

Dr. Donna J. Shaver

Interviewed by Dr. Jen Brown

March 26, 2021

Interviewed conducted over video conference

Transcribed by Jen Brown

[Dr. Jen Brown]: Um, okay, so we're recording now, and for the record, this is Jen Brown, I'm here with Dr. Donna Shaver. It is March 26, 2021, and we're here to talk about her work and career with Kemp's ridley sea turtles. For the record, do I have your permission to record?

[Dr. Donna Shaver]: Yes.

[Brown]: Okay, thank you. Um, so we'll just jump into here, and I wanted to start at the beginning and have you tell me about your background and early life.

[Shaver]: Well, my background is that I grew up in upstate New York. I went to Corcoran High School, it's kind of a city setting. There was, however, an area that was part of the Environmental Science and Forestry forest, that extended very close to my neighborhood so there were a lot of woods I was able to play in as a child, and I had a grandfather up the street who raised African violets, had a bird, fed the squirrels, had plants, and then had aquariums, including saltwater aquariums. When I was young, it was very influential in my life. I was youngest, I have three older brothers. They went into electrical engineering fields, and I was interested in wildlife biology. Specifically, I homed in on—I was very interested in endangered species preservation. Back then, I was an undergraduate major, I got into Cornell University. I went to Cornell, again, I'm from upstate New York, and it was traditional wildlife biology back then, where it was focused on hunting and the game animals, the birds, the mammals, et cetera. But I was always interested endangered species recovery efforts, threatened, and endangered species. I read about the efforts here at Padre Island National Seashore through a Student Conservation Association brochure back in the days when there were cork boards, real cork boards, and that's how you read about opportunities. The SCA had opportunities all over the country. But the one that was described from here sounded ideal because it was with the Kemp's ridley turtles and then some other wildlife work. So I applied, and was very fortunate to get the position. So that was my start, 1980 here as an SCA intern, and between my junior and senior years of undergraduate school at Cornell. The Kemp's ridley population was plummeting at that time, and I was so fortunate of where I was in time and place. It was a very small program. There was a division chief who had an office that was in Flour Bluff, a seasonal employee, and myself, who ran the efforts, and this was before desktop computers and so this seasonal employee, who was also a professional photographer, taught me a lot about photography, and taught me how drive a military-surplus four-wheel-drive Jeep. We drove all over the island, and did various [unintelligible] surveys, and plant surveys, and different things, and taught me a lot about the flora and fauna, and really helped me fall in love with South Texas. I was very moved by the plight of the Kemp's ridley. I had a room in the trailer on the

island at the residence area, walked the beaches at night, picked up seashells, learned what they were, and had a copy of action plan for the Kemp's ridley on the nightstand next to my bed and would read that, became inspired, and the population was plummeting so precipitously that some people thought it might even be too late to try save the species. So, back then, I dedicated my career to trying to help save the Kemp's ridley turtle that was almost lost in a blink of an eye. One human generation because, primarily of the activities of man, the large-scale taking of the eggs as supposed aphrodisiacs, and the incidental capture of juveniles and adults due to fisheries operations, and it was primarily shrimp trawling. And in one human generation, 1947, and we'll talk about the riddle of the ridley, but that's the year that very famous film was taken that shows the estimated anywhere from 26,000 to 40,000 females nesting at that primary beach in Mexico. That's when the population was robust, so that's our anchor point for the population, 1947. So, I wear, I'll show you here, it keeps me motivated, here one human generation. Here's my father's ring graduation from the Naval Academy, 1947, same year as the film, and here's my graduation ring from Cornell, 1981. One human generation, we almost lost the species. And there's a little turtle inside. And so when things get hard, I remember that it was almost lost that quickly. And, what I decided back then, and I knew if I was going to try to do this, there were going to be a lot of sacrifices involved because animal husbandry is time consuming. You're tied to the animals almost as if they're little, you know, infants where they've got needs and you can't just go take off to go shopping and things like that. You've got responsibilities. I was very committed, went back to Cornell with my pictures from the turtle work that I was so inspired by and showed my wildlife biology professor and he said, "You really like those?" Because, you know, they were scaly reptiles and not a furry mammal or a feathery bird, and I said, "Yeah, I really do. This is what I want to do with my career." Also, at that time, in 1980, we did colonial waterbird surveys, and I met Dr. Allen Chaney who was a professor at what was Texas A&I [Texas A&I University-Kingsville] at the time. It's now A&M-Kingsville. He was a good friend of that seasonal employee that I worked with, Tom Urban, who'd be another great one for you to interview. And Dr. Chaney was major professor of a lot of graduate students who went on and did wonderful things. Dr. Wes Tunnell, who I'm sure you know about, was one of his students, Brian Chapman, Nancy Rabalais, Roger Zimmerman, uh, just people that settled into resource positions all over South Texas and academic positions in the U.S. There was even the one that ended up in Alaska that ended up—um, Tom Shirley was one of his students. He had Seven and One Half Fathom Reef studies, and so a lot of them did their work there between the echinoderms and the mollusks and the crustaceans, all of those. So I decided, well, I wanted to go to graduate school and work with Dr. Chaney for my master's. Back then, there weren't that many turtles so it was too risky to try to do a thesis that was based on the sea turtles. There just wasn't enough numbers to merit a master's thesis. So I decided to do a thesis on surf zone fish at Padre Island National Seashore. I love taxonomy and fish taxonomy is really intriguing to me so that's what I did for my master's working there, and I had hoped that a Ph.D. program would come along in South Texas, but it took many years, actually, after I had graduated. I graduated Cornell in '81, my master's from A&I in 1984, and would have loved to gone into a Ph.D. program, but there wasn't one here. So it was a whole decade before I started my PhD with Dr. David Owens up at Texas A&M [University] in College Station. He's since moved on from there, but he was the major professor of Dr. Pam Plotkin, Dr. Thane Wibbels, many, many scientists, Roldán Valverde, Heather Cobb,

several people in sea turtle biology, Dae-Yeon Moon, people that did some great work. So I went back to work at Padre Island National Seashore as a seasonal employee in 1981. I was seasonal from '81 through '84, and then to get my foot in the door as a permanent employee, I took a dispatch position with the Ranger Division. My philosophy was always to work hard. I cared about my work, and it wasn't a competition with anybody. There were things that needed to be done. Back in 1980, one of the maintenance guys said, "Oh Donna, stop working too hard, you're making the rest of us look bad." It wasn't a competition. That really didn't matter to me. But I thought, "Well, if all the bosses here see that I work really hard, if there's an opportunity in a different division, perhaps I can get in and then lateral back into the field that I'm interested in." And indeed that was the opportunity that just so happened. There was a freeze on hiring to increase the number of employees, and I was on a temporary position. I had taken the test for what was called a register back then, and I was top of the register so the chief ranger was able to get me for this dispatch/fee collection position. Which, you know, with a master's in biology, it certainly wasn't my field, but he knew that I worked hard and I would give it my best shot and I'd do a good job. It was tough to sit out the turtle work for the nine months I was in that position before I lateraled back into my field, over in what was the division then called Environmental Services, which is now the division of Science and Resource Management. There was a lot of reorganization that went on at the park with where the turtle program resided. That could be the source of a whole hour in itself.

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The program with the turtles here was begun in the mid-1970s by Mr. Robert Whistler, who was a resident of Flour Bluff and a neighbor of Dr. Henry Hildebrand. And they talked about the plight of Kemp's ridleys and other sea turtles, and in the 1974 Resources Management Plan for the park, Robert Whistler put in a statement to form a secondary nesting colony of Kemp's ridley turtles as a safeguard for the species in case some sort of environmental or political catastrophe was to occur in Mexico, there'd be this safe area where Kemp's ridleys could nest and be protected. Well, that morphed into him getting help from the regional chief scientist, bringing in all the other leaders from the sea turtle community worldwide and agency heads that formed this binational action plan. That was the document that was at my bedside in 1980 when I first started. It was the framework was the oversight for the work that I did here at the park, but that was—also that was the beginnings of the binational project for restoration and enhancement of the Kemp's ridley population. Part of that binational restoration and enhancement program was of course the protection of the turtles at the main nesting beach at Rancho Nuevo in Mexico but another part was this effort to form a secondary nesting colony. And another part was the Head Starting of the turtles after they went through our experimental imprinting and Head Starting work. So, once we get to, you know, when I had my first position here, my beginnings and my course are merged with what's happened here at the park. Robert was the Chief Naturalist, he was the Chief of Interpretation that oversaw Resources Management, which was a variety of projects with the flora and fauna here, and interpretation was interpreting it to the public, educating them. Another name for interpretation in the parks is public education, but they call it interpretation. And they used to call those people naturalists back then, they don't call them that anymore, but it was merged together in his division. The

boss I had in 1980 was Jim Woods. Before I got here, that division of interpretation was split into the Environmental Services that Jim Woods was the supervisor for and Interpretation. Robert also started the Sea Turtle Stranding and Salvage Network in Texas in the late 1970s, before the national network was established in 1980, and his network became merged with the national network, and he became the first coordinator of the network so he retained the Sea Turtle Stranding and Salvage Network Program whereas Environmental Services with Jim Woods was the offshoot with the nesting program. Now, further down the line, Environmental Services, as I said, became Division of Science and Resources Management. I was with that division, became—so after my stint as a dispatcher/fee collector, which was very hard because I was shy Donna from Syracuse, New York. Very, very shy, hard for me to speak in front of people. I took speech class in Cornell, one class, gave one speech, was shaking so much that I ran and changed to Scientific Writing, and that was the only female professor that I had for any of my three degrees was my professor for Scientific Writing. So it was hard for me to be dispatcher/fee collector, have to go and talk to people, and go knock on their RV and collect their fees for camping, but it was what I had to do because of my end goal. And slowly I became more used to talking in front of people because I had to be the voice of the turtles, I had to speak for the turtles because they couldn't speak for themselves so I had to overcome this fear of speaking in public and my shyness so that I could do my job. And it's okay now, I'm able to do it. And I encourage those young people that work for me that it's really something you need to try to keep working on because you need to be able to speak. It will hold you back if you cannot. But I'm still shy Donna from Syracuse. Don't take me to a wedding shower or baby shower because I really don't have much to say other than about turtles (laughter). Because it really is my life. I knew that I would have to make sacrifices. I didn't have any children of my own. I now have one stepson who's got two sons, but I didn't have any children of my own, and I wasn't able to maintain close friendships with college friends or outside friends. Any friends that I made was through work with media representatives or professors or I've kept in good touch with Pam, who was one of my first employees, Dr. Nancy Karraker was another one of my first employees, I've maintained a friendship with her. It really took all my time and effort to do this work because I had to raise the money for it as well.

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I went back to—after the stint, shy Donna from Syracuse, doing my nine months I did it, I did a good job with my dispatching/fee collecting, I went back to this, um, Environmental Services, but my supervisor left immediately so I was the division chief as a GS-4 for nine months of that division (Brown laughs) and that's when I supervised Pam [Plotkin], and it was 1986, and I had a crew to supervise, and the superintendent wanted me to start the patrols to determine whether any turtles were coming back with experimental imprinting and Head Starting because, first of all, no one knew whether any would come back. It was experimental, a lot of people didn't think they would. In fact, I had a crossroads in my career for a good opportunity, a good position, and I asked a professor whether he thought that any turtles from this work would come back to nest because that was going to make a part of my decision whether I went for this really good opportunity, and he said, "No, I don't think any are going to." But I disregarded his advice and I stayed, a lower grade level, the lower money. I made many

decisions where I stayed for the lower money or came back for the lower money because I decided I was going to dedicate my career to try to help save this critically-endangered species that was almost lost in the blink of an eye due to human activities. So, the boss left, I got a new supervisor in at that very same time. I applied and got into the Natural Resource Management Trainee Program, which allowed me to have grade increases up to a GS-9 because I went through that program. I traveled all over the country for different classes, and met other, we called ourselves "Creamies," you know, cream of the crop of the park service, the rising stars who were going to be the chiefs of resources in the future. But after I was in that 9 [GS-9] for a year, that's when that other grade opportunity arose, and I talked to the chief scientist about the position as well, and he said, "Well, let's make you a research-grade scientist." So I became a research-grade scientist, GS-11, but about nine months after that, Bruce Babbitt reorganized of researchers in Department of Interior and he swept up all the research-grade scientists from DOI, Department of Interior, from National Park Service, National Fish and Wildlife Service, Bureau of Land Management, Bureau of Indian Affairs, Bureau of Reclamation, all of us into this new organization called the National Biological Survey. The idea was to get the science away from the hands of the managers who might try to tinker with the results. We want the science to be independent, and not influenced by these managers who may want it to come out the way they want it and who may pressure those scientists to change their findings or report them a little bit differently, which is not what science should be. So the goal was good, but the chaos that that caused really uprooted and was difficult for a lot of people. Some people ended up losing their jobs over it. The National Biological Survey was changed to National Biological Service, which was then merged with the US Geological Survey, where it still resides today, and is doing okay today. But at the beginning, it was very poorly funded, and it didn't have a lot of support in Congress, and so it was really hand to mouth. When I went over there, the park service didn't even calculate my salary correctly. It was just a mistake, it wasn't intentional, but there wasn't even enough money to pay my salary and no money for any projects or anything else. So I went from this system in the National Park Service that relies mostly on your base funding, you're getting your money every year that you need to run your work to project funding where you've got to raise your own money. Just like that. So I had to learn to write proposals, well, quickly that were going to be successful. Well, the park service when I went over, and this was 1993, they said take the sea turtle work with you, that's what you like most. I had also taken some, theoretically, some—the colonial waterbird surveys and some other scientific work with me that I was going to lead. My first science center that I was affiliated with was the one in Lafayette, Louisiana, the National Wetlands Research Center. That supervisor said, "No, you specialize in one thing." It's sea turtles, it's birds, it's this or that. Of course, I stayed with the sea turtles and they took the birds. And they were happy to get rid of—the park service at that time was happy to get rid of the sea turtle efforts because it was dead, stinky sea turtles for the strandings. We didn't find many live ones back then, and the nesting work was still theoretical. We hadn't had any confirmed returnees come back from the experimental imprinting and Head Starting project, and confirmed nest records were few and far between. But, although my boss had tasked me with starting the patrols in 1986 when I was—my first stint as running the sea turtle work, and I have run it since 1986 here, we didn't have any money to do the patrols. It was, okay, one day rangers are going to take you down island, one day interpretation, one day maintenance, and it just didn't happen, for the most part. And cast-

off military surplus vehicles and, you know, whatever we could use to take use down. So our patrols were very scanty and certainly not adequate to be able to accurately detect nesting. So, what comes first, chicken or egg? You don't go down, you don't find it, you don't get any money because they say, "Well, you don't have any nests so we don't want to give you any money because you don't have any nests." Oh, but if you don't have any money, you can't go down and look and find any nests to prove that you need the money. It was this circle that was very hard to break until we found our first confirmed returnee from this effort in 1996, a full decade after I began the patrols. It was during that time it was maybe one confirmed nest every two or three years of Kemp's ridley that was found. So I would have to try to inspire my staff, saying "Have faith, they will come, have faith, have faith." And felt like Linus in the pumpkin patch because it was really based on faith, and I'm sure a lot of people thought I was crazy (Brown laughs) because none had come yet. But nobody knew at that time at what age Kemp's ridleys matured in the wild. There were records that, in captivity, fed optimum, no threat of competition, predation, they could mature at six or eight years of age. That's why they sent me out to patrol then. We ended up finding out that our records of our Head Starts are anywhere from ten to sixteen years of age before they first nest. And I've got a publication that lists all the reasons why it was difficult to confirm—difficult to get those records because we didn't have money to find turtles, go to US Fish and Wildlife Service, say it's nesting, we need money from you. "No, go to NOAA because those are Head Started turtles, NOAA did that." And NOAA would turn me back to US Fish and Wildlife. They'd point like this (crosses arms). You can't get blood out of a turnip so you have to go elsewhere to look for money. My savior for my first successful grants were the National Fish and Wildlife Foundation through the Shell Marine Habitat Program, and I was very, very grateful to them because that's all I had for a while. And then over time, I started building up more funding because my proposals became more successful, they were able to build on themselves that we had these returnees now confirmed and were coming back, and helped justify getting more money. When we had our first returnees come back, then park service was interested in the program again. The regional director came down for pictures, *New York Times*, and *Washington Post*, big deal with the release of the hatchlings. Very splashy, was in all kinds of newspapers, back in the days when newspapers were still a really big thing in the media. They've since lost some of their popularity with online alternatives. It was very, very big news because this was the first time an experimentally imprinted turtle had come back to nest, the first time a Head Started turtle had nested in the wild, and the first nesting in the wild of known-aged Kemp's ridley turtle. So, scientifically, it was big news. I ended up being asked by the government of the Canary Islands to go over and help advise them on our procedures because they wanted to do something similar. That's been part of my obligation to try to get these records, too, is scientifically, I believe it's important to know how many of these turtles came back to nest and their characteristics. Did they nest similarly to wild turtles in terms of the number of nests, the number of eggs, their site fidelity, and some of these characteristics, their size, their behavior? And, um, during the course of the efforts, Head Starting became a bad thing in the sea turtle community. Jack Woody had been the US Fish and Wildlife Service sea turtle coordinator, and he viewed turtles being Head Started elsewhere in the world in really deplorable conditions, and he wanted to see that stop, and also he did not want to see Head Starting used as an excuse to continue to capture a lot of turtles in the marine environment. He wanted to see

turtle excluder devices used. Don't just put more turtles out there, protect the turtles that are in the waters now. So, to do that, he made Head Starting bad. He didn't have the data to base that on. It just was declared, and because he was so charismatic, and like this Svengali figure, the sea turtle community followed, and almost—it's kind of embarrassing, a sheep-like mentality. So it became difficult for me to even get my first records published because they didn't want to hear about Head Starting turtles nesting in the wild because of the fear of that practice being misused. So that was a big challenge for us. I even was called, when I had the first records, by someone from NOAA who accused me of lying about those records. And I said, "No, I'm not lying. These are bona fide records." And, it's, you know, it is what it is. Let's find out what's happened with these turtles, I'm not advocating for this procedure, I just want to find out from a scientific perspective, what's happened. And we have a moral obligation. If we've caused those turtles to nest here, we have an obligation to protect them when they're nesting here. We need to be out there looking for them, and protect them, so that they're not harmed by predators or run over inadvertently by beach drivers because we have the Texas Open Beaches Act, our beaches are open to beach driving. So over time, I developed a program that's a two-pronged effort, and it always has been since 1986, of public education and beach patrols to find these nesting turtles that are the most—still remain the most critically endangered species in the world that nests almost exclusively in the western gulf. We now have about 1 percent of the Kemp's ridleys that nest worldwide are nesting here. We've come up, and that's great. It's considered one genetic stock and one management unit. The pioneers started this work because they believed it was not safe to have all your eggs in one basket of Rancho Nuevo, one beach, in case a political or environmental catastrophe occurred. And now we face what they didn't realize: climate change, beaches eroding, beach temperatures increasing. Incubation temperature determines the sex of these turtles. Some nesting beaches, they're producing 100 percent female. Well, you cannot sustain a population with a 100 percent female so they are having to manage, where they move nests to cooler areas, they shade, they water nests. Some beaches worldwide, they're finding that they're being—they're reaching lethal temperatures. The eggs are getting too hot and it's killing the developing embryos. So again, you can't sustain a population like that, you got to do some of those things I just mentioned.

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Along the way, relocation of nests, by the same man, was judged as bad, and it's been followed in a similar manner. For Head Started, they tried to cobble together some information, held a blue ribbon panel to say that it was bad, but they did it before they even had a chance to see if any of our turtles had returned, and they didn't give us any funding to find the turtles, and the turtles from the earliest years weren't marked. Well, I've got a sixty-page publication that discusses this. It made it really difficult for us to be able to document the turtles and quantify how many had returned. In the first years, the Head Started turtles were released off the coast of Florida, and nobody was looking for ridleys to nest over there. The first records of ridleys nesting in Florida, the biologists hypothesized that perhaps those were Head Started individuals. So we'll never really know how many of our Padre Island imprinted Head Started turtles nested in the wild just because the data collection efforts were not robust enough, but I

needed to do what I could to try to get the records that we could, and again, to protect these turtles when they're nesting here and others from the wild stock that were repopulating the area because Kemp's ridley is a native nester to this area. One of the reasons we were selected for this effort to form a secondary nesting colony is that Padre Island National Seashore preserves the longest stretch of undeveloped barrier island beach in the United States. We could protect the nesting turtles, the nests, and the habitat. And Kemp's ridley is a native nester. The first documented records of Kemp's ridleys nesting anywhere worldwide was before—um, I have to back up and give you some earlier history, but before this famous film that was taken in 1947 showing those estimated 26,000 to 40,000 females nesting on the beach, before that film was found in the early sixties by Dr. Henry Hildebrand, in the late 1940s, I think 1949, there were records of Kemp's ridleys nesting at the national seashore, before it became designated a national seashore. Those were published in the early fifties. The first records anywhere in the world were here. Some of the naysayers want to say, oh well, you put them all here. No, we didn't put them all here. It is a re-establishment, and there's some information that they nested in fairly substantial numbers here at one time. But we don't know for sure. This area was a grazing area, it was a bombing range, it's remote, and Kemp's ridleys are very difficult to find nesting. They tend to nest on windy days. Their tracks blow away quickly. These are days where you don't want to be on the beach because you're sand blasted (laughs). Or days where these strong fronts come through, like the very severe weather we can get with tornadoes even, in March and April. Those type of fronts, that's the weather these turtles like before, during, or after, when people wouldn't necessarily have been out on the beach. And even people that are seasoned pros can drive right by a nesting ridley. They're hard to see, the tracks are hard to see. So we don't have good information on the historic levels, but we do know it was a historical nester.

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So, uh, I was USGS, started bringing in money as the Head Started turtles started nesting, and a lot of media attention, and then the park service wanted the program back and they wanted me back, and they begged for about five years for me to come back to them. And, uh, they said, "We started this program, we love this work, we want it to come back, we want you to come back." And to do that, I had to give up my research grade evaluation position, and in those positions, every four years, your packet is evaluated and, much like a tenure track for a professor, you can get promotion. Promotion, if you do well, get a lot of publications, the publications make an impact, get promotion. You're expected final grade level is a GS-15. I would have been a GS-15 if I would have stayed in the USGS. I have a colleague that's doing sea turtles, she's a GS-15, she's ten years younger than me. I came back over to the park service because of their promises to support the project, they loved the project, they would support me, they wanted me back. I had two employees that were very faithful that deserved a career path, Cynthia Rubio and Jennifer Shelby-Walker, wanted them to have a chance at a career. USGS wasn't going to allow me to have any permanent federal positions, only contract positions. The federal position is a more secure, more prestigious, a better position for their families. I wasn't going to be like—when I first started in 1980, I had a man tell me, "Oh these women in the park service taking the jobs away from the breadwinners in the families." It's not

like that anymore, we need two breadwinners. And because I did face sexual harassment and sexual discrimination early in my career, it's been very important to me to have an inclusive work environment where everybody is welcome, and I give women a chance so they don't face the same sort of things that I faced. And so I've tried to do that. And I came back, came back as a 13 [GS-13], knowing that a 15 [GS-15] was going to be out of reach after that but thinking it was the best thing for the turtles because the park service said that they would support them and said, "We'll work with you to get a base increase so you'll have this permanent year-to-year money to support the work." I came back under a core-mediated transfer agreement to the park service, and, um, I worked with the park service, and I did everything that they asked. All of our work was funded under money that I brought in. It was very time consuming, you know, writing proposals, writing a good proposal, takes about forty hours so that takes your nights, your weekends, your holidays, but it was important because we had this scientific obligation, and this humanitarian obligation, to protect these turtles that they nest here, and also the stranding network. The turtles were coming whether we were going to be ready or not, despite any squabbling or politics or Republican or Democrat or whatever. The turtles were programmed and they were coming. We needed to be ready. Some projects could be deferred, but the turtles were going to be coming so we had to be ready. So I worked with the park service, brought in that base funding that gave the permanent base money needed for the division. Um, when I first came back in 2003, so I was with USGS from '93 to 2003, when I first came back in 2003, the base for our division was very small, and I could have had my packet re-evaluated by USGS to get a 14 [GS-14]. They said, "Don't do it, you're going to get it in a year, you're just a point away." And I didn't do it because the park service base I was coming back to was small, and I didn't want to take up all those funds with my salary. And then when I came back to the park service, they didn't—they made a transfer agreement for me that I would be a division chief leader, I'd have these responsibilities, I'd work with all five species. I would get to choose the projects for sea turtles that I worked on, and you know, have the authority to speak to the media, and run my program as I had in USGS as a field station leader, the Padre Island Field Research Station leader for USGS. I was here, but it was just a different shirt, different hat, but doing very similar work, but with more—it was a more prestigious position because it was a research position, and more emphasis was put on the research part of it, but my work was always a mix, too, so I didn't fit in perfectly with anybody. My work is a mix of Fish and Wildlife Service, who I haven't worked for yet, National Park Service, and USGS, because it's conservation and interpretation from all of the above. It's got public education, conservation, research, and endangered species. So they said, when I came back and they did my PD for the park service in 2003, "Well, have it done in a year, you'll be a 14 [GS-14], your position is just—your score's just really close to a 14 [GS-14]." And again, because our base at that time was so small, I didn't want to take more of that scanty, little bit of money for me. My view then was that I'm going to work until I'm old and gray. It just doesn't matter, I want to take care of the turtles, I want to have enough money to do the work I need to go out and find and document and protect these turtles and their eggs. And, um, so over time, my proposals were successful, and I did get that base increase, and the last installment was 2010 and I could have gone after a 14 [GS-14] then when I was getting ready to think about it, and then Deepwater Horizon happened. Department of Interior came knocking on my door and said, "Donna, you've got a baseline of data now. You had nesting increased, you see we can show the figure of the

increased nesting. You can add that into the documentation. Nesting's increased. It was increasing exponentially up until 2009. So you've got a baseline. We want you to be the principal investigator for the NRDA[??] study to determine the impact on the Deepwater Horizon Spill to the nesting turtles and the eggs. We want you to be the leader for the carcass litigation hold for carcasses that are found washed ashore, stranded in South Texas. You need to write the restoration proposals for all the sea turtle nesting and stranding projects in Texas, along with"—it used to be Tom Shear from the US Fish and Wildlife Service office in Corpus Christi, and then it's become Mary Kay Skoruppa the last two or three years. And, uh, that work was really hard because it was very, very—there was a lot of argument among the trustees of how to do it. A lot of brilliant minds about toxicology, which is not my field, of how these specimens should be collected and preserved and preserved. Then after that, they had to be chain of custody, and locked up, and then go into the collecting of data, the building of case so if we went to court, we could get restitution for the American public for the damage done to their resources by the spill. And I felt honored to do that. We collected a baseline of data that could be used for this study, for this species. I felt like this was my duty. They didn't feel like they could do it in Mexico because of all the chain of custody requirements and the details that needed to be done for each nesting turtle found, the numbers down there were too big to do some of those things. It was a lot of work, a lot of disagreements with other trustees, and very elaborate deadlines, elaborate reports, and proposals, and it had to go through a lot of people. Very time consuming, it was a whole another job on top of my regular job. There were a lot of people during the Deepwater, and even still, they got a separate position just to work on the Deepwater spill. I was doing it on top of my regular work. Luckily, we got some extra money to help fund that so we got some extra positions. And then, I went through an exercise with them for emergency restoration funding, and afterwards heard from the lawyers. It was all done in good faith and it was hundreds of hours of work. Heard from the lawyers, "Oh, gee, I didn't know Donna, but they were never going to give you any money. It was just a stalling technique." I was like, "Man, you know, I got a lot of things I'm doing here." I didn't have time to be used as a stalling technique. But I was. I got back up on the horse and kept going. Okay, we're going to do early restoration. This is before the settlement happened so we did early—the proposals, and we got it funded, the early restoration before the settlement, and it actually got finalized right as the settlement was occurring. What had kept me going during this work was I was told that this work was going to result for restoration funding for all of the Kemp's ridley nesting projects in the state, there are five, and then the Kemp's ridley project at the main nesting beach in Rancho Nuevo. All of the projects, all of us, needed funding to help with the work. The nest numbers had gone up. When my base increase proposals went in, that was the early 2000s. Numbers have gone up, inflation is occurring. Everybody needed more money so they got more money, ten years for everyone for nesting work, and it's not the whole money, but it is to support the work so you can do more to aid with the restoration of the species. That money is to do more than you did before, for strandings and for nesting. We at Padre Island got five years instead of ten years, and there's been differences of why we were told we got five years. And then we were allowed to stretch it for ten years, and people said, "Oh, they got ten years." Well, didn't really, we were allowed to stretch it. We were told we'd go after the next five years in the next phase of restoration, and then when it came to that, it didn't happen. Our chances of that were greatly minimized because my edits in the draft

Strategic Framework for the restoration of sea turtles in the gulf—I was asked to work on a lot of plans throughout the whole thing. A lot of documents, I always got them in on time. I always did them, you know, I was on vacation, I'd be on conference calls. I'd tell my husband, "You got to go out to eat by yourself, you got to go walk by yourself, I got to work on this Deepwater stuff." So I did everything I was asked to, and then my edits in the draft Strategic Framework for our Texas priorities were intentionally disregarded. So we lost out on—our proposal still could be submitted, but they didn't have as much sway as if they'd been listed as priorities in that framework. And that kind of takes us up to the history of everything of—So I was at a crossroads and had to decide. Well, what do you do? You've been named to be in charge of writing the proposals for these Texas projects, and we—and I didn't know that they'd been intentionally—you know, I put them—I saw the document twice, and twice I put those edits in. I didn't see the finalized priorities until I watched an Ocean Conservancy webinar that listed these priorities, and I about fell off my seat when I saw them. I did a Google search and found the document online, and sure enough, there it was. So when I found that out, you know, what do you do? Do you just live with it or do you try to find someone else in your agency to try to help advocate for your proposals so they could stand a chance of getting funding. That is where I am today is because of what I did with that.

[00:50:14]

Um, but the work has been incredible, I wouldn't change my career choice for anything, although there are some days that I would say I would because everyone's job gets frustrating at times, bureaucracy, et cetera. The people I've met and worked with have been phenomenal. The volunteers, every year, we get a hundred to two hundred volunteers between cold stunning and nesting work, it can be more than two hundred a year. The seasonal staff, the other staff members that have worked for me, and superintendents, head regional personnel and WASO [Washington DC Area Support Office] personnel, loved this work. They'd come down from the regional office and the Washington office to tell us how much they loved this work. And the attorneys came back, and we were on the force, and got the base increase to, you know—we're going to keep at it, we made a commitment, we started it, they loved it, kept coming down and telling the staff that, until recently. It's been just a wonderful thing to be involved in, and I felt like the sacrifices that I've made were minimum in comparison to what is the value of the species forever, for the next generations. When you see a nesting turtle, and you have somebody there, and they'll be in awe, and they're: "When are the eggs going to hatch? I want to see the hatchlings." You can feel the sand move, the vibrations up through your legs as the female tamps down in the sand in this ritual that this species has gone through for millions of years. And somehow, they know this is the day, and we can guess, this has the all the ingredients of a great nesting day, we'll be all ready and beef up our coverage, and I say, "We got all dressed for the party, and the star didn't come." But somehow, they know which is their day, which has the perfect ingredients, and then they're out nesting, and we've started to see our bottom behavior for here. I haven't gotten to see two turtles in one place at one time, but I've had staff members, five different staff members, who've seen it. They say, "Well, I see another one coming." "Well, get your—get this one documented and document the other."

[00:52:47]

The procedures have changed over time. It used to be that Cynthia and I—so let me go back to Cynthia. After we had the first confirmed returnee in 1996, I was in graduate school with Dr. David Owens, and I said, “Dr. Owens, we had a confirmed returnee. It’s a new day, we’re going to have nesting now, I think we’re need to be ready for a nesting colony to form, become reestablished. I need someone to help me find nests, and help me find nests quickly.” He said, “Get Cynthia Rubio. She’s worked in Mexico and she’s worked in Sea Turtle, Inc.” So I got her, starting in 1997, and she’s been with the program ever since and she’s the righthand person, biology in the division. And she’s—we worked her through a career ladder, and she’s a GS-11, had a career for her family, and that’s important. And she’s brought great things to program, integrating procedures that she learned in Mexico. And I want to stress that our procedures for management are very similar to what has been used in Mexico for decades that worked that helped save the species. For decades, virtually every nest that was found was brought into a protective corral, this big screen enclosure, and planted there so that the poachers wouldn’t take it, the predators wouldn’t take it, high tides wouldn’t take it. Over time, finally, it got to a low point in ’85, we had our first returnee ’86, excuse me, ’85 was the low point, ’96 was the first returnee, got her in ’97. ’85 the low point, and it’s been growing since then. The relocation of those eggs helped save the species, along with the mandatory use of Turtle Excluder Devices. People who say relocation will devastate, will cause them to be irreparably harmed, they’re not looking at the objective evidence and science of how the population increased exponentially after virtually every clutch was put into a protective corral. There’s your evidence right there. So we are retrieving every nest that we find for protected care either in my incubation facility or in our corral down island. Over time, as nesting started to grow, at first, Cynthia and I would have to look at all the nest sites because there were so few. We wanted to make sure everything was done right. Then as they started to grow, we had to train our people to be able to do the data collection because we can’t get to them. Our area, we’ve got sixty miles of beach front and no road behind the dunes. You do not get anywhere fast. So we have to have a camp that’s established at Mile 39, and then people have routes that I’ve devised over time, perfected them, staying up at night thinking, “Okay, how do I get the timing with the resources I’ve got so hopefully somebody can cross every point in the route for daylight hours every forty-five minutes because it takes about forty-five minutes for those turtles to nest from the time they come out of the water, they lay the eggs, they go back. We want to be able to see the turtles, if we can, because we want to see their tags, document them. And if we see the turtles it makes If you don’t, then you can just have this blown-out area, blown-out tracks, and you can have to spend hours looking for where that nest is. So Cynthia learned down in Mexico how to probe to try to find the nest. It can be a needle in a haystack, literally, like a crime scene, you’re looking for a piece of flipped of vegetation, flipped up sand, try to project where those two sides of the tracks intersect. The Kemp’s ridleys are masters at covering up where their nest is located. She taught me and the others how to probe. We look for the soft sand at the neck of the nest chamber, and it gives in. When they’re looking avalanche victims or use the—to find pipes, you know, people that prepare your pipes in your yard, they’re looking for something hard. We’re looking for something soft. It gives in, but it gives in for crab holes, it gives in for other holes that people dig when their vehicle’s stuck, et cetera. So it can be time consuming.

[00:57:35]

And then, um, about fifteen years ago, I trained my little dog Ridley Ranger, he was a Cairn Terrier, and he was in *Bark* magazine, *Family Dog*, all kinds of books, Scholastic magazine, trained him to find nests that were the most difficult to find where we spent hours and hours looking and we couldn't find them. And he did it, and he loved it. And I trained another one of my Cairns, Kayleigh, and now I got a brand new one. Kayleigh was the last of the three that passed on a few months ago. And now we got Kempy, K-e-m-p-y, he's only about ten weeks old but he's going to go through training, too. He's very smart, I think he'll get the knack. And what that does, it helps with public education to bring in a sector of society who might not have paid attention to our program before, but all of the sudden because they love dogs, love Cairn terriers, they're going to learn about our program, be interested in helping with it. That public education is critical, and our volunteers are ambassadors going out and talking to their friends and their neighbors and they've got time to go out to dinner, lunch, shopping, and things (Brown laughs), and talk about what they do, "I volunteer." They're really proud to do it, and they feel like they're giving back. And because about up to half of the time, the nests are found because of reports from the public or of other people that are working on the beach during the nesting season. So we do extensive public education efforts, my program as well as our interpretation division here and all the other nesting programs on the coast. We train others, like lifeguards, beach maintenance crews, et cetera, because they may find them. They do, every year, some do. Our patrollers get frustrated because they could drive by, and five minutes later, this couple from Indiana who've never been on the beach before (Brown laughs) finds their turtle. It's a team. We have to instill that it's a team effort and really every nest found is a victory. Those eggs represent our hopes for the next generation. The females have the highest reproductive value to the population because it's thought that, in the recovery plan that you can get online, it's thought that one in four hundred eggs will produce an individual that will survive to adulthood. So for every adult, many others didn't make it. When those females come up and lay their eggs, they'll crawl up the beach, they'll find a place where they want to nest. It can be anywhere from the high tide line all the way up into the dunes, maybe behind the first dune line, you don't even see them. They'll dig a hole with their rear flippers, and then they'll be virtually motionless when they're laying their eggs for about fifteen minutes. They may have some sand on them, especially if it's breezy. They tend to nest in the soft sand of the beach vehicular roadway, where they are sitting ducks. If you don't see them, they will not move out of the way, not like a deer or a rabbit or even a ghost crab, that's going to try to move away. They cannot, it's not in their makeup, at that point when they're laying eggs, to move, and we've had two of them that were run over and killed on South Padre Island, knock on wood, we haven't had any here at the national seashore, but that's one of the reasons why our coverage is so important because it is the primary mitigation measure that allows this balance between recreational access and conservation. I tell people, "It doesn't matter what my personal view about beach driving is." I have to manage with the reality of the regulations and policies and laws that are here, and Texas Open Beaches Act is part of the Texas Constitution, and many Texans view beach driving as their God-given right. We almost got ran out of town over just reducing speed limit here during the nesting season and heavy visitation season to fifteen miles per hour, which is the same speed in the whole rest of the state. It was

very, very difficult to do, a lot of political backlash, backlash by a lot of user groups. So we know the power of these groups, you know, someday if somebody does this, then we'll look at our management.

[01:02:39]

Our nest relocation also, though, is critical because it protects—and Dr. [Philippe] Tissot at the Blucher Institute [Conrad Blucher Institute for Surveying and Science at Texas A&M University-Corpus Christi] is one of my great colleagues for collaboration with the water temperatures and cold stunning but also for the beach profiles and nuisance coastal flooding and inundation. Nuisance coastal flooding occurs ninety days per year on the Texas Coastal Bend area, and is predicted to increase exponentially, and he is convinced that our nest relocation is an essential ingredient of our nest protection program at this time. And it protects against predators, and there's all kinds: badgers, skunks, coyotes, raccoons, ghost crabs, fire ants, and then with the hatchlings, the birds too, and we have had hatchlings run over by vehicles. You can't see them. Kemp's ridleys nest mostly during the day, but sometimes at night. The hatchlings emerge mostly from a little before dusk, all the way through the night, up until about ten in the morning, but sometimes even during the middle of the day. So people from other states will say, "Well, just close your beach at night then you'll protect the animals." No. The habits of this species are different than your threatened loggerheads and greens that nest and hatch mostly at night. It's a much easier nut to crack than ours is.

[01:04:05]

It's important to keep the funding coming in, and funding is now—I thought I was in good shape, I was going to—we were trying to get access to the restoration money for when the early restoration runs out in five years, but then the existing that I have and thought I had is now in jeopardy so back in the soup of having to figure out how to we're going to fund this work, and we work into the future and hope that we can continue it because it's important. The public releases of our hatchlings, when we've been able to hold them, we couldn't last year because of COVID, we did hold them by social media, and they almost reached a million people, those Facebook live broadcasts of those social media. I invited special guests to help narrate each one. Dr. Tissot was one, Nick Meyer was one, I don't even recall the others, but people that have important roles in the sea turtle conservation or the conservation overall in the area to be guest hosts because I don't care for my voice. I wanted to hear some other people, you know, have some other people speak besides just me. People get tired of my voice narrate them, I would think, they'd get tired of hearing me. This year, I'm not sure what we'll be able to do with COVID. We might not be able to have them again, but hopefully in two years we could, but some people don't want to have them, which very much saddens me because they're a critical environmental education tool, that saying about conserving an animal because you can see it and you can love it, you've learned about it. It's true. And we get collectively, for our twenty to twenty-five public releases a year, we get about sixteen thousand people that come out and view them. Grown men literally with tears in their eyes. Many people tell me this is their bucket list item. We've had people, Indigenous tribes in Oklahoma coming down and

telling me, “The turtle is very significant to our culture, and we wanted to see this release.” And other people that have driven in, and people that are staying overnight. Because it’s not turtles on demand. These are releases when the turtles are ready to be released. They’re all held in accordance with the natural timing of when these turtles enter the frenzy, and would need to be released anyway. The people are able to join in and watch what would be occurring anyway. It’s win-win. Little kids run to me in the front row, and it’s just a wonderful thing to see, absolutely wonderful. Very rewarding, it’s the icing on the cake after all the hard work.

[01:07:08]

[Shaver]: So I’ve already gone to 9:21 [a.m.], and you’ve only got ten minutes left, and I don’t know which questions I haven’t answered.

[Brown]: Hm, okay, let’s see. Okay, well, why did you want to get interested—or why were you interested in, um, endangered species when you went to college?

[Shaver]: I was interested in them because I wanted to help something that couldn’t help themselves, specifically. Early on, I was interested in animals very much, and before I settled in on endangered species, I either wanted to help abused children or I wanted to help threatened or endangered species, something that man caused this decline and we’ve got an obligation to help, just like with the abused children, but because I’m shy Donna from Syracuse, I picked the animals (Brown laughs). And I’m better suited to that. That would have been really a heart break. That’s a critical field for the right person to get into. I was interested in wildlife, but I wanted to help those that—I have nothing against hunting and fishing at all, and there’s definitely a place in people that managed those, but I wanted to managed these that had really been harmed by man.

[Brown]: Um, okay, I’m trying to go—we’ve covered a lot of what I wanted to talk about. Were you involved in the TEDs [Turtle Excluder Devices] and the regulation at all or were you just advocating for their use?

[Shaver]: Um, well, you have to be careful with the word advocating because really at no time have I’ve been in a position to be—you’ve got to watch out with that word advocating because then it gets close to sounding like Hatch Act, something that a federal employee can’t do. TEDS became mandatory during the time that I was working with sea turtles. I had a lot to do with documenting that when they were mandatory, they were not working properly. There were what were called bottom-shooting TEDs, and they didn’t have a float rule, and they’d struggle on the bottom, and they were still continuing to catch turtles. I had reported this to NOAA, and boy, they got really mad at me, “My whole career is on TEDs, TEDs are critical, TEDs are important.” I said, “But something’s not working about them. You need to look at them.” That was hard to do. This was like a GS-muckety-muck, and I was, oh, nothing but. You could see from the stranding data, the large dead ridleys, the large dead loggerheads being found here, that something was wrong. Um, and also that the opening size, was smaller in the gulf than the Atlantic, so I worked a lot with providing stranding data to help say that, hey, the TEDs aren’t

doing as much as we need them to do. That opening size needs to be larger and consistent in both the gulf and the Atlantic. And that happened. And then, I had a huge amount with the Texas Parks and Wildlife revision of their shrimp fishery management plan, where I felt like I worked for the Texas Parks and Wildlife department for a whole year where I gave them satellite tracking data, nesting data, stranding data because more dead adult Kemp's ridleys were being found at Padre Island National Seashore in South Texas than any other location in the U.S., and this was before our numbers started to rise. It was a pregnant female getting to the door of the hospital then getting mowed down. Not good. So they, Texas Parks and Wildlife, oversaw the shrimp fishery and also they had oversight of threatened and endangered species in Texas so they revised their shrimp fishery management plan to develop a closed area off of South Texas to shrimp trawling from December 1st through May 15th out to five nautical miles, and that's for South Texas, Corpus Christi Fish Pass down to the U.S./Mexico border. Then from May 15th through July 15th is the annual Texas closure out to two hundred nautical miles, that's been in existence for years and years, not developed for turtles, but turtles do benefit. Once that closed area was made, and then was patrolled and enforced, then our nest numbers started to increase in Texas. So Mike Ray from Parks and Wildlife and I are very proud of that. That was a huge accomplishment that was important for conservation.

[Brown]: Um-hm, cool. Well--

[Shaver]: --using scientific data--

[Brown]: Yeah.

[Shaver]: That's what a scientist wants, is your data to be used to help with the management. I had just started a few years before my satellite tracking of adult Kemp's ridley turtles, with the hope that, because we were having all these dead adults, maybe somebody would have the fortitude to develop a closed area to protect these turtles in this protected swim way between their primary nesting grounds off the northern Gulf, their main nesting beach in Mexico, but also those that were nesting here. And they did, Texas Parks and Wildlife did. So--

[Brown]: Um-hm.

[Shaver]: —it was great.

[Brown]: So, can you tell me, just to end on—what's been your most memorable experience working with Kemp's ridleys?

[01:12:36]

[Shaver]: My most memorable experience, I—I got to give you two. The most memorable would be, of course, the first location of first Head Started turtle that I documented nesting on the beach and jumping up and down and being so excited because it was experimental. Nobody knew whether it would work, and here was one right in front of my eyes, opening up all

possibilities. And just a couple months ago, I was coming into park and I introduced myself to a ranger that was working the fee station. I said, “Oh, I’m Donna Shaver. I run the turtle program.” He said, “I know who you are. I met you in 1996 when you found that first confirmed returnee. You were jumping up and down, you were so excited. You told me all about it.” And those two things combined really are important to me because it reminds you that what you’re doing can make a difference. You never know when that may be, just an encounter on the beach, of a day that was so important to me, and it influenced his life to come be a park ranger someday. It’s important for science and it’s important for people. So that’s my other aspect of it, it’s finding that turtle, and then the people connection, the influence of this work that has had on the people, the people who come through as part of this program. I just had another one write me yesterday who got his PhD and he’s a professor. To know that, I call them graduates of the program, we have about thirty every year, thirty seasonals from all around the world, they’re in between their, you know, their BS and their masters or going off to other jobs so this is a stepping stone early in their career. And now that I’m older, they tell me, I’ll have women that will come to me, literally, I’ve had multiple do this, with tears in their eyes, saying, “Donna, I just want to thank you for hiring me and letting me work here this summer. It’s so important to me to have a strong, female role model in science, running a scientific program, especially in South Texas. It meant a lot to me.” When I hear that, it’s really sobering, to go from the youngest, which I was, to now my role in helping mentor and train, get the publications done before I retire, and try to train people to pass the torch because it would be such a pity if this work died. It must continue. So now I’m trying to work on the steps. It isn’t going to be quick. People want to yank me out of here. I’ve had two people say, two supervisors, “Oh, you’re sixty, why don’t you retire?” I say, “No, I have a lot of work to do. That was never my plan.” And if I did, I would be—I would really hurt financially because I made those moves to go for the lower grade and I wouldn’t be retirement age yet. You got to be sixty-seven (Brown laughs), like everybody else, Social Security. So, now my role, is really important is helping to mentor. Taking care of the turtles, taking care of the people that will hopefully someday take care of the turtles.

[Brown]: Well, that’s awesome. Well, I think we’re—

[Shaver]: Yeah.

[Brown]: You probably have meetings and nesting and everything, but is there anything else that you want to add? I hope we could do this again in the future because I think I still had questions, but—

[Shaver]: Let’s do it again because I know I didn’t let you do it in a question format.

[Brown]: That’s fine. I usually like to let people talk, so—

[Shaver]: Okay, well, you can go through and see what I didn’t answer and we then can hit those.

[Brown]: Okay, I think also, you know, I have your publications and the stuff that you had sent so I might be able to fill in some gaps there, but I might, um, I'll let you know if I have any questions.

[Shaver]: It's my pleasure. I could see some things, like talk about Dr. Hildebrand, I need to do that, and talk about my experience with Pam, she was one of my first employees, and how proud I am that she went on to be the first female head of Texas Sea Grant. You know, there's things to cover so we can set up again. Now that you've got permission, I think it's probably okay.

[Brown]: Okay (laughs), great, thanks. Well, thank you so much for your time. I enjoyed it.

[Shaver]: Thank you very much. You take care, and if you'd like, I'll be hearing from you again.

[Brown]: Okay, sounds great.

[Shaver]: Okay, thank you. Thanks.

[Brown]: Bye.

[end of recording]