty or something on one day, you know. So, technically, we find them active every month of the year.

Carl Franklin [00:30:14] And their reproductive activity is, looks like it's at about like late March, going into late May, perhaps some in early June with the final nestings. And then, of course, whenever those eggs are laid there, you're looking at an incubation time. We don't have the temperature at which the nest we documented was maintained at. However, the average incubation time is around 100 days.

Carl Franklin [00:30:47] So 100 days later, these eggs hatch, and what happens? Well, you've got a bunch of babies down there, and they're kind of covered in, caked in sand and dirt and everything. Actually, some of them look like little pecan sandies, those candies, you know, whenever we got them out of the ground.

Carl Franklin [00:31:08] But so they'll be there and they'll remain, until the next heavy enough rain softens the earth enough for them to make a collective effort to dig out all the brothers and sisters. And then they orient themselves towards the water and away they go.

Carl Franklin [00:31:28] And of course, the heavier rains could bring the water closer to the nest. Heck, maybe in some instances, it could kind of partially flood and soften it and help them out.

Carl Franklin [00:31:38] But we do know that many turtles will remain in their nest chamber, even sometimes until the following spring. So, it's possible that they might have a delayed emergence, that baby alligator snapping turtles might.

Carl Franklin [00:31:54] One of the things that has not been documented yet (well, one of the things: we could do a whole week of webisodes about what hasn't) is the fact that turtles are known to use audio communication between themselves. Turtles talk. Yes, ladies and gentlemen, listeners at home, turtles do talk to each other. And it's been documented with every species that they've tried to record it.

Carl Franklin [00:32:23] They do it on a sub-sonic frequency. So, it took, for aquatic species, they actually did it on a submersible microphone that was declassified from the military. And they started doing that, documenting it.

Carl Franklin [00:32:37] And what they found is that baby turtles, especially, oftentimes the siblings, while in their eggs, will start to make noise. And it's thought that perhaps that helps wake them all up and they can all hatch around a close time to one another.

Carl Franklin [00:32:55] Then whenever they're there, hey, they're all familiar with each other. And so, digging out collectively helps their odds of survival.

Carl Franklin [00:33:06] How their communication plays after that and develops, maybe somebody will look into that. But that's certainly an avenue in turtle biology that's been somewhat recent and but still very exciting.

Carl Franklin [00:33:21] So, in a nutshell, there you go: the life history of the alligator snapping turtle. End scene!

David Todd [00:33:27] Very nice, very nice.

David Todd [00:33:30] So, I noticed that you had done a freshwater turtle population assessment for Texas Parks and Wildlife back in 2008. And I was curious if, you know, we certainly want to keep our eyes on the prize, but some sort of thought about the alligator snapping turtle. But I'm wondering if you could sort of give us the big view of turtle trends and patterns that you might have noticed when you did this study for Parks and Wildlife back then.

Carl Franklin [00:34:05] You know, I'd be glad to. Thank you for asking.

Carl Franklin [00:34:09] There was, some years back, there was a fella who was just, there wasn't any law against the wild harvest of our turtles. And it was the only things that were limited were there were protected species, and but most are not.

Carl Franklin [00:34:30] And so, there was a fella took advantage of that, and he, I think he started off with a \$60 or \$50 commercial wildlife permit from Parks and Wildlife. And from there on he started shipping out. He developed a co-op of trappers. He would hold these meetings in small towns and stuff and wherever he could. And he was selling the plan of, you know, you're just making money. There's a demand for turtles in China. And I'll pay you if you give me \$200 to join my co-op. I'll buy back all the turtles that you trap for me.

Carl Franklin [00:35:11] And so, he had a bunch of trappers doing that. And they were, and part of the whole diatribe that he would promote was that all you're doing is just making some good, clean money here. It's the American way. And besides, we're helping these ranchers get rid of these vermin from their ponds.

Carl Franklin [00:35:33] And so, what happened is he was getting 2500 to 5000 pounds of live turtles shipped out of DFW International Airport just about every single week. That's the scope of the quantity of turtles that were coming into that.

Carl Franklin [00:35:51] That went on for a number of years. And then until 2008, whenever they changed the law.

Carl Franklin [00:36:01] And part of the policy change - they wanted to have, Texas Parks and Wildlife, wanted to have science to back it up. So, they used money generated by the horny toad license plate fund. And there were 12 different universities in the state that received funding to go and conduct freshwater turtle surveys in various locations.

Carl Franklin [00:36:27] And the fine thing was, it just supports that it cannot be sustainable. It's completely unsustainable. You cannot regulate turtles like you do white-tailed deer or turkey or anything else.

Carl Franklin [00:36:42] These are animals that are long-lived. They take a long time to reach sexual maturity. And then whenever they do mate, depending on the species, they might only lay a couple of eggs a year. And then about 85% of the nest are destroyed by predators. And then out of that, a vast number of the babies that hatch wind up serving as energy back to the ecosystem again.

Carl Franklin [00:37:08] So you can't, you can't allow that.

Carl Franklin [00:37:13] And they allowed a concession for soft shell turtles, common snapping turtles and red-eared sliders to be trapped on private property.

Carl Franklin [00:37:23] And that finally got taken away in 2018.

Carl Franklin [00:37:28] And so now there's our, I'm happy to say that turtles in Texas are protected from commercial activity. And that's the only way we're going to have turtles.

Carl Franklin [00:37:42] I think more people here want our turtles in Texas than we want some old boy to be able to go buy his new truck with.

Carl Franklin [00:37:52] So that's how I feel about that, David.

Carl Franklin [00:37:57] But that was the science that was accomplished with it, is that these populations - you can have good populations of turtles all over the state, but you need them there.

Carl Franklin [00:38:08] And when ... and so, yeah, there you go. I guess that's my soapbox about that topic. I hope I stayed on course.

Carl Franklin [00:38:19] Oh, absolutely. That's fascinating.

David Todd [00:38:22] So, when you're doing this assessment, were you able to see that there were trends in the populations of freshwater turtles in general or that their ranges were shifting - anything like that?

Carl Franklin [00:38:34] There was nothing in the way of a, you know, a direct cause and effect of the commercial trade, because in order to detect that, you would have had to have had the information before, to see what all those populations were like and everything.

Carl Franklin [00:38:52] And so, on choosing locations to study, it was pretty open, I think, because, basically, if you're surveying it to get a population estimate, one thing is, is that once you're surveying, most of it's going to be adults. And you typically find, you know, maybe a few babies, but the vast amount of the turtles that you sample are going to be adults. I'd say 99% will be adults. And you know already that those animals have been there a number of years.

Carl Franklin [00:39:23] Whenever you see, you can observe things like that, it's really easy to figure out that you need all of them there, that there's not new recruitment going on at a rate that can support the take up at those numbers like that.

Carl Franklin [00:39:41] So, Texas still does have, does allow the ownership of turtles. It requires a non-game hunting license with a reptile endorsement stamp. I think that's what it is. I don't have that. That's why I don't know all of that particular rule.

Carl Franklin [00:39:59] But that is something that they, it's not anything like the state didn't want kids to be able to learn and experience, or people to be able to enjoy some of our wildlife. It was just that we just can't allow this hemorrhaging of our wildlife, you know.

Carl Franklin [00:40:19] So I'm very grateful.

Carl Franklin [00:40:23] And that, in turn, has given us more comfort and security on being able to share information that we discover. And the causative effect of that is that we can get people turned on, we can get them motivated and liking turtles. And if we talk about, you know, hey, we went and found this aquatic species in such and such county, you know, it wouldn't really require much of a sleuth these days to go online and get a ballpark idea of where you were at. And that's something we wouldn't have done during the time whenever the trade was allowed, because we just were that concerned.

Carl Franklin [00:41:05] So it's really helped out a lot. I think that, obviously it's kind of a dumb statement, a conservation effort to help with conservation, but it also led to things that just reinforce that. Being able to reach out to the public, the use of social media platforms, things like that, has just been really, really cool.

Carl Franklin [00:41:28] And that's even what led to us knowing about the nesting alligator snapping turtle who we got to document her nest.

David Todd [00:41:37] Well, we should talk a little bit about that.

David Todd [00:41:41] So, maybe this is a good time to focus in on the alligator snapping turtle. I understood that back in 1983, this very esteemed herpetologist, Peter Pritchard, suggested that the alligator snapping turtle should be listed for protection under the Endangered Species Act. And Parks and Wildlife then put the animal, I think, on its protected list in '87. But the Fish and Wildlife Service really didn't respond until very recently, as I understand it - 2021 they proposed it for threatened status.

David Todd [00:42:31] Can you sort of give us an idea of what the concerns were about the alligator snapping turtle that was bringing this repeated concern about its trends?

Carl Franklin [00:42:42] So, you know, it, that all goes back to the oldest item ever found cooked in a hominid archeological dig. And that was out at Dr. Leakey at Olduvai. They found cooked remains of turtles in middens out there. And so people have eaten turtles since time immemorial, and a big turtle often meant a big meal.

Carl Franklin [00:43:12] And there was there was a fellow out in Georgia by name of Al Redmond, I believe it was in the Flint River. And in about 11 miles of river or so, he extirpated the entire population in two years. And he did that just by making a living catching these turtles he knew were always there his whole life. And he was selling them to the restaurants.

Carl Franklin [00:43:37] And another herpetologist, Bill Lamar, was telling me about, I believe he was in Tennessee. And he was at one of these big industrial-size freezing warehouses where they store seafood and everything, and telling me about the alligator snappers stacked up like cordwood on pallets in there, just flash-frozen and killed that way, but ready to sell.

Carl Franklin [00:44:11] So, yeah, there were a lot of markets in the southeastern United States that sold turtles, especially alligator snappers. And Peter was aware of these things.

Carl Franklin [00:44:23] And with Mr. Redman from Georgia, he realized what he had done. And he wasn't happy with that. He felt bad.

Carl Franklin [00:44:34] So, he started an effort, I think, where he was wanting to (and he died a few years ago, maybe two years ago), but he started an effort where he was wanting to repatriate the river with baby alligator snappers.

Carl Franklin [00:44:51] And I don't know the extent of which he may have been successful or not, but that was some of the firsthand knowledge that just, you know, speaking for Peter and what motivated him on that. Between what Peter had told me about, and Lamar and other people, yeah, he could see it.

Carl Franklin [00:45:15] There had to be something. The brakes had to be pumped. It was just such a quick loss. And you would see people that, you know, consumed the turtles and after that, they're gone. So, that's what that's what got him going.

Carl Franklin [00:45:33] The issue where, concerning us here in Texas, alligator snapping turtles, since about 1987, as you mentioned, have been protected here in the state.

Carl Franklin [00:45:45] But, one thing I'd like to point out is that the study of alligator snapping turtles here in Texas, the first real formal launch of one, happened around 2000. And that study came out, and they found some populations in the state, and that was a real baseline type of thing. There would be reports here and there, and maybe a new county record or something. But it wasn't really anything that anybody was studying here in Texas.

Carl Franklin [00:46:20] Not wanting to stray too far from any of the recent stuff about the federal suggestion of listing. That's something right there where it's involving multiple states and, myself, I'm just going to shoot my opinion on here. Man, I got to tell you what I think and feel on this. I think alligator snapping turtles need to remain as a protected species in Texas.

Carl Franklin [00:46:48] I personally do not want to see them included on the federal list here in Texas. I don't think it'll do anything to slow down the crime. And that's poaching is a major thing.

Carl Franklin [00:47:03] And I know a lot of listeners might think that's kind of counterintuitive, you know.

Carl Franklin [00:47:09] But the reality is that the crime happens and it still goes on. And people do get caught from time to time. But the payoffs are substantial to the poacher wanting to do it. They can be. If they have the right purchaser from Asia, they can do that. No problem. And that's something that, you know, is a real issue. We can jump back on that.

Carl Franklin [00:47:38] But back to the Fish and Wildlife component of the topic, myself, I would see that as a way of increasing the black market value of something, as well as adding more encumbrance to the challenges that biologists who are working with the species already face.

Carl Franklin [00:47:58] So those are, and in Texas, I'll tell you this, we're looking at, based upon the latest elicitation of data for the consideration of the listing of ASTs, alligator snapping turtles, onto the federal list, we're looking at a low-end population number in the state of around, I think the lowest estimate was around 70,000. And the highest estimate of them being at around 600,000 for the state.

Carl Franklin [00:48:33] And, of course, what was required for this and why the numbers are so vague is because the number of people that are researching these animals has really only started in the past seven years that there's been a resurgence of study on them and a more wide, systematic approach throughout the state.

Carl Franklin [00:48:52] So, our information and knowledge of them here in Texas has grown by leaps and bounds, and that's been based upon very robust populations in spots where we go to.

Carl Franklin [00:49:03] Another thing that's really helped us out has been the fact that most land in Texas is privately owned and we've benefited greatly from private landowners allowing us access to the water. And of course, they're interested in what we're catching and what we're documenting.

Carl Franklin [00:49:21] But the realistic number for alligator snapping turtles' indexes could be somewhere, a happy medium between the two extremes. And I would like for it to be the 600,000 of them out there. But if we have to settle for, you know, a mere 200,000, I can go sleep at night with that as well.

Carl Franklin [00:49:46] Also, we never, I'll tell you this, Texas, we have been hit by poachers. And back in 2017, there was a sentencing of a poaching operation from Sulfur, Louisiana, where these old boys were coming to Texas and stealing our turtles. And the reason why they were coming to the Texas side is because they've been fished out in Louisiana.

Carl Franklin [00:50:12] And Louisiana itself has been a vacuum, just a, do you hear that sucking noise out there to the east? Oh, that's just Louisiana just serving as a laundering state for turtles.

Carl Franklin [00:50:24] So, Louisiana has a law where if you're a citizen of the state, you can take one alligator snapping turtle per day. And there are concerned Cajuns out there. There's turtle lovers out there. And that is a good thing, because some of these guys are trying to take advantage of that loophole to have captive populations, so that they breed.

Carl Franklin [00:50:53] Once again, I don't know the efficacy of their efforts, but that is going on in the private sector out there.

Carl Franklin [00:51:01] But these things, these problems, whenever I spoke with the investigators, the federal investigators that covered the case, I asked how many alligator snapping turtles do you think these guys took? And they said, "Well, I'm afraid to say it, but it could have been up to a thousand."

Carl Franklin [00:51:22] And so, these guys were going and catching him by hanging baited lines on tree limbs. And the turtle would swallow the hook and they would come and get it. It wasn't a consequence to them, really, if it bothered the turtle to swallow a hook because they were going to hold him in a pond for a month or so and let them clean themselves out. So, it'd be a bit more palatable.

Carl Franklin [00:51:51] And they were selling the meat. I think it was \$4.50 a pound on the black market in Louisiana and things like shells - 150 or so, skulls. And it depended upon the size of the animal.

Carl Franklin [00:52:05] But that is activity right there. And that's something that with, you know, it's just necessary that more and more people have to know about these animals.

Carl Franklin [00:52:15] And so that's one of our tasks with Texas Turtles is, you know, kind of illuminating that there are these big, cool, bad ass monsters out there and they're ours. They're here in Texas. We need to protect these things, you know.

Carl Franklin [00:52:34] Nuts to these other guys that want to come over and rob them. That's the kind of state stir that I'd like to get going.

Carl Franklin [00:52:42] But that's all concerns that brought up the listing topic.

David Todd [00:52:47] Well, this is good. So, we talked a little bit about the trends. And I guess the concern was that this take was so big, and these animals are so long-lived that and, you know, you're seeing mostly adults that it's not sustainable. Were you also seeing a change in the range of it? I mean, it sounds like Louisiana has had to say goodbye to many of its turtles. Are you also seeing that in Texas, where they're less common in certain areas or more common in others?

Carl Franklin [00:53:18] Look: the really cool thing about the Texas, what we're learning is we're discovering more and more populations.

Carl Franklin [00:53:25] And that's been something that was really cool. I mean, I guess, you know, we've had it easier living in Texas. Didn't have to rely on turtles as much, but, no, right now, for somebody studying alligator snapping turtles, there's a lot of low-hanging scientific fruit to pick up. And so we don't, we haven't been able to, ourselves, see that there has been any big change in ranges or anything like that.

Carl Franklin [00:53:58] The biggest change in range, I would say, happened around the Pleistocene or after that. And that's because the farthest ... there are no alligator snapping turtles living in the Brazos River system, but there used to be. And there's a magnificent specimen of a skull, of an Ice Age alligator snapping turtle skull that was found close to College Station. It's out at one of the museums at UT-Austin. So, they used to be there.

Carl Franklin [00:54:31] What changed ecologically for them? I don't know. I think that it probably just might have been it got a little drier or so. But we still have them from the Trinity River system eastward, throughout the state.

David Todd [00:54:48] Okay. So, one other thing I was curious about and, you know, maybe it's just there hasn't been the kind of attention and research until recently, but these alligator snapping turtles seem to be kind of cryptic. You know, they lead a quiet life in pretty opaque waters. And I'm wondering if part of the issue with them is just that it's hard to know where they are, how many there are, because they are not easily found.

Carl Franklin [00:55:21] That's right. And, you know, I mean, they hatch out. They look like a little chunk of wood. And so, you're absolutely right.

Carl Franklin [00:55:31] And, you know, sometimes, some alligator snapping turtles, if they're in their native habitat, with their mouth open, the only thing that you could see that doesn't just look like a glob of, you know, substrate might be that wiggling lure.

Carl Franklin [00:55:51] But they do come up for air. And one of the things we've found is that we have we've been really lucky, we've been able to see them during the daytime. We've been able to watch them sort of not necessarily periscope their heads up out of the water, but kind of get up and get their eyes up above the surface and look around, take a breath.

Carl Franklin [00:56:12] They're extremely wary. And pretty much from the slightest movement or anything from the shore, you could be 100 yards away and that change in their horizon, they'll just go straight under like that.

Carl Franklin [00:56:26] And as adults, we documented also the color change that they go through. And as they get older, a lot of, almost all alligator snapping turtles that we find that are old are also very pale or yellow. In some instances, the yellow is just magnificent. But if you look at a lot of the really big giant ones in aquariums, they're really often kind of pale. And in the wild, that yellow coloration, as well as any tannins and stuff that are stained on their heads and nostrils and all, they look identical to a cypress knee, almost. And in coloration and everything, they can really match it.

Carl Franklin [00:57:08] Also, if you're in a swamp-like setting and your head is shaped like a rough brown cypress knee colored triangle, and you slowly emerge, you're pretty stealthy right there. So, there's there is that part of it.

Carl Franklin [00:57:27] And being in the water where they're at being opaque, a lot of times, or very cloudy and turbid, certainly challenges the ability to observe them like that.

David Todd [00:57:39] Well, that helps. Give us a little background about, you know, the challenges that you face trying to study them.

David Todd [00:57:47] So, I thought that it might be good to talk a little bit about the impacts on the turtle. You've touched on some of this before. I mean, the poaching, the fishing, for them. Can you give us an idea maybe of what the demand is that is powering some of this fishing and poaching, depending on where you are?

Carl Franklin [00:58:12] You know, so taking a perspective that I'm familiar with: when I was a boy, I'd go fishing with my grandfather and he would use trot lines. He didn't catch alligator snappers, but if he got a big female softshell turtle, then he took that home. And that was dinner. And so I understood it like that.

Carl Franklin [00:58:36] And so, there's some of it comes from that origin. And I think you do have some people that still occasionally will go out and want to eat their own game and everything. I don't know how much of a direct impact that specific type of predation on them has, other than an individual here or there that could be removed.

Carl Franklin [00:58:59] One thing that I failed to mention earlier, but is a real killer of them, are just incidental bycatch with unattended hooks and lines.

Carl Franklin [00:59:12] The type of trapping with hoop nets in Texas that we do for surveying turtles, it has to be permitted through the state to do that. So that's an activity right there, running the nets for game fish and such is not a legal practice in Texas. So, we don't we don't run into that threat all that much.

Carl Franklin [00:59:33] But we do find a number of the dead ones that we find most of them do have fishhooks in their throat or in their stomachs. Whether or not those were the cause of their death, we don't know. But in some instances, it looks like it certainly played a hefty role in it.

Carl Franklin [00:59:53] The biggest example of that came from downtown Houston. Back in 2011, I drove down there and I salvaged the carcass, this huge, cadaverous, putrid, 135-pound specimen that was floating in Buffalo Bayou. And I brought it back to the museum and started to render it down for a skeleton. And that animal had a couple of really big catfish hooks in his throat. And other than that, that's the only thing that seemed odd about it.

Carl Franklin [01:00:31] But once again, I'm not going to go on the stand as the medical forensics expert on alligator snappers. I will play one on TV, but, or right now, a little bit.

Carl Franklin [01:00:44] But yeah, so those types of take like that are things in Texas that we have to watch out for as well. Trot line fishing is not kind to alligator snapping turtles one bit. It's a good way to really hurt a population of them.

Carl Franklin [01:01:01] So I think stewardship with sportsmen and you know, that's a group of folks that we really are also reaching out to as well to increase awareness.

Carl Franklin [01:01:14] And I'm sorry I lost track of your direction.

David Todd [01:01:18] No, this is good. So, I mean, we're just talking about demand and it sounds like some of it is just, you know, I guess sort of recreational ...

Carl Franklin [01:01:29] The demand for them...

David Todd [01:01:30] Fishing. But then that some of it might also be just incidental take where it's bycatch where it's not intentional?

Carl Franklin [01:01:37] The guys that were poaching them out of Louisiana - I asked the investigators, you know, what did their house looked like, and they said it was full of pill bottles for oxy and opiates and everything. And they were severe opiate addicts. And so there was that, that criminal element right there kind of got into it as well. So, I guess these were folks, too, that just, you know, they couldn't get a day job, so why not poach turtles? That is one way of seeing that.

Carl Franklin [01:02:10] But the other with turtles going to Asia, specifically to China, these animals are going to be used as a breeding stock for turtles that they have there in their turtle farms. A large male alligator snapping turtle can fetch thousands of dollars on the black market like that. And it's something that happens from time to time. And they will use the turtles to breed, or they'll use them as trophy pets.

Carl Franklin [01:02:41] But one thing that people, a lot of folks, are not aware of is that China has more than 1400 registered turtle farms that are highly competitive against one another. They produce lots and lots of turtles for consumption, for food, but they also produce lots of turtles for pets. And you can go to markets there, you can go to markets, pet markets in Indonesia and many parts of Southeast Asia, and find a vast majority of North American species represented there as captive-bred young.

Carl Franklin [01:03:17] Now, one might say, well, isn't that okay? They're breeding them. No, it's not, because they often want to get new genetics into it. And then there's other guys that want to have their company, their business there going. So, there's a demand and the demand for turtles from China, it spans the globe.

Carl Franklin [01:03:45] And at least here in Texas, we've done what we can to avoid that loss of our turtles.

Carl Franklin [01:03:53] And I think the good news is that we, you know, like I said, it goes back to enlightening and turning more people on to how neat these animals are.

Carl Franklin [01:04:02] And, yes, people don't like that idea. I can tell you as a Texan and talking to another Texan and I know you're a Texan, you're doing an excellent, you're hosting a wonderful show here, that we don't need any of our turtles in China. We need them here. And I know that's everybody that's watching this. You're all in agreeance. So that's a powerful thing we have for their conservation.

Carl Franklin [01:04:32] But the demand for them is that's the, I'd say, the biggest, the worst.

Carl Franklin [01:04:38] The other level of demand that happens are from people that are just biophilic and they're really wanting to have that close access and contact and all with that organism. And it's, yeah, they're, they're super cool. I can't blame anybody for wanting to have one. But at the same time, I think they're cooler where they belong.

David Todd [01:05:06] Well, this is great background.

David Todd [01:05:10] So, I imagine that some of the other factors for alligator snapping turtle trends have to do with things that probably aren't involving having pets or food or

skulls or shells, but just the kind of, you know, incidental impacts from what we've done to the hydrology of streams or what may have happened because of water pollution. I was hoping you could talk a little bit about just those kind of habitat impacts that may be swaying the future of these turtle.

Carl Franklin [01:05:45] Well, that's a nice little hand-off because for anybody concerned about potential karmic value of eating, you know, such a rare animal, alligator snapping turtle, and other species of turtles, are often found with really high or vastly higher levels of methyl mercuries, heavy metals, PCBs, all those wonderful pollutants that are out there. They wind up there: they're bio-accumulators of that. And so, there is a, there's not a real safe way to say that you could even eat them like that.

Carl Franklin [01:06:28] And with regards to their exposure to pollutants and anything with the hydrology that might have changed, I am not qualified to really speak upon that. However, there have been a number of studies have been done with alligator snapping turtles and other species of turtles to document that pretty much across the board. These are animals that do contain, their tissue, contains a lot higher concentrations of these pollutants.

Carl Franklin [01:07:05] The other thing I can say is that turtles are just incredible survivors. And here in Texas, we haven't, I haven't seen yet myself a direct thing of ... well, I can. I can tell you that. Parts of South Texas where there's vast amounts of agriculture and some of these creeks and streams that have been, you know, changed over the course of decades and all from farming practices. I've seen the absence of diversity of turtles in those places.

Carl Franklin [01:07:45] Automobiles would have to be the other thing that really impacts turtles in the state. Vehicular cheloniicide, is what I, kind of a nice way, I guess, of putting it. But, yeah, cars.

Carl Franklin [01:08:02] Habitat fragmentation in places has definitely caused headaches for some of our species.

Carl Franklin [01:08:08] The chicken turtle is one that's an aquatic species, and I'd say that probably right now about 80% of its range has been lost because that one has a really odd natural history. We won't really go into that particular one, but we do have that, instances of that.

Carl Franklin [01:08:25] Box turtles across the state have been just obviously taken out of the equation of most ecosystems that they used to be in.

Carl Franklin [01:08:37] And so, you do have things like that.

Carl Franklin [01:08:41] I'm a glass half-full kind of guy, so I like to kind of have things to look at. And I can tell you that in our rivers, from what we have right now, of course this is the baseline of our understanding of it. But, so far, we can go out with no problem and encounter, more often than not, a very typical healthy population of turtles.

Carl Franklin [01:09:10] And I think if you take into consideration the numbers that were taken out of Texas and sold over those years, you're just, what you see today is a testament of probably what we had, just, you know, we had enough to at least get us through that burden. But you can still find lots of turtles to study these days.

Carl Franklin [01:09:33] One study spot in New Braunfels, Texas, on the Comal River, there were more than 4000 turtles marked out there at that study.

Carl Franklin [01:09:44] There was a study conducted by a fellow out in Fort Worth, little urban turtle study he did with his school. And I think he marked over 1100 turtles from that area.

Carl Franklin [01:09:58] And so a little stretch in the San Saba River, I've marked and released over 700 turtles in a study out there.

Carl Franklin [01:10:10] The alligator snapping turtle study that's going on down in Houston, close to downtown, they've marked over 100 alligator snappers there.

Carl Franklin [01:10:22] We've got sites where we make visits to, to survey for alligator snappers, and in a weekend, you know, a dozen or so.

Carl Franklin [01:10:34] And, there's, you know, so there's still good numbers out there.

David Todd [01:10:40] Well, that's encouraging and, you know, it sounds like it's a suggestion of how many there probably were, you know, given all of the effects over the years.

David Todd [01:10:54] So, one impact that I'd love to get your view about, and this may be something that's only just now sort of ramping up, but are you seeing any effects from climate change on the alligator snapping turtle?

Carl Franklin [01:11:10] So, yeah, it makes it harder for me to want to get out to look for them. No, not yet. And what we would have to do, one thing we would have to, one thing that comes to mind, I think that if we were wanting to try to set that as a goal, it would require a long-term ongoing observation to see if there's any trends with the sexes of the offspring. And that would be, that could be something that could show that.

Carl Franklin [01:11:52] But one of the things is that with their, the eggs, the sex of the turtles or the sexual identity of the turtles are temperature-influenced. Okay? And you can have, you typically have both genders in one nest, often because the eggs at one part of the nest chamber might be a different temperature than the ones closer to the surface, or vice versa. And if you start to see a uniformity of the turtle gender out there, then that could be, serve as a sign that things have gone awry.

David Todd [01:12:36] Okay. Well, as you said, there's lots learned here.

David Todd [01:12:41] And I was interested in this group that you lead, Texas Turtles. And I believe that that its motto is, "Working to fill a Texas-sized hole in our knowledge of turtles from the Lone Star State." So, can you talk a little bit about the gaps in the sort of population-level studies of turtles in particular, but maybe alligators snapping turtles especially?

Carl Franklin [01:13:11] Well, I think we're getting, gradually, we're closing those gaps.

Carl Franklin [01:13:17] And the most basic information to know about organisms is where they occur. We've got enough knowledge now to where we could actually start building some models if we wanted to. But I'll be honest with you, I'm not oriented in that type of work, but

I'm confident that we're going to continue finding alligator snapping turtles throughout the state, throughout the range that we're working.

Carl Franklin [01:13:45] And I'm sorry, could you repeat part of that?

David Todd [01:13:48] Well, I was just trying to get a little bit better sense of the gaps in the understanding of the alligator snapping turtle in Texas and maybe why there are these gaps and how you aim to fill those gaps.

Carl Franklin [01:14:03] Yeah. So, that's because the ... I'm sorry, man. That's because the study of them here in the state really hasn't, it's only been focused over the course of the last seven years. And that all has been a benefit, obviously because we get to learn more about them.

Carl Franklin [01:14:23] But to talk on that a little bit, the discovery of them, some guys accidentally caught some in Houston and they just put out some turtle traps one day and they, wow, they were surprised. So, they continued surveying there. And that's, you know, from an urban population of alligator snappers there, we knew that they were in the vicinity, but nobody had yet started with any type of formal study of it.

Carl Franklin [01:14:57] And we wound up doing ours, focusing our study at first up here in Arlington, Texas. And the very first night that we set traps out in the Trinity, I remember we were pulling the traps back up the next day and they were all empty. And until I looked again in one and there was a baby. And that was, that was really cool, because we knew that there had been alligator snapping turtles, adults here and there, seen over the years in the vicinity. But whenever you find a baby, that's really encouraging.

Carl Franklin [01:15:35] And so, we continued on at that location. And that's another study site in Texas that we've been able to gain a lot of information about.

Carl Franklin [01:15:45] We then went on to survey some spots in other parts of the state - Liberty County. We've got a study site and that one right there, the only thing that challenges us directly with getting out to get accurate numbers of the turtles are the actual numbers of alligators. And having an alligator go into your hoop trap, that's not fun to deal with. And we don't want anything to accidentally hurt an alligator. So, we get limited and challenged at that location.

Carl Franklin [01:16:22] And we have another spot in East Texas that's on private property where we not only documented nesting happening, but and the hatching of the babies. But this really huge 154-pound male that we caught, as well as several other specimens - males and females. That's one that's done with really close working with the landowners and just like a couple other local folks.

Carl Franklin [01:16:54] We have another one that turned out to work out really well for us, as well as the community. And that's one down in Hardin County. There's a gated community out there, located in the Big Thicket. And there they've got a nice population of alligator snapping turtles there that we go out twice a year to survey. And with that population, we've been able to start getting blood samples for blood chemistry analysis of the animals to look at those in relation to reproductive conditioning.

Carl Franklin [01:17:33] We've had some colleagues come out that have shared some of their equipment, such as an ultrasound, and that way we've been able to get really nice measurements of egg follicles while they're inside the females, you know. And this year it was like that. We had one female and her follicles were at 42 millimeters in diameter and she looked like she was ready to go and start nesting soon.

Carl Franklin [01:17:59] So yeah, those are things that are being done to close the gaps.

Carl Franklin [01:18:02] The other thing that was done is that the state of Texas, in response to the potential listing, the State Comptroller released funds to provide a researcher from the University of Houston at Clear Lake, Mandy Gordon, an extraordinary biologist. They supported her research on sort of reproducing the first state-sponsored study, as well as kind of getting some other spots, and then tying in and incorporating everyone else's work with it, because there was another group that started in on the study of alligator snappers, and that was out at Stephen F. Austin University.

Carl Franklin [01:18:47] And so we had four hard-working powerhouses of turtle nerds just going at it, man.

Carl Franklin [01:18:56] And that was something I think that ... part of the reason for the listing proposal in Texas for the Endangered Species Act was based upon the lack of published information about the turtles from Texas.

Carl Franklin [01:19:12] So, the other thing that's recently come down the line is that there's been a special issue of the "Southeastern Naturalist", and it's focused on alligator snapping turtles. And that, I think, is 456 pages worth, a number of authors that have contributed to that. And yeah, we put, we were on four different papers in that one journal right there.

Carl Franklin [01:19:42] So, yeah, there's a lot that's going on. And that's the good thing. This level of work wouldn't be possible if we didn't have the numbers to get the data from. And so there you go.

Carl Franklin [01:19:55] I think we're doing what we can to close the holes.

Carl Franklin [01:19:58] The university projects and Comptroller-sponsored projects: the challenge that they face is that they're really finite. They might be funded to only do two or three years of study: and which is one of the great things about our organization is that we're not leaving. We're not going anywhere. We're here. And so we've been able to continue longer-term studies.

David Todd [01:20:27] Well, let's talk a little bit about some of this sort of background research that's going on that isn't tied into a university or tied into Comptroller funding. And I think you had at some point written about this the sort of local ecological knowledge, and citizen science role, and the grey literature that's out there, the anecdotes that you may hear. Can you give us some examples of how you're starting to learn more about alligator snapping turtles from these sort of unofficial sources?

Carl Franklin [01:21:02] Well, I got to first give credit to Mandy Gordon for taking the lead on that that project right there. And what she was able to do effectively is more or less synthesize just what a lot of us have known. A lot of us nerds that study animals have known is that, man,

you can't really get over that well with your study without incorporating knowledge from local sources and people who live there and things.

Carl Franklin [01:21:34] And so I guess, in an easy way, in a nutshell, is that it was how we used just every available source of information that we could get our hands on, whether it was stuff about on iNaturalist. There was a little bit that came in that way.

Carl Franklin [01:21:56] Social media - our Facebook group, Texas Turtles, the Facebook page there - we get lots and lots of content sent in to us for people just asking confirmation of what it is, what could it be, seeking the identity, questions, sharing the photos of the turtles that they found and stuff. And it's been, it's just been a game changer. We wouldn't ... any other way, there's no other era in which we would have gained that much public feedback.

Carl Franklin [01:22:28] So the whole thing of local ecological knowledge is those are all extensions of those sources of knowledge that people can provide. And it was, I think it's a valuable paper because it puts it into a quantitative perspective in a way.

Carl Franklin [01:22:51] And then, you know, I just think about my old buddy Peter Prichard, who whenever he was wanting to find out more about sea turtles, the guys that he went with were the turtle hunters. So that was his source of that base of local knowledge.

David Todd [01:23:08] Yeah, I guess it's got a long career, you know, deep history, if you have and can rely on a lot of people that you know aren't in academia, but they know a lot about these creatures.

David Todd [01:23:20] So I think your monitoring effort comes under this umbrella, as I understand it, called Lurking Leviathans of Texas. Can you tell us a little about what that that program is?

Carl Franklin [01:23:33] Well, that's a, that's a good name. That's a good, attractive name to get some attention. Yeah, you got to have a good marketing name these days. But no, that's it. And it was done on purpose because it's a cool name. It sounds neat and it evokes this imagery that lines up with the reality. You know, I think leviathan is an appropriate term for these animals. Their size and the scope and magnitude of them certainly warrants that. And it goes hand in hand with the fascination that they inspire. They're just being cool.

Carl Franklin [01:24:21] Oh, I'm sorry. I might have fallen off the question there.

David Todd [01:24:23] No, no, no. I think that as we all know, it's hard to get the world's attention these days. People are very distracted. And so, it's good to have a catchy name.

David Todd [01:24:36] And I just was wondering, you know, underneath this Lurking Leviathan title, are there particular research efforts you've got going at it that you'd like to tell us about?

Carl Franklin [01:24:48] Oh, thank you. Absolutely. Well, our research at our study sites - one of the things that we're doing at all of them is we do mark-and-recapture. What that entails is that whenever we capture specimens, we bring them in. We record the data off of those - various components of their size and parts of the shell and so forth, and body. We take DNA samples, tissue samples from them all. Typically, it's blood that we take.

Carl Franklin [01:25:19] And I have to say, we've got the best turtle phlebotomist in the world, and that's Viviana Ricardez. And she's just a ninja at getting turtles to bleed. So there you go. There's your soundbite of the night.

Carl Franklin [01:25:37] But no, so we got the blood chemistry work going on. We have genetic material that we store that we use for research, whether it's our own or collaborative efforts with other folks. And then the subsequent attempt to recapture what you've marked and released.

Carl Franklin [01:25:59] And what we used to mark the turtles with: we do two methods. One is with a hacksaw. We'll make a very discreet notch. And where we notch the turtles ... I think I have a chart. Just a second here. So lucky you guys: I've got a visual aid, and I'll just hold it up here to give you an idea.

Carl Franklin [01:26:28] And if you could see the scales, or the scutes, on the outer side, they all have numbers on them. I hope you guys can see those numbers there. But it's sort of like notching ears on livestock or so. If you put a slight little discreet notch on the edge of that part of the shell, that is a number. And there's a numbering system for using the turtle. And you can use this system to mark lots and lots of turtles.

Carl Franklin [01:26:59] The other thing that we do is we'll place a small transponder inside them. And that way we have two ways of identifying the turtle.

Carl Franklin [01:27:09] If a turtle dies and then we just find a shell, then we could possibly still locate the notches on the shell. But we don't want to find that. We want, we want nothing but live, healthy turtles. That's the way we prefer them at least.

Carl Franklin [01:27:27] So scanning them with a PIT tag reader is really easy there.

Carl Franklin [01:27:34] The other things that ... we've documented a number of things with them. One of the things that we did was the behavior of them - the daytime behavior. Because once you start to get an eye for going out and seeing things - alligator snapping turtles, it could be arrowheads, whatever, alligator snapping turtles. But once you get that search image in your brain on how to look for stuff, you could usually wind up being fairly successful at it. And so, we've learned how to do that.

Carl Franklin [01:28:01] That's allowed us to document daytime behaviors out of the water, basking out of the water, basking right next to an alligator. There was one time where no one had a camera present and there was a male alligator snapping turtle, an adult male, fully grown, at least 100 pounds, basking on top of a 12-foot American alligator.

Carl Franklin [01:28:24] And but once again, you know that if you forget the camera, you'll see something cool.

Carl Franklin [01:28:31] So, that's one of the studies that we were able to publish on, as well as the lingual lure coloration, which was something as we started to collect more and more data of these animals, even noticing that the lures are of a variety of colors. And so other researchers that were catching them had been noticing that as well. And so that really helped provide a lot of data to sort of document the differences in coloration, as well as which lures might be ... how many alligator snapping turtles wind up with damaged lures, you know.

Perhaps a fish or something tried to bite it. But that, there were at least 2000 lures examined for that study.

Carl Franklin [01:29:25] And, you know, the things that we've run into as well with potential threats to the turtles, we kind of encapsulated that into one publication also. And those were all co-authored with a number of other really wonderful folks that also spend a great deal of time studying these turtles.

Carl Franklin [01:29:48] Just here locally, we've been able to document never before described defense mechanisms of them. And I can tell you this, man, the coolest one. There was, I just so happen to have a little turtle shell right here, and I'll hold it here and I'll try to illustrate what happened.

Carl Franklin [01:30:10] One day we had a baby alligator snapper. Just pretend this is an alligator snapper. And Viviana was trying to get photographs of it, and wanted it to be in a certain posture. So, she touched one end of the shell and the turtle catapult-launched itself with its tail, lunged its head, and used its feet to completely do a 180. And it would leave, it would get airborne when it did that.

Carl Franklin [01:30:40] And that's one of the things that I just thought, man, I'm glad that, as they get bigger and bigger, they lose that ability to do that. That would really be scary to work with them like that.

Carl Franklin [01:30:49] But that was a really cool defensive mechanism.

Carl Franklin [01:30:53] We've described and published on some life history events with them regarding the aging: females in the wild that have had cataracts, various dietary things that had been novel and not published on before.

Carl Franklin [01:31:09] And so, it's really kind of hard to say exactly what we're going to learn about next with them. But it's one of those things with science, you're looking for the truth. And you're out there and you're not afraid to question or take in what you're coming across. So, I don't want to get too Zen on us.

Carl Franklin [01:31:34] No, no, this is good.

Carl Franklin [01:31:36] And in fact, that was a question I had for you. Given that these creatures are pretty cryptic and, you know, they might look like a cypress knee or a piece of floating wood. How do you how do you zero in on where you might find them? And then once you think you're in a good area, I'd love to know how you actually catch these creatures. I understand that you use traps and nets and but maybe you can describe that process.

Carl Franklin [01:32:04] Well, we'll look for places in their habitat that look conducive to them. And sometimes it's just a roll of the dice and you wind up getting lucky. Other times we'll try to place some near, you know, fallen trees that are in the water logs, things that can provide shelter not only for them, but perhaps other food items that they might want to eat.

Carl Franklin [01:32:33] And that's kind of how we try to clue in on it right there. They often like places, you know, bodies of water that are bordered by forest. And that's kind of a no-brainer. You just think of the, you know, the richness of resources there for them.

Carl Franklin [01:32:52] But once we pick a location, we use hoop traps. And we do it in a manner that we're very careful for the welfare of the turtle. And ways that we accomplish that - the hoop traps themselves are, you imagine three or five big rings covered in net with two net-like funnels made of net coming in. And some traps we have where it's only one opening.

Carl Franklin [01:33:27] And we'll hang a chum container of bait and typically we'll take carp, and just a very generous amount of freshly chopped-up carp, and then hang the head in there as well as an extra little enticement. And then set it. And kind of just let the trap sit there, usually at least overnight. We've had instances where we set a trap and about 17 minutes later watched one walk right into it.

Carl Franklin [01:33:59] So that's the methodology, the basic methodology. You know, not wanting these traps to collapse, we'll often buttress the rings by putting poles of PVC to help hold it out rigid so that where we place the trap, we want the top of it to be maybe within a foot above the surface of the water so that they can have air at all times.

Carl Franklin [01:34:27] Then, of course, using lines and stuff to secure the trap in a manner that the water won't carry it away, nor the activity of the animals moving in there.

Carl Franklin [01:34:37] That's the basic rundown on how we capture our specimens.

David Todd [01:34:45] Okay, Well, say, you've captured some of these alligator snapping turtles, and you've managed to notch their shell or you've put a transponder on them and then you let it go, you return it to the wild. What have you learned about how they move around? And I'd be curious to know also if you're starting to see genetic differences because they don't move that far, and so there are, you know, different watersheds where they might be very distinct.

Carl Franklin [01:35:17] So right now, there's been, already been, molecular work done with alligator snapping turtles. And in Texas, we have two general zones and one is right along the Sabine, if I remember correctly. And we didn't do this research, I'm just doing a patchwork of memory attempt here. But there was one genetic group that was closely aligned to the Sabine River and that part of eastern Texas. And then the rest was all pretty much homogenous - the other main genetic variety there.

Carl Franklin [01:36:02] Nationwide, we could be looking at about half a dozen different significant genetic populations. And I have to caution you on that. That's, it has been a while since I looked at the national data regarding molecular variation of turtles.

Carl Franklin [01:36:19] But basically what that allows us is that can allow for a repatriation of perhaps confiscated turtles. There was a turtle that was at the Houston Zoo not long ago. And through the genetic evaluation, they traced its origins to Arkansas.

Carl Franklin [01:36:41] So that could be really helpful on things with confiscations of turtles going back to where they they'd be either, well, hopefully, where they belonged originally, but at least in a place where their genes work.

David Todd [01:36:56] Gotcha.

David Todd [01:36:58] And then I understand that you've found some turtles in pretty unlikely place. I think you've mentioned this in passing, that some of these alligator snapping turtles have been found in very urban settings. And I imagine that was kind of a surprise.

Carl Franklin [01:37:15] Yeah, I think it is for a lot of folks. You know, the old saying, "When Dallas flushes, Houston takes a drink." Come on. You've heard that one. Okay. I'll play it down the middle. I love H-town. Okay, but, but, yeah, so, I'm going to tell you this. A lot of people thought that Buffalo Bayou was just gross. And, you know, to a lot of folks that are nature observers and aficionados and everything that might be, you know, the idea of an urban bayou having, you know, this diversity in it, it just might not be intuitive to a lot of people's judgments.

Carl Franklin [01:37:57] But so, yeah, the thriving population there is great news.

Carl Franklin [01:38:01] The other one is up here. And we've had some physical challenges on getting them to a lot of spots in Dallas County, simply because there's a lack of infrastructure for, you know, boat ramps and things. And you have to be really adventurous to be able to get to some of these spots to further do work on the Trinity there.

Carl Franklin [01:38:24] But definitely the ones that we have found in the in the DFW area, it's, you know, it's good news that they're still there.

Carl Franklin [01:38:34] Also along the way, you know, for anybody that ever wants to go and spend a day canoeing in the Trinity River, I think they would be really, if they've never done it before, they'd probably be blown away with what they actually come across. It's nothing at all to be out there and have a six-foot alligator gar come next to your boat or surface. I even watched one one time unsuccessfully take a big swipe at a green heron. And those big toothy grins they have will just warm the heart.

Carl Franklin [01:39:09] But no, there's a lot of, still a lot of good wildlife there. And I do have to say, you've got these big metropolitan areas where you have millions of people and you still have a basic modicum of sanitation that is just preventing this, all the raw sewage by all the humans, from just totally wiping everything out. And I've done a lot of work in developing nations and different parts of the world. And I can tell you that what we have is we've got a river that might not be as clean as we want it to, but it certainly isn't as bad as what it could be.

Carl Franklin [01:39:49] And the other part of it is that animals like alligator snapping turtles, the gar, alligators, all these otters that we have, the freshwater mussels, the fish populations, those are all significant things that are indicative of the health of our river as a whole.

Carl Franklin [01:40:09] And whatever survival mechanisms they have to cope with the stress that we place on that river system, man, more power to them. I'm glad that they have it.

Carl Franklin [01:40:20] I hope that what we're able to do is to bring about enough of an appreciation. And I know this is, man, I know this is one of your thoughts and goals with what you're doing here - just across the board, celebrate what we've got enough so that people are that excited and appreciative of it and wanting to maybe make decisions that work more in its favor.

David Todd [01:40:43] Absolutely. Yes. I think especially these things that are close to us and that maybe we just don't appreciate that there's, you know, wilderness you know next to Shepherd Drive crossing Buffalo Bayou - it's surprising and maybe sort of heartwarming.

David Todd [01:41:03] So I'm curious about these alligator snapping turtles that you might find in an urban setting, whether it's in the Trinity or in the Buffalo Bayou, and whether you think those are, you know, relics of much bigger populations, or if they're really robust and, you know, they're reproducing.

Carl Franklin [01:41:25] Well, that goes back into the whole thing of, like, I don't have a crystal ball or a perfect Ouija board to seance the bayou for all the ghosts of alligator snappers past. But, and that, of course, goes into the whole concept of shifting baselines and everything. But, you know, what we're coming across, given the amount of effort that's going in, and the results, you know, everybody that's doing these things that are not working at a university, these are vocations that are being done whenever there's time to do it.

Carl Franklin [01:42:02] So, I know if the intensity was higher on the end of the researchers then we would have higher results. We would have more knowledge. And, but what we've gotten to date with the amount of work that's gone into it, which has been very substantial, is very encouraging to me, that we're just kind of getting at the tip of it.

David Todd [01:42:32] That's good. That's good. So maybe more to come.

David Todd [01:42:35] Do you think that maybe some of the survival of these turtles that you're finding in urban settings is because there's just not as much harvesting pressure there? You know, these are really well-observed and maybe better policed areas than maybe some Big Thicket stream that doesn't have the kind of eyes on it.

Carl Franklin [01:42:55] I think so. I think there's that part of it, and without a doubt, you know.

Carl Franklin [01:43:02] I also think that private property is one of the biggest conservation tools that we have.

Carl Franklin [01:43:09] And I think that a lot of folks, you know, they wouldn't really want to go trespassing in many places in Texas.

Carl Franklin [01:43:17] So, absolutely, some of these are relics as far as how far back they go. We don't know yet.

Carl Franklin [01:43:25] And that gives me (thank you so much for that alley-oop to dispel a myth): there's a thing that's gone around where people have said these animals are so old that one was found with a bullet in it from the Civil War. And that actually has never been documented. There's never been any voucher specimen showing that at all. And the two people who I know could answer it directly are both dead.

Carl Franklin [01:43:56] And so, just kind of going back in their conversations and writings and everything, I put the blame on Archie Carr for starting the myth. And he had a pet alligator snapping turtle at home that had these curious holes in the shell. And his daughter would I think, yeah, his daughter, I think, would like put fake gemstones in it. And then, you know, he would, Archie was a known guy to play practical jokes on people, and I think he's the one that

said, "Oh, yeah, those are holes that were caused by a mini-ball, a .50-caliber mini-ball from the Civil War.

Carl Franklin [01:44:35] And but Archie is no longer with us to answer that, but I suspect that's where it came from. And it just was such a cool story that, you know, it kind of got pushed.

David Todd [01:44:47] It grew legs. Yeah.

Carl Franklin [01:44:49] That's right.

David Todd [01:44:50] And so who's going to challenge him?

Carl Franklin [01:44:53] Exactly. And yeah, you don't want to challenge somebody shooting mini-balls. And that's something.

Carl Franklin [01:45:01] But as far as how old they live, we don't know yet. And that's the thing: we have a lot of birthdays now, and hopefully we can match those up later. But if I were told that, if I had a genie come out of a bottle and say they can live to be 100, I wouldn't have any problem believing that. If the same genie said, "Oh, they'd knock off at about 75." I wouldn't have a problem with that either. So, I considered them to be along our timeline of longevity, possibly a little bit more.

David Todd [01:45:38] All right. Well, let's hope that they live a very long time.

David Todd [01:45:42] I am curious that, you know, given maybe how much pressure has been on them and yet still they do seem to be surviving. And what do you think some promising restoration, recovery strategies might be now, given where we are at?

Carl Franklin [01:46:05] I think that if you, well, grassroots, we got to continue with letting people know about them. But as far as like any specific implemented thing, a ban on trot line fishing. You know, that would upset a number of people who enjoy doing that. But it's something that I think really needs to be looked at because it's an indiscriminate way of catching wildlife. And it can cause real, lasting problems to the animals; that it does, it can kill a lot of them. And we know it kills a lot of turtles. So perhaps that, you know, implement something like that, do away with trot line fishing.

Carl Franklin [01:46:54] Limiting how places where folks can just do jug line fishing or indiscriminate limb line fishing, where they leave hooks overnight out in places.

Carl Franklin [01:47:07] Those types of things right there would be really helpful, I think.

David Todd [01:47:16] So I'm curious if you can give us any sort of background on how the commercial harvests got stopped in so many states, including Texas.

Carl Franklin [01:47:27] They were running out of turtles. That was it.

Carl Franklin [01:47:31] And, you know, one big commercial user of turtles back in, and I believe it was only one year during the 1930s, that Campbell Soup sold their turtle soup. And I think they may have been using green sea turtle for that. But from what I understand is that they only lasted maybe a year because the demand exceeded the supply. And so, what they did

is they changed it to what they called, "mock turtle". And they actually would have blends of fish and chickens in there to be like a substitute, fake turtle soup, you know.

Carl Franklin [01:48:16] So yeah, the change of it was brought on because people started to see these numbers just go away, and the populations disappear. And during the hearings with Texas Parks and Wildlife about our turtles, those examples were all brought up. So, the other states and how this is what happened to them. And so, they had to enact these policies to protect what they had.

Carl Franklin [01:48:47] And, fortunately for us, Texas listened.

David Todd [01:48:52] So, I think that there was a case back in 2017. You mentioned it in passing where these fishermen were caught trafficking in illegal alligator snapping turtles. Do you know anything about the history of that case and how they managed to enforce the Lacey Act and catch these guys?

Carl Franklin [01:49:15] For myself, I get really annoyed thinking about it, and frankly, I get pretty pissed off, because my understanding of it is that they built the case similar to the way they would many other criminal cases. They were absorbing evidence, meaning they got to know the guys. The investigators were undercover and they got to know these fellows. And they went out with them. They, I don't know if they participated in trapping, but they were doing that and being in close contact with them for that reason that they were gaining evidence.

Carl Franklin [01:50:01] And for those of you still with us at home, it was also frustrating that the sentences that were received were very slight. One of the guys, I think, received 18 months in prison. Another got less than that, maybe a year. I can't remember exactly for that one. And then the third conspirator received a year supervised probation or something like that. So not really anything hard or firm for them. And certainly, in my opinion, not enough to dissuade people who profited off the take of what I was told could have been up to a thousand of these turtles from our state.

Carl Franklin [01:50:54] I think they should have tarred and feathered them to start with, you know. Go that route. Bring back ringing the bell of shame and stuff. I don't know, but I don't want to get too dark on us here. But, yeah, that's what I can tell you about some of that case.

Carl Franklin [01:51:15] Well, you know, I've heard that with some animals that have become rare, there's an effort to do some captive breeding to bring their numbers back up. And yet, I've heard with these alligator snapping turtles, there's some worry that may not be a good idea. And I'm curious what your opinion is about captive breeding.

Carl Franklin [01:51:37] I think it's a great idea. And something that's happened has been fortunately there was something good that Uncle Sam did. At the Tishomingo Fisheries in Tishomingo, Oklahoma, they have a program there where they have produced at least 1800 babies that have gone back into the wild. And they have a dedicated facility where they're breeding the turtles and they're hatching every clutch of eggs that they get. And then they have dedicated places for babies to grow out. And so, they've been doing a number of releases of turtles in those places to try to repatriate them.

Carl Franklin [01:52:25] And from the headstarted turtles, so far, the signs are that it's working out for them. So there has been that.

Carl Franklin [01:52:33] I'm unaware of anything that some of the naysayers may have gone at. You know, remember, I'm a glass half-full kind of guy. So, but yeah, there has been that. And that's been the biggest formal, or really the only, formal established effort like that that I'm aware of.

Carl Franklin [01:52:59] Okay. So, I think I had read something that was really interesting to me and that you had, I think at one point suggested, because of this bycatch challenge that maybe the idea would be to set up some critical habitat zones where that, you know, indiscriminate fishing might be banned so that these alligator snapping turtles would have a better chance. Could you explain that?

Carl Franklin [01:53:27] Well, that just sort of like, if they had places where they didn't allow, say, trot line fishing or jug fishing, things like that, that would certainly be a benefit of the turtles there.

Carl Franklin [01:53:41] And but as far as designating a particular zone and saying this is the area here, we're going to have the Alligator Snapping Turtle National Preserve, I don't feel comfortable with that, because I think that's sort of ringing a dinner bell for poachers.

Carl Franklin [01:54:06] And back to that: today we've got Google Earth. If you know anything about some of the organisms you're interested in, you just have to go online and pull it up and look at these places, river by river, rock pile by rock pile, and you can find places. So, to pinpoint one I think wouldn't really be, and announce it, I don't think would be a wise strategy.

David Todd [01:54:36] Okay. Well, I think that you've touched on this a couple of times, but maybe you can just give us a little bit more detail. And that is the sort of effort to just get more information out there and share it more widely. And you've set up this group, and still lead it, called Texas Turtles, a non-profit group. Can you talk a little bit about the origins of the group and what its goals are?

Carl Franklin [01:55:06] Yeah, it started because I really like turtles. And back whenever the trade was still going on in Texas, one of the problems that was happening is that Fish and Wildlife agents would be faced with having to inspect, you know, a ton, an actual ton, of live turtles and be able to determine that what is going out is what they declared the species identification to be and the number of them as well for the declaration forms.

Carl Franklin [01:55:41] And they expressed how overwhelming that was. And that just from the law enforcement side, the sheer numbers they were dealing with was just crushing them. And there were challenges in being able to accurately identify some of the turtles.

Carl Franklin [01:55:54] So, that was how Texas Turtles, the website, started and then the social media group was, I thought, "Man, I really want to learn more about what's going on in our state with our turtles." And so, I created that Facebook group, and that just turned out to be a landslide of information and enhanced communication from people across the state about our turtles.

Carl Franklin [01:56:24] So, Texas Turtles from then, in 2019, myself and Viviana Ricardez, we created a 501(c)(3) non-profit organization. And we have our secretary, Sal Scibetta, so we're a three piece that we operate across the state. And we've been really effective at being able to get boots to the ground and taking on the task. And so, the thing we like as well is that we've had a really strong, demonstrable publication output. I think in the last two years, we've had maybe 22 publications or so on the topic of turtles here in Texas.

Carl Franklin [01:57:11] And, we've worked with some television personalities on shows. And we do engagements at different things. It's been mostly a lot of nerd audiences. You know, we got the Master Naturalists and various "ology" societies and stuff across the country.

Carl Franklin [01:57:30] And, you know, I'll tell you what, man, the excitement of these animals is contagious, regardless. I was invited out, I got invited to go do a few speaking engagements in Quito, Ecuador, four years ago. And earlier this year, I was speaking about alligator snapping turtles in Texas to the British Herpetological Society as their banquet speaker. So, it's, yeah, we've been able to get the word out.

Carl Franklin [01:58:04] I saw a lot of the red tape and bureaucracy that goes on in universities and you don't have to do that with your own organization. And so, we've been able to really be effective with our cost and using the resources that we are given to us at full capacity.

David Todd [01:58:26] Very nice. You know, it sounds like you set up a group that is light on the infrastructure and bureaucracy and red tape. But I guess it runs on people enthusiasm and interest. And I was wondering if you could just talk a little bit about the people who make up Texas Turtles or just the herper community at large.

Carl Franklin [01:58:50] I'll tell you what, between the two topics, I'll tell you about the people that make up Texas Turtles, because I'm so happy to know that those kind of people exist in the world.

Carl Franklin [01:59:03] And, you know, I'll tell you about Sal Scibetta: he's an old school herp guy, and he's a veteran and somebody that's been around a lot. And he is currently in San Antonio. And so we stay in contact. But the three of us get together. We usually know it's going to be a good time because we're going to be there for turtles.

Carl Franklin [01:59:31] Sal has also been active with some of the sea turtle patrols down on our coast with the Kemp's Ridley turtle being one. But we've also done a lot of survey work with Sal as well. And he brings a good wealth of knowledge from his prior time working in the zoo field. He was at San Antonio Zoo for many years.

Carl Franklin [01:59:57] And so, yeah, he's a great resource to have and just a one of these useless people, man. Sometimes useless people work out great for you because he's just been obsessed with turtles.

Carl Franklin [02:00:12] The other person that I'll mention is Viviana Ricardez. And I got to tell you, I'm honored that you picked me because it would have been probably a much easier choice to have her on here, but maybe at a later date. But, man, that's somebody right there that it's humbling to have somebody that comes in and didn't come in with a biology background. But just like so many of these other people had something that she loved, and didn't quite have the means or any other infrastructure to turn it into a paycheck.

Carl Franklin [02:00:49] But she just couldn't get rid of it. It was part of her, and she's been infected with it ever since her childhood. She's got, you know, I've seen pictures of her from her childhood, just so many of them holding turtles. I don't know if I have a single photo of myself holding a turtle as a kid. Even Sal's got pictures of a self as a little boy holding turtles.

Carl Franklin [02:01:14] But yeah, so she grew up with that her whole life and her parents were really supportive of it, but didn't have any idea of this esoteric program at a university. And, you know, and so, she has a criminal science background, and works in finance. And but that's not what she wants to do. And so, we're real lucky that she gets to share what she wants to do with us.

Carl Franklin [02:01:43] And I'll tell you this, I've been around a lot of folks that have started off as students and everything and stuff, and I couldn't imagine a better person to oversee our organization like what she does. And just having somebody there, that's a pleasant face for people to go to, not some scary-looking dude or something, you know, is also priceless.

Carl Franklin [02:02:10] We wouldn't be where we're at today without Sal and Viviana. I guess actually that's a true statement because we wouldn't be collecting. But no, I'm really lucky to be able to be connected to these guys and folks that are just so absolutely excellent at what they do just about every single time they do it. It's been a wonderful thing.

David Todd [02:02:42] Well, it sounds like it's...

Carl Franklin [02:02:43] Do I talk enough about how much in love I am with these guys?

David Todd [02:02:47] Well, it's great. You're lucky that you found turtles that you like, and people who like turtles that you like too. So, that seems like a very good combination.

David Todd [02:02:57] Well, I just have one ...

Carl Franklin [02:02:58] We're like a rock band. We get to, like, tour around Texas and do our gigs all over at wet places.

David Todd [02:03:05] Without guitars - turtles instead, I guess.

Carl Franklin [02:03:08] That's right, yeah.

David Todd [02:03:10] Well, let me just ask you one more question. You've been really generous with your time of.

David Todd [02:03:17] You know, we've covered a lot of topics, but inevitably, I skip over something. I forget something. And I wonder if I could just give you this chance to fill in the gap, if there is a missing part here that we should address. Anything about turtles or alligator snapping turtles you'd like to add?

Carl Franklin [02:03:43] Can I do a shameless plug?

David Todd [02:03:45] Absolutely. Always welcome.

Carl Franklin [02:03:46] All right, guys out there in Internet world, if you want to try to look as cool as myself or Sal or Viviana, an easy way to do it is to go to TexasTurtles.org and you can get your own exclusive Texas Turtles T-shirt. This is the hottest conservation-oriented shirt that you can ever find, and that you'll ever get. It's actually made here in Texas. It was designed in Texas. It even features the state of Texas with all the river systems and the lurking leviathan of the Lone Star State itself, the alligator snapping turtle.

Carl Franklin [02:04:21] So go ahead. Supplies are not limited. We've got a great hook-up with a local business, and we're not about some little bonkerville internet T-shirt company. We have the merch right here. We've got all the sizes. And for those of you out there want to plan a family? Yes, we even have onesies.

Carl Franklin [02:04:42] TexasTurtles.org: shop our merch! All revenues go directly to our turtle work, and that helps us a lot. And we love also making Texans look cool. And this T-shirt is a great way to do it.

David Todd [02:04:58] It's the fashion, whether it's a onesie or an adult.

Carl Franklin [02:05:03] Yeah, dude, I'm a total solid dork, man. Without this shirt, I'm like, I'm like a three on a good day.

David Todd [02:05:09] Oh, but with the shirt, it's a whole different story.

Carl Franklin [02:05:12] Oh, yeah. I'm, like, higher up on the 1 to 10, man.

David Todd [02:05:16] Well, thank you for sharing everything about turtles from those wiggling tongues to the fabulous T-shirt. So really appreciate your time tonight.

Carl Franklin [02:05:30] And I appreciate your time tonight.

David Todd [02:05:33] Oh, well. Well, it's mutual, then.

David Todd [02:05:36] So, I hope our paths cross sometime in the future. But thank you so much for what you're doing and for sharing about it. It's really a privilege to hear your story.

Carl Franklin [02:05:47] It's a privilege to be here tonight, man. And thanks for having me.

David Todd [02:05:50] You bet. All right.

Carl Franklin [02:05:52] Rock on.

David Todd [02:05:53] Thank you so much.

David Todd [02:05:55] I've got a button here. I'm going to hit "Stop Recording". But before I stop, I wanted to say thank you again.