Stephanie Scull-DeArmey: This is an interview for the Maritime & Seafood Industry Museum and the University of Southern Mississippi. The interview is with Mr. Lindsey Parker, and it is taking place on April 8, 2010, at 9:00 AM. in Hattiesburg, Mississippi, on my end and in Brunswick, Georgia, on Mr. Parker's end. I am the interviewer, Stephanie Scull-DeArmey. First, I'd like to thank you, Mr. Parker, for taking the time to talk with me today. I'd like to get some background information about you, which is what we usually do in our oral history interviews. So I'm going to ask you, for the record, could you state your name, please?

Lindsey Parker: Yes. Lindsey Parker.

SSD: And for the record, how do you spell your name?

LP: L-I-N-D-S-E-Y.

SSD: And the last name?

LP: And Parker, P-A-R-K-E-R.

SSD: When were you born?

LP: I was born on December 18, 1956.

SSD: Where were you born?

LP: In the city of Atlanta, Georgia.

SSD: What's your current position? Give us a brief description of it.

LP: Well, my official position at the University of Georgia is marine resource specialist, although my duties include running the research vessel, *Georgia Bulldog*, and other extension activities.

SSD: Well, we will dive right into the questions that the museum would like to have answered and if time permits, we will go on to some other interesting tidbits. I forgot to ask you, how long do you have to do this?

LP: Oh, I'm pretty well open-ended. I don't know how long your interviews usually run, but I can let it go to 11:00 or 12:00, a couple of hours.

SSD: Okay. They've been running about three hours.

LP: We can go that, too.

SSD: Great. Well, let me just ask you the first question, then. What role did you play in introducing TEDs [turtle excluder device] to the shrimping industry?

LP: Well, let's see. Well, with the actual introduction to the fishing industry, let's see. Prior to becoming the marine resource specialist working for the university and running the *Georgia Bulldog*, I was fishing on a commercial fishing vessel here in Georgia right down the street, here in Brunswick, while the National Marine Fisheries Service [NMFS] was introducing the turtle excluder device also marketed as a trawl efficiency device. Due to the efforts of the university's Dave Harrington, who was director, I believe, here at the University of Georgia Marine Extension Service at the time – he kept the turtle issue – he went out of his way to bring the perceived problem of turtles being drowned in shrimp nets to the fishermen of Georgia. At one time, National Marine Fisheries Service there in Pascagoula, Mississippi, was contracting vessels to demonstrate the turtle excluder devices. I was fortunate in being one of those contract vessels, where we pulled one of their turtle excluder devices on one side, a naked net on the other side, and they had observers that rode the boat each day. So I was familiar with TEDs. As I say, Dave Harrington kept the fishery apprised of what was going on with TEDs and the seriousness of the mandate or the need to exclude turtles, and so the fishermen were aware. Subsequently, I took on the job of running the *Georgia Bulldog*, so I was aware of the mediation meetings between industry and the National Marine Fisheries Service or industry and whoever it was – environmental concerns. Then, later on, when the mediation meetings broke down, as I understand – I forget who resisted signing it – I guess it was the Louisiana contingent, what I'm thinking – I'm not even absolutely sure. But once the mediation meetings broke down and it was apparent that NMFS was going to have to mandate TEDs, I was captain on the *Bulldog* when Dave brought the fishing industry solutions to turtle problems, brought them all down to Cape Canaveral, where there were pretty consistently turtles, and we demonstrated that there was more than one way to skin a cat. Not as a vessel of opportunity, but he knew the NMFS device would be particularly onerous, unwieldy, and impractical on many of our smaller boats here in Georgia, and he felt that the industry had means of dealing with turtles to exclude them from their trawls that would be less onerous. So we demonstrated the TEDs to pretty well all the state agencies. We had environmental agencies, environmental groups – Audubon, Greenpeace – had a lot of people on the boat to demonstrate both the National Marine Fisheries Service device, and, I think at that time, there were three other industry-provided devices which were essentially initially developed for Jelly Balls – cannonball jellyfish – to exclude that from our trawls, but could easily do a good job at releasing turtles, as well. Then when the TED mandate came down, we did a lot of – I did a lot of training or demonstrating, showing fishermen how they worked, explaining to them why they worked, what the penalty for not pulling them was and showed them how to use them. Here at the marine extension, I think Dave Harrington put together a few projects or got a few grants that provided turtle excluder devices to fishermen. So subsequently, I've been – well, we've been fooling with TEDs ever since, improving them and testing them and so forth and so on. I don't know how far we got off the topic.

SSD: No, we stayed on topic. It's okay to get off-topic. We take a lot of side trips in an oral history. Can you remember about – ballpark figure – when you first started with the introduction of TEDs? Just a year?

LP: Well, I guess Dave himself, the contract work that we did with National Marine Fisheries Service would have been back in probably '79 or '80. Dave kept in touch with the gang at Pascagoula – John Watson and Wilber Seidel and those guys – knew a bunch of them and kept in touch. So he would bring news of TED work to all the fishermen association meetings. Then I started here at the marine extension and on the *Bulldog* in '81, and [the] majority of our work were other projects in offshore finfishing. But whenever we weren't doing that, we were also spreading the news of TEDs, their upcoming requirement, or anticipated upcoming requirement. I think Dave was quite possibly the one that – well, he was heavily involved in the mediation meetings where they tried to hammer out a workable agreement, which, in a lot of people's eyes at the time, would have been better than what we wound up with now. But the mediation meetings broke down, and when the hammer was leveled, when they slapped the gavel, it was TEDs pretty well year-round everywhere.

SSD: Just for the record, when you talk about the industry, who is that?

LP: Well, at that time, it was our shrimp industry here in Georgia, but Dave was also in touch with the Texas Shrimp Association and all the associations in all the other states. He always generally tried to make it – he knew it was a regional problem, so he didn't limit his work to just Georgia. He got us from Texas all the way up to North Carolina.

SSD: So it's actually the shrimpers.

LP: Shrimpers, yes. Mostly the shrimpers themselves.

SSD: Are shrimpers generally the only people who pull trawl nets?

LP: For the most part, here in Georgia, yes. As you progress up to North Carolina, North Carolina has a quite diversified fishery and has many fisheries, many of them finfish. Back in those days, we were even pulling trawls on offshore fishes – snapper-grouper fisheries. So, no, we weren't the only ones pulling trawls, but we were the smoking gun, according to the Henwood/Stuntz study, and had had already been earmarked or labeled as the main impact to the turtle population. [Editor's Note: Mr. Parker is referring to Tyrrell Henwood and Warren Stuntz's 1977 article in *Fisheries Bulletin*, "Analysis of sea turtle captures and mortalities during commercial shrimp trawling."

SSD: Which was in decline?

LP: Which, they claimed at the time, was in decline. Yes. I don't know about all that, I mean. [laughter] They probably were. But I also know figures don't lie, but liars can figure, too.

SSD: [laughter] I spoke with a woman from South Carolina who's a scientist, who talked about finding about two-thousand dead turtles on the beaches in South Carolina at the height of the problem. It's interesting –

LP: You caught Sally [Murphy]?

SSD: That's right. It's interesting that they seem to beach in South Carolina more than anywhere else. They seem to come up dead on the beach there more than anywhere else, according to the interviews, the people I've spoken with.

LP: Yes. There's been a few anomalies or debatable – yes, that gets quite interesting. We had one year, not too long ago – I think it was either 2001 or 2002. Our coast had experienced a severe winter shrimp kill, and both the state and federal waters off Georgia and South Carolina were closed to shrimp trawling through either late May or late June before the opened trawling. I want to say it was late May that they opened. So there was no trawling until right at the very end of May, yet South Carolina had – and it might have been June before they opened – no trawling. South Carolina's strandings that year were an alarming twenty-one or twenty-two strandings in the state of South Carolina during May with no trawling, basically, off their waters. Yet, the finger was pointed at shrimp trawling as being the cause. Although, by that time and around that time, I think that's when Sally started admitting that they're not seeing many obviously fisheries-related strandings; that most of their strandings were boat strikes and just "barnacle bills" as she called them – somewhat lethargic, heavily overgrown turtles, heavily barnacle and algae growth –

SSD: Making it hard for them to surface and breathe, I guess.

LP: Something like that. Turtles that were apparently sick, somehow or another.

SSD: Twenty-one's a lot different than two-thousand, so something's working to bring the number down. I wonder if the same thing that was killing the shrimp could have been affecting the turtles.

LP: Quite possibly. I mean, the cold stunning events of just this last year were phenomenal.

SSD: So when the weather's unseasonably cool, it affects the shrimp population?

LP: It can. It can, and it does. With a severe and swift drop in temperature, it can decimate the overwintering shrimp crop. I was always tickled because the way that you overfish shrimp, according to the federal fisheries management plan on shrimp in the South Atlantic, is that the definition of overfishing is when severe winter water temperatures decimate the shrimp crop – the overwintering shrimp crop by eighty percent. That's the definition of overfishing.

SSD: Of overfishing. But there's no fishing going on.

LP: Right. So, yes, that always tickled me because the definition of overfishing is when it gets too cold too quick. This last year appears to have – although it was unseasonably cold, and we had water temperatures cool enough to do some damage to the

overwintering crop, it apparently – the water temperature went down slowly enough that most of our shrimp were able to seek warmer water and were not decimated. We had some shrimp caught dead by samplers and bait shrimpers, but apparently, the gradual decline in temperatures allowed most of the shrimp to get on offshore, and as it warmed back up, they got back into where they normally were. Right now, it looks like it may be a normal spring, according to who you talk to.

SSD: Good news for shrimpers.

LP: Yes.

SSD: Do you know just a ballpark figure of how cold is too cold for a shrimp?

LP: I want to say that DNR [Department of Natural Resources] figures it to be forty or forty-two degrees Fahrenheit.

SSD: Now, that would be of the air and not the water, correct?

LP: No, that's the water temperature.

SSD: That's the water. Wow. I didn't know it got that cold. Now, you're the Atlantic Ocean, right?

LP: Yes, on the Atlantic Ocean. Yes.

SSD: That makes sense. If it got that cold in the Gulf of Mexico, that would be pretty unusual.

LP: Yes. I'm not sure what their winter temperatures are, but I'm sure if it – well, I would expect that if their water temperatures got that low, they might experience some of the same symptoms.

SSD: I would guess so. Yes.

LP: South Carolina – the same thing. They showed a bigger drop right during the cold, but, as I say, there were significant catches of very small shrimp four, five, six, eight miles off the beach, right during that cold weather, so apparently, the feeling is that the shrimp got offshore to warm-enough water to survive and as the water warmed back up, they came back into our sounds and rivers, our estuaries, and got back to as close to normal as it could get.

SSD: So where would the majority of shrimping be done? Would it be done eight miles out, or would it be done closer to shore?

LP: At one time, I think they felt like most of the shrimping's done out – most of the shrimp are caught outside of three miles, but I think that myth has been debunked. Most

of our shrimp here on the East Coast, I think, are caught within three miles of the coast. There are times, though, when the best of the shrimping is three to five to six or seven miles offshore.

SSD: Can they shrimp out that far? Are those federal waters, then, when they get that far out?

LP: Yes. Those are federal waters, and there is no closed season in federal waters, generally, except after a significant winter kill when the states can ask the federal government to close their contiguous adjacent federal waters to protect the overwintering shrimp crop.

SSD: So that they wouldn't be overfished and then depleted – their resource gone.

LP: Yeah. If they're overfished, they're overfished, and it's pretty well too late. But to promote or to allow whatever is left to spawn and allow the fishery to recover as quickly as possible, they can close the federal waters during the spring of the year to prevent capture of any roe shrimp or spawning crop.

SSD: The roe shrimp are the ones that are carrying eggs?

LP: Right. By protecting the roe crop, they can have a better rebound from – a cold winter kill can decimate the roe shrimp crop, but if you fish on the roe shrimp, even though it's not much of a crop, the fall shrimp season can be impact – the more roe shrimp that you catch during a winter kill year, it is expected that fewer spawners are allowed to spawn and thereby the fall crop, the majority of our shrimp, that crop can be diminished more greatly so than if you leave the roe shrimp alone and let them hatch. That's what they do.

SSD: I think I know the answer to this question, but just for the record, why can't you just throw the roe shrimp back that you catch?

LP: Well, you could, but that's generally what you're after to make money. Springtime of the year, if it's been a few months since you've made a paycheck, that's what you're out fishing for because that's all there is – roe shrimp and daddies, whether they be fully developed or somewhere along in there developed.

SSD: That's interesting. You're the first person who's mentioned roe shrimp after ten interviews. It's pretty fascinating to learn about this stuff.

LP: I guess it could be.

SSD: Yes. It really is. Well, is there anything else that comes to mind about introducing TEDs to the shrimping industry before we move on to the second question?

LP: Well, just that Dave urged and allowed – we would bring turtle excluder devices to shrimp association meetings, carrying them down to each individual dock to catch those that didn't make the meetings. We tried to explain to them why they were going to be mandated, when, how, where, and all that. He kept the fishermen informed, I think, and, yes, introduction – and then we've still been introducing TEDs ever since – all the changes in the rules. The guys have to know the rules to know what they've got to do, and that was one of our jobs as extension agents, and they taught us well to educate fishermen what these rules are, what they're for, and if there's a problem with them, start talking about fixing the problem.

SSD: So you guys get feedback from the fishermen, as well, about the problems.

LP: Oh, yes. Lots of it. Lots of it.

SSD: Well, how were TEDs viewed in the early days?

LP: Generally badly. It's a mixed bag. There are some that are staunchly opposed to it and consider it just another way to drive fishermen out of business. There are those that pulled turtle excluder devices year-round of their own free will, even prior to the TED rule, because they are, and always will be – although they're turtle excluder devices, and that's why they're mandated, they are bycatch reduction devices.

SSD: And for the record, what is bycatch?

LP: Bycatch is catch of other organisms, not your target species.

SSD: Why is it bad to catch that?

LP: Well, most don't necessarily consider it bad, but whatever you catch in, you've got to go through to get the shrimp out of, and you've got to handle it, you've got to get it on the boat, you got to get it off the boat. If you can't sell it, it makes more work.

SSD: What about taking up room in the net and damaging shrimp in the net?

LP: Well, that's another – quality of shrimp is another concern. The gentleman that invented the oval-type TED, Sinkey Boone, the Georgia Jumper, developed the TED not only to save sea turtles but to improve the quality of his catch. One of the buyers of their shrimp complained about cut shrimp, pieces of shrimp, and the processors didn't want them. So by pulling a TED – and Sinkey designed his TED to keep other bycatch out of the net so that the quality of the shrimp was better. You don't get paid too much for mush – shrimp mush and shrimp meal. That's what you get when you got a couple of one-hundred, two-hundred-pound turtles in your bag for hours on end, scrubbing around with the shrimp. You wind up with a bunch of mush.

SSD: For the record –?

LP: The crabs are thick. If you don't get the crabs out of the bag, you wind up with a bunch of cut pieces of shrimp.

SSD: What is the bag, for the record?

LP: That's basically why and how he developed his two-inch bar-spacing turtle excluder device, which eliminates a great percentage of your hard crabs, the blue crabs, and other bycatch that can and does mash and deteriorate the quality of the shrimp.

SSD: For the record, what do you mean by the bag?

LP: Bag is most often called codend in publications and stuff. It's the apex of the shrimp trawl, maybe. The very back end, the codend of the trawl where your catch is stored during the trawl during a tow.

SSD: That's the end of the line for the net.

LP: Right.

SSD: So we had a mixed bag. Some were opposed to the TED, and we had some who were actually pulling it year-round before the mandate because it reduced bycatch. Anything else about how TEDs were viewed in the early days?

LP: Well, like I say, an awful lot of fishermen had never seen a sea turtle in all their born days of fishing. They honestly did not believe that they were impacting any sea turtle population. They felt that it was – I don't know – an arbitrary and capricious rule or something because they could do it. A lot of fishermen here in Georgia – I think we were quite familiar with turtles prior to – many fishermen have been around since prior to the Endangered Species Act and can remember fondly the days of going over and collecting turtle eggs on the beaches of the islands. There was a wintertime fishery for sea turtles, catching and selling the meat prior to the Endangered Species Act. They remember it, and most considered it an intrusion into their business, but they also realized that it was the law, and they had to do it, and they didn't want to be the example of the one that didn't – over our way, anyhow. We didn't experience the protests in Louisiana and the Gulf that they did over there. I always considered that because Dave had kept the fishermen apprised of the situation long and long, and it didn't come on them as quickly and rapidly. Conditioned them.

SSD: [laughter] Well, education really has an impact like that.

LP: Yes.

SSD: Yes. Go ahead.

LP: That was about it, I guess. We were on how do fishermen – I honestly believe that most fishermen today, at least on the East Coast, would probably continue to pull TEDs

were they not mandated. Should the loggerheads become no longer endangered and they did away with a requirement to pull a TED, I believe most fishermen would continue to pull a TED.

SSD: Why would they do that?

LP: Because of the bycatch reduction that it affords them.

SSD: That's an improvement for them.

LP: The turtles, the cannonball jellyfish, the horseshoe crabs that are excluded by the TED – there are some that swear that they would take them out, too, though.

SSD: [laughter] Yes. I guess just –

LP: They are one more thing to go wrong. Murphy's law or whatever. If something can go wrong, it will go wrong, and it'll always be at the most opportune moment to cost you the most money.

SSD: Like losing your whole catch.

LP: Right.

SSD: Over the years of improvements, do you think that it's less likely that a shrimper would lose his whole catch now than it was in the beginning?

LP: Oh, yes. Yes. They've learned what causes such things, and most of them avoid it right well. In the early days, it wasn't anything to lose one whole bag because of a twist in the TED, a simple twist in the TED that didn't come out. Fishermen have learned to better keep track of their TEDs. They've grown accustomed to wrestling it. They know how to make it work, and they know that they're not going to get away without it. So if you can't beat it, join it. Learn to use it.

SSD: So when you went to meetings, how did you actually get feedback from the industry? Was there time in the meeting that you asked for that, and somebody recorded all of the suggestions that they had? How did that work?

LP: I guess it was maybe mostly informal and probably started with ridiculous suggestions but whittling them down and refining them to something that could do the job, like time and area closures. When there aren't any turtles around, you could reduce the TED requirement. That didn't stick around either due to people's lack of desire to sew them in and take them out and sew them back in and take them out or for concern over other animals or whatever it was. The mandate wound up year-round in our waters, and people have gotten used to it now. But yes, if there was something causing people to lose catch, National Marine Fisheries Service was all over that. I mean, they needed to

keep the fishery going. If there was a solution that could be worked out, they were generally agreeable to working it out.

SSD: There was a switch, wasn't there, from the initial big box that the gear people at NMFS wanted the fishermen to use? That design that was from the gear folks isn't really what's being used now, is it? Actually, the fishermen improved on that design, did they not?

LP: Well, yes. I mean, the initial NMFS TED, as Dave would put it back when he arranged to go to Cape Canaveral to demonstrate fishermen-designed devices to exclude sea turtles – back then in '86, there was lots of data, scientifically valid data, on the National Marine Fisheries Service TED. They had pulled it in lots of different places. As I say, they had refined it into a – they attempted marketing it as a trawl efficiency device for its bycatch reduction capabilities, and so forth and so on. Dave used to call it – it was basically a Swiss watch.

LP: A Swiss watch? How did that make sense? What does that mean?

SSD: Highly engineered.

LP: Okay.

SSD: Highly engineered, very highly tuned. Basically, everybody that has ever pulled a shrimp net and torn up a shrimp net or hung up a shrimp net knew that you don't put a Swiss watch in the ocean. Fishermen, like I say, we've got numerous small boats, smaller boats, thirty, forty, forty-five, fifty, sixty-foot boats upon which – and, at the time, [inaudible] nets were commonplace on even the smaller boats. Four of these scientifically tested and approved devices would literally cover the entire deck. Some boats could not even stack all four TEDs on the deck without stacking them on top of each other. It created a safety problem. It was, I don't know, a hundred pounds of steel or pipe or sixty pounds. At some point of the day, that weight and that steel grid was hanging over your head, and it was just impractical. It was too finely tuned. You got the (hummer?) wires in the back of it, and it increases the length of your net. Well, they were making them – they basically had two codends put together, or at least one entire codend in this NMFS TED, and that's a distance of ten, twelve, fourteen feet, depending on the size of the webbing and the twine and everything. It was just unwieldy, and that's when Dave, knowing that when a mandate came around, that the government would not be allowed – there would be no allowance for untested turtle excluder devices because, in order to protect the turtles, they would have to have something with scientifically valid data behind it to prove that it was effective. That's when he said, "Well, let's go gather some data. Let's go demonstrate to Greenpeace, Audubon, National Marine Fisheries Service if y'all desire to come." I remember we had a couple of the old names in sea turtle conservation. I forget whether Archie Carr was with us, but Ross Witham, as I call them, turtle-huggers – lots of turtle-huggers came and rode the boat with us, and we demonstrated using short tows and a turtle excluder on one side and nothing on the other in the channel at Cape Canaveral. We demonstrated that – we put the NMFS device on

one day. The next day, we'd go to another device. The next day we'd go to another device, and the next day we go to another device, keeping data, how many turtles we caught in the net with no TED and how many turtles we caught in the net with a TED. Never caught a turtle in the bag of a net with a TED, although we demonstrated the logjam effect of numerous turtles on numerous occasions, except with two of the TEDs. One of the TEDs, the Cameron TED, had a small front end, and it was fairly similar to the NMFS device. It had a hoop at the front, a hoop at the back, and bars between the two. The two hooped devices would oftentimes come up with two or three or four or five – I don't know how many turtles – ahead of the TED. Turtles that could not make it through the front hoop and got stuck there, and then another one came along, and it couldn't go through with the other one in the way, and so forth and so on. Or, in the case of the NMFS TED, the front hoop was considerably larger, but you get two or three turtles at the same time, and they would get clogged up in there, and they would not go to the bag because the bars prevented them from going to the bag. But they couldn't go out [of] the TED because there were too many of them. The only two devices that generally never had any turtles in the net when it was picked up was the Georgia Jumper and the Matagorda TED, both very similar to the Georgia Jumper, made out of steel and oval-shaped. The Matagorda TED was a PVC, a rectangular PVC device. I think it was Ross Witham who mentioned the fact that you never saw a turtle in front of the single grid devices when you picked up. He thought maybe that the white PVC was scaring them away from it.

SSD: That would be a good thing, right?

LP: Yes, as far as he was concerned. But yes, pointing out the fact that these hooped devices often had turtles right there in front of it when we hauled back. It prevented the capture of turtles, and they had to make rules, so they made rules. Yes, if a turtle got into the bag, then it was caught. But if it was ahead of the TED, it at least was not caught, although, with continued trawling, some of them may have succumbed to the pressures.

SSD: Now, when they were ahead of the trawl like that –

LP: TED.

SSD: Dead? Of the TED – ahead of the TED. Right. When they were ahead of the TED, did they survive?

LP: Oh, yes. Then we just shoved them back out the mouth of the net.

SSD: We just picked up some static. I don't know why. This happened in another interview. What I did was hang up and call back, and I got rid of it. Do you mind if I try that with you? We'll see if we can get rid of the static.

LP: Okay. Tell you what. Let me give you another number. Thinking I can give you a number that I can go out and be smoking a cigarette while I talk to …

SSD: Do you want to just take a ten-minute break?

LP: We could.

SSD: Let me call you back on this number.

LP: That'll work as well.

SSD: Alright. Let's do that. Let's make it a fifteen-minute break. So I'll call you back – I've got ten until ten, so I'll call you back at five after ten.

LP: Right. Sounds good.

SSD: Great.

LP: Alright. See you then.

SSD: Okay.

LP: Bye-bye.

SSD: Bye.

[TAPE PAUSED]

SSD: It's back on. So we were touching on number four, some of the challenges faced in developing TEDs. You were talking about testing it in Cape Canaveral; I guess the channel off of Florida –

LP: Yes.

SSD: – where there are a lot of turtles. Is there anything you want to add to number four, the challenges faced in developing TEDs?

LP: Well, the biggest challenge, I guess, at that particular point in time, was that, yes, the mediation talks had broken down, and the only thing that had any scientific statistical testing – only thing that had been tested for turtle exclusion by anyone that the government would have considered reliable, was by the government themselves, and it was that NMFS TED, turtle excluder device, trawl efficiency device, by whatever name you call it – the big box.

SSD: Big box, yes.

LP: Dave knew that that would kill the fishery. The cost of it was higher. The problems with it were greater, and so we had to demonstrate rapidly that there were other ways of excluding turtles. He got on the horn and talked to Texas, Louisiana, all up and down,

and came up with the devices to demonstrate. We demonstrated them and subsequently discovered another soft TED that proved very successful that answered the safety concern. That was originally the Morrison TED, and from another part of the world, a gentleman from Southwest Florida, over in the Fort Myers, Tampa area, fishing the Southeastern Gulf, I guess it would be, came up with a bottom-shooting soft TED. It was subsequently named the Andrews TED after its inventor or main installer. Initially, that was the hardest thing, obtaining proof that they did work.

SSD: I see.

LP: Many of those have subsequently been decertified, as far as the official record probably shows, because they were proven to be ineffective using small turtles. Many of us feel that the small turtle test is rather biased.

SSD: Who did it?

LP: Who did what?

SSD: The small turtle test.

LP: National Marine Fisheries Service. They initially suggested it, but it has since, as far as I'm concerned, outlived its usefulness. But they're still doing an annual TED-testing trip to Panama City, Florida. We feel that the pen-raised, captive-reared turtles are not a suitable substitute for a real wild turtle. But as they argue, it's the closest they can come to, and they feel it's quite effective and possibly more conservative than they need to be, but that's what they set most of their stock in these days.

SSD: The captive-reared turtles possibly could be behaving differently than the wild turtles when they're put in a situation where they have to use the TEDs.

LP: Right.

SSD: So that could be a problem with the research.

LP: Yes. Well, they have allowed – in order to get their double-cover TED fully certified, they invented the wild turtle video testing. So it's coming around.

SSD: Did I lose you?

LP: No.

SSD: You're still there. Okay.

LP: Still here.

SSD: Hello?

LP: Yes.

SSD: I think it's cutting in and out on my end. Do you have any trouble hearing me?

LP: I am. Yeah. I had set my handset – I'm on my handset now. I had set my handset back in the cradle, so I thought the microphone on the speakerphone was unobstructed, but that might have been what it was.

SSD: Well, you sound closer now, so this is better. I'm sure you'll get a crick in your neck before we finish, but it's just all for the cause.

LP: Yes. We do it for the cause. Okay.

SSD: [laughter] Does anything else come to mind when you think about challenges faced in developing TEDs?

LP: Well, once the TED rule came about, it became a challenge to test one for shrimp retention because – well, there are still – today's climate will not allow any testing utilizing a naked net, a TED-equipped net, and that's still a challenge.

SSD: Because you don't have anything to compare to.

LP: Right.

SSD: All you've got is the TED net, and you can't compare it to a net without a TED for shrimp retention.

LP: Right. But that's the way the ball has bounced, and so we're down to that.

SSD: Just in your personal opinion, do you think there is a loss of shrimp when you use the TED as compared to not using one?

LP: Well, it's going to depend on – it depends on many factors. I think generally, yes, you're going to experience some shrimp loss using a TED, but there are many instances – by the same token, there are many instances when the use of a TED allows you to capture more shrimp. If there is no other bycatch whatsoever, without a TED, you can fill a net all the way to the mouth of the net, whereas with a TED in all nets, the most you can fill one up is to the TED. It's not often that that becomes a problem, but even during times of minimal bycatch, there probably is some minor loss of shrimp due to the TED, although it allows you to trawl longer periods of time if you so desire, to make up that loss. No major loss.

SSD: So, what is the advantage of trawling for a longer period of time?

LP: Well, there aren't many. I mean, if you tow one hour, catching a hundred pounds an hour, you catch a hundred pounds. You took two hours; you catch two-hundred pounds. You took three hours; you'd catch three-hundred pounds. You can extrapolate it right on out to a ten-hour tow might net you ten-hundred pounds. But you got to stop sooner or later, and pick the bag up, and dump it out, and take care of your catch. Three hours is generally considered as long as you need to trawl shrimp around for their quality. That's become a much more important factor in the shrimp fishery today is the quality of your catch. By the same token, if you're catching a bunch of bycatch, you might not be able to fish for but one hour, whereas with a TED, even with the bycatch, you can trawl two or three.

SSD: Because your bycatch is being reduced and not filling up your net.

LP: Reduced all along. Right.

SSD: It seems to me that one of the advantages of trawling longer would be less time spent hauling out the net.

LP: Right. Exactly. Yes. More time at work. More time at work. If you're catching a hundred pounds an hour, but it takes you fifteen minutes to haul back and dump your bag, then in a one-hour period, if you can only tow one hour, you got to spend – you can only trawl forty-five minutes because it takes you ten, fifteen minutes to pick up your net. So during a twenty-four-hour period or a twelve-hour period, the more often you pick up your net, the more time you're not trawling and, therefore, not catching shrimp.

SSD: The more time you're using fuel, which costs money.

LP: Wear and tear on equipment. Every time you turn the winch on, every revolution adds up to wearing out a winch. Power take-offs, all the equipment on the boat, the ropes, blocks, tackles – all of it. Yes. If you can just put the nets out, the skimmer trawls have a great advantage there. They just push the nets along, and you just pull your bag up, dump it, you're still fishing while you're doing it.

SSD: Still fishing while you're doing it. That brings to mind something I heard about a net that goes in front of a shrimp boat that can be emptied while you're trawling.

LP: That would be a skimmer trawl.

SSD: Do people use that in Georgia?

LP: No. We had one fellow [who] got an experimental fishing permit to try it, but he did not keep it up. He abandoned the idea after six or eight months.

SSD: Do you know why?

LP: It was – in our waters, it was not advantageous enough. The skimmer trawl is widely used up in – I guess North Carolina has a pretty good skimmer trawl fishery. Louisiana, Mississippi, Alabama, I guess, possibly. I'm not sure about Mississippi and Alabama. I know [in] Louisiana, there are numerous skimmer trawls. I don't know how big they are in Texas, but the net is basically lowered right down beside the boat. They use their outriggers to basically spread the net, use a [inaudible] weight on the inside to get the net down. So it cuts out some of the gear. You don't need much cable, but you need relatively shallow, consistent bottom.

SSD: You don't have that off the coast of Georgia?

LP: No. Not sufficient of it.

SSD: It was popular in Mississippi with the Vietnamese community. I don't know if it still is, but in the beginning, when they first started shrimping here, it was popular with them.

LP: Yes. There was another thing; I think it was called chopsticks, and it was the newest thing, but I think it evolved into skimmer trawls. They used to use telephone poles to put the net all the way in front of the net of the boat.

SSD: Wow. Telephone poles. Amazing.

LP: Or whatever they used. Anyhow, it hadn't caught on in offshore fisheries, at least.

SSD: What's the definition of an offshore fishery?

LP: Well, off from the shore, I guess. That would probably meet with many opinions. Offshore fisheries is – in the Gulf of Mexico, a lot of the shrimp trawling is well offshore, outside the three-mile line of the state's claim and everything. Then, over here, it's all offshore because our sounds and rivers are closed to harvesting shrimp for food consumption.

SSD: Why is that?

LP: Well, partially, they closed the sounds back in the early '80s. One of the reasonings used was to protect sea turtles, but it was also a management tool to increase the size of our shrimp. At one time, they felt that when the sounds were open, they caught majority smaller shrimp than what they caught offshore. By closing the sounds, they caught fewer of the smaller shrimp and anticipated, hoped, managed that by not catching them at a smaller size, allowing them to grow, that the yield would be better, as well as the price. But one of the arguments used by proponents of closing the sounds was the reduced impact on sea turtles.

SSD: What do you think about it in terms of working to increase the size of shrimp that are caught out beyond three miles? Do you think that's working?

LP: I think it has. But the imports, the aquaculture, aquacultural practices have improved, or they've become successful at aquaculturing shrimp to a much larger size these days by many – I'm sure there are many tricks to getting them up in size, some of which include antibiotics that you can't use in the United States. In any case, the size differential has been questioned as – back in those days, all your imports were up to – and I'm probably wrong – 36/40s, 41/45s and after they reached that point in the aquaculture situation, they would have such a mortality that would harvest the 36/40s or 41/45s.

SSD: Now, can you explain that ratio for the record, what that means?

LP: That's the size of shrimp they count per pound.

SSD: So thirty-six shrimp per forty pounds of shrimp?

LP: No. Thirty-six to forty shrimp per pound. 36/40s – you take a one-pound sample of them, and you should have between thirty-six and forty shrimp.

SSD: Okay. I got you.

LP: One pound of twenty-six to thirty-count shrimp, one pound would be somewhere between twenty-six and thirty shrimp per pound.

SSD: Now why are antibiotics in shrimp banned in the United States?

LP: Well, I guess because research has shown that the antibiotics are carcinogenic or cause leukemia, or some of these antibiotics that have been found in imported pond-raised shrimp – the one most familiar is chloramphenicol, and apparently, it was outlawed in the United States back in the '50s or '60s. No use of it has been allowed since then, and it's still coming into this country at measurable rates. I don't know how they do all of that, but basically, it caused the current – it started, at least, the current downfall of the shrimp industry today. Back somewhere in the early 2000s, the European Union was receiving a lot of imported shrimp from Thailand. They found this particular antibiotic, chloramphenicol, in a sufficient amount of the shrimp coming in that they banned all imports of shrimp from Thailand.

SSD: In Europe.

LP: In Europe. By doing that – I'm no rocket scientist – I expect that everything that was destined for the European Union subsequently – where are they going to get rid of it? They weren't going to dump it at sea. Probably couldn't eat it all. It all came to the United States.

SSD: We ate it.

LP: They dumped it on the United States, in many cases for less than what it cost them to produce it. It brought shrimp past Charlie Tuna as the number one seafood consumed in America per capita, or whatever it is. It also reduced the price for our domestic shrimp, severely impacted the price of our domestic product. Well, yes, the current economics with the fuel prices going up, skyrocketing, and they won an anti-dumping suit against six countries for dumping shrimp – selling it here in the United States for less than what it cost to produce it in those other countries – against six countries. A lot of people thought that it would save the shrimp industry. The Byrd Amendment provision where they can take the tariffs from those countries and redistribute them to the impacted parties. All that dumping money, all those tariffs were going to be a big cash cow for us and allow us to keep fishing, at least. But that has since changed. They repealed the Byrd Amendment, and the processors were getting all the money anyway, so we're still in the same boat.

SSD: So the fishermen never got any of that tariff money. It went to the processors, and then they –

LP: Well, some small percentage. I say small percentage – twenty, thirty percent went to producers. But many producers were not included because they didn't get their petition in in time, and the processors that were allowed to file on it were allowed to use the cost of their raw product to – the cost of their raw product was a qualifying expense to file to get the money. So all the shrimp that our producers produced and got paid for, that – their gross amount was the basis for some of the processors' qualifying expenses. Plus, they had all their freezers and their help and everything else. So, yes, their claims were much, much higher and, therefore, they got much, much more of the money. I was just thinking how far off the course we were getting. I guess [inaudible] the sounds.

SSD: No, that's okay. It's good. It's good to get off-course. Do you remember some of those six countries that the anti-dumping suit was against?

LP: Yes. Thailand, India, Brazil, Ecuador – how many is that? Four?

SSD: Yes.

LP: I want to say Vietnam and China.

SSD: China's figuring in this in a big way, I would think.

LP: Yes. They're good. All our money goes over there to build shrimp farms, and it comes back to haunt us.

SSD: Yes. Isn't that amazing?

LP: That's part of the irony of it.

SSD: Yes. Really ironic.

LP: I'm not absolutely sure about Vietnam. I forget. Brazil and Ecuador were there. India,Thailand, and China. Who that sixth one is – yes, somewhere between Vietnam, somewhere in that neighborhood.

SSD: Is there anything else you think of when you think about challenges faced in developing TEDs?

LP: Just the independent nature of fishermen. They fish because that way, they're their own boss, and they don't like being told what to do or how to do it. That was one of the challenges. I can't come up with any more.

SSD: That touches on number five, the challenges facing getting the shrimping industry to use TEDs. Is there any additional thing that comes to your mind when you think of that?

LP: Well, yes. I mean, it's an extra cost. They are businessmen, and they never received a tax credit or anything for using TEDs. Just the independent nature of fishermen.

SSD: Didn't want to be told what to do.

LP: Right. Like I say, the old-time fishermen that had never encountered a turtle. A lot of them just honestly did not – they firmly believed that they weren't impacting any turtles –

SSD: They knew that they weren't.

LP: – and awful of them probably weren't.

SSD: Yes. From their personal experience, they knew for sure that they weren't doing it. Would you say that perceived loss of shrimp catch would have anything to do with it, as well?

LP: Yes. That's what the fishermen generally think. They're brought up to have lots of holes in their nets, but they're small holes. And then you come up with a big old gaping hole, and it just went against what they had always been taught and dreamed and assumed.

SSD: They were busy repairing holes, and then NMFS comes along and says, "I want you to make a big one on purpose."

LP: Right here ahead of the bag. Yes. All those are challenges.

SSD: Do you think there were ever any language barriers or cultural barriers in getting shrimpers to use TEDs?

LP: I am confident that there were. We, over here, probably didn't have as much trouble as they did in the Gulf because we have a much smaller Vietnamese community, if at all; I think there's a few, but a lot fewer Vietnamese settled on the East Coast than did in the Gulf. Even beyond the Vietnamese, I'm sure that the – just them coonasses in Louisiana. A lot of them just didn't speak like the NMFS people or even the extension agents that were bringing them the news. Probably a lot of – I would expect that that played a big part. People that didn't know the language; people that were not fishermen by trade telling them what they had to do. I'm sure a lot was lost in translation.

SSD: We've also touched a little bit on number six. How did early TED models compare to later models? Is there anything you want to add to that?

LP: Well, yes. Let's see. There's been a pretty good evolution. Early models – you go back to the original TEDs, and then they genericized TEDs. When they genericized TEDs in industry's favor or in the perception of industry's favor, the opening of the TED shrunk considerably. What I understand, to come up with a minimum-sized opening – the minimum opening for the two coasts – they used the average-sized turtle encountered there. This was back – I don't know – '90, '92 – early on when they first basically made up rules that your TED has to have this big an opening, and they were genericizing it so that the descriptions would do everything. You could build your TED any shape you wanted as long as it was at least this big. You could build it bigger; you could do whatever you want. We didn't raise too much fuss, although I realized that we were shooting ourselves in the foot. But the industry liked it. The smaller the hole, the better. It went on that way until they determined that the existing holes weren't big enough.

SSD: Was that how you were shooting yourself in the foot?

LP: Yes.

SSD: That was going to prove to be too small.

LP: Right. I mean, over on our coast, generally, we do have turtles, and we know we got turtles. People pulled a larger opening on our TEDs forever, much larger than the minimum. A lot of them still felt like they didn't need to make it any bigger, but that was one of the things in the evolution of TEDs. The earlier models were all steel and PVC. Aluminum has come along and pretty well taken over the TED industry.

SSD: It's lighter?

LP: It's lighter. Yes. People have learned better to work with aluminum. Back in those days, aluminum was a specialized product, and not just anybody knew how to weld it and shape it. That improved and allowed them to use aluminum. The new TED, the one that has become the most common – possibly the most common – is still the smallest opening, although it looks big as hell. We've seen some difficulties with that.

SSD: Which are what? What do you see as difficulties with it?

LP: Well, when it first came out, you get this size opening, and you put it together, and you can have a lot smaller opening. Some were done that way, but in our neighborhood, that didn't last long because that smaller opening – they couldn't get full bags on deck. Every tow – one of them was clogged up with a turtle. When it clogs up with a turtle, it loses everything. So they've learned that, yes, you got to let that stuff go.

SSD: Were they sewing it closed and making it smaller?

LP: No. Well, no. By constructing it, using the prescribed dimensions for the parts, when you sew it together, if you sew it one way, it can considerably shrink the opening and increase the angle on the TED, which is illegal. But it was done under the guise that it would catch more shrimp. It was determined that wasn't the case – not if you had turtles around. It might be going on elsewhere in the world where there aren't turtles, and it may work better on shrimp. But when you got a turtle around, it'll foul you all up. But yes, the evolution of TED – I think it's not been – well, I think the small turtles, the surrogate small turtles as testing subjects, has been detrimental to the evolution of TEDs. Don't know that I could prove myself right, but the two soft TEDS, which – one of which is still allowable due to the use of small turtles in testing it became restricted in its use, and it incorporated into it webbing that was much smaller than the original, and it will not retain shrimp anyway. The shrimp retention is generally such that most fishermen avoid it. Still, a few fishermen will use it on occasion because of its capabilities of bycatch reduction, but for the most part, nobody uses soft TEDs anymore. I think they were more effective at bycatch reduction, and I think they were just as effective at turtle exclusion, although with the baby turtles used for testing, they didn't pan out.

SSD: I think someone told me that the soft TEDS, it's easier to twist them up and just completely close the net. Does that sound familiar?

LP: No. It's easier to fool a dimwitted enforcement agent with a soft TED than it is a hard TED.

SSD: Because of that angle?

LP: Because the dimwitted enforcement agent doesn't know what he's looking at. A TED grid – it's all right there in front of you. A soft TED is fifteen or eighteen-foot long and can be stretched out to twenty feet to mouth. It's more difficult to check the installation. To check for a correct installation is more difficult. It's less likely to tangle the net, though. Yes, the easiest thing in the world to do is to twist a TED, put one full twist in the TED, and it closes your net ahead of the TED so that nothing even gets to the TED.

SSD: Nor does anything get into the –

LP: Bag.

SSD: – bag.

LP: Or codend. No, I would totally disagree with the soft TED being more tangle-able.

SSD: I probably have that information wrong.

LP: No, the soft TED is – many fishermen preferred the soft TED over the hard TED because of that fact. Not only did they not have steel or aluminum hanging over their head at some point [in] the day, when – in the early days, when you lost your catch, it was most of the time all of one net's catch. You'd tear the whole bag and TED combination off the boat and lose the whole thing. Whereas with the soft TED, when you lost part of your catch, you didn't lose all of your catch. That was one of its strong points. With the hard TED, it was all or nothing. With the soft TED, it was usually something, at least, and they were cheaper.

SSD: Were they? Okay. Cheaper too. Is there anything else you want to add to that comparison of early models to later models?

LP: They've probably overall gotten better. I mean, just because a fisherman's dependence on net shops to put their TEDs together. Not many fishermen build their own TEDs today. In the early days, many fishermen would build their own TEDs to save money and everything. Whereas nowadays, they pretty well lean on the TED manufacturers.

SSD: So you get a lot more standardization.

LP: Little more standardization. Yes. Actually, in development of TEDs today, it's challenging because you got those baby turtles to test against and their behavior and twenty-five – yes. Right now, we're waiting on – we've been waiting on the latest TED to pass. The latest TED that passed the baby turtle certification protocol and the wild turtle video protocol has been pretty well set to supposedly go into the federal register for two or three years now. It hasn't made it yet –

SSD: Wow.

LP: – due to various and sundry little hold-ups.

SSD: Just to double-check with you, did you say they were testing once a year now with the captive-raised turtles and the videotaped wild turtles?

LP: Yes.

SSD: So once a year. Okay.

LP: Well, with the captive-reared turtles. Yes. The wild turtle video test has been used, I guess, on two TEDs thus far, starting back in 2004. I guess it was mostly all done in 2004 – might have been.

SSD: 2004.

LP: It's not a common thing because it's – I don't even know whether it's considered more – I would think that the baby turtle testing would be more expensive because it takes a whole lot more personnel, but they generally do it on our boat. I mean, the wild turtle they do on our boat, and they call us expensive, but I'm confident all the hotels and the week or two they spend at Panama City and dive pay and everything else is probably expensive too.

SSD: So they've got divers down there letting the turtles go and taking videos of it?

LP: Yes.

SSD: Wow.

LP: Oh, yes. You haven't seen any of that?

SSD: I haven't seen any. I would love to.

LP: She's led such a sheltered life. All that stuff's going on down there at Pascagoula.

SSD: In Pascagoula?

LP: Hop, skip, and a jump.

SSD: Pascagoula. Yes. I'm headed down there. There's one person I have interviewed in Pascagoula. I can't remember who it was. I interviewed Dr. Tom McIlwain at the Gulf Coast Research Lab. I think that's in Ocean Springs, maybe.

LP: Yeah. That's not it. Doesn't sound like it's at Pascagoula.

SSD: The grant that funded this series of interviews provided a list of people they wanted to have interviewed, and some of the gear team at Pascagoula is on the list. I just really haven't gotten down that far yet. But I grew up in Gulfport, so I grew up on the Gulf of Mexico, and I have seen, in my lifetime, only one stranded turtle on the beach down there. I'm fifty-five years old. I can't remember if that was before Katrina or after, but it was in the 2000s. It was definitely during this century.

LP: Yes. I don't know whether they did a better job of sending them out before the Endangered Species Act or whether there's just not as many of them down there.

SSD: Yes. I don't know. Both Tom McIlwain and this eighty-year-old shrimper named Eley Ross reported that during their lifetimes, they remembered eggs being gathered and turtles being eaten right down on the Mississippi Gulf Coast. But Mr. Ross, who's been shrimping for many, many years, who's in his eighties, believes he's only seen three turtles on his boat in his shrimping career.

LP: I don't doubt it.

SSD: So, for whatever reason, they're not that common, at least in-shore down here. Well, do you have any experience with protests against TED regulations?

LP: Not really. Saw the newspaper articles and some of the TV articles and heard tales of the Galveston blockade.

SSD: Yes. I've heard about that.

LP: And heard lots of tales of that. But on our coast, there really haven't been any organized protests that I'm aware of. A lot of fishermen have voiced their dislike of TED regulations and people telling them what to do, but not that much of it made the media.

SSD: They certainly didn't blockade any ports.

LP: No.

SSD: Why do you think that is? What would you attribute that difference to?

LP: I think I may have heard it expressed that by – well, that perhaps Dave Harrington had a lot to do with that by keeping fishermen talking about turtles and what was in the Endangered Species Act and the fact that, yes, the Endangered Species Act doesn't take into account economics or anything else. The work that Dave did in opening up the rapport with fishermen about turtles and TEDs paid off in that way.

SSD: Right. He was a good PR [public relations] guy and a good communicator.

LP: Yes. He was good. But it was not such a shock to our fishermen on the East Coast as it was to the Gulf fishermen.

SSD: Better education, maybe.

LP: Yeah. More progressive. I don't know. Maybe beat down and already whupped. I don't know.

SSD: [laughter] I hope not. Have you ever been involved in enforcing compliance regarding the use of TEDs?

LP: No. That's a fisherman's prerogative. If they want to break the law, they can do it. It's not for me to say. I've done a lot of – I've assisted in a little bit of enforcement training, training enforcement agents.

SSD: Okay, training.

LP: But no, I've never – and I've testified for fishermen that were accused of breaking the TED rule when enforcement agents made mistakes. But no, I've never been involved in enforcement.

SSD: Well, it sounds like just peripherally, maybe.

LP: Yes.

SSD: Which is also important. Very important. Well, do you have any idea how compliance regarding the use of TEDs may have changed over the years?

LP: I think it's probably much better. Well, it's always been very good on our coast. There's no doubt in my mind that fishermen – if they're confident that they're not going to run across a turtle that they may sew up a TED, but they don't do that for long. They're not caught with it, except – I don't know. I guess a couple of, three years ago – might have been five or six now – they caught a boat that had all its TEDs sewed up. So maybe it's gotten worse. I don't know. On our coast, everybody pulls a TED, and if they've got a question about a TED, they'll ask it. Is this legal, or is it not legal? A lot of those questions wind up coming to me, and I try to keep them straight.

SSD: What are some of the questions that you get?

LP: Well, you know, how big [does] the opening got to be? They hear it's got to be this and that and the other and that you can do this and you can't do that. Yes, there's lots of different answers you can give them. Now, flap length, TED angle, how to test, how to check your TED's angle, how big the opening has to be, is it illegal to use steel or aluminum, or what have you? Can I put an extra float on the TED? Where does a float have to be on a TED? I don't want it on the outside of the net at the tip-top. I want it on the sides. I want to balance it out. Some people will tell you it's got to be at the top. That ain't the case. The people that are enforcing it get a one-day demonstration, and then they're liable to run into any number of situations. We got a jellyball fishery over here.

SSD: Really? What are jellyballs used for?

LP: They eat them.

SSD: Wow.

LP: There is no requirement to pull a TED. Some coast guardsmen, at one time or another, took the initiative – that NMFS has or had or they're working on TED implementation in other fisheries. Because as we have reduced our turtle capture, other fisheries' incidental turtle interactions have increased.

SSD: What are some examples of those fisheries?

LP: Well, the flounder fishery, I guess, was the first one to pop up, and they've got a flounder TED regulation now. More recently, the sea scallop people up in Virginia. I don't even know that turtle interaction is a big problem, but with the sea scallops, I think it's a management regime to where the people that are doing the fishery are more proactive in doing something with turtles. They have, I think, voluntarily begun using a turtle deflector on the sea scallop dredges. There may not be a regulation. But turtle interaction was a concern, and so they built a deflector on the front of their dredges, so they don't catch any turtles. The longline fishery in the Northeast relatively recently, probably been eight or ten years ago now, observers aboard the boats encountered turtles, and NMFS in Pascagoula did an awful lot of work and still doing a little more, I imagine, with the longline fishery. They closed the whole fishery due to turtle interaction. Anyhow, NMFS has an initiative or a plan to start looking at turtles in ways of lessening the encounter with these other fisheries, and they intend – they hope to develop TEDs for their gear. I guess some coast guardsmen have gotten wind of this initiative, or whatever it was, and took it for granted that they had already done that. So last year, the year before, one of the fellows was out catching jellyballs, and he didn't have a TED in his net. It's not necessary; it's not required and, plus, a TED is going to kick out the most prized of his product because the bigger the –

SSD: Well, one of the first TEDs was the jellyball excluder, wasn't it?

LP: Right. They're all jellyball excluders.

SSD: So if you're excluding turtles, you're excluding jellyballs. [laughter]

LP: Right. That was their intent. The bigger the jellyball, the more marketable it is, so they're seeking the biggest ones. So even with a four-inch grid, you're going to exclude most of what you're fishing for.

SSD: But you could limit your tow time, couldn't you, to get rid of turtles?

LP: Oh yes. They don't make long tows. They're not impacting any turtles. I mean, they haven't caught any turtles [inaudible] jellyball. But a coast guardsman saw that trawling and said, "You've got to have a TED. You got to have a TED. No, you got to have a TED." "No, I ain't." "No, you got to have a TED." He wound up not writing him a ticket. Just made him go to the dock, and he was about done fishing for the day anyway. Had his load, and he came onto the dock and checked with me, and I checked with everybody else – the St. Pete folks and everything, and the state folks, and hopefully

we got word back to that Coastie that, no, indeed, you don't have to have a TED to catch jellyballs.

SSD: Now, who are the folks in St. Petersburg, Florida? Who is that?

LP: Well, in the old days, it was Chuck Oravetz.

SSD: I've talked to Chuck.

LP: You had your interview with Chuck.

SSD: Yes.

LP: Good. "Chuckie-baby."

SSD: He's great.

LP: Yeah. He's still playing with turtles a little bit – occasionally, I believe. Enjoying his retired life – South Florida or middle Florida. But it used to be Chuck Oravetz was the head TED fed, I think we used to call him. He sported it, I think, on his license plate. Head fed TED, or head TED fed. Anyhow, nowadays, I'm not sure who's the head of protected resources. David Bernhardt is there, Bob Hoffman, Michael Barnette, and Andy Kemmerer was the head of southeast regional office [SERO] –

SSD: Right. I talked to him.

LP: – over Chuck in the early days, and nowadays it's Crabtree – Dr. [Roy] Crabtree. Before Andy, I forget – (Brauner?) – I forget. Dave used to converse with them frequently enough.

SSD: So, are those Sea Grant personnel?

LP: No. All of those were Southeast Regional Office people.

SSD: Okay. Southeast Regional Office.

LP: Yes. In protected resources, I guess. Crabtree and Kemmerer were the Southeast Regional Office head administrator. Then, I guess, in the Southeast Regional Office, you got Office of Protected Resources, and I don't know what else you got. Turtles are one of the protected resources, and so Bernhardt, Hoffman, Barnette all work in protected resources, and I converse with them occasionally regarding turtles and TEDs, and all that stuff. There's a few more. The names don't spring to mind.

SSD: That's okay. Do you know how the enforcement of the use of TEDs has changed over the years?

LP: Well, not really. I don't know what all they're doing. I think they've gotten much more particular, less lenient. They used to give you warnings for a little over-angle or too small a TED, too small an opening or something. Probably writing more tickets and fines and seizing more catches. But I really don't know that much about the enforcement.

SSD: Well, I guess one would figure that, as time goes by and they think that shrimpers are more educated about what's expected of them, that they would then cut them less slack in the enforcement.

LP: Yes. I think that has happened. The continued pressure on fishermen to pull TEDs and with the new TED rule with the larger openings, as far as I know, there hasn't been major troubles. A lot of extension of the introductions to the new TED openings. They spent a lot of time and money introducing the new TED openings and how to build them, how to maintain them, and I think it's paid off.

SSD: What about number eleven? Does your agency engage with other agencies involved with enforcement of the use of TEDs?

LP: Let me see if I can – well, as far as –

SSD: You had mentioned training. You do some training.

LP: I have, very seldom. They mostly are –even our own Department of Natural Resources will generally call National Marine Fisheries Service and bring somebody over to educate on TEDs. There have been once or twice when, I guess, budgets weren't good, or schedules were bad, that I have been asked to help over at our Department of Natural Resources [to] train the enforcement agents. They came up with a fisheries law enforcement training center sort of thing up in Charleston, and it seems like I've visited there a time or two, mostly with other NMFS agents or harvesting guys – the guys down in harvesting – accompanied them, teaching TED enforcement techniques.

SSD: What do the harvesting guys do? What is it that they're harvesting?

LP: The harvesting guys are the guys in Pascagoula that have developed the TEDs.

SSD: I guess I've heard them referred to as the gear guys.

LP: The gear guys. Yes.

SSD: Same thing.

LP: That's "Windy" Taylor – Charles Taylor. Headed by John Watson up until recently. He might still be running the show, but I think he was in the process of retirement last I heard. Probably John Mitchell in charge of that nowadays.

SSD: Yes, I've talked to John.

LP: Yeah. I've had a few discussions with him myself.

SSD: [laughter]

LP: No, he's a good guy. He just works for the federal government.

SSD: Yes. Well, we all do, to a certain degree, don't we? How much of our income goes for taxes? Not quite fifty percent yet, but approaching.

LP: Not quite fifty percent. Right. Exactly.

SSD: How have TEDs affected the shrimp industry?

LP: I don't know. Maybe a pretty good blip in their history. Just the change has been a reasonable blip in their history. They have, I think, managed well with them. I'm quite confident that turtles are well on their way to recovery, and I'd like to think that there's data indicating such, even though they're trying to make them more endangered than they ever were. How have they impacted shrimp fishing? Well, it's one of those things that they had to do to continue due to the Endangered Species Act.

SSD: Do you think it's hurt them?

LP: Not nearly as much as their current situation with low prices and high fuel cost. That's why I say it was a blip on the radar, but certainly not insurmountable.

SSD: I actually had one shrimper who told me he thought his catches were better with the TED.

LP: That has been demonstrated. Yes. For that matter, speaking of fishermen and interviewing, have you caught up with Sinkey Boone yet?

SSD: I've talked to Sinkey on the phone a couple of times, and he was sick for a little while, so we are going to have an interview, but he just wasn't quite feeling up to it, and I will call him next week. But even talking to him just to set up the appointment, he's very talkative. I've learned a little bit about him just on the few brief calls that I've had.

LP: Oh, yes. He's not going to be quite so kind to the harvesting guys – the gear guys. But we love him, aggravating as he is. Yes, I would strongly recommend that you talk to him because he's been there, done that.

SSD: One of the funniest descriptions was by Sally Murphy, who talked about Sinkey Boone hooking up his trawl nets in some oak trees at a convention and some of the inebriated PhDs who decided, at some point in the night after they'd been drinking a lot, that it would be a good idea for them to test the excluder device themselves and they crawled through the net, [laughter] which is just a great story.

LP: Oh, yes. Yes, that's a good activity. That's been used at many a festival and such to show how TEDs work.

SSD: Is that right?

LP: Oh, yes.

SSD: Do people demonstrate it?

LP: Kids generally love it [inaudible] PhDs.

SSD: I'll bet. [laughter] Yes. I think that was Sinkey's introduction of his – what do they call it? Georgia Jumper, I think.

LP: Right. Basically, the most common TED today is still the evolved Georgia Jumper.

SSD: That was to exclude those jellyballs –

LP: Right.

SSD: – that are now being harvested.

LP: Well, yes.

SSD: Yes. Who eats jellyballs?

LP: The oriental market, apparently.

SSD: Wow. Well, yes, that would make sense.

LP: Apparently, there's a good market in the orient. I have eaten them. I don't know that I'll ever eat them again.

SSD: Well, how are they prepared?

LP: I really couldn't tell you. They dry them, dry the water out of them, and I don't know what else.

SSD: So they're dehydrated. Where did you eat one?

LP: At a turtle meeting.

SSD: Well, what did it taste like?

LP: Not much.

SSD: [laughter]

LP: Didn't taste like much of anything. I felt like they might not have gotten all the stingers out of it.

SSD: Oh, no.

LP: Yes. Burned going down.

SSD: Wow. You might be allergic to them.

LP: There ain't no telling.

SSD: Well, I don't think I'm going to be dining on jellyballs too much. Although, I guess I would like to try one.

LP: They did it for a while out of the panhandle of Florida, but they illegalized the nets, and then they basically dried up the fishery. I don't know. They might still be harvesting some over there.

SSD: But they're definitely harvesting them off the Georgia coast, are they?

LP: Yes.

SSD: Yes. Well, good. You had touched on number thirteen a little bit, that – how have TEDs affected the sea turtle population? You said you felt like they were recovering.

LP: Yes. Considerably so.

SSD: Go ahead.

LP: Yes. Well, just the increase in turtles up and down the coast. The first sign of it was how thick they got in the flounder fishery. They came up with a TED for flounder fish – flounder nets – and then they came up with the – they started having trouble with turtles up in the Northeast, I assume on the Georgia bank – the high seas longline fishery – [inaudible] fish longline fishery. Turtles – the pound net, the inshore – I don't know who all else they're impacting. But then, in addition to that, we, each summer, doing a project – we've done work with the Corps of Engineers, channel surveys for sea turtle populations, relative abundance studies. Since 2000, we've been developing an index to – how do they call it – development of an in-water index to sea turtle populations with South Carolina DNR from the area between St. Augustine, Florida, and Myrtle Beach, South Carolina, or Winyah Bay. We have, each year, caught more turtles. For a number of years, the catch-per-unit effort is up. The year before last, I guess it was, we, here in Georgia, had an all-time record nesting.

SSD: Great.

LP: Shortly after TEDs were mandated, the sea turtle nesting in Florida grew by leaps and bounds, although now it has waned and diminishing, and they're using it as evidence that they need endangered status instead of threatened. I mean, it just seemed to me that everywhere you turn around, there's still record stranding events.

SSD: For the record, what is a stranding?

LP: A stranding is a dead turtle. I mean, most people – you got two chances of seeing a sea turtle. You got seeing him on the beach – seeing her on the beach-nesting, once she's of nesting age, which, depending on who you talk to, that's thirty to fifty years. And you got dead turtles that wash up on the beach. Strandings have not gone away. In fact, in some cases, they've increased, I want to say. They're still counting them and, for many years, there was concern. Oh, every time the strandings went up – "Oh, somebody's not pulling their TEDs. The fishermen ain't pulling the TEDs." But they're pulling the TEDs, yet strandings go up, and fishermen see lots and lots more turtles.

SSD: Swimming?

LP: Yes. Swimming and also in their try nets.

SSD: Now, for the record, what's a try net?

LP: Try net is a very small net that is pulled every fifteen to twenty, thirty, forty-five minutes to sample what is on the bottom in the area that you're fishing. From your try net, what you catch in the try net, you determine how long you're going to trawl, you determine the bycatch that you're catching and the amount of shrimp that you're catching. If you're not catching any shrimp in the try net, you can assume that you're not catching any shrimp in the big nets, and you might as well go somewhere else.

SSD: So if a turtle ends up in a try net, is it usually – does it usually survive and is let go because they're pulling them up at shorter intervals?

LP: Yes. Quite so. You don't pull it very long, so although you are limited in the size of it, and its tow time is limited. They restricted try net size down to – I believe it's twelve feet.

SSD: Now, is that a federal law that –?

LP: Twelve or sixteen feet. Probably sixteen feet.

SSD: Does that vary from state to state?

LP: No, that's a federal law.

SSD: Federal.

LP: Federal rule. I want to say – maybe it is twelve feet. In any case, it's half the size of an old try net, and it used to be – fishermen would use eighteen and twenty-foot try nets, twenty-five-foot try net because they felt they got a better idea of what they were catching. It was more representative. But along about, I want to say, '95, '96, '97, that came to be an issue. Somebody had an observer on a boat, and they discovered that a fisherman pulled his try net for an hour and a half at a time, and he just happened to have a turtle in the bag. The turtle may – I forget whether it succumbed or not. In any case, it came to the forefront. Could I briefly break off with this?

SSD: Sure.

LP: Short break? Let me see what my bride is calling me about.

SSD: Okay.

[TAPE PAUSED]

SSD: Okay. It looks like it's working. We were talking about try net samples, how in 1995 or 1997, an observer saw a turtle in a Tri-net.

LP: Yes. I forget exactly what brought it on, but we did a try net turtle catchability study in three different size try nets. They determined that, yes, indeed, try net will catch a turtle. I believe the outcome was that the maximum size try net that you could utilize without a fully-certified turtle excluder device in it was – I want to say twelve feet. Any try net over twelve feet in head rope length must have a turtle excluder device installed into it, which effectively reduced try net size down to twelve feet because very, very few find it feasible to utilize a full-size TED in a net that small. [inaudible]

SSD: Right. It's an extra expense, too.

LP: Right.

SSD: I think TEDs are running about four hundred these days, I think, is what somebody told me.

LP: Yes. Three-hundred-fifty, four-hundred dollars. Yes. Anyhow, even in the mid-to-late '90s, sea turtle capture in try net observed by fishermen went up. Even today, we were talking about how the turtles have increased in number; it's not terribly uncommon today to have two or three turtles in a try net.

SSD: Yes. Well, that's a good thing.

LP: On our coast. It's a pain getting rid of them.

SSD: Really?

LP: Sometimes they're too big to go all the way to the bags. You generally handle the try net right there off the side of the boat by hand, and you get a bunch of turtles in it, you got to get the whip line on it and this, that, and the other, and it's just a pain in the behind. For many years along there, fishermen would tell them, "They're thicker than they've ever been. We see them popping their heads up. We catch them in the try net, catch them in the Tri-net where we never caught turtles in try nets." The scientific community wouldn't acknowledge that they were going up because nesting hadn't increased; stranding was still around. Somehow or another, the South Carolina Department of Natural Resources put together a sea turtle index study in the water because, like I say, everyone that nests – I mean, the beaches are well-covered with sea turtle watchers, and they pretty well can tag, measure, weigh, and everything else every nesting sea turtle. I think Georgia DNR, they've begun taking DNA samples, and they're figuring that in another year or already, they've identified mother/daughter pairs from nesting. They're planning on having a full – it might be being done all up and down the East Coast – but, yes, they're getting DNA of every mother sea turtle. They still think that the turtle numbers are going down, but fishermen have been telling them that they're coming up, coming up. South Carolina DNR and [we] talked it up, worked up a project whereby we're sampling thirty days each year with two boats, and catch-per-unit effort has consistently increased every year of the study.

SSD: Can you tell if they're males or females? Maybe the females aren't increasing and, therefore, the nests aren't increasing.

LP: Well, no. They can, and they do. You can't tell on the boat, but we're taking multiple blood samples. Take a sample to test for testosterone to tell whether it's a boy or a girl. Taking samples for toxicology or something – stuff that I don't even understand. They're taking samples to test their mercury content, this, that, and the other – for poisons in their blood.

SSD: What about for age? Can they test them for age?

LP: I don't know. Generally, I think they just leave that up to the size.

SSD: If it takes thirty to fifty years for them to produce eggs, then it's going to take that long to see nesting increase from new turtles.

LP: Exactly. Right. Anyhow, the principal investigator on this thing is a bright young lad, and it all looks good for them rebuilding. Statistics are such that due to the – some people still got problems with the study. We keep catching more and more each year. Catch-per-unit of effort goes up, but this goes back to – figures don't lie, but liars figure. They use all the different statistical tests that they can come up with, and they set a standard in the rebuilding plan, I guess, of a particular confidence level in statistical analyses, that any data to stand up to. Due to the fact that we are – something about a study and the number of zero captures that we do encounter. We go out; we make a –

nowadays, it's a twenty-minute tow at an assigned location, all randomly done. We go to the X, and we make our twenty-minute tow there. Although our catch-per-unit effort is increasing each year, the number of zero captures makes the confidence interval or confidence level not so good, by most of the statistical analyses that they run. So they run this, that, and the other. But I am confident that the sea turtles are increasing in number. We've seen – what do they call it – statistically significant increases in the larger-sized turtles. From the beginning to just last year, the number of sixty-five to seventy-five-centimeter turtles has gone up, or it's shifted from sixty-five, seventy-centimeter in turtles has increased to seventy-five to eighty-five-centimeter turtles. Something like that. Anyhow, it's all in how you figure it.

SSD: Do you all tag your turtles so you would know if you caught them again?

LP: Oh, yes. We have very few recaptures. We have had a few, but the logical – to me, the obvious conclusion is that, yes, there's more turtles. They're increasing in number. But, like I say, it depends on how you figure it and what statistical analyses you use. It gives you a confidence value that is not particularly good. So they say, "Oh, well, that's no good. We can't use it. It doesn't tell us anything." I don't know. They continue to search for another valid statistical analysis. Anyhow, to me, it's irrefutable evidence that the turtle population is increasing. We've caught turtles that were dying, ill, emaciated, and we rescue them. We bring them back to the rescue center. We've observed there are other things that kill turtles – sharks and boat strikes. The one thing that has increased since the beginning of TEDs is the number of small boats. Up until the economic crunch, you weren't nobody unless you had a boat that you could go fast in and go offshore and fish.

SSD: Right. Or ski. Yes.

LP: Or ski or whatever. Tournament fishing. King mackerel tournaments are big over here. We were out in the morning of one of these tournaments, and I happened to have the radar on, and one of the – he was actually a veterinarian with South Carolina DNR was up by that time when they fired the gun to turn all the boats loose, and we were close to an inlet where they were all coming out of. I called him up there, and I said, "Come look at this radar. Let me see what you'd think if you were a turtle." That's one thing turtles got to do. They got to come up to breathe. Coming out the mouth of the channel – looked like a swarm of locusts – come out the channel and go north, south, and east and just loads and loads and loads of boats – hundreds, if not thousands of boats. All of them traveling forty, fifty miles an hour, the faster, the better, and most of them probably doing fifteen or twenty. But fifteen or twenty-mile-an-hour bump on the head, what does it do? The next day or two, we caught a turtle that had been – it appeared that something had hit it and cracked its shell. That was one that we opted – that he, in his opinion, felt it needed rehabbing, so we made arrangements to get it to the people at aquariums that can take care of it. They've even started a new sea turtle rehab center on Jekyll Island for them.

SSD: That's great.

LP: Well, yes, if you're a turtle, I guess.

SSD: It is. That's great if you're a turtle. Yes. Well, that brings me to the next question. Why are sea turtles important?

LP: I would have mixed answers to that. You got those that – many feel the biodiversity must be maintained, so you're keeping an extra species that might otherwise have gone extinct. I like to tell people that I look forward to the day that they open a season on sea turtles.

SSD: That they would be so abundant that they could do that?

LP: That they could do that. It could be a new fishery to employ more people, [and] would be a source of protein for people.

SSD: Well, I would think it probably is in other parts of the world.

LP: Oh, it is. It is. That's one of the beefs that fishermen have. We protect them all day long, and as close as the Bahamas, they harvest and eat them. In Mexico, they're a staple. They're part of the peasants' diets. So, yes, for all those reasons, they're important. A lot of people think that just because they look good on the poster, on a billboard, "Oh, we got to save those things," but there's more to it.

SSD: Yes. Anything else about sea turtles' importance?

LP: Not really. Like I say, I'm not that worried about the sea turtles myself. They seem to be holding their own, but like I say, yes, they're important because they can be a good source of meat, protein, biodiversity, and all the other stuff.

SSD: What is the penalty for netting sea turtles?

LP: I really couldn't say because I don't know. I want to say that TED violations are worth – it's big bucks – fifteen-hundred, two or three-thousand per violation or something. I really couldn't say. I've known of so few infractions. As far as the penalty for capturing and eating a sea turtle, I don't know what that is because – I guess I've heard of it happening. Somebody somewhere south of Tampa catching a sea turtle, and it was a Kemp's ridley, and I don't know what the fine was for it, though – fifteen-thousand, twenty-five-thousand. It's significant to most, but whoever's doing it might not have been significant to him. He might've had lots of money.

SSD: It would wipe me out.

LP: Yes.

SSD: Wouldn't be worth it for me. Well, do you have time to go through these questions? They're just kind of icing on the cake, and they're not necessary. But if you have time to go through them, we can.

LP: I would consent to some of it, as long as I'm not starving you to death.

SSD: No.

LP: I'm accustomed to missing my lunch.

SSD: Okay. Well, where did you grow up? Tell me a little bit about your growing up years.

LP: I grew up the first few years of my life – six, seven, eight years – I was up around Atlanta, a place called East Point. I don't remember a whole lot about it. I guess I got my memories, but, yes, we left up there after my second-grade year, moved to St. Simons Island, which is right offshore. It's one of the barrier islands off of Brunswick, Georgia. Daddy was a chemical engineer, and he went to work for the paint plant down here. I grew up on St. Simons.

SSD: Boy, that sounds like my ideal location.

LP: Yes.

SSD: Did you like it? Did you enjoy the change?

LP: I don't know that I noticed it at that age. You had to be somewhere. I don't know that I realized it was a change at eight or nine years old.

SSD: Well, you suddenly had some water around you, right?

LP: Yes. Lots of water around. But daddy used to always carry us fishing, and he continued to do so. It was a different atmosphere, different fish that we were fishing for, but, yes, we kept at the fishing and spent my summers growing up on the beach, sailing on catamarans and board boats. Probably saw a few shrimp boats but never thought too much about it. Then at the end of high school, I had all my credits, and I got out of school early.

SSD: Was Vietnam going on at that point?

LP: Yes.

SSD: Did you have worries about being drafted?

LP: I guess there were concerns, but I think they ended the draft right about the same year that I became draft-worthy.

SSD: That would have been around ’72, ’73?

LP: Okay. So maybe before I became draft-worthy. Turned eighteen in ’75, I want to say.

SSD: I think they started pulling troops out in ’73?

LP: Yes. I forget.

SSD: Yes, pretty sure.

LP: The Vietnam war era was going on, and I registered for the draft, although I don’t think there was a chance of me being drafted. I think they had quit drafting people by then. Anyhow, got out of high school early at Christmas break. I might have had to go a week after the Christmas break, but after that, I was free to go and do what I wanted to do. I had a friend whose parents owned shrimp boats, and I went fishing. I went shrimping. Actually, started with crab fishing, which was an off-season activity.

SSD: How do you fish for crab?

LP: We’d trawl for them.

SSD: You trawled for crabs. Wow.

LP: We’d trawl for crabs.

SSD: Along the bottom? Is that where?

LP: Yes. Just like shrimp. Same sort of trawls, only larger webbing and generally cooler weather. But, yes, I crabbed in the wintertime and partied and had a good time. When the season rolled around, I went shrimping and did a little bit of swordfishing up in the Northeast. I had another friend out of high school whose daddy owned a swordfish boat.

SSD: Now, was that a commercial fishery?

LP: Yes. And went up to Cape Cod to fish for swordfish somewhere between high school and going to work for the university. It started off crabbing and shrimping, a few years of shrimping in my years of commercial fishing.

SSD: For the record, can you say which – just go ahead and say which university?

LP: University of Georgia. Yes. But between getting out of high school, I did a number of commercial fisheries, trawling for crabs, trawling for shrimp. Somewhere a year or so later, I went swordfishing up off Cape Cod.

SSD: Was that a longline fishery?

LP: Yes. Longline fishing. Did some more crabbing. Did some longlining down in the Gulf of Mexico.

SSD: For what?

LP: Swordfish.

SSD: Oh, wow. They really have a wide range.

LP: Oh, yes. They're all over the world. Then along that time, they were trawling for snapper/grouper fishes as an off-season activity back then and did a little of that. Then I got the job on the *Georgia Bulldog* for the University of Georgia, and I've been here ever since.

SSD: Well, that explains why you chose your career path. I take it that you were enjoying all these activities and decided to continue.

LP: Yes, somewhere along towards the end of high school, daddy had asked me, did I want to go on to school, and he likes to tell the story – I told him, "Well, daddy, I done been to school, twelve years of it, and I want to do something else." But daddy's plan was to provide for all his boys to go to college. There were five of us.

SSD: Five boys?

LP: Yes.

SSD: Any sisters?

LP: No sisters.

SSD: Oh, your poor mother.

LP: Kept trying, but mama gave up after that.

SSD: She was surrounded by guys.

LP: Yes. That was his dream because he went to college on the G.I. Bill after World War II, and there would have been no other way for him to go. His family didn't have that kind of money, and probably student loans did not come up back then. So he went to school under the G.I. Bill, and he worked all his life to provide for us to be able to get a college education. I was the first one that had turned him down.

SSD: [laughter] Where were you in that order of five boys?

LP: I was next to the last.

SSD: So three had already gone to college.

LP: Right.

SSD: Why didn't you want to go?

LP: Well, one of them had flunked out a time or two but just kept going. One of them quit after a while, and I don't think he ever went back. The other one took a break before college and finally eventually completed his college. Yes, I don't know. I was having too much fun. Back in those days, I didn't figure I'd make it to twenty-five anyway. I figured I die from something.

SSD: You must have been doing some serious partying.

LP: Yes. A little partying and acting crazy. No, I just never had a desire to go, and the money was reasonable – shrimping. Then I got the job with the university, and the money wasn't as good, but the benefits were better. I got married, had a kid, and it was steady, though – a lot steadier than fishing. I still was able to do things that I liked to do. Felt like I was – and part of my job is – a lot of my job is helping people within the fishery, teaching them how to do things that they got to learn, and telling them about new ways to do things, and this, that and the other. So, yes, I've been blessed. Quite blessed in my occupational choice, as far as I'm concerned.

SSD: Well, what is a typical day of work for you? Can you paint us a picture of it for someone who might be listening to this in a hundred or two-hundred years?

LP: A typical day? There aren't many typical days. They start and just all depends on what we're doing. If it's fishing, you get up, and you go start TED-testing, or you get the gear ready, the cameras ready. I like to think that we developed the video TED-testing techniques. NMFS had more money, and they got a bunch of gear doing their swordfish research that they come up with a better way of doing it, so we use both of them to videotape wild turtle escapes. But I like to think I had a big part in all of that, and just keeping track of it all, and keeping it all working. Also, finding turtles to film can be a challenge. You got weather and everything else to look at. When we're on the boat, it's all kinds of stuff. Now, when we're not on the boat, typical day at work – coming in and check my email and do whatever I can do. Might be still somewhat weather-dependent. If it's raining, I'll finish a report or review a report. I might mess with building a net or a new device or go down to the fish house and see who's hanging out and tell them about the latest TED rules.

SSD: Now, for the record, what is the fish house?

LP: Just a packing house, where the shrimp boats come to unload their catch. You got people that tie up behind their house, but you also have packing houses that will unload numerous boats and have a dock that those boats tie up to in the evenings or a lot of people go and come each day, but a lot – by the same token, many go and don't come back for three or four days. Shrimping is seasonal, and a lot of transient boats. People that fish all up and down the coast don't always come back to the same port. I might be working with the National Marine Fisheries Service on TED-testing and go get on their boat in Panama City and help them with turtles and do a lot of extension work. I also act as the Gulf and South Atlantic Fishery Foundation's South Atlantic coordinator for some of their work. Dave Harrington slid me into the job. He was the South Atlantic coordinator for the Gulf of South Atlantic Fisheries Foundation for many years, and when he died, I think he had half set me up for the job so that when they have work, I help them find boats and do whatever needs doing. We had a project to inform the US fleet about the upcoming TED regulations back in'02, '03 when the TEDs were changing. It was probably the most drastic TED rule revision yet, where they were going to the larger openings. Myself and the Gulf coordinator, Gary Graham, were charged with showing fishermen what they were up against.

SSD: I've talked to Gary. He's a nice guy.

LP: Yes. Quite an accomplished gentleman. Some days, I'd go meet Gary, and we'd go drive around down in the bayous in Louisiana looking for shrimp boats. That can leave you feeling less than easy.

SSD: Did you ever get lost?

LP: Oh, no. Never lost.

SSD: No?

LP: He had a GPS.

SSD: [laughter] Okay.

LP: No, we've been lost, but not really lost. But you get to some places that maybe no law enforcement agent or anybody knew about and run across fishermen that – you expect they feel uneasy about strangers. You go in and start telling them that you're here to let them know about turtle excluder devices; it can get contentious or – I don't know the right word for it.

SSD: Yes, you're there to tell them to –

LP: Sometimes they want – a lot of them just want you to go away.

SSD: Because you're telling them to put a bigger hole in their net, right?

LP: Yeah. It wasn't always well-accepted. But, because we know a lot of people, we never got hanged, never got mugged. I guess the most touchy situation is when you're traveling with too many, and certain personalities don't do well in such situations. But between the bayous of Louisiana and the woods of North Carolina, it's a lot of places where you'll be driving down the road, and all of a sudden, just a shrimp boat will show up out in the back of a dirt road and look like hadn't been seen by the likes of man for many years.

SSD: Did you ever feel like your life was in danger?

LP: Perhaps a little bit, but not a whole lot. No. Maybe. I don't know.

SSD: Close to it.

LP: Maybe.

SSD: A little uneasy.

LP: Yes. Depends on who you're with. If you're with one of the NMFS folks that's got an attitude, then, yes, you feel a lot less comfortable than when you're with Gary or fishermen. Anyhow, my day-to-day activities – a day in my life is hardly typical.

SSD: Yes. It sounds like it.

LP: We do a lot of water quality work. Might be nowadays working on the water quality lab machinery, lab instruments, or working on their little boat. We do our maintenance on our boat, so might be tearing down the winch or working on electronics, teaching somebody how to use a computer plotter, teaching them how a lower end used to work, how to work a fathometer or what-have-you. Got it made.

SSD: So you enjoy it.

LP: Yes. I do.

SSD: Well, what kinds of turtles are in the Atlantic? What kinds of sea turtles?

LP: Majority of them are the loggerhead.

SSD: They get really big, don't they?

LP: They get three to four-hundred pounds.

SSD: About how wide?

LP: Shoot. I don't know. A meter and a piece long at the shell and close to a meter wide. I don't know. Seventy, eighty centimeters?

SSD: Big.

LP: That's the majority of them. Then we've got a lot of smaller Kemp's ridleys, and there are green sea turtles, which also get three or four-hundred pounds when there's not so many of them. Then there are the leatherbacks, and I have encountered one hawksbill in the offshore waters, not related to any shrimping.

SSD: Just one lonely hawksbill.

LP: Yes. We were doing some specimen-collecting for our aquarium branch of the University of Georgia Marine Extension Service. They call us the Marine Technology and Outreach Center, dealing with mostly the commercial users of the resource. We have the Marine Education Center and Aquarium up around Savannah. We occasionally go and catch specimens for the aquarium. Haven't done that in many years, but we were riding offshore, going to catch some snapper-grouper fishes and looking at the sargassum grass. We spotted a sea turtle, little bitty fellow, and we were just curious. We stopped and looked and backed up to him, and one of the fellows was able to take a dip net and dip him out of the water. Realizing that was illegal at the time, we did it just to see what it was, what kind it was, because that's still, I guess, part of the puzzle. They used to call it the "unknown years." They leave the beach – they didn't know where they went. Anyhow, we took and videotaped a little section of him, showing him off so that we could obtain assistance or double-check our decision on what sea turtle it was, and put him back in the water, and it turned out it was, indeed, a hawksbill.

SSD: Was he hanging around the sargassum grass?

LP: Yes. He was just happy as a lark, hanging out in the sargassum grass.

SSD: Did he actually float on it?

LP: No. He'd swim around it.

SSD: He was in the water. Do you think he was getting stuff to eat?

LP: Oh, yes. Whether he was eating the sargassum grass itself or all the little critters that swim around the sargassum, I don't know. They got your green sea turtles that are supposed to be herbivores. They eat grass. Then the Kemp's, I guess, eat grass and critters. Loggerheads eat critters. I don't know that they do eat grass. I don't know. Not that much up on what they eat. But, yes, the little hawksbill was hanging out in the sargassum grass. He was eight or nine inches – the shell.

SSD: Just a tiny baby. Yes.

LP: Yes.

SSD: Well, you do bottom-trawling out there in the Atlantic. Do you think that bottom-trawling harms the ecosystem on the bottom of the Atlantic Ocean?

LP: No. Plain and simple no. I don't think so. No, there's an awful lot of bottom out there, and trawling, particularly with shrimp nets, looks like a big and massive, terrible gear to some, but it doesn't take much to stop a shrimp boat.

SSD: For example, what would do that?

LP: Well, I mean, like Ted Danson and his statement that trawling is like clear-cutting of the forest. No, you can't take a trawl into massive rocks and destroy rocks. I mean, you destroy the trawl. The gear that we use is not capable of the destruction that they assume is going on, in my opinion.

SSD: So it's kind of a self-correcting problem. If there were anything there to be destroyed, it would actually put holes in the net.

LP: Destroy our gear first.

SSD: So rocks destroy trawls.

LP: Right.

SSD: Do you know of any –

LP: Can't afford all that gear.

SSD: Yes. Do you know of any alternatives in addition to TEDs that might mitigate the harm done to turtles by shrimping?

LP: I can't think of a thing. I think our bycatch is probably nurturing populations that probably shouldn't be around now.

SSD: Can you think of some examples?

LP: Well, I mean, no, the turtles – I'm confident that they feed on our bycatch. When we push it back overboard, and whatever makes it to the bottom, which is debatable how much of it does, because of your sharks and porpoises and everything that are eating it all the way down, whatever is left at the bottom, I think that's part of the – become the mainstay or one of the mainstays of sea turtles' diets.

SSD: So are they feeding on the bottom, the sea turtles?

LP: Generally, I think they're expected to feed on the bottom. They also supposedly eat jellyballs. I don't know how much of it they do, but I guess their natural diet is crabs and conchs – shellfish down on the bottom.

SSD: So if it were dead, even, that wouldn't stop them. They would still feed on it.

LP: Oh, no, they – yeah, they still feed on it.

SSD: Along with crabs and those other –?

LP: I'm confident that we feed them better than they would eat themselves without us.

SSD: [laughter] They may actually be hanging around the shrimp boats.

LP: That's pretty much the way I feel about it. Yes.

SSD: Yes, I've been told that seagulls and dolphins definitely follow the shrimp boats.

LP: Oh, yes.

SSD: They're waiting for their buffet.

LP: Yes. There's almost no doubt that we've raised an inferior crop of seagulls and pelicans and dolphins, as well, because of their dependence on us.

SSD: Don't know how to fend for themselves.

LP: I believe some of them lose that ability. Come wintertime, you'll see them piled up.

SSD: When there's no shrimping going on.

LP: Yes. They'll come to the dock and just sit at the dock, wait on somebody to go.

SSD: Oh, how funny.

LP: Seeming to starve.

SSD: Oh, that's really sad. Well, are there other methods of shrimping besides bottom trawling that might not hurt turtles but would be practical for a commercial fishery?

LP: Haven't come up with one yet. There has been – you can trap shrimp, and I guess, in some parts of the world, they do trap shrimp. But to make it commercially feasible, I don't know of any way to make it commercially feasible, to trap sufficient shrimp to make money at it. A lot of traps have their own drawbacks, too.

SSD: Can you give us some examples?

LP: Well, stone crab fishery down in the keys and lobsters, they limit the traps. They talk about ghost traps. They have to fit them with a biodegradable panel, and even then,

some people consider the traps themselves – even though they're not continuously fishing, they consider them to be man-made and, therefore, they're polluting the ocean. In the in-shore waters, you still got crab fishing. Some people don't like to see the crab floats, floating off the surface of the –

SSD: So every crab trap has a float attached to it?

LP: Generally speaking.

SSD: It's not aesthetically appealing to people? They think it's ugly and –

LP: Some.

SSD: – object to it? Okay.

LP: Yes. It can be hard to drive down through a bunch of crab traps' floats without getting them in your wheels and your propeller. Yes, I think there's been a lot of interest in trapping shrimp and such, but none have been successful.

SSD: So trawling's about it.

LP: Yeah. Real estate in the United States is much too expensive.

SSD: I don't understand the connection.

LP: Well, I mean, if you got money to buy the real estate to put in a shrimp farm, you could make a lot more money by developing it – putting a big mansion on it. Coastal waters are overdeveloped and everything now, but with such, coastal property is much more expensive than the norm, and to grow shrimp, you'd want to be coastal. And, yeah, it just hasn't panned out. There are some aquacultural efforts, and there might be some ongoing up in South Carolina. They were pretty big in the development of mariculture; they called it at one time.

SSD: So it has to be saltwater or brackish water for shrimp.

LP: Generally. Well, depends on what kind of shrimp. For that matter, nowadays, you've got – they're raising a lot of freshwater shrimp, and they're doing that all through Georgia and probably throughout the United States, just like catfish in Mississippi.

SSD: Right. Yes, I was wondering if it could be imported to North Mississippi.

LP: Yes. I mean, you got shrimp farms in Arizona.

SSD: How funny.

LP: You know, what we – what I always thought of as desert there, they're growing shrimp. Yes, eco-shrimp.

SSD: Because it's ecological to do it?

LP: Well, it's got all the green words to it. It's ecologically sound. They're not harming anything. It's a sustainable crop and all today's buzzwords fit into it. I don't know exactly how they're doing it, but apparently doing real well.

SSD: I have heard people say that these aquacultured shrimp can't compare at all in taste to the wild-caught saltwater shrimp.

LP: I would concur with that opinion.

SSD: But if you haven't tasted anything else, you wouldn't know.

LP: This is true. Yeah, I've had shrimp salespeople on the deck of our boat that didn't like – they indicated – we take them out and pull the try net and catch a couple of pounds of shrimp and boil them up – fresh, good shrimp. I've had people that say, "Oh, I don't like that."

SSD: Too strong.

LP: We tell them, "Well, they don't have that cardboardy freezer taste to them that you're so accustomed to." I don't know.

SSD: Yes, to each their own.

LP: Takes all kinds.

SSD: Right. That's right. There's no accounting for taste.

LP: Right. Or lack thereof.

SSD: [laughter] Well, are there coral reefs in the Atlantic?

LP: Oh, yes.

SSD: How does that affect trawling?

LP: Well, just like the rocks, coral is not only hard, it's sharp, and you tear up a lot of gear.

SSD: So shrimpers do not want to trawl over coral.

LP: Right. They got no desire to tear off all their nets because they have to pay for them. There are reports that, yes, accidents happen, and you got the Oculina Bank down there off of east Florida that fishermen are accused of having decimated.

SSD: Is that where the Pennekamp Reef is, do you know?

LP: Pennekamp sounds like it might be on the West Coast of Florida.

SSD: No, it's definitely on the east, off of Key Largo.

LP: Okay. That's further south.

SSD: So we're talking about north of that.

LP: Yeah. The Oculina Banks are – Oculina coral banks are below Cape Canaveral but north of Miami.

SSD: Can you spell that for me?

LP: Oculina?

SSD: Yes.

LP: O-C-U-L-I-N-A, I believe.

SSD: Great. I've never heard of those. Great. Thank you.

LP: The rock shrimp fishery is in that neighborhood. If the rock shrimp are thick, they'll get as close as they can to the reef, but when they get too close, and they tear up their gear, then they're down time and gear. At one time, it wasn't illegal, but – and they had a pretty good idea where the coral was. You generally do not – well, they made it a marine protected area. You can't anchor in the Oculina banks, can't trawl in the Oculina banks. If you're going to go rock shrimping, you have to have a vessel monitoring system so that they know where you have been, and if they catch you within that boundary, they're going to fine the hell out of you.

SSD: So if you buy a license for rock shrimp, they're going to monitor where you go.

LP: Yes. Well, if you can get one. It's a limited-access fishery at the time, and exactly what the particulars of it are, I'm not sure, but, yes, they're highly regulated these days. And then they also have – there's a new deep-water coral that they've just discovered in the last six or eight years. As I was growing up, they figured nothing could grow down below six-hundred feet of water because no light gets down there. They've recently discovered vast coral reefs out in four-hundred meters, five-hundred meters of water, and they've begun to protect it by naming – all the way to the two-mile limit, the entire

waters from the four-hundred-meter curve out to the edge of the EEZ [Exclusive Economic Zone] they've got designated as marine protected area.

SSD: For the record, what does EEZ stand for?

LP: Exclusive economic zone. Generally speaking, the waters outside of state jurisdiction but still within the United States jurisdiction.

SSD: So does trawling actually harm a coral reef if a shrimper does get on it?

LP: It could, yes. It can damage the coral itself, but then the coral's still growing.

SSD: Well, what are the living marine resources that are found in the Atlantic that's primarily your concern, the area of the Atlantic that's your territory, so to speak?

LP: For shrimping?

SSD: Just everything that's out there. What kinds of things live out there, including sea vegetation?

LP: I don't know. All the fish. You got sea whips, little seaweeds. You got shellfish, whelks, conchs, scallops, bivalves of numerous kinds. You got little worms that are all over, helping to clean up the bottom. Yes, you got everything.

SSD: Anything like the kelp beds that are off the Pacific?

LP: Not that I'm aware of. You have live bottom with sponges offshore. I mean, that just makes a mess if you get into that. It's fish habitat, but you don't get away with pulling the shrimp net very long.

SSD: Do the sponges tear up the net?

LP: They can. Yes. They're just soft corals, and you break them down, but they grow back twice as thick.

SSD: Wow. Do people still harvest sponges in this day and age? Is there still a market?

LP: I'll be honest with you. I'm confident there probably is some harvest, but I'm sure it's quite closely controlled, I would expect.

SSD: Yes. Well, we know that we have turtles and shrimp and dolphins – we talked about – hanging around the nets. There was something I was going to ask you that was specific, and I've forgotten what it was. Any little critters like the – I guess it's the sea otters who live in the kelp beds? Is there anything like that on the Atlantic side?

LP: Well, there's alligators and – alligators, though, they're not even an endangered species anymore.

SSD: Right. They've made a comeback. Yes.

LP: They have come back so bad. We have otters, and we got cormorants, and we got seagulls and coots, but very little interaction with shrimp trawls. I've heard of somebody catching an alligator before.

SSD: Oh, my.

LP: I'm sure it was a unique event.

SSD: Wow.

LP: Doesn't happen often.

SSD: That would be scary. Did they pull it up on their deck?

LP: Oh, yes.

SSD: Yikes.

LP: But he hit the deck, and it was live, so they let him crawl off.

SSD: Whoa. Yes, I wouldn't get in his way.

LP: Eels. I don't know. Yes. Everything that lives out there.

SSD: I was thinking in terms of, in two-hundred years, if somebody listens to this, if they would make the same kind of list of what will be out there in two hundred years.

LP: Well, good question.

SSD: We hope so. We've already talked about what –

LP: It'll change. I mean, that's the only constant that there is, is change.

SSD: That's true.

LP: We got right whales in the ocean right now, and they might not be there two-hundred years from now. Spending loads of money and restricting people's activities to make sure that they do stick around, but there's some that feel that they're so far gone now that they'll be inbred to extinction before it's over with anyway. Man was put here to change his environment. [laughter] What can I say? We build buildings. We build

houses to live in, and that changes the environment. We plow fields to plant our crops. That changes the environment.

SSD: We've done a good job of it. But the question is, really, will it do us in or not?

LP: Yes. Well, what is it? There's a couple of things that's for certain is death and taxes.

SSD: Yes. None of us will get out of here alive.

LP: Right.

SSD: Well, we've talked about what happens to the bycatch. It gets eaten by the many, many little predators that are waiting all the way down to the bottom to be fed by the shrimpers as they toss the bycatch overboard. But what lessons have you learned from using TEDs?

LP: That they're part of your equipment. You got to pay attention to them and keep them in good working order. You got to pay attention to what you're doing, just like driving down the road. There are things that don't work with them, and it can be costly if you don't pay attention to them. But they're really bycatch-reduction devices because we don't catch big sharks anymore. Shark attacks on beaches have gone up since [inaudible].

SSD: Wow. Because there are more sharks surviving?

LP: Well, that's probably debatable. Some would argue that – I think the fishery management plans all have deemed that the shark resource has been overfished, but you couldn't tell it from what you run across shrimping because they'll eat your nets up. Like I say, that was one of the things that was said in the early days of TEDs. "I can't wait until the damn sharks get so thick that they're eating up the people on the beach, out swimming in the surf." I think the last few years, the number of shark attacks has gone up.

SSD: So the turtle excluder device is also a shark excluder device.

LP: Yes. Sharks and sturgeons and all kinds of stuff.

SSD: So do the sharks eat the nets because they're after the fish that are in the nets?

LP: It is generally expected that's the case, yes.

SSD: They end up making big holes, which means shrimp loss.

LP: Right.

SSD: Yeah. Well, is there anything that we have not talked about that you would like to put on this record for those who hear it in years to come?

LP: I don't know. Let's look at your list of questions. Where'd you get the sea turtles are capable of anaerobic [inaudible]?

SSD: Oh, yes.

LP: There was a fellow one time that swore up and down you could not drown a sea turtle, and he was going to build a sea turtle resuscitation center here in Georgia to bring all the sea turtles that fisherman caught back to life. Well, he didn't get funded.

SSD: He didn't get funded.

LP: No.

SSD: Did he think they were in some kind of suspended state of animation, and they needed to be kick-started?

LP: Just felt that they were comatose and that if you kept them cool and damp and in the air for long enough, that they'd come back to life.

SSD: Right.

LP: Like I say, he didn't get funded. I mean, there've been numerous – somehow, their epiglottis closes off before they drown, so all you got to do is keep them elevated. Fishermen were the ones that told the environmentalists first how to do it to resuscitate sea turtles. Turn them over on their back, pump them every now and then, and keep them out of the sun, so they don't overheat. A lot of them will – even though they've been – the tow was three hours long, and they'd come back. Researchers have put seat turtles in the dumpster, and twenty-four hours later, come back, and the turtle will be kicking around in the dumpster trying to get out.

SSD: Amazing.

LP: They're tough, but I don't know if they're that tough.

SSD: So how do you do compression on a sea turtle once you've turned it on its back and it's out of the sun? How would you compress it?

LP: Well, just mash on its breastplate. There's plaster on, or whatever they call it – just kind of mash him. Drain the water out of him if there is any.

SSD: Would you do that by holding it upside down?

LP: Yes, if he's small enough. As they've learned more, they now recommend don't put them on their back. You just raise their rear quarters. Apparently, their lungs are in the back, and it was felt that after they got hold of a few and did a few necropsies, they figured out that their lungs were in their back, and although it was the most successful way for many years, they've revised the resuscitation guidelines.

SSD: For sea turtles.

LP: Yes. We used to think that TEDs would be all over and done in ten years, and there wouldn't be any more work to be done, but we're still testing TEDs and catching sea turtles. We do a lot of that.

SSD: So it's not going to go away.

LP: It doesn't look like it. In the meantime, a shrimp fishery is still trying to go, although economics have taken their toll.

SSD: Right. I know the cheap imports aren't doing it any favors.

LP: No. Not at all. But there's still hope for them, I hope. How much, I don't know. Whatever.

SSD: Yes. A lot of the shrimpers I've talked to – they have a couple of other things they do to make a living, as well, but they really enjoy the shrimping because of the independence.

LP: Right.

SSD: They take their family out on the shrimp boat with them, and they just have more freedom and enjoyment out of life. So it's worth it to them to find other ways. Some make nets, and some catch crabs in the off-season, stuff like that.

LP: Oh, yes.

SSD: Very resourceful group of people that I've met.

LP: Lot of college-educated people out there on the water.

SSD: Yes. That's right.

LP: But it's so nice being out there on the water and [be] your own boss and go and come when you feel like it, not when somebody tells you to.

SSD: If you can afford it. Yes. Except the shrimp tell you to, I guess.

LP: Yes.

SSD: Well, Mr. Parker, thank you so much for taking so much time. It's an excellent interview. So much information. I really appreciate it.

LP: Yeah, well, I might want to take my name off of it one day. Let's see. You also inquired with my boss lady, Lisa, about Jack Rivers.

SSD: Yes.

LP: Jackie is, indeed, still alive. I've got a phone number for him.

SSD: Oh, that would be great.

LP: He's become a little forgetful, and I don't know whether he'd submit to an interview or what-have-you. Let's see. Let me get the phone book out and get you his number.

SSD: Great. You know what? I'm going to go ahead and get this off the record because we probably don't want his phone number –

LP: On the record.

SSD: So I'm going to say, again, thank you so much. I can't tell you how much I appreciate it. It's an excellent interview.

LP: Well, I hope I don't live to regret it. It's been good talking to you.

SSD: [laughter] Okay. I'm going to turn the recorder off.

----------END OF INTERVIEW----------

Reviewed by Molly Graham 6/23/2021