

Pete Worthington: – something then I won't answer. I'll just leave it blank.

Karen DeMaria: Yes. You can just say you do not want to answer that. Or if you want me to turn the tape off, I can turn the tape off at certain times. So, that is not a problem. I am very flexible. I understand that there are things that I might ask that other people might not be thrilled with. So, that is fine. I am just trying to get as much information as possible. First of all, let us see. How many years have you lived in the Keys?

PW: I moved down here in September of seventy-three.

KD: September of seventy-three?

PW: Yes.

KD: For 20 years?

PW: Yes.

KD: Has it always been here in the Marathon area?

PW: Yes, it's always been right here in this same area and always involved with the marina and water activities?

KD: What did you do when you first came down here?

PW: Well, I finished my last year of high school. I graduated in seventy-four. But my father, he's had three or four marinas in town, had boat rentals and took dive trips out and this and that, fishing charters.

KD: How long have you been – well, you do lobster and crab traps.

PW: Yeah. Lobster, stone crab, kingfish.

KD: When do you do kingfish?

PW: Well, I used to do kingfish, I should say, since the way the quotas are arranged and everything. We get about maybe a week to fish off down here. They've already been filled up north. We're caught out of kingfish after about a week of commercial fishing.

KD: What kind of commercial fishing? What gear do you use?

PW: Hook and line.

KD: Hook and line?

PW: Yes.

KD: Not handline, but hook and line.

PW: Handline and rod and reel, both. Hand-liner but I'm not a net fisherman for kingfish. But like I say, we used to do that years ago. It's not a big industry for us. But I mean, it kind of diversifies your income a little bit. We can make a little money there and make a little money off of this.

KD: That's pretty much just in the wintertime.

PW: Yes.

KD: It used to be.

PW: It's January and February.

KD: What do you do in the summertime when traps are pulled out of the water?

PW: I go dolphin fishing and reef fishing.

KD: That pretty much a common thing for you guys to do?

PW: Yeah. A lot of work on their gear in the summertime. They fill in their spare time with dolphin trips and yellowtail trips and...

KD: Hook and line and handline?

PW: Yeah. They all hook and line and handline. But unfortunately, with the influx of fishermen doing it, the price of the product goes down every year. So, they'll be getting \$3 and something for yellowtail while we're lobstering and crabbing. But then when we're available to lobster and crab, the price of the product, dolphin and – well, dolphin is not here in the wintertime.

KD: Yes. That is summertime.

PW: But the price of yellowtail take a dive when all the fishermen are available to do it. I guess it's supply and demand.

KD: Yes. More fishermen, lower price. You graduated from high school, right?

PW: Yes.

KD: Did you ever attend college at all?

PW: No.

KD: How old are you?

PW: Thirty-six.

KD: How long have you been doing the traps?

PW: Been commercial fishing since 1975. Graduated in seventy-four and bought a boat. At the end of seventy-four, started fishing. My first year of real – I started commercial fishing in seventy-four. I bought my first boat and traps and my own business in seventy-five. But I was an apprentice on a commercial boat the year before that.

KD: An apprentice. [laughter] Actually, yes, that is true. What area do you do most of your fishing at? Okay. For your traps, where do you put your traps? What area? Is it the ocean side, the bay side?

PW: It depends on where the fish are running. There's a lot of factors. I would say predominantly I fish – some seasons I fish the majority of my gear maybe 60 to 70 percent in the bay. But it all depends on if you're catching fish in the ocean, and you think the fish are going to hold up there for a while, you might run out. You might move some of your gear and cut the ropes off and put long ropes on them and stick them out in the ocean. It really depends on where the fish are. Same if you're not doing anything in the ocean –

KD: Right, you go back and forth,

PW: – you go back to the bay. You'll run out here. You'll spend a couple of days moving your gear. So, you're really moving around a lot. But predominantly, the traps that you fish in the ocean, your percentage of loss is higher. So, you might not want to fish as much gear out there due to weather circumstances. You get a tropical storm. It can tear you up. Or boating traffic seems heavier on the ocean.

KD: Well, what is the reef area? What's the direction of the reef area up here? Is it more going...

PW: This canal pretty much almost runs parallel to the direction of the reef. The reef is out here. Is that what you were asking?

KD: Yes, it kind of goes more with a northeast, southwest type.

PW: No, the reef down here is almost due east and west.

KD: Due east and west. Okay.

PW: Almost. Almost due east and west.

KD: Yes. It has not...

PW: Doesn't make its turn up until you get up around north along Channel Five Bridge. Then it starts hooking up to a slight 20-degree turn to the north. Then when you get up around – what's the reef? Carysfort. It starts taking a real heavy hook to the north.

KD: Yes, I do not know much about it off here. I do not think I have ever dove off of this area. I have not dove anywhere past Big Pine.

PW: Your coral area is down in from Alligator lights to the south, are sparse. Your core areas or your spas or whatever you want to call them, they're from about Alligator to the south. They're real sparse. From Alligator north, it's a minefield. It's almost like a different geographical area on your amount of coral. I do a lot of boat deliveries up to Miami. I also buy and sell boats. Been doing that for about fourteen years.

KD: What kind of boats?

PW: Commercial boats, mostly. Then when we deliver boats up, you look at charts and stuff. There's hardly a place to cut in from molasses all the way up to Carysfort or even further. There's hardly a place unless you know the waters very well. I mean, that's how much reef there is up there. Down here, you can leave Marathon, you can leave this canal right here and take a shot almost for Alligator Light, to take a shot for Big Pine Key. There are about three areas that you have to avoid as far as your coral reefs go, as far as worrying about running aground. You've got Delta Shoals. You've got some Sombrero Light. You have a small area in Coffins Patch. I mean, it's very limited areas that you really have to worry about where the reef comes up to the surface. I draw 5 feet of water here. So, you're talking...

KD: Do you have a keel?

PW: Oh, yes. I got a wood keel and all that.

KD: Yes. We do not have a keel on our boat.

PW: You don't.

KD: We do not. Don took it off or never had it made with one when we had it. He has a Torres.

PW: No keel on it. What's the handle? Of course, he's not pulling traps, is he?

KD: No. He is diving.

PW: If you're pulling traps, the boat would have a ton of rough water to slide without a keel. Keel keeps you more on a straight track.

KD: Okay. You know the reason why we are here, why we are sitting down, correct?

PW: Right.

KD: What is the first thing you want to tell me? Start off that way.

PW: The first thing I want to tell you?

KD: What is the number one change? What do you see that is really happening?

PW: Florida Bay.

KD: Okay, well, tell me about Florida Bay.

PW: Everybody knows about that. We've been screaming about it for a number of years, probably since the mid-[19]80s.

KD: What was the first trigger? You know what made the commercial fishermen say something is wrong with Florida Bay? What did you guys see?

PW: Oh, I used to lobster fish off of Sand Key on the Everglades Park line there. When we used to go out and set our traps and pull our traps, you could see the lush, I mean, beautiful, crystal, pristine-looking water. You could see the seagrasses down on the bottom. You could see the sand holes. You could see the bottom.

KD: How deep was it?

PW: Twelve feet, 10 to 12 feet. You could see the bottom. I mean, it's right there, just clear as day. The water had a nice clear green color to it, real pleasant-looking. About twelve, thirteen years ago, maybe even fourteen years ago now, time's kind of ticking away, we lost the clarity of the water in the bay. I would say probably in the neighborhood of twelve to thirteen years ago. You could run out to Sand Key. You could no longer see the bottom. You couldn't see the holes. I mean, we used to literally drop our traps in the white sand holes because it always seemed like there was ledges around the holes there that you drop it right in the middle of the white sand hole. For some reason, you come back and pull that trap, and it would have eight or ten lobsters in it. Versus a trap just on the normal sea grass, you might have two or three or one or two or whatever. You could no longer see the bottom. The water just continually got worse and was moving south. It was moving more towards the Keys. We noticed this. We made note of this. We told people about it.

KD: Is this very similar to that map that Carl's got? The navigation you have been mapping has this line of where he keeps his traps and stuff and where he has noticed the algae bloom. How, if you look on the map, it shows you...

PW: Well, this is in that area. I'm talking about the original thing that set us to talking about and saying, "Hey, something's happening out in the Bay." Twelve, thirteen years ago, we lost the clarity of the bay, up in the northern end of the bay towards the Everglades there. But yes, what Carl has is in the same area. It's in the affected area. But I think he goes to the west a lot further. I mean, this thing has spread south. It's spread west. It's a pretty nasty-looking water. You've probably seen it. It's like a brown, mud-looking water type. But I haven't seen the bottom off of

Sand Key in thirteen years. I have not seen the seagrasses. It's never cleared up. I don't care how beautiful the summertime gets, how slick calm the water gets. There's a particle that floats in the water table up there that's just constantly – you cannot see the bottom up there.

KD: What is it? Are the particles like a suspended sediment?

PW: Yes. It's not a sediment. It's like maybe a suspended algae or something.

KD: It is real fine.

PW: Yes, real fine powder.

KD: It is not like you really actually see grains.

PW: You see grains. You actually see grains of like – if you look at the water real clear, you'll see little particles and stuff floating in there. I've seen other weird things up there. I've seen like boil-ups. You'd just be running along. All of a sudden, you just see an area boiling. I don't think it's fresh water coming up like a spring, so to speak, but just areas of this brown water that's just turbid, not from a boat proper. I'm just talking about just riding along.

KD: Is it like a little bubbling or something?

PW: Not bubbling but swirling, a swirling motion of this stuff.

KD: Does anything ever come up, like grass or a mat of algae or something when you see that?

PW: No, it never really – I've seen mats of algae. I've definitely seen mats of algae out there floating in the water table. But no, this is just – it's weird. It's hard to explain. I know it can't be coming from – it almost looks like a freshwater spring or something, bubbling. There's something under the ground is bubbling up. But it's hard to say. I really don't think that's what it is because there's too many of them.

KD: Were those little boil-ups in areas before the water turned black?

PW: I never noticed them before because the water was clear. But now you're seeing quite a bit.

KD: The reason I ask, I was wondering if maybe it is some sort of decomposition going on in those sediment layer or with the seagrass. You get the mixture of gases where you get that, sometimes the bubbling.

PW: No, this isn't really bubbling. This is more like somebody took a garden hose and stuck it in a swimming pool. You know how the water just kind of gets a little raise there to it. It's kind of rolling around. You can see the different sediments moving around and stuff.

KD: What else did they first notice? Okay, so the water...

PW: Oh, we lost their clarity. Then we noticed the – that was the big thing – then we noticed it moving south. One year, like, Sand Key's about 17 miles from the bridge here, to Sand Key or the marker, maybe 15 miles.

KD: From the bridge?

PW: From Vaca Cut Bridge. It's about 15 miles, lower end. Like I said, that was all pristine water at one time. Then we lost the clarity there. Then we noticed like 2 miles south of Sand Key was getting turbid-looking. Four miles south off of Sand Key was getting turbid-looking. 1989, I sat on the Boot Key Harbor Task Force that was dealing with water quality for the County Commission on Key Harbor, and pollution problems associated with the liveaboards. We got into a lot of other – mostly water quality issues throughout the Keys. I brought this up. We called it the plume back then. In [19]89, we were calling it the plume. It was this turbid-looking water that's getting closer and closer to the Keys. I told the people back then. I said, "We're sitting here talking about these liveaboard boats out here in the harbor, and septic tanks and water run-off and this and that." I said, "You're worried about that affecting the reef." I said, "This thing that's in Florida Bay." I was telling them this in 1989. This is four years ago. We were screaming about it before that. But I said, "The state of Florida Bay, if it ever hits the reefs, you can kiss your call goodbye. It's gone." I said, "This is a big problem." Everybody's focusing on Boot Key Harbor and all these other nearshore pollution problems, which are our problems. But this thing out here was going full blast down. In [19]88, we lost 50,000 acres. By [19]89, it was up to 70,000 acres of seagrass. I think now we're somewhere up around 120,000.

KD: Now, is that actual area that you saw or you all observed seagrasses on?

PW: No, because we're not allowed to fish in the park.

KD: Okay. So, that is areas that you have heard from scientists and stuff?

PW: Right. From, mostly Everglades Park scientists that were doing studies on the seagrass out there.

KD: When you all first started noticing the water getting bad, what did you all think the cause was?

PW: We thought it was something that had something to do with the Everglades Park. We noticed it was right after a real bad drought. But we're not scientists or nothing. It's just our guess. But we knew it was something up in the park. We knew back then that there was some foul stuff coming out of the park. We talked about big sugar was our big thing. We didn't have a full idea of what was happening with the hydrology of the park and everything that was going on up there. We were kind of saying, "Big sugar, big sugar," is what we were saying back then. They were dumping polluted water into the bay. That's what we thought it was coming from. But combined with other problems, in [19]88, we had a real bad drought. I got a real good idea, now that I've been involved in this, on what's happened and what I see, what I think's happened. My theory of it, from the scientists I've talked to, from the research that we've done – there's a

couple of things that are still a little skeptical, like about the frog ponds and when they drop the levels of C-111 Canal. But from what I'm hearing, they were dropped in like 1980. The levels were dropped, in C-111, from 5.5 feet down to 3.5 feet. This is what I'm hearing. The Bay managed to survive in that period of time, but it was gradually decreasing. Then all of a sudden we had a severe drought. Florida had a severe drought. We almost lost our water table and the aquifers from saltwater intrusion. It was so severe. There was no water in [19]87 and [19]88. That was the beginning of the major bloom that we've seen that's been happening. But I mean, it was a degrading of the water in the bay. If they did do what I'm hearing that they dropped this water level of C-111 in 1980, and the tomato farmers went crazy up there in the frog ponds doing their tomato deal. Now maybe the information I have on that isn't all that true because it's kind of skeptical right now. But it seems to me that the degrading of the water originally took place around 1980, is when the commercial fishermen –that would fall into twelve, thirteen years ago that I told you, originally, the degrading, the losing of the clarity in Sandy Key area happened in like 1980, which also coincides with the year that they dried up the frog ponds for the farmers, from what I've been told, dropped the water levels to 3.5 feet from 5.5 feet, historical levels from what I've been told. It snowballed ever since then. These managers and all them people that are involved in it, they all sit down. They say, "Well, we changed the Kissimmee River and the hydrology of the Everglades. That's 40 years ago. Why is this all of a sudden killing Florida Bay?" I think the missing link is this dropping of the C-111, the drying up of the Taylor Slough, the cut off of all water flow from the Taylor Slough.

KD: The droughts.

PW: The droughts. It all makes perfect sense to me if my information is right. We noticed the decline from 1980 on. By [19]87, when the drought came, the bay didn't get anything. [19]88 we had another bad drought. The bay did not get anything. Salinity levels went crazy. You had fish kills out there. You had the seagrass die off started in [19]87. By [19]88, it was at 50,000 acres. So, what I'm saying is the bay managed to get by a couple of years because we had traditional rainfalls. For one reason or another, the Bay, maybe there was a couple of years there where there was a lack of scientific data that was done between [19]80 and [19]85, where maybe some things got by on them up there. We were seeing that the loss of our water quality and our fishing grounds, but maybe there was something worse up there in the park that we weren't hearing about. We were just seeing the startings of it. But I can document that in 1980, before 1980, the water quality, the clarity of the water, it was just a totally different water. It was totally different from what's up there now and what's been up there since. Like I say, I have not seen the bottom in thirteen years off of Sand Key.

KD: When you mentioned the frog pond and the tomato growers and stuff earlier, the reason I smiled was an older gentleman in his seventies told me a story about Biscayne Bay because that is where he grew up. He said he remembers when Biscayne Bay in that area, South Miami had really clear water. It was really beautiful. Then, he called them truck farmers, the truck farmers, which would be the tomato growers and stuff that used to be at Okeechobee. They could not handle how they were always getting flooded out up there. They all moved to Homestead area. Ever since they moved to Homestead area, he swears that the water has been totally different from Biscayne Bay and stuff like that. But he saw – it was like you do almost the same conclusion. He did the same thing on his own.



PW: Tomato farmers been in there...

KD: Not the frog pond. This is the other area.

PW: The frog ponds out there are longer?

KD: I do not know how long the frog pond has been there. But certain areas of Homestead, especially, I think, over more on the east side, that area did not become heavily farmed until whenever. Different areas became farmed at different times.

PW: Right. I think the further they went west, the worse they got for the Everglades and for the Bay.

KD: Probably. I think they started on the east side first and then moved. Because when I worked for the Corps, I worked wetlands enforcement, and we were doing a lot down there. Every time we turned around, there was somebody else who didn't speak any English, who was filling in land, wetlands of the Everglades, for farming.

PW: Right. Well, you know, something that really sticks in my mind is before they had our [inaudible] and all these big developments in western Broward and western Dade County, I used to watch the news. We'd get 6 inches of rain or 5 inches in a real bad summertime thunderstorm. You would see these people out there. They're a lot further west now with the development. But you'd see these people back then that weren't, what they, fifteen years ago, what they considered Western Broward and Western Dade, you'd see them go in their cars in knee-deep water. I mean, it was nothing [inaudible]. Here's in West Sunrise or here's in West so-and-so. It would show the people screaming, "When they're going to drop the water level? This is ridiculous. We need to get draining out of here." Blah, blah, blah, blah, blah, blah. These people, it was absolutely nothing to see these people going out there, up to their knees in water, getting in their cars, in front of their brand-new houses that were just built two years earlier. Okay. So, what I think is I think development has gone so far to the West. I think somewhere along the line, either the developers paid the corps or whatever, or somehow political pressure got the corps to drop the levels of what was historically swampland there. You don't see those people out there knee-deep in water anymore. I mean, we still we get three, four inches of rain. It doesn't flood out there. I'm talking 15 years ago, when they used to get rain out there, they'd be screaming. You don't see that anymore.

KD: You mentioned fish kills in the Bay. What years do you remember seeing fish kills?

PW: Well, there's been a number of them. Offhand, I think there was a fish kill in [19]87, I think it was.

KD: Summer, winter, spring?

PW: Summertime. There's been fish kills in the summer and fish kills in the winter. Snake Bite area is notorious for fish kills. That's the hot spot in the bay, it seems like.

KD: Snake Bite?

PW: Snake Bite area, which is south of Flamingo area. It's in the hotspot of this whole seagrass die-off and everything.

KD: This Snake Bite area, they get it both in winter and summer, or just in the summer?

PW: It's a hotspot. Both I would say.

KD: Why do you think why are the fish kills happening?

PW: Why? They claim that that it gets real hot in the summertime.

KD: It is just temperature.

PW: Yes. Florida's notorious for fish kills.

KD: I am just trying to see if there has been other fish kills that have occurred besides the weather, but also pinpointing the weather ones because that gives me an idea of when we had extreme.

PW: We had extreme cold. I can remember some kills up there in the Everglades where the fish were washing up on the beaches by the hundreds of thousands in extreme cold. Some of the fish were alive. Some of them were dead. But they directly attributed that to the cold weather and the drop in the temperature in the bay. These fish aren't used to it. But then there's also been cases in the summertime where there's been fish kills in the bay up there. They kind of relate it to a low oxygen level because of the temperature of the water and this and that. But I believe right around when seagrass die-offs happened in [19]87 and [19]88, that there was some major fish kills, two or three of them in the Bay that summer for unexplained reasons. Or they were kind of leaning towards the temperature has been a result of it. But there was a couple of them there that were kind of questionable.

KD: What were the main fish that were hit by this, species?

PW: Sea trout, snook, mullet. Mullet, I'm trying to think. Was mullet one of them? I would say sea trout, snook, redfish, a lot of your sport fish that...

KD: Juveniles?

PW: Juveniles aren't full-grown. But I wasn't really particular about what kind died.

KD: Anything else at the same time that washed up on the beaches and stuff, like sponges or grasses or algae or anything?

PW: Didn't really notice any of that then in that period. But we did notice that the – let's see.

We did notice, like I was saying earlier, the water moving south, getting closer to the Keys. By 1989, I had documented it on the lower end that the water was 9 miles north. This color change in the water was 9 miles north of Marathon in the Florida Bay. Now that same water is probably within 7 miles of Marathon.

KD: So, it has been gradually on a continual course south.

PW: The whole plume, as we called it back in 1988 or 1989, the plume is on a southward trend.

KD: On a pretty steady course though. It has not rapidly increased any or has not decreased.

PW: It hasn't increased. It might have decreased just a little bit. But what's north of the plume has gotten a lot worse. I don't know if it's due to currents or whatever. But it seems like at first it has taken on like 2 miles a year or a mile and a half to 2 miles a year. It seems like in the last three years, it's dropped down to probably about a half to three quarters of a mile a year. But there's also other areas where it's already here, like as we saw with Channel Five Bridge. There are areas of this water that are passing through the bridge and out as far as Hawk's Channel on the ocean side of the same water that I'm talking about that's coming out of Florida Bay. What I'm talking about when I say, the stuff I've been watching is north of Marathon here that I drive through every day in the boat. But I have seen the same water out through Long Key Bridge, through Channel Five Bridge, and as far as 3 miles on the ocean side.

KD: Do you think that is part of the same plume?

PW: It's all same part of the same picture. It's all the same stuff. Same color water, the same stuff.

KD: Yes. I was wondering if it is one big continuous thing or is it like one here and one here. But they are the same thing?

PW: No, it's all the same thing.

KD: All continuous? Because I saw after the big – was it after we had that big storm?

PW: Right.

KD: Five days afterwards, Don and I were driving up the Keys. We got over to Calusa Cove and Long Key area. We hit the bridges. It was like you could just see the olive green. Then you look over towards the east there. You'd see the olive green, the normal turbid green water now. Then you could see the normal turbid blue and then the deep blue way off.

PW: This wasn't the...

KD: This is bizarre because it was like that is obviously – that's when we had...

PW: The water had time to calm down, and the sediments had time to settle out. Right.

KD: Five days after the storm. Yes.

PW: But blue for a couple of days after that storm also.

KD: Then we also had those wild tides, the real low lows.

PW: I'm not saying that it's not there.

KD: No, I am just thinking that...

PW: But what we base our studies on is, it can be flat slick calm for two weeks. This is what we're seeing. So, that's why we know what we're looking at. Where somebody might go out there right after a storm or something and see something and get it a little bit mixed up because there might be some turbidity from the storm involved in it. But as far as long as two years ago, I've seen the stuff on the ocean side. We told Billy Causey about this when he came and made his presentation about the marine sanctuary. We told him about this a couple of years ago, that this water is on the ocean side because, hey, you know, unless you guys do something about this bay out here, forget your marine sanctuary because you're going to lose your call.

KD: Where did you first start seeing it?

PW: Okay, Sandy Keys here. We fish a lot on this park boundary line here. Historically, Oxfoot Light. Okay. I used to start my traps at Oxfoot Light here. I used to head to the northwest. This area here is where I was initially telling you. We used to see bottom here just as clear as day, that whole area there. Well, some of the real bad die-off areas that doesn't have for me. Oh, yes, it does.

KD: Right there.

PW: Okay. Snake Bite, I believe is somewhere in here. Oh, here it is. Nice white channel. Yes. It's right in here. This is a – so I no longer catch Spanish or silver.

KD: Is there a lot of silver mackerels here?

PW: Yes, there's a pretty good amount. They're bigger. They're mostly on the ocean side.

KD: Like on Hawk's Channel or out past the reef?

PW: Anywhere from the shoreline out past the reef. [inaudible] I do a lot of that in the summertime.

KD: Have you noticed a difference in the weed line or in the amount of debris and stuff? Is it harder or easier?

PW: I noticed that there's still a pretty good bit of debris out there, but not as much as there was,

like, say, ten years ago when the cruise ships were dumping all their garbage out there.

KD: Did you hear about that cruise ship that just got fined? That happened right off of Duck Key.

PW: Really?

KD: Yes. Like five between 5 and 9 miles south of Duck Key is where that videotape was.

PW: How long was that? A year ago?

KD: A year and a half, yes. I read an article and went, "My, God, it was right off of Duck Key."

PW: We used to go out here dolphin fishing. We used to just see rows and rows of garbage bags. I told the federal people when they came down. They had a meeting at the high school there about dumping and stuff. I told them. I came right out. I said, "I'll tell you who's dumping this stuff. There's no doubt in my mind." They said, "Who?" I said, "The cruise ships." They said, "Are you sure of this?" I said, "I'm positive of this." This was a special group of people that came down for the federal government writing the regulations on the plastics.

KD: Yes, I remember that.

PW: They came down. They had some workshops down here. I told them. I said, "It's a fact that cruise ships are dumping this stuff." I said, "We see bags out there. We cut the bags open. Inside the bags," you know how they'd go around. They clean the rooms and stuff. They'll have the Mardi Gras, not the Mardi Gras, but the [inaudible], this and that. You see the bags right in the big green trash bags. We cut them up and make sure they weren't full of drugs or something. You go out there. You see 30 or 40 green, big green garbage bags floating in a line. You figured, "Oh, the customs must have come in here last night and scared somebody." So, you go along. You cut open a couple of the bags and look in them. It was cruise ship trash. But anyway, going right along.

KD: What about the weed line?

PW: The weed lines, last year we had a real strange year. We didn't have any current inshore, any current whatsoever. The Gulf Stream stayed offshore almost the entire three months that we fished for dolphins between April and July. May, June and July of last year, the Gulf Stream currents were not there where they normally historically are. Weed lines, there weren't any weed lines because the Gulf Stream wasn't there. All the fishing that was done last year was done anywhere from 35 to 70 miles offshore. Clear on the other side of the Bahama banks, out of Cay Sal. There were boats clear fishing.

KD: How far off is the reef right here?

PW: The reef right here is about 5 miles.

KD: Okay, so it is about the same.

PW: Well, boats that were catching dolphin were anywhere from maybe, let's say 25 to 50 miles offshore, which is, by the way, actually in Bahamian waters. So, most of your fishing boats that were catching fish last year were fishing illegally in Bahamian waters.

KD: That is why I asked you about the Nassau, because I have heard two stories, as of one, yes, used to be a lot of Nassau. Then I have heard another thing where the reason that there was such good Nassau grouper landings was because a lot of the Nassau were being caught off a Cay Sal bank and stuff, or over in the Bahamas, and that coincided with the drug smuggling times.

PW: No, there was some fishing taking place over there. But that handful of boats, a handful of people that were interested in taking a chance to run over there to catch the yellowtails and groupers. There was some, even some lobster fishermen that were fishing over there. Two or three of them got caught.

KD: But it was not anything...

PW: No, no, but you can go back to your landings on your groupers and your snappers and your yellowtails before the Lacey Act. You can watch where the landings were here. This is another prime example of your fishery management people. They looked at it and said, "Look at the landings on this and that. I see a major collapse in the fisheries." Leo Cooper got up. He sat on one of the councils at the time. He said, "Listen, you know what I see there?" He says, "I see a Lacey act." It was the same year that they came in, and they shut off fishing in foreign waters. They had twelve or fifteen boats out of Pensacola that were fishing Mexico, fishing the banks off of Mexico. They had boats on the east coast here that were fishing the Bahamas. They had boats down fishing off the coast of Nicaragua and stuff. When the Lacey Act came and shut down all year, all the waters, and gave us a 200-mile limit, you saw a major drop. Everything from yellowtail was...

KD: When was the Lacey Act?

PW: To be honest with you, I'm not sure. I know I was put out of the Bahamas in seventy-five because of the 200-mile limit. So, it might have been right around seventy-five, which coincided with the first year I got into this business, which was where a lot of our fishermen were fishing, is in the Bahamas. When they shut it down, a lot of your boats that were fishing over there had to come over here and get into...

KD: That is when Don was fishing off of West Palm between West Palm and the Bahamas.

PW: Right. So, I know back when we were talking about the fish traps, real quick, I know guys that fish trapped up off of Fort Lauderdale and Miami and even off the Keys. They're fishing in 200- to 300-foot of water for groupers. The fish traps are quite successful at what they do. That's just something that just came to my mind when you were saying between Bahamas and the Keys. They also golden crab out there.

KD: Yes. There was a big...

PW: Big fisheries but there's no market.

KD: Yes. (Doug Rogers?) was telling me about that once.

PW: Swordfish, not many people down here do it. Although the fish come by here. I've got a permit to do it. But I haven't been doing it. Tilefish, there's a lot of tilefish out here. Some goldens in the deeper water. The grays are like grunts. You drop down there, they're right there. I don't think a lot of people know that. Mullet, just mostly bait mullet down here. Porgies, we'd catch a lot of porgies in our lobster traps. So, there must be a good supply of them around. Triggerfish, we hate them.

KD: [laughter]

PW: Well, we do.

KD: They bite out the traps?

PW: No. They eat their weight in lobster every day.

KD: Really? Wow.

PW: We catch a triggerfish, he's not a happy camper when he leaves our boat. Because you can pull up a trap with a big triggerfish in it. He will literally have up to five dead lobsters in the trap. I'm talking about triggerfishes only this big. They'll eat 2-pound [inaudible] They eat their eyeballs first, ate the eyeballs on the lobsters first. Then they work through the eyeballs, back. They eat the eyeballs first and make the lobster defenseless. Then they eat from the tail forward, I should say, is what happens. They go straight for the tail.

KD: The tail and then head up to the body.

PW: Yes. So, we hate triggerfish. Tarpon is [inaudible] when I'm around,[inaudible] tarpon-fishing around too.

KD: This is the season too. [laughter]

PW: Well, what you're seeing there is talking to a guy that's a fishing guide. Florida Bay is in such bad shape in Isla Morada area that the guides from Isla Morada are now coming to Marathon and the Lower Keys to fish. I was just told this a week ago, that it's displacing the fishing guides. There's a lot of them in Isla Morada. It's displacing them from their fishing grounds up there, which is predominantly Everglades Park and around a lot of the bridges. Used to be able to go up the up the highway there and see a lot of fishing guides, fishing tarpon around the bridges. You go up there now, you see a lot of tourists fishing around the bridges. The tarpon guides are now trailering their boats down here to the Middle and Lower Keys and fishing the backwaters that aren't being affected.

KD: So, I am seeing a lot of the same boats on the road.

PW: They're also traveling them up to the Key Largo and North that aren't affected. But the Isla Morada area, from what I've been told from this guide, is getting severely impacted by the Florida Bay. Another thing that's happening is with the commercial fishermen down here, their catch is reduced. Since [19]90s, we've had two going on three bad seasons now back-to-back. There's a lot of fishermen that are past guides are renewing their businesses being guides. They're getting into taking tarpon charters and this and that. So, you're seeing...

KD: Carl Wagner does guide work, does he not? The young one?

PW: Yes.

KD: My husband, I have heard him mention it on...

PW: Carl Wagner does. There's a lot of people, there's a lot of commercial fishermen doing it. I talked to this guy the other day. He said he was down at Seven Mile Bridge the other day. He counted forty-five boats off Seven Mile Bridge, tarpon-fishing the other night. You know, there's always, April and May is the big months for that. But what you're saying is you're seeing a lot of commercial fishermen that are having to get into the other aspects of the fishing. It's not like we haven't done it in the past. We were doing it before a lot of these so-called guides that are doing it now, even live down there.

KD: But it is like the commercial fishing was more of your income before.

PW: Income, and it meant more to us than...

KD: Now. You are going more of a half and half.

PW: Now we're having to lean towards other ways of making money down here. One of them is taking fishing charters out and taking guides out. So, people joke about retraining us and this and that. Like I say, I was running charters and dive trips back in [19]75 and [19]76, [19]78. I've been a licensed captain for 19 years. It might come to the point where I might have to go back and do more guide fishing, more offshore charters and this and that to make ends meet. But I just figured I'd mention that because, especially the Isla Morada stuff, because those guys are coming down. They're impacting the Lower Keys. You're going to see a lot more traffic down there.

KD: You are going to see a lot more conflict problems, too. You have got more people –

PW: There are so many fishing holes.

KD: – going to the same areas.

PW: Going to the same areas and wanting to fish.



KD: But right now, it might be stable. It is just keeping up with the people that are there. But if you keep adding more and more, it is going to reach a point where...

PW: Well, but also, conflicts usually –, let me talk about Sombrero Light and how they got to have these zones and this and that for the sanctuary. Conflicts are usually verbal amongst the guys thoughts. I mean that's his conflict. He might mention it to the people in the boat. But as far as throwing rocks at each other, or tennis balls or all that, I haven't really seen any of that. The guys fishing on the spot or this and that, then you've just got to go somewhere else. But you're going to have it. No doubt you're going to have it. What these guys tell me is they'll be sitting on a good little hole, a little cobia wreck or this or that, boats come out of the middle of nowhere, pulled right up alongside them, hit their GPS and take off. He comes back three days later. They're right on the same spot that they got out. They're over there catching cobias. Here the guy comes out. He's got a trap pole or something, which is, you know a trap hole is, don't you? He's got a trap pole out there in the bay that he knows he can take a customer there. When things get tough, he goes to the trap pole and catches a cobie or catches this and fills his day out. These people, the pressures, and it's not commercial people that are doing it. It's not commercial guide fishermen. It's tourists. It's dumbass tourists that see a guy out there, whether he's a commercial guide or whether he's a commercial charter boat or whether he's a commercial fisherman, will see somebody out there that he knows has got experience. He just goes up and he steals it from the guy. Pulls right up alongside of him, steals his LORAN number, steals the spot right out in the middle of the Gulf that that guy would have never found that spot in a million years. I'm sure your husband sees it with his dive spots. I don't know what he dives for, but whether it's tropical fish or whether it's for spearing fish or whatever. But people just come up. They steal your knowledge. There's a lot more of that going on. So, that's a conflict. That's a conflict that's getting worse and worse. When he goes back to get on that spot, here's the same net with three days later, he's got a guy on the boat. He runs 8 miles out of his way, knowing that he's going to finish his charter out on his little honey hole. Here's the nut that stole his numbers three days earlier. So, you're going to see a lot of that. That's already been happening. It's getting worse. Just like when I'm out dolphin fishing and I find a palette. I got a palette from here to those – from here to that palette away from the back of my boat. We got fish running this way, 20-pounds dolphins. We got a 30-pound bull going out this way. We got something over here. We got wahoos laying in the water underneath the boat. Here comes some nitwit that owns a \$250,000 house on Duck Key that's got his \$50,000 mako with his little tuna tower and all his fancy rods, comes and drags from here to that drum away from me, and drags his bass right over top of the palette and sucks the whole school of fish with them. Here I am out there, been busting my tail all day long to make the dollar. You got some nitwit tourist that just comes along and drags his bass right over top, from here to that drum, literally 20 feet away from your boat, drags it right over the top. Now that's a conflict. That's been getting worse. Just like people stealing your LORAN numbers, that kind of stuff, as long as more and more people – as long as the TDC keeps advertising that we've got to have at least a million and a half to 2 million people a year down here, it's going to get worse.

KD: So, we have already heard from people who do not even want to come to the Keys anymore.

PW: Really?

KD: It is not worth it, the hassles and everything like that, the water, diving and everything. For the cost, the money that they spend coming down here for a week on vacation of being on the water, they can go to South Pacific and be treated like kings and queens and not have the pressures and...

PW: Well, we still have half a million people from Florida that come down here every summer. The Florida people are worse than the northerners because the Florida people bring their own boats. They come down here. They're not down here for a week. Maybe out of that week, they're going to get two days on the water. Those people are down here. They live on the water the whole time they're here. Like lobster season, they bring down the big giant chess freezers, stick them outside their hotel rooms.

KD: Have you noticed sport diving season?

PW: Have I noticed it?

KD: No. The question is what have you noticed as a negative?

PW: A negative? The whole thing.

KD: Well, what do you see happening?

PW: Diver season used to be the commercial fisherman liked it when we used to drop our traps in the water on the 20th of July, and they would let the sporties go out there for two days around the 23rd, 25th of July, or 26<sup>th</sup>, before we started pulling. Let them guys before our traps had fish on them. But after our traps had been set, was when the sports season was supposed to fall into place. It wasn't much of a problem with it. But it was kind of a gimmick. We let them do it, with the hoping that maybe half of the suckers would be out of here by the time it came to us harvesting our lobsters, which meant a lot less damage to our traps, a lot less traffic on the water, replacing a lot less buoys, and losing a lot less traps from the traffic and stuff. What it's become is – that was to deal with the 10 or 20,000 people that used to come down here for the sport diver season. That was a compromise. That was a gimmick/e. Let's give them this so that these 10,000 or 20,000 would maybe, when it came time to harvest, maybe only be 10,000. So, we didn't deal with the crowd. Now it's totally out of hand. It's 100,000, 130,000 recreational stamps were sold two years ago, 132,000 to be exact, recreational dive stamps have been sold. They're removing over a million pounds of the resource of our \$6 million commercial harvest, they're removing one million pound in two days. This is statistics, DNR statistics. The next 30 days, they were moving another 800,000 pounds or 500,000 to 800,000. So, you're talking about they're taking about a million and a half pounds of our 6-million-pound harvest, which has been steady for 22 years. It hasn't gone up or down a half a million pounds in 22 years.

KD: What are the divers doing? Are they raiding the traps? Are they doing damage to the coral?

PW: They're getting a little smarter. They realize that if they take the buoy and they suck it underwater, or if they take their knife and they cut the buoy off, and let the buoy drift in the current, that they can molest that trap all day long. Lobster fishermen are going to pass within 50 yards of them and never know what they're doing. Unless it happens to be the guy that's missing the trap and is lying right there and is [inaudible] his line. But I mean, they've come up with some new technology for robbing.

KD: Have you seen this happen?

PW: Oh, yes. This is new technologies for robbing our traps. They cut the trap off right at the trap, the buoy off, and they let the buoy drift away. Or they take the buoy. They pull it underwater. They hook it on either a funnel board in the trap or lift the trap up and stick it under where the buoy is submerged. Then they proceed to molest traps. Years ago, they used to just dive down, just molest them, and do whatever they want.

KD: Now they are being a little more sneaky about it.

PW: Now they're pulling – there are so many boats on the water that they're pulling the buoy underwater. When they see a trap that's got the lobsters, they're pulling the buoy underwater. One of my recommendations, proposals to the Marine Fish Commission is to reduce the limit on the amount of lobsters that they let them take, from twenty-four to twelve. Take some of the spark out of it. Take some of the glitz and glory out of it. If a guy wants to run his 235 outboard 12 miles in the Gulf, get his 24 lobsters and come back, and he's got anywhere from 75 to \$100 worth of lobster wholesale. Retail is probably more like 130, 150. These guys are going out and doing three four trips a day on these dive weekends, day in and day out. If you take some of the glitz out of that and make it where he's only allowed twelve lobsters on the boat, well, is it worth them running out? Is it worth him coming in the Keys to run out there with his 235 and burn?

KD: Did they not do that last year where they had a smaller bag limit the last year? The rest of Florida had it. We had a smaller bag limit. If they did...

PW: The rest of Florida, they actually treated the people that didn't come to the Keys better and made their bag limits bigger. But we didn't have a smaller bag limit. We had the same bag limit. They made it more attractive to people that wanted to go up the state. But the lobster dive season is a travesty for the entire Keys, everywhere from the hotel, motel people to the people...

KD: I hate it. I locked myself in my house for those days. I will not get on the...

PW: There's no enforcement, no enforcement whatsoever.

KD: I know I can sit there at my neighbor's house who lives on a canal and just watch the house across the way, just going back and forth and back and forth and back and forth and count. You just get so upset.

PW: It's sickening. It's sickening. . So, a commercial fisherman is planning on going out there and harvesting, it's totally sickening, and the damage that they cause and everything else. I

cannot believe that they sanctioned it, but it's all – let me tell you something. Anything that's done in the glory of our tourist, number one industry in the state of Florida is tourism, if it has any effect on tourism, they're number one. Resource management, people's rights, everything else falls second to the number one industry in the State of Florida. They will bend over backwards and do whatever they have to for the tourists and to lure more tourists down here.

KD: The tourism industry down here did not really become something until, what, like late seventies?

PW: Yes. I mean, the Keys have always been a place – you know how the shore is up in up in New Jersey? Summertime, everybody goes? The Keys have always been the place where the people in Florida used to go and take their vacations. So, it's always been that way. Florida people come down here in the summer. Just people in Tampa and Clearwater, it's natural they come down to the Keys. But tourism has really gotten a big fold in probably the last 10 to 15 years, is the place, the in place. A lot of it has to do with this TDC and the bed tax and the advertising that they're doing. I mean, if Clearwater got on there and advertised and spent as much money as we do on advertising their beaches, their fishing, their this, their that; they probably have as many tourists as we do. But we're really into the tourism marketing.

KD: How many tracks do you have now?

PW: Do I have? I'm fishing about 1,400 – historically, for about the last fifteen years, I've fished between 1,400 and 1,600 lobster traps.

KD: What about crabs?

PW: Crabs, I've fished about 2500, 2700.

KD: So, that has pretty much been continuous for the last 15 years.

PW: The crabs I got into, I had pretty much 2,000 crab crabs for about the last, got into about nine years ago, is when I got into stone crab. I saw what was happening with the lobsters and saw what was taking place and the people that were getting into it, I realized I better get some...

KD: I know that during the course of the year, you lose traps for different kinds of reasons. What is the number one reason for loss of traps?

PW: The number one reason?

KD: Yes.

PW: So, it all depends on the year. I've had years where the number one reason was due to a storm.

KD: Yes, like this year.

PW: This year on the stone crab, I'd say the number one reason was due to the worms. On lobsters, the number one reason generally for losing a trap, period is boat traffic, is usually your number one reason. Boat traffic and storms. That's why historically, I fish areas where I can recover my lost traps. Me, over the years I've been fishing have found that I can put a lot of my gear. I can put all my gear in the ocean, but my cut offs are going to be higher. The loss of traps is going to be higher due to weather, due to tropical storms, hurricanes, and also due to boat traps. You have a fuel barge that comes down Hawk's Channel, some of our prime fishing grounds. He doesn't fish. He doesn't come down Hawk's Channel. He comes down a mile and a half inside of Hawk's Channel because he's with [inaudible] Marine. He's running his steel barge for God knows how long. That's where the guy runs the boat. He doesn't stick to the channel where the fishermen kind of tend to avoid sticking their traps, because all the Yankee doodlers and their \$2 million yachts running down the channel. He comes right smack down the middle of the fishing grounds. Anything that's in his way, he munches. He's probably got three quarters of a million gallons of diesel fuel on his barge behind him. Nobody bothers him. But the fishermen lose umpteen amount of traps just for that one individual.

KD: What is an average in a year? What's an average of maybe how many traps might...

PW: Percentage?

KD: Yes, percentage that you might lose?

PW: Depends on the area that you're fishing. If you're talking about guys that are fishing offshore on stone crab traps, in a year it's less than 10 percent. It's probably more like 5 percent, maybe even not even 5 percent. But you're talking offshore. You're talking about away from the traffic. You got traffic between Naples and Key West and Marathon, boat traffic, big yachts and stuff that you'll lose a couple here and there, but basically not much. You got commercial boats going out to their crabbing grounds in the middle of the night without lights. I got a light on the bow of this boat. Whenever I'm running at night, I've got a spotlight just like a car headlight on a car. I can see any buoy that comes up. I avoid them. But if you're talking offshore, you're talking about 5 percent. If you're talking inshore, fishing around the Keys here and around the traffic, you're talking as high as 30 percent.

KD: What did storm do, the big storm of the century?

PW: Big storm of the century, since we had most of our crawfish gear in...

KD: Crawfish are in, but the crabs...

PW: The crabs, we took a real heavy beating on. There were losses anywhere from 5 to 35 percent, 40 percent in some guys. But a lot of the big traps up. There are losses up the state up in Clearwater and [inaudible] and all that of 100 percent. They went out looking for the traps. They just weren't there. Buoys weren't there. The ropes weren't there.

KD: Where were they moved? Where did you find your traps?

PW: Oh, my traps?

KD: Yes. Which direction were they moved to?

PW: Mine moved southeast. Mine did. We're talking to guys who were fishing out in the 70-foot of water in the Gulf. Theirs, they claim, moved southwest, like the surge was sucking them backwards. But my traps generally travelled in the southeast direction, and in east to southeast. Some of them moved east. Some of them moved southeast.

KD: Those are nearshore.

PW: They're nearshore. They moved anywhere from 100 yards to – I had some as far as a mile and three quarters away from where I set them.

KD: When have we had other storms in the past that have been as significant as that one, where there was a lot of gear lost or stuff like that that really impacted the fishermen?

PW: We had a hurricane Kate, I think it was. I can't remember what year it was. We haven't really had any major – I mean, we've had a couple pretty good blows. But in the 20 years that I've been fishing, we've maybe had maybe three storms that messed things up pretty good as far as lobster gear, stuff on the ocean side. Stuff on the bay side doesn't move that much at all. It can blow real hard. Even the stuff that we had on the bay side in that northwester that was inshore and shallower than 15, 12 feet of water right off the Keys here, it didn't move that much. But the hurricanes, probably the most damaging storm that will do something. But we haven't really had any major stuff down here.

KD: [inaudible] back, finish up a little bit in the Bay area. I know that it is kind of hard to tell whether you have noticed the seagrass areas yourself have died off or increased because there is no visibility. But have you noticed a lot of excess seagrasses and stuff floating around dead or up on the beach areas and stuff? Or not really.

PW: I've seen some seagrasses floating out in the bay but nothing major. After a bad blow or something, we see a lot of it off floating on the surface, but nothing more than after any big blow.

KD: Is there anything that we have not really touched on that you would like to tell me?

PW: With regards to what, the whole thing?

KD: Yes, yes. Basically, there are two parts of this. One is to talk to people and document what changes they have observed. Second part is talking to old timers or gathering some of the old stories around the Keys.

PW: Well, the fishing in the Keys, there has been a decline in the fin fishing. Twenty years ago, you could go out. You could drop your anchor out in the bay there. You can catch groupers and snappers, lane snappers. You can catch your dinner. We used to go out – when I worked at

Marina with my dad there, we used to go out at the end of the day when all the boats were in, just jump in a boat at 5:00 and go out and drift along until you catch a grouper or a big snapper. Then you turn around. You'd throw your anchor. You go 50 feet back up on that spot, throw your anchor over, and you catch your dinner. You catch ten, twenty fish. [inaudible]

[end of transcript]