**Paint the Town Reddish (Egrets, that is)! – S1E27**

**Dr. Sandra Rideout-Hanzak** [00:00:08] Welcome to a Talk on the Wild Side: Your biweekly tour of all things Wild in Texas. I'm your host, Dr. Sandra Rideout-Hanzak

**Georgi Eccles** [00:00:16] And I'm your new co-host, Georgina Eccles.

**Dr. Sandra Rideout-Hanzak** [00:00:19] And Andrew Lowery is with us in the studio today also.

**Andrew Lowery** [00:00:22] Howdy. Howdy.

**Dr. Sandra Rideout-Hanzak** [00:00:24] So as you just heard, we do have a new co-host. Some of you might know that Brianna Slothower graduated and she actually left us. So now we have Georgi. Georgi, why don't you tell us a little bit about yourself?

**Georgi Eccles** [00:00:37] Sure. I'm a UK native. I'm originally from a town called Accrington, which is near Manchester City. I did both my undergrad and my masters in the UK in animal behavior and then I decided I wanted to transition into a more habitat management conservation-focused role. And then I flew over the Atlantic to Texas and began my Ph.D. under the supervision of Dr. Ballard researching on breeding ecology in Northern Pintail. And you can check out our research in more detail because we were interviewed on this podcast back in the fall in November, and that episode is titled Duck Detectives. And I think that's it in a nutshell, to be honest, I'm sure that we can learn more about me in future episodes.

**Dr. Sandra Rideout-Hanzak** [00:01:26] We will. And if anybody wants to hear an embarrassing story about Georgi. Go listen to her biology blunder from our Duck Detectives project. That was a fun one. So, Georgi, I have a question for you. We've talked about the Texas Sharelunker program on our podcast before. Have you ever heard about it?

**Georgi Eccles** [00:01:46] Yeah, I've heard about it, but I don't know that much about it. It's my understanding that the Sharelunker program is a stocking effort where trophy-sized largemouth bass are in captivity for some time, and then they breed and the young are released into the wild.

**Dr. Sandra Rideout-Hanzak** [00:02:01] Yeah, that's right. The Sharelunker program is a joint program actually between Texas Parks and Wildlife Department and Toyota to help conserve and improve largemouth bass population genetics here in Texas.

**Georgi Eccles** [00:02:14] Very cool. And a project that seems pretty expansive given they're working with populations of bass. So do we know how they're tackling this project?

**Dr. Sandra Rideout-Hanzak** [00:02:23] Yeah, actually the program works with Texas fishermen and fisher women to create an improved line of genetics in the largemouth bass population. When anglers catch a largemouth bass over 13 pounds, they can donate it to the program where a group of devoted scientists have helped to produce genetically superior offspring. The offspring are sometimes called fry or fingerlings.

**Georgi Eccles** [00:02:47] Pretty impressive techniques, especially when it's an interconnection of outdoor people and the scientific community working together. Plus, a multimillion dollar car manufacturing company, Toyota, helping to fund this habitat and species management is really exciting. I really love hearing about these kind of stories. Just different groups of people working together towards a shared goal.

**Dr. Sandra Rideout-Hanzak** [00:03:07] Yeah, that's right. It really is something special. It's actually the only state program of its kind in the whole nation. It brings us to our what's Wild in News segment. So What's Wild a new today is that Texas Parks and Wildlife has recently announced that the offspring from these improved genetics line, a.k.a the Lonestar Bass, are finally ready to make their way back into Texas waterways. Starting in May, these little super fish will be released through 53 bodies of water all over the state.

**Georgi Eccles** [00:03:41] Wow, that's impressive. Really awesome. I'm looking forward to keeping up with this project for sure and hope it continues to be successful.

**Dr. Sandra Rideout-Hanzak** [00:03:48] Yeah, definitely.

**Andrew Lowery** [00:03:49] ummmmm Dr. Rideout? I'd like to request a little bit of time off for reasons...

**Dr. Sandra Rideout-Hanzak** [00:03:56] For reasons, for reasons unknown. I don't know. You might want to let these guys grow a little bit, though.

**Georgi Eccles** [00:04:03] All right, guys, come on now. Let's reel it in.

**Dr. Sandra Rideout-Hanzak** [00:04:09] Yeah, well, today we're talking about reddish egrets in our interview, and I thought it would be fitting to discuss one of the former conservation issues for egrets, which was harvesting the birds for their feathers. So think of those paintings that you've seen of early 20th century women wearing the hats adorned with those long wispy feathers. Those wispy feathers came from egrets. In fact, the term for this kind of hat was an aigrette, which is the French word for egret. And this was really the height of fashion in the early 1900s. But for some people, the aigrette was a wearable tribute to humans' lack of respect for the natural world, because it took the feathers of four egrets to create one aigrette. Each bunch of feathers on one of those fancy hats typically meant that a mother egret was harvested from her nest, leaving three or four eggs or chicks behind to die. Some statistics suggest that in 1902, one and a half tons of egret feathers were sold, which is estimated to represent 200,000 birds and three times that many eggs or chicks. Other figures indicate that in Florida alone, as high as 5 million birds would be harvested for feathers each year. Well, as you can imagine, this took a huge toll on the numbers of egrets and other colorful or showy birds as well. With the enormous decrease in migratory birds, the media began blaming women. The aigrette became known as the white badge of cruelty. This spurred public demand for bird-free alternatives such as the Audubonnet, which was made of silk and ribbons and named after John James Audubon, the painter, naturalist and ornithologist. While the problem may have been blamed on women, we can also attribute the solutions to women who campaigned to end the use of migratory bird feathers in fashion. One such woman was Florence Marion Bailey, who was a Smith College student in 1886 when she organized a local chapter of the Audubon Society. She went on to write birding books to help non-experts spot, identify and appreciate birds such as her "Birds through an Opera Glass," which was published in 1899. She eventually wrote six birding books over the course of her career. Then there was the German opera star Lily Lehmann, who encouraged her fans not to wear feathers by exchanging her autograph in return for a promise not to wear them. This growing movement for protecting the birds and restoring their populations led first to state protections. And as you're about to hear in our interview, it eventually led to federal protection for migratory birds. Now let's learn more about these showy birds from today's expert. We're here with Dr. Clay Green. Dr. Green is a professor at Texas State University. Dr. Green, welcome to our podcast. Thank you so much for being here.

**Dr. Clay Green** [00:07:07] Oh, thank you very much for having me. I'm really looking forward to the opportunity to speak with you all day.

**Dr. Sandra Rideout-Hanzak** [00:07:13] Well, great. It's our pleasure. Please introduce yourself first. Tell us a little bit about your work at Texas State University.

**Dr. Clay Green** [00:07:20] Oh, sure. You know, you said I'm Clay Green and I'm a Texas State University in San Marcos and I've been here. It's coming up on my 17th year since I've been here and, you know, mostly kind talk about my research. But I, you know, as far as I'm a professor in the department and so I teach and do research and I teach a variety of wildlife courses, primarily focusing on ornithology, mammalogy and conservation biology. And then do you focus a lot on research? And over the years, my research has been in different areas, I guess, because we have students, you know, that come to the university that want to study, you know, everything from mammals to birds in my area. And so I've dabbled in a little bit of of each of those. But Waterbirds has been primarily kind of where my focus has been for the for the vast, you know, 17 plus years.

**Dr. Sandra Rideout-Hanzak** [00:08:29] Well, that's interesting. My daughter is going to go to Texas State in the fall, but she did not get the outdoor bug from either my husband or me. So she probably won't be taking any mammalogy or ornithology classes or anything like that unless she's a late bloomer.

**Dr. Clay Green** [00:08:46] There you go. Well, that's fantastic that she's coming up there. That's great. I hope she enjoys her time there.

**Dr. Sandra Rideout-Hanzak** [00:08:51] Yeah, well, I'm just jealous because it's such a pretty place.

**Dr. Clay Green** [00:08:55] It is so. Yeah, they. They, in fact, I spend a lot of time on the river, but it is a beautiful place. Yeah.

**Dr. Sandra Rideout-Hanzak** [00:09:03] I would be out there every day if I was there. Quite a distraction. Yeah. So you mentioned that you're a lot of your research is focused on water birds. Tell us more about that. What kind of birds and what sort of research?

**Dr. Clay Green** [00:09:18] Sure. So, you know, my I guess if I were to narrow it down to one real focus, it's been on herons and egrets, where much of my research has been done over the years and maybe my greatest interest lies. But in general, I'm interested in water, bird conservation and ecology and research related to that. And so for people that aren't familiar with what I mean by waterbirds, basically, you know, any, any type of bird that's associated with an aquatic environment, whether it be coastal species or wetland lake riparian species. And so. That's where they've been kind of the main focus of my research is in Waterbirds. As I mentioned, I have over the years with a particular student that has something a research topic. This may be different from mine. I have been involved in everything from work similar to what's been done. It's been done in the past with physical labor and that is like wildlife crossing studies or do a little bit of work with songbirds. So dabbled in some other areas. But my I think what I'm most passionate about is waterbird, conservation and primarily species that I've worked in recent would be the reddish grids, the black rail, the American Oystercatchers and these other species like that.

**Andrew Lowery** [00:10:52] Yes. So you mentioned the reddish egrets. That's actually something we haven't really had the chance to talk about before. What helped create the interest in that for you?

**Dr. Clay Green** [00:11:01] You know, a great question. It was it was just really fortuitous timing, I guess, in the sense that so many years ago, I guess 22 years now, when I was working on my Ph.D., I was studying herons and egrets. And my focus was in Louisiana, where I was doing my doctoral work at the time. But I was looking for a species that is it has several color morphs, right? A species inherent in egret. And there are six or seven depending on taxonomic classification in the world and the closest to Louisiana was reddish egret. And anyway so I started I traveled to south Texas from Louisiana. I went down to Laguna Atascosa and to specifically do some behavioral observations of reddish egrets. And so it was really just a bird that was of interest because of the behavioral questions I was asking. But at the time, right, right after I graduated, the bird started to get the attention of the U.S. Fish and Wildlife Service for its conservation status. So I sort of I gravitated towards reddish acreage because of the model species for these behavioral questions I was answering. And then the timing was, was well that as I was finishing I was pretty well the only one in the States working with reddish egrets and the Fish and Wildlife reached out to me to see if I wanted to become basically more involved in relish your research, because like I said, I was really the only one doing work at the time and it was on their radar as a species of conservation concern.

**Dr. Sandra Rideout-Hanzak** [00:12:57] That's really interesting. You know, you mentioned something that fascinates me. I didn't know much about reddish egrets until we reached out to you. And I still don't know much about reddish egrets, just keeping it real. But you mentioned the different color morphs. What's the deal with that? How do some species, I guess it happens maybe more often with bird species. I've noticed it. How do they get these different color morphs? It's the same species, but they turn out different colors. What's up with that?

**Dr. Clay Green** [00:13:27] That's a great question. I wish I could give you a definitive answer. But, you know, it's a complicated subject when it comes to what we would, I guess, you know, kind of from a scientific termed color polymorphisms. Right. And basically, like you said, in birds where you have a lot of species that come in multi-color morphs. Right. And you see this in raptors, you see this in some songbirds. But it's pretty common in inherent in egrets as well. And, you know, the short of it is there's probably multiple factors influencing sort of this, you know, different color more but what but the main hypotheses are thought to be related to foraging are potentially related to social, basically sociality of the species like as far as drawing the attention of others for the advantage of being in a flock for reduction potentially from a predator or being in a foraging flock that actually helps greatly to increase foraging efficiency. There may be some thermal advantages to being a dark or a light plumage as well. So I can't give you a definitive answer for all birds, but I would say that the evidence that projects that I've been involved in many years ago and then others during that time as well for herons and egrets, I would say that it probably has something to do with foraging. And in very short description is the. Why plumage against. We don't think of white plumage as being camouflaged its white rise through a bright ceiling. But if you are a bird in a very open, highly solar, intense environment and you're a fish looking up through the water column white and we've done studies to demonstrate this that white actually blends in with the harsh back sun, much greater than the dark object. And so and so the point is that it's possible that the white plumage birds are more cryptic in certain substrates, in certain backdrops than others. And so that that's the hypotheses. And, you know, there's, there's there's always competing ones out there. But that's kind of the that's where our current thinking is, if you will.

**Dr. Sandra Rideout-Hanzak** [00:16:09] That's really interesting. And you're right. Yeah, I noticed that whole color morph thing in raptors and I didn't really realize that parents did it too. So that's, that's very interesting to me. It makes me wonder if they're like, if we've caught them in the middle of evolving into some other color something and you know, have you ever thought about that or is that. Yeah.

**Dr. Clay Green** [00:16:32] No, no, it's not silly at all. And that's and I didn't want to, you know, get too much into my dissertation. But that's what led me to write a sequence was we were looking to your point. Exactly. I was looking at closely related species that differ in plumage, coloration like a little blue heron in the snowy egret. They're sister taxa, but they're clear, distinct species, yet they vary they differ greatly in the plumage color. And so then I was looking inter specific, you know, within a species for a white and dark bird, exscuse me. And that's what led me to reddish egret. So there is some, you know, thought about, you know, are we just in that evolutionary timeline, just witnessing what potentially thousands, hundreds of thousands of years from now could represent separate species? Absolutely.

**Dr. Sandra Rideout-Hanzak** [00:17:29] That's cool. So you mentioned that the egrets were a great model species for what you were wanting to look at. Was that it was it about these color morphs that you were interested in tackling?

**Dr. Clay Green** [00:17:43] So that's what got me. That's what got me into reddish egrets as far as study name. And the reason, you know, go back to your question, the reason I can't give you maybe a more complete answer is because I haven't focused on that as much in the last 15 years as I probably thought I would. I think I came to Texas thinking that I would focus on the behavioral aspect and this adaptation of color morphs. But then when the Fish and Wildlife Service approached me about the conservation status of the species, it really. It drew my attention to what do we not know about that achievement? What do we not know? Not just the color morph thing, but what do we not know about their ecology? About survivorship, about their status? Where are they and how are they doing that? That so that really is what I've been doing the last 15 years is much more about ecology and how that ties into the conservation of the species.

**Dr. Sandra Rideout-Hanzak** [00:18:46] That's interesting.

**Andrew Lowery** [00:18:48] That's awesome. You know, we have a lot of people who ask us, both through social media and just directly through the podcast, that people that have an interest in getting into the natural sciences. And sometimes we kind of ask a very general question of, you know, what? What should you do if you want to, you know, study this? But I want to take it a step further. I want to ask you if someone wanted to do your job and obviously you don't want someone taking your job. But if someone wanted to do exactly what you are doing, what would be a good course of action for them to take?

**Dr. Clay Green** [00:19:20] It's a great question because I'm sure taking a circuitous route for sure. But I would say. Well, you know, there's the there's the standard sort of, if you will, stereotypical answer about, you know, seeking opportunities and all that. And those are important. Right. And, you know, I've tried to seek out opportunities, whether it'd be a volunteer or work or internship, those kind of experiences. But I think for me, the biggest the best piece of advice I would like to offer is that to kind of find your niche and find what you know, what you're passionate about and what you know, what motivates you. But also, I would recommend that you go into this feel like if you wanted to do what I did is try to be as open-minded as possible. And what I mean by that is I grew up wanting to do this, but I always wanted to work with bears and wolves that sounded cool and sexy and, you know, and I still like bears and all right. But I, I kind of, you know, found my niche and I found species that weren't that attention wasn't being brought to them. And they and they were deserving of attention and deserving of research interest and deserving of conservation. And so I just really advise people to find that niche, find that unoccupied, right. That's out there that you can, you know, fill. Right and hopefully make a difference in think basic research, conservation, ecology, whatever it is.

**Dr. Sandra Rideout-Hanzak** [00:21:17] That's great advice. I think that's yeah, I think that's super because you know our second episode or a throwback a long ways our second episode we interviewed Dr. Dara Orbach and she studies sexual morphology of dolphins and specializes in the in vaginal morphology. And she created that niche for herself, basically. I mean, you said find your niche. This lady made her own niche for herself. Like that was not a career. And she's turned it into this really awesome career. And I just think, yeah, that's what we need to do because like you say, everybody's interested in the sexy things, you know, the cats and the wolves, and the bears and stuff like that. But there's so many things out there that are worth studying that nobody's looked at yet. So in your research I want to go back to your research for a sec. What do you think has been the most interesting or the most important thing that you've been able to discover through the years?

**Dr. Clay Green** [00:22:18] You know, I think I think if I'll focus on that issue, just because that's where a lot of my attention and resources have been, had been given to or focused on is. I would say in Texas. I think we I think when we first when I first started down this journey, we kind of thought Texas as the center of the egret world. And it is incredibly important. But it opened my eyes to the connectivity of Texas with especially Mexico for immigrants. And so that well, Texas has a huge number of the breeding population in the world over here in Texas. Some work actually with colleagues here at Ceasar Kleberg, with Dr. Bart Ballard. He and I years ago looked at the movement, the ecology of the species and, you know, everything from color banding birds to radio and satellite transmitters. And it really I think the important thing that they came from that was that what happens our birds in Texas is very much dependent upon what's going on conservation wise in Mexico and vice versa. Right. What's going on for us here is important for the Mexican birds as well. And so just that that connectivity, peace and not only birds that, you know, our work we did was the first study to reveal to provide real evidence of the secrets in Texas are migratory and so they winter in Mexico in El Salvador and further down and so just that migration piece and that connection piece that basically from Louisiana all the way down Texas to Mexico to around the Yucatan Peninsula is a very connected population. And, you know, what happens in one area can affect other areas.

**Dr. Sandra Rideout-Hanzak** [00:24:19] Yeah, that's really important to think about too. I taught the introduction to Wildlife Professions class here for many years and I always told folks, you know, if you want to work internationally, get into birds because these birds are these birds aren't respecting international boundaries at all. And so. Exactly, yeah, we've really got to cooperate with other countries and the other states around us to be able to conserve migratory animals, particularly.

**Dr. Clay Green** [00:24:51] So. Absolutely.

**Dr. Sandra Rideout-Hanzak** [00:24:52] Wow, that's terrific. Yeah. And for anybody who's interested, if you didn't if you're a waterfowl fan and you didn't hear our episode with Dr. Ballard that the Green just mentioned, go back and listen to our Duck Detectives episode, because that's what Dr. Ballard, if you want more waterfowl stuff. What other bird species have you studied? Do you have a favorite species to work on or a favorite topic to tackle?

**Dr. Clay Green** [00:25:21] Yeah. Reddish egrets are probably my favorite, I think is where. Yeah. I oh well I mean there are birds there like dream birds out there that I'm like, oh, I want to just see one, you know, much less work on it. But, uh, but I, but I've worked on black rails and so a species that certainly has increased attention in the state and at the federal level, which is listing recent listing as a threatened species. And so we were involved in the first funded project basically to assess the status within the state of Texas, and that was several years ago now. But that data helped, helped. We provided that data to the state and to the Federal Fish and Wildlife Service for the evaluation of the species. And so I, I'm not working on black rails right now, but that involved a little bit on the periphery of them, but just another bird that, you know, wasn't getting a lot of attention and now fortunately is getting attention. And then other species, you know. I've worked in everything from other, like I mentioned, American oystercatchers and little blue herons and snowy egrets over the years. And then I do I currently have student working with Black Vireo, which is definitely sort of outside my expertize, if you will, but certainly the species that have been delisted. And so there's a lot of interest from the state and the Fish Wildlife Service about how is the population doing now that it's been delisted.

**Dr. Sandra Rideout-Hanzak** [00:27:02] Interesting. That's interesting. If you could get half a million dollars tomorrow and study whatever you wanted to study, what do you think you would want to tackle if you don't mind sharing?

**Dr. Clay Green** [00:27:14] No, not at all. I think well, I think if I if I have that and as much as I have great ideas, I think I think great ideas, great ideas for me, but just sort of do registry, great work. And I would definitely like to expand the work that we're doing. We've done in Texas to Mexico and the Caribbean in places like Cuba and all that. There's a lot of questions unanswered, I think, to answer your question. If I had that opportunity, it would probably be and this is on the other side of the world, but the white bellied heron, it is the rarest heron in the world. There's less than several hundred left in the wild. And these are birds that live in the foothills of the hinterlands. And they feed, they forage at waterfalls and they're one of the tallest herons in the world. So you think about a great blue heron, which, you know, many of us see throughout Texas. Yeah. These birds stand tall or they're like whooping crane or bigger size heron. Yeah. So I guess if money was an option and I could do anything, I think it would to try to help, you know, the rarest heron in the world. I think that's where my, my, my attention would be put.

**Dr. Sandra Rideout-Hanzak** [00:28:38] Okay, that's cool. I want to backtrack for just a minute. There might be folks out there who are like me, love wildlife, but don't know a whole lot about reddish egrets. Can you just tell us more about the basic natural history of a reddish egret? Where do we find them? What do they eat? What are the conservation issues with them?

**Dr. Clay Green** [00:29:02] Absolutely. Yeah. So they are you while you can see them inland in Texas, they are primarily what we call a coastal obligate being destroyed. So they're primarily going to be found on the coast. They are going to nest on the coast and they are going to forage on the coastal and there and within the coast, right there are what we call a tidal flat specialist. So they're going to typically be in that you might see them on the beach like, you know, like Padre Island or Mustang Isle or something. But they're probably more likely going to be in the bays and estuaries in those back bays and estuaries where the water is. While there is certainly lunar tides there, of course, it's much more wind-driven tides. So when you think about and you go to an area where it's if you see an area and it just looks like barren sand, and then you come back 6 hours later and it's got water moving into it from the tides. That's what they like. That's the kind of habitat and, you know, they're there. And so they're very much a coastal specialist, which is different than what we see in so many other herons which migrate both here. And you can find practically anywhere in the United States and in almost any sort of habitat, reddish egrets. And I think that's what your question about the threat. That's that, I think is what's is one of the reasons they need our attention and we're giving them our attention is because they are a coastal obligate species. And we know the coast is under threat from both sea-level rise and climate change. But also we as humans like to live on the coast. Right. And so tourism and development and all those things and then the things we bring with us. So I like dogs and cats and then these are carnivores like raccoons. So there's a lot of things from development to human disturbance at islands to sea-level rise to predators that are certainly affecting retention rates.

**Dr. Sandra Rideout-Hanzak** [00:31:07] That makes sense. So silly question for you here. I'm a fire ecologist, so I don't know. I ask a lot of silly questions of our local guides here. Are they strictly carnivores or do they ever eat some plant species? What do they eat?

**Dr. Clay Green** [00:31:25] Oh, yeah, no. Yeah, great question. No. So they are. You know, I guess we would technically call them perseverance. Right? Pisces. Like eating, but. But even then, that's not. They are primarily fish. But we have done studies and others have done studies that they are going to eat opportunistically. Shrimp species and other things. But. Most Sheepshead Meadow is for anybody listening that is familiar with a Sheepshead Meadow. That is whether you are in Florida, Louisiana, Texas, the Bahamas, the Yucatan. The superintendent is the scientific name. That is the I don't know if it's the preferred fish. Right. We've never done an actual test to see if that's what they prefer. But most of the secrets in their diet is the Sheepshead Meadow. So there's a small what we would kind of think of as a kind of a basis, a minnow. Yeah, that is, that is there, there. And it's a species. It's very common. And I think whether she gets are very opportunistic in feeding on the common fish species.

**Dr. Sandra Rideout-Hanzak** [00:32:33] That's very interesting. Like if they saw a little crab or a little shrimp or frog or whatever, they take it?

**Dr. Clay Green** [00:32:40] Yes, I have seen them. I have seen them take, you know, like little fish. I've seen them take shrimp. So they're opportunistic. I've seen them take a large mullet and try to figure out how that thing is going to go down its throat. And somehow it got it down. But they typically eat a lot of small fish.

**Dr. Sandra Rideout-Hanzak** [00:33:02] Okay.

**Andrew Lowery** [00:33:03] So a question on that. We spoke about the kind of armored catfish problem here in Texas recently. And those had been posing a threat to certain shorebirds because they are not adapted to be able to eat those. Do you see that?

**Dr. Clay Green** [00:33:16] You know, that's a great question. I don't know for sure. I have seen I've seen herons. Let me just say, in general, I've seen herons take armored catfish. I don't know if I've seen a red. I figured it could be an issue. I think the big thing would be, you know, if it's affecting the fish that they normally like, if it's somehow displacing them. But I think it could it would recognize it's definitely a problem whether or not the problem for reddish egret or. I don't know. Yeah.

**Andrew Lowery** [00:33:47] Yeah. So more silly questions. Reddish egrets, they're not game species, right?

**Dr. Clay Green** [00:33:53] They are not.

**Dr. Sandra Rideout-Hanzak** [00:33:54] Okay. Were they ever a game species? I mean, I guess maybe anything was for a while.

**Dr. Clay Green** [00:34:00] Well, no, it's a good question, because they were in the sense not for their meat. Right. But for their feathers. And so. Yeah. The plume trade of the 19th century. Right. And sort of finally came to an end in the early 1900s. So the early 20th century. But yes. Egrets, especially the reddish egret, I really should say, especially the snowy egret and the great egret were the most persecuted for the plume trade. But reddish egrets were certainly affected heavily in Florida and heavily in Texas. And and Green Island which would be the closest to Port Mansfield, kind of the closest city to the Green Island was thought to be kind of the one of the last refuge of one of the last strongholds in Texas that that wasn't as accessible. And birds were able to withstand the pressure from the plume trade.

**Dr. Sandra Rideout-Hanzak** [00:35:10] Really? Okay. Yeah, because they have these for anybody who can't picture it, they have these lovely long feathers that almost look like long hairs. Those were really popular, like fur hats and things like that. Is that right?

**Dr. Clay Green** [00:35:24] That's exactly right. Yes. Yeah. So they were worn. And, you know, has there were other crazy pictures you see out there where they made them into dresses and all those kind of things. But primarily it was the aigrette? It's a French word. But that that that breeding plume, um, was worn in hat and Grady, which are probably the best example that you can, you can probably Google a picture and see where they, the male will erect his breeding plumes and it basically makes the bird much bigger and they use that to attract mates. And those specific feathers were the ones that were targeted by the plume trade.

**Dr. Sandra Rideout-Hanzak** [00:36:07] Okay.

**Andrew Lowery** [00:36:09] Speaking of the plume trade, it was the Migratory Bird Treaty Act that ended that. If I'm not mistaken?

**Dr. Clay Green** [00:36:16] There were several things. It was certainly that was the piece of legislation because then over time. Right, that put that protection in place between the US, Canada and Mexico as well. But yes, the Migratory Bird Treaty Act, there were other things that helped it, the act that prohibited the movement of wildlife across state boundaries and things like that. But yes, the Migratory Bird Treaty Act was instrumental and it's instrumental still today, right, to provide that protection for all migratory birds.

**Dr. Sandra Rideout-Hanzak** [00:36:46] Now I have another question. Those long feathers. Do only the males have them? Or do both sexes have them?

**Dr. Clay Green** [00:36:54] Both. Both sexes have them. Oh, that's a great question. Both sexes and they both kind of display the tricky part with the egrets. Right. Is there not sexually dimorphic so you can't tell male from female. Just looking at the bird. And so it's tricky, but the behavioral work that's been done is they both display. But typically it's the male that's really doing the bulk of the display. But they'll kind of display back and forth to each other, both using their skills.

**Dr. Sandra Rideout-Hanzak** [00:37:28] Interesting. I need to find a video of that now. Now that I know that, I know I need to see it.

**Dr. Clay Green** [00:37:34] No, it is quite beautiful.

**Dr. Sandra Rideout-Hanzak** [00:37:35] I bet it would be. But it would be. They're just really elegant birds anyway. I mean, just. Just such an elegant figure to them.

**Dr. Clay Green** [00:37:46] Very much so.

**Dr. Sandra Rideout-Hanzak** [00:37:48] Well, okay, we're going to change the subject a little bit. As you know, one of our favorite questions to ask on a talk on the wild side is about biology, blenders, where we've done something that just didn't quite go right in the field and we end up with a silly story. Do you have a biology blender that you could share with us?

**Dr. Clay Green** [00:38:05] I do. I do. I was thinking about that. Yeah, I and we mentioned Barb Ballard earlier, and this one, this involves Bart. And he, you know, he probably remembers the story fondly, but it was my first year actually at Texas State. It was my first breeding season of doing field work. So in 2006 and Bart and I and several students from his lab were out in the Laguna Madre doing registration surveys and banding reddish egrets. And this storm, if you will, and I don't mean like a thunderstorm or just like intense wind, you know, the wind, you know, it went from maybe a small craft advisory to significant and a small craft advisory. Long story short pass boat was. Kept the engine, kept dying. And so I had this great idea that, well, hey, I'll just sell my boat still running cause we were in two boats out your boat in. And this will be fine. Even though the weather was getting worse and worse and we ended up all getting in my boat because it was too hard to tow their boat with a lot of weight in it. And while we were toeing the line, snapped on towing his boat. And it all basically it's hard to visualize that it pulled my boat, turned my boat around into the waves as a wave came over the back side of the boat and within like what seemed like forever, but happened within seconds our boat sank.

**Dr. Sandra Rideout-Hanzak** [00:39:47] Oh, my God..

**Dr. Clay Green** [00:39:49] We all. We all go into the water. Oh, and my boat just instantly went under. And Bart, very fortunately, was able to jump onto his boat. And by a miracle, the engine started and he was able to get the engine going, cut the other line and go and pick all of us up. And one of the students, literally, while we're bobbing in the water off the location of my boat, because just the very tip of the barrel was standing out of the water, it was about 12 to 15 feet of water that we sunk in. And she GPSes the boat. We were able to get back to shore. I called. There's apparently a boat wrecking service in town. I called them and said, Look, my boat sank, I want to get it. And we were able to get back out in that weather and pull my boat up off the bottom and take it home.

**Dr. Sandra Rideout-Hanzak** [00:40:43] Really? Wow. That is quite a biology blunder.

**Andrew Lowery** [00:40:47] Oh, my. I thought for the first time we were about to get the other end of a story that we'd already heard. But goodness. Dr. Ballard.

**Dr. Sandra Rideout-Hanzak** [00:40:56] Bart's. Yeah. So Bart's story starts out something similar to that. Very similar. Where he wasn't paying attention to the weather forecast, but he held out on us. He had,, he's done this more than once. I'm just giving him a hard time now. But that's funny. I love this story.

**Dr. Clay Green** [00:41:18] That is funny.

**Dr. Sandra Rideout-Hanzak** [00:41:19] I love that it turned out well. I guess you guys all have.

**Andrew Lowery** [00:41:21] You guys were all well organized. You know, obviously, you guys are doing it right because when something went wrong, which it does, that's the point of biology blunders. Things go wrong. You guys responded correctly and everything was fine because everyone was their place and they did their job. And, you know.

**Dr. Clay Green** [00:41:37] Absolutely. You're right. I mean, at the end, it was sort of like now we're back at the boat ramp looking at each other like, I can't believe that has happened and I am very grateful that everybody's okay. But how the heck? It's kind of like wow that happened. That just happened.

**Dr. Sandra Rideout-Hanzak** [00:41:52] Yeah. Wow. Yeah. I've said this before, but there are just inherent dangers in what we do. Some days, most days, we. We get lucky and everything goes in our favor. But I'm glad that worked out for you. And that is kind of a wild story about your students. I bet your students don't forget that day.

**Dr. Clay Green** [00:42:12] Exactly. And I remember thinking, wow, I've been on the job seven months and I just sank a university boat. Thankfully, I was able to tow it off the bottom.

**Dr. Sandra Rideout-Hanzak** [00:42:27] Oh, gosh. Yeah. Wow. Wow. Okay. Well, thank you for sharing that. That's great.

**Dr. Clay Green** [00:42:32] Oh, sure.

**Dr. Sandra Rideout-Hanzak** [00:42:33] Is there anything else you'd like to share with our listeners today?

**Dr. Clay Green** [00:42:38] Well, you know, I've really enjoyed being on her day, I think. You know, I was just thinking back about the questions I asked about advice for young listeners and all. And I just, you know, kind of not to repeat myself, but. I really do think in the changing world that we live in and there's there's just so many species out there that need a champion, right? That need somebody to say, you know, hey, let's care about seahorses or fungi or whatever or whatever taxes out there. And I think that there is. You know, we were talking about like, you know, we're making like bears and wolves and how beautiful they are and charismatic. And I think there's beauty in nature everywhere. And I think, you know, the bear is my favorite animal on the planet. Probably still a bear. Yeah, it is. But reddish egret. Or when you sit and watch an animal and you watch what it does and how it makes a living, you find the beauty and then therefore you find the, hopefully, that passion to want to conserve it. And so I just encourage people to, you know, find that species, find that group, find that habitat, whatever it may be that needs a champion and go out and do your part.

**Dr. Sandra Rideout-Hanzak** [00:44:00] That's great. There are; you're right. There are so many species that just need a hero right now. So great advice.

**Dr. Clay Green** [00:44:07] Absolutely. Well, thank you.

**Dr. Sandra Rideout-Hanzak** [00:44:09] Yeah. So thank you so much. I've thoroughly enjoyed talking to you and learning more about reddish egrets.

**Dr. Clay Green** [00:44:19] Well, thank you. No, it's been an enjoyable time. And again, I really do appreciate the opportunity to talk to everybody and to share what I've been doing.

**Dr. Sandra Rideout-Hanzak** [00:44:29] Great. Well, great. Thank you so much. A Talk on the Wild Side is a production of the Caesar Kleberg Wildlife Research Institute of Texas A&M University-Kingsville. Funding for this project is provided by the Harvey Weil Sportsman Conservationist Award by the Rotary Club of Corpus Christi. Editing was completed by the talented Gaby Olivas, Andrew Lowery and Tre' Kendall. We thank the TAMUK distance learning lab for all their help and cooperation.