

Interviewee: To the most cases the Florida Bay out to the 80 feet of water and even on the East Coast still had dead fish.

Amanda: Okay. So, I want to -- I want to just --

Carla: More.

Interviewee: Massive and ugly.

Amanda: Yeah. Okay. So we're sitting here with --

Interviewee: *[indiscernible]* [00:00:21].

Amanda: Yes. And I want to talk about red tide and I want to talk about it starting with the first one that you remember?

Interviewee: I was 10 years old which is 50 years ago.

Amanda: Okay. And what -- what was that like?

Interviewee: Well, I lived on the canal on CS Tower *[phonetic]* [00:00:40] there is a big deep canal close to the Point it's not far from the Fort Myer Beach. And the fish came and there are sharks, king rays all kinds of creators trying to get away from the red tide, there you know since I guess to, you can go up the canals and try to get away from it the smaller ones. And it came with a lot of fish and I can remember my dad because we worked right here pass he did shrimp nets and on the shrimp boats. And the shrimp were pouring out of there, jumping on the water, dying, and it goes well, this will be the end of the shrimping business for a while, dead fish everywhere.

And I am going to say it lasted a week, I don't know how extensive it was just right there it was, it was bad and it locked and the water was perfectly clean and in no time the fish were back again and it was plenty of shrimp, because there was no little pinfish to eat the shrimp, because they eat most of the shrimp as they're brain and whatnot. So actually this is one of the best shrimp here is where ran in it and it didn't really seem the fish came back and water was real clean.

Amanda: So the species that you saw that were affected and that, you know, were dead on the beach, which species was those?

Interviewee: Mostly catfish, mullet, you know, I've killed stingrays it was and actually I think it did good, it cleaned up a lot of stuff that was overwhelming on waters stingrays, [00:02:00] catfish, pinfish you know, really put on those where the bigger fish, going to be seen like, I killed a few, but not --

Amanda: Yeah.

Interviewee: not enough. So, actually, I think it helped at that point, what we had this year was not the same.

Carla: So what were some of the species that you said like the smarter fish that swam away?

Interviewee: Snoek, Redfish, mangroves, snappers --

Carla: That's why impact by this red tide?

Interviewee: Not, not to no extend --

Carla: Yeah.

Interviewee: damaged the -- the herd, the population, it killed a few, but nothing massive like we saw this year, this year was totally different.

Carla: Yeah. So it ended up actually being good, your dad was in shrimping?

Interviewee: Yes, it's kind of like a hurricane --

Carla: Yeah.

Interviewee: believe it or not for nature skid, we catch more fish, and shrimps, stirs up the bottom, cleans it all up, it's an asset actually unless you live in the water and have building, but yeah at that point red tide, I think, it was a good thing.

Carla: Do you remember at that point like having any health impacts like do you remember -  
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Interviewee: No, you know, I don't remember my parents complaining, I know my mom wouldn't eat any fish for a long time, but, you know, I was young so, you know, I was safe no.

Amanda: So, what about the next one after that like --

Interviewee: You know, I -- little sparse here and there, but no -- no major outbreaks, you know, there'd be a little bit actually it was very minute, I can remember my lake in bam, I'll go back 10 years ago, you'd go catch bait offshore, like, the sea really just a mile or two and you'd come back in and your bait was dead. You went through a little pod and can see a few dead fish, but nothing major, but I didn't hear, but the last group were flout, you know, it was very spotty and small areas. It wasn't a massive kill like we had this year. You know, in light of a year we get a little red tide somewhere.

Amanda: Yeah.

Interviewee: You know there is always, but nothing massive, but the green algae that mix with that [00:04:00] that stuff went offshore to 60 foot. It killed everything on the bottom this -- this year.

Amanda: This year? So I really want to go to --

Interviewee: it killed everything around the 60 foot only the bottom.

Amanda: Yeah. I really want to go to talking about this year, because obviously that's one of the main reasons we're here, because this year has been so bad. But I want to stay focused on the ones before this and so we can create a timeline, so I want to get to that, but first just going back to kind of that first one that you experienced, do you remember where it was you said you have like --

Interviewee: Right McKenzie's Pass --

Amanda: McKenzie's Pass.

Interviewee: Yeah, is where my dad worked.

Amanda: Yeah.

Interviewee: And I was 10 years old and you know, I go to the net shop with him and it was in the summertime. I can't give you the exact dates, but -- and he was worried, you know, that it was going to -- they would take the shrimp in business, but like I said it got better.

Amanda: Yeah.

Interviewee: Now how far it went from there I can't tell you.

Amanda: Okay.

Interviewee: It's all I actually remember.

Amanda: And then for some of these smaller like sparse events where you'd see over the years after that, do you have any idea like which areas that you had to --

Interviewee: You know let's shows up in a Estero Bay.

Amanda: If you drew, like if you were going to draw some of those areas and where it affected?

Interviewee: You know Estero Bay is right here, it shows up there quite a bit probably because of all the run off with the river --

Amanda: Yeah and in that area specifically.

Interviewee: Yeah right here, you know, Fort Myers beach a little bit, but then again you got where I've seen it show up is down in here several times, you know, that's where we show up and in for a little bit and be gone again, but basically I'm going to say those were the two biggest areas affected was far as events.

Amanda: Yeah.

Interviewee: You know and then actually right off Fort Myers Beach out here, I've seen it, you know, because it's you go out here and catch bait and come in, so actually you're going to be reading that all that I missed out, thanks for here, I like to add out, right through there, probably because they are running off from here is just, you know, close to shore, you remember got out offshore, do you remember rolling the stone crab because he runs offshore all the time. It was probably four or five years ago he saw a bunch of dead fish in 30-40 foot grouper --

Amanda: Yeah.

Interviewee: all kinds of stuff. He -- I didn't see that, I was -- my problem is when I am coming and going offshore, so far it's usually dark.

Amanda: Yeah.

Interviewee: Murray and I. So I kind of miss a lot of that, but he is -- he goes out everyday stone crabbing.

Amanda: Yeah.

Interviewee: I do remember this year just because I am thinking about, I was coming around maps point that was probably a month before the outbreak and it as red grunt dead everywhere, just red grunt big ones that had died, you know, there wasn't no sign of red tide at that time they got hold of something, they go, they go red grunt out next pointed, you know, that's how it was though, that's what I think the that was dead grunt kind of caught my attention, I almost saw a dozen of them.

Amanda: Let's draw that shape let's draw that as well?

Carla: Yeah, the red grunt.

Amanda: Yeah, the area where you saw the red grunt and you said that was a month, when was that?

Interviewee: Before this huge outbreak, you know, by the month before right there --

Amanda: So --

Interviewee: because I was steaming by there, I almost saw a dozen big old red grunt and, you know, I actually there wasn't no red tide on the surface for the simple fact that the guys -- I saw a guy catch a triple tail at the same time I am seeing a red grunt. You know, believe it or not, years ago I used to shrimp right there, you know, we catch red grunt in the net now, is that where they came from, I don't know, they didn't look like they've been dead a long time [00:08:00] so it was on the bottom or something got, I don't know what got them, but something obviously, because that's -- that's the only thing that was mainly, these fish weight like 30 pounds --

Amanda: Yeah.

Interviewee: you know bigger red grunt. You don't see many around here, they like that area.

Carla: So you primarily -- you do primarily fish offshore?

Interviewee: Yeah.

Carla: Okay. So these first areas, you are talking about when did you notice this?

Interviewee: Oh, I've been seeing them through the years.

Carla: Yeah.

Interviewee: You know, they'd show up, you know, for a month, two weeks, you know, and then it'd move a little bit, you know, we're talking to the guys, they keep tracking that stuff more than I do obviously.

Amanda: Yeah.

Interviewee: Because they are catching bait and everything, they don't want to die [indiscernible][00:08:38]

Amanda: So --

Interviewee: guides that these insured guides they're going to be your best asset for insure.

Amanda: Yeah, absolutely.

Interviewee: The baits and everything. I've got – and in fact I got Eric Davis' number --

Amanda: Yeah.

Interviewee: -- and also got another guy that fishes back Davis Jason, so they got two more people that can help you. There will be a lot more efficient with that insured than I will be.

Amanda: Yeah, I think we definitely want to talk to some insured guys as well.

Interviewee: Yeah.

Amanda: Were there ever any areas offshore that you noticed --

Interviewee: Well, yeah. There is like none not till this year --

Amanda: Not until this year, okay.

Interviewee: Right. Yeah up to 80 foot you know --

Amanda: Okay. So --

Interviewee: and on the bottom 60 foot.

Amanda: Yeah. So we're definitely going to get to mapping that out on here with the offshore areas. I want to talk a little bit more about these first events. When -- you said like that you have that big event when you're 10 years old as a kid that you remember where there was a huge fish kill?

Interviewee: Yeah.

Amanda: And then there were kind of these first events, were -- were these first events in these small areas, did those ever impact your fishing or your business at all?

Interviewee: No, no they did you know, there was no huge kills --

Amanda: Yeah.

Interviewee: just very minute.

Amanda: And then were there any other major red tides that you remember?

Interviewee: No, not made the news you know anything else no my dad never mentioned as I was growing up [00:10:00] --

Amanda: Yeah.

Interviewee: We just out one.

Amanda: What about and like the last, you know, when you think about the last 10 years or the last 20 years?

Interviewee: The only thing I've heard of being bad was up off Tampa, you know, from fishermen. And that's when a lot of commercial fishermen started coming down with fishing inshore band those like I do is say insurance side of a 120 foot like we fish from 60 to 120 in the summer time and they said it killed all the smaller fish, so they were down here fishing in the Florida Bay where I fish in the summer time.

Amanda: Yeah.

Interviewee: So that's what I heard that. you know, they said it was you know, that the -- it started getting bad up there first.

Amanda: Yeah.

Interviewee: And several years ago.

Amanda: Several years ago and do you know what year?

Interviewee: It's been four or five years they said they had a huge grouper kill that got offshore in 80 foot of water 60 foot and killed the grouper. So I know that in and you still see it up there a lot --

Amanda: Yeah. And it's temporary.

Interviewee: And then when it started -- when this fish kill started, it started up there.

Amanda: Yeah.

Interviewee: And it came south. It started killing fish right along down the line till it got in two or three, I guess it got on the east cost, because I heard Steward had a bunch of dead fish. You know, I don't know about over here and I hear nothing about that side but you know --

Amanda: Yeah.

Interviewee: it started heading to north and north south.

Amanda: So, over time with these first events, like how -- how often would you see red tide -  
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Interviewee: Some of you hear of red tide some where --

Amanda: Yeah.

Interviewee: you know, a little bit or you know it could even be in, like a following water changes temperature a little bit, you know, summer falling where there is a change in temperature it seems like it starts likes to bloom or whatever it does grows to my opinion.

Amanda: So, you would say that's just like a natural every year?

Interviewee: I would say it's normal.

Amanda: Yeah, yeah and that is it always in these three areas or --

Interviewee: Mainly.

Amanda: Yeah.

Interviewee: You know --

Amanda: Then does it usually pop up like it'll be over here and here and here at the same time or --

Interviewee: No, no, no, the whole area long time [00:12:00] you know, it was just very concentrated little pockets here and there and they would shift you know --

Amanda: Yeah.

Interviewee: you could see it and smell it then you run through it like you know, you might run through a half mile of it, it'd all be red and you can smell it and you are being out of it again.

Amanda: And then the Back Bay areas I mean you're -- are you in there your recreational fishing?

Interviewee: I usually yeah.

Amanda: Okay.



Interviewee: When the red tide was there I never go there you know, talking to my friends the guides.

Amanda: Yeah. So, you just avoid it?

Interviewee: Yeah.

Amanda: if there is red tide, okay.

Interviewee: Yeah, very low oxygen in here, even when we in turn event with fish, redfish up in here and you'd catch a redfish, we have dialers, because they get exhausted, you know, brining it out, and getting it dying alive well there is very little oxygen back in there for whatever reason. So, I guess, it don't take too much to since the fish already working on limited oxygen just a little bit of red tide probably does them in --

Amanda: Yeah.

Interviewee: Because they're not -- they are just barely getting in [indiscernible][00:12:58] it is, because that's -- it could be so small, when they deduct until when we the fish. In fact I was casting it from mullet, right, there probably right inside the Captiva when going back 15, 20 years ago and I saw a mullet working down the bushes, so I parked my bull and I was standing in the in the water waiting for them to come by to broom all like the south and 50 feet before I passed hi, kind of just bubble up and followed it I killed everyone of them. I went over there and these mullet are all dead in the bottom I couldn't see nowhere it died --

Amanda: Wow!

Interviewee: you know visually it killed. I mean I am sitting there watching them die. It killed them instantly it was weird you know

Amanda: Yeah.

Interviewee: But mullet or you know, there are bottom feeders and they're not a real strong fish either, you know, they haven't got licker brains so I can catch --

Carla: So let's draw that area to where you saw the mullet?

Interviewee: Yeah let me get my glasses [00:14:00] off here.

Carla: And then I have another over this one, if that is anywhere like further north?

Interviewee: Well, I really don't mess around up there.

Carla: Okay.

Interviewee: You know that was just basically from Pine Island down there sacral base where I do most of my stuff.

Carla: Yeah.

Interviewee: You know --

Carla: So this was the area, when did you see that mullets die after?

Interviewee: Will go back 20 years ago --

Carla: Yeah.

Interviewee: You know and that's the only thing that was dead, you know, and it was a small area because they were doing fine watching and cutting down the bushes, you know, you can see all the surface must have been 4 or 500 pounds of mullets --

Carla: Yeah.

Interviewee: and then it's like went through that water it killed every single one of them.

Carla: So did you, did you know that there was red tide there --

Interviewee: No.

Carla: before?

Interviewee: No.

Carla: So you didn't know until you saw the mullet?

Interviewee: Yeah.

Carla: Wow!

Interviewee: And then I couldn't see the water being red --

Carla: Yeah.

Interviewee: It wasn't red tide, I don't know, you know, it's what you assume, you know, but something was getting them right there, they were doing fine jumping and flipping and sucking on the surface, you know, and then they got to that point and something the water just wiped them right now.

Amanda: Wow!

Interviewee: So, that was the end of that school of mullet --

Amanda: So what makes -- let's talk about 2018, let's talk about this past year, you know, what -- what did you first start noticing it?

Interviewee: Well, I can tell you what -- this is my hypothesis --

Amanda: Yeah.

Interviewee: is when we had Erma two summers ago, it knocked out power top of a lot of sewer plants, you know, where all that went by these public stations, right into the bays, into the canals and that probably just exacerbated this whole green water and red tide and I know the green waters and algae --

Amanda: Did you notice that --

Interviewee: there were tons and tons of drainage that went into our waters because they didn't have power [00:16:00] I mean everybody telling just backing up everywhere on the roads and the streets and going into their bays.

Amanda: Yeah.

Interviewee: That didn't help, you know, that could be fixed by the power -- by sewer plants having power of delivering power for at least a week this will cost money but then you can assess water in sewer bill.

Amanda: Yeah.

Interviewee: That's one thing that could be fixed. And another one is, I know there is a wall about using pesticides and fertilizers when you're closer to the water but they don't have to force it. There is a millions of home from Tampa to Marco. We blame everybody used to blame like Okeechobee well that's probably a good part of it, but still if they would enforce those laws in zero tolerance with chemicals with houses on the water that would be a help. So those two things I think could be rectified maybe help before we destroy this whole ecosystem.

Amanda: Yeah. So --

Interviewee: It's my solution.

Carla: The pollution that that happened as a result of hurricane Erma, did the trigger was there red tide on that year or?

Interviewee: Well, it was -- it was going back two summers and then once they started dumping the lake and the red tide I think that stuff all mixed together it became toxic. I mean it was killing turtles, port red tides never done that --

Amanda: And this is --

Interviewee: I've never heard with turtle report this tide -- red tide it killed --

Amanda: Until this year?

Interviewee: Yeah. And I see it on T.V. the turtles were fully green slime --

Amanda: Yeah.

Interviewee: now were they floating into that green stuff were dying in it, is it to you, but -- but yeah that that red tide it never done that. You know, I guess, it would kill a few manatees here and there because respiratory they said I don't know, but that stuff was killing I mean hundreds of turtles.

Amanda: Do we have any clues that red tide was coming or that this year it was going to be a particularly bad year?

Interviewee: Well, we saw it coming from the north --

Amanda: Yeah [00:18:00].

Interviewee: working it straight down and as it gotten down here it just kept expanding and getting even stronger.

Amanda: Yeah.

Interviewee: You know, and then it just kept, it never stopped. It just overwhelmed the peninsula of Florida.

Carla: And you'll -- right now you'll are red tide I mean you haven't seen it in a while here, is that right?

Interviewee: That my buddy just caught a couple of 10 pound red fish and a bunch of snookers and [indiscernible][00:18:20] this last weekend.

Carla: Oh, it's good.

Interviewee: You know --

Carla: Yeah, how long has it been gone for how --

Interviewee: Oh, it's been well like I don't have the timeframe another day at the office, I mean, you should know that, it's been going a while.

Carla: Yeah.

Interviewee: Well we had a tournament in June --

Carla: Yeah.

Interviewee: We had a tournament in June, a group of tournament and we had to go to a 100 foot of water to catch bait for the tournament and to recirculate the water. In June it was real bad and then we had one in August and it was still bad, so I will say October is when it started clearing up.

Carla: So, for the tournaments how are those --

Interviewee: Well, we fish in 200 foot of water.

Carla: Okay. So, you're going up farther enough, but even just getting the bait?

Interviewee: But talking to charter fish, I mean catch grouper around here.

Amanda: Yeah.

Interviewee: Now they're starting to catch little spot tails and stuff in 60 foot, but back in August September it was a total kill --

Amanda: Yeah.

Interviewee: Divers all reefs had pictures of dead crabs on the bottom and they just killed everything hot -- my guess there is no oxygen.

Amanda: Yeah. Were there any species this past year that weren't impacted?

Interviewee: No, I think it working everything.

Amanda: Yeah.

Interviewee: Yeah.

Amanda: Yeah.

Interviewee: If it got in, it was dead. That green stuff is very toxic --

Amanda: Yeah, let's talk about --

Interviewee: my -- my son lives on canal in Cape Coral and it was so bad you couldn't go outside. You absolutely -- but that is nothing compared to a red tide that stuff was nasty that greens I've never seen them like that for my whole life.

Carla: Can we [00:20:00] is that an area that you can map?

Interviewee: Well all of the Cape Coral canals aid up was green soil. And my son and my brother-in-law lives in well have their house before Lauderdale --

Carla: Yeah.

Interviewee: and his canal was fully green on the east coast.

Carla: Yeah.

Interviewee: You know, that that stuff is, well I had to price the water and oxygen I guess. It just takes all the oxygen out of the water and it can't breath and it's terrible.

Amanda: What do you think was the cause of that?

Interviewee: I think all that -- what made us so bad was all the sewage that went into the waters everywhere in Florida, but even that it was a coincident --

Amanda: Yeah.

Interviewee: you know because everyone took power about the whole state one place or another and they lost a lot of power, so that's why no.

Carla: So that was after Erma with the green -- the green slime?

Interviewee: Then -- then that next so that was -- Erma was 2017 right and that was in August all right and then we noticed it in 2018 the green slime.

Amanda: Yeah.

Interviewee: So that shore -- that stuff was probably sitting on the bottom and once they started dumping the lake and that green stuff that comes out of the lake met with that. It had fertilizer to grow it just magnified into a proportion never seen before.

Amanda: Yeah.

Interviewee: So that's why I saw it was probably the sewage that got dumped from that storm.

Amanda: What about other like just blue-green algae, have you like noticed that at all in certain areas --

Interviewee: Ever before until this.

Amanda: Yeah.

Interviewee: Yeah, I have seen when it dumped the lake a lot, you would see it flit up on the beach like a green plankton or something like green grass, but plankton no I don't know what you call it, it was that green stuff but it wasn't on the surface it kind of rolled the bottom and it would float [00:22:00] on the rocks you'd see that green stuff on the rock.

Amanda: Yeah.

Interviewee: An algae of some kind, but for to take over the surface like I never seen that like that.

Amanda: yeah.

Interviewee: That was never happened before that I'm aware of.

Amanda: Yeah. So what was the -- you said you didn't notice any areas offshore that had were affected by a red tide until this past year, so what let's try to map out some of those areas offshore, but --

Interviewee: Well, you can go wherever you want to out to a 100 foot of water and from 60 foot on the bottom it killed everything out to 60 foot off Port Myer Beach which is right here southwest that's the way we were run. Okay there is your 10 fat of curve right there --

Carla: So let's -- let's just draw everything you're talking about.

Interviewee: Okay. Is this the 10 phantom curve, yeah because that's 10 phantom right?

Amanda: Yeah.

Interviewee: This here, so we basically from what I were we were running right from here to there --

Amanda: Yeah.

Interviewee: would be here right. This is my area, all the way to there and all the way to there was a total kill that's where this stung crab fish and this year they had go to 60 that's why I said 1 to 60 foot on the bottom. They had to go 65 foot to find the stung crab. Now on the surface it went out to a 100 feet okay which is 16 phantoms out here, so then you go like this, like this and then that's where it was on the surface, it was probably down to 60 feet, but it didn't get to the bottom, because I can remember seeing dead fish here, but seeing the life on the bottom. You know minnows and fish, you know, on my recorder --

Amanda: Yeah.

Interviewee: But, personally, shrimpers in the more cases saw a dead fish there, because that's shallow saw dead fish there a [00:24:00] a group of boats that were inside these towers over here, saw dead fish here. I mean, you know, it was dead it -- it was everywhere I mean you could this just take this whole map and say it was the red tide that killed everything.

Carla: Yeah. So -- when you talk about like dead fish float on this surface in this area, what other species?

Interviewee: Red fins, you know, top -- top water fish not necessarily bottom. Over here you'd see bottom naturally group of redfish anything that was on the bottom, sheep's head.

Carla: Yeah. So, are these the areas, are these kind of from your personal experience are these the only areas that you saw with red tide and like the areas that that you got?

Interviewee: You know, this is generally, when they got the lake and normally this where you see your worst water, like, when you get down south here it gets clear and north except for this last summer it was bad everywhere. But generally when they know this, this is when -- mostly we're almost here freshwaters site in and out make sense, you know, down through here is where the water stays the darkest the furthest brown as because there is freshwater in it, you know, and this year it was a greenish brown nasty because I believe it was mixing with the algae. The algae was coming out and with the red tide they were kind of mixing it together and it would just instinct like a nasty mess. It was like I say because of all that algae plus the red tide mixed together --

Amanda: Yeah.

Interviewee: it turned into a toxic when it starts killing turtles and dolphins it's bad.

Carla: Did you ever notice for moral quality in these areas before?



Interviewee: Nothing like this, no.

Carla: But what -- what was the --

Interviewee: I can see -- you can see freshwater out to maybe 40-50 foot when they'd really got the lake a lot --

Carla: Yeah.

Interviewee: you know years ago when they would dump it, but nothing that was killing fish  
[00:26:00] --

Carla: Yeah.

Interviewee: you know, I mean I am not saying it does the environment good all that freshwater, because it has to light out to the bottom for grass and whatnot.

Amanda: Yeah.

Interviewee: And I got a friend in Pine Island or lives in a fish act, he just went there two weeks ago, there's still are no fish there and killed all these oysters he used to collect oysters, so --

Amanda: And killed oysters?

Interviewee: Yeah, yeah, he'd been oystering there for ever. Him and his daddy and they didn't, they found I think it was stupid three oysters in four hours or so, something I wouldn't eat them.

Carla: Were there any areas with the 2018 red tide that weren't impacted where you can still fish?

Interviewee: You know, I can only assume you get away up there in creeks where the fish survived, you know, where water doesn't really circulate a lot.

Amanda: Yeah.

Interviewee: Because I mean the fish survived some of them, being killed everything, you know, so there is so many up under Santa Bill and these little creeks they don't show you, but there is holes and pockets it go way up in there, you know, where they can get away from it.

Carla: And, you know, how did this you're mostly targeting grouper or other --

Interviewee: Yeah grouper snapper --

Carla: Yeah, red snapper.

Interviewee: But they're all offshore.

Carla: In offshore, did it impact your fishing ability?

Interviewee: Well, well, it killed all my seed.

Carla: Yeah.

Interviewee: you know, it'll take me a couple of three years to tell you how bad, but yeah all these millions of pounds are small grouper dead.

Carla: Okay.

Interviewee: You know I mean most of the fish ensures small and as they get bigger they move out, you know, grouper like this by the millions.

Amanda: Yeah.

Interviewee: Oh, it will just you know, how bad I don't know. I mean small grouper grow offshore too. You know, but -- but most of them almost say 50% of them come from there in this little area of Florida Bay, that's where most of your small fish come from.

Carla: Yeah.

Interviewee: And then if it killed [00:28:00] all of them then they grew up, they move out here, well then you know, it'll take a few years for me to assess how hard it hit me.

Carla: Yeah, and then previous year is that wasn't the case you weren't worried about like long-term red tides?

Interviewee: I never seen the red tide in Florida Bay.

Carla: Yeah.

Interviewee: But it was there, from here say.

Carla: From here say, okay.

Interviewee: Yeah, I can't. I was down in there, but that's what they said boats down in here and shrimp boats.

Carla: So these are the two areas where you really --

Interviewee: That's where I was personally.

Carla: Yeah.

Interviewee: You know, I noticed it out that far in nasty water like I said.

Carla: Yeah.

Interviewee: And like I said the solution is I think somewhat solvable, you know, if we could get all power then pumping stations and so it don't happen again, because that once every -- even if it's once a decade it's too much.

Carla: Yeah.

Interviewee: And some outside, you know, through the years I would hear when they would stop dumping the lake, okay, when the water was -- because they dump it all the time. When they would stop dumping the lake people up the river just passed the locks, would complain about the green algae, because it would -- it couldn't move out down and it would grow and get real bad. So, they've had this problem before up around these locks.

Carla: Okay. So that's something that occurs up here when they stop?

Interviewee: When they stop because no one --

Carla: Yeah.

Interviewee: it's not moving, there is no water moving out.

Carla: Yeah.

Interviewee: So it kind of grows right there and people would complain about it, you know. Well there is a lot of cattle up there, so you got a lot of runoff with drainage, so they would complain about it getting bad and stinking up there. And they want them to open the locks and get some freshwater in there to get rid of that green stuff, but this time when they it completely engulfed Cape Coral which is over here --

Amanda: Yeah.

Interviewee: you know, I mean I don't know how and I am sure it went all the way up to the river. I mean it was just everything on Cape Coral was fully green [00:30:00] and it didn't really didn't go passed the bridge. You know, the nasty stuff --

Amanda: Yeah.

Interviewee: The -- the bridge that goes over the Cape Coral --

Amanda: Yeah.

Interviewee: Really didn't pollute any canals and Port Myer Beach with green, you know, it was in the water, but it never to the point where it was floating like a mac.

Amanda: Yeah, it -- it didn't.

Interviewee: No, just from Cape Coral --

Amanda: But it was like that up in here?

Interviewee: Oh, yeah terrible because I was in Cape -- Coral now and it was horrible.

Amanda: So what --

Interviewee: And that made national news I think.

Carla: Yeah. Where is the -- where is the bridge like where it didn't come out from here or -  
-

Interviewee: Well, yeah, you know, it comes across right there somewhere in there.

Carla: Yeah.

Interviewee: you know.

Amanda: Okay.

Interviewee: And then so it started from here and Cape Coral hundreds of miles the canals were all full of green. You could walk on it almost.

Amanda: Oh, wow!

Interviewee: You know it was -- they tried to cleaning it up and they offered was free, we get tons and tons of it.

Amanda: So it's still --

Interviewee: where it tons and tons of it.

Amanda: Yeah, so it's still comes out into this area and mixes with the red tide?

Interviewee: We just do get more at that point.

Carla: Yeah.

Interviewee: And then when it mix with red tide it became toxic because like I say red tide don't kill turtles or never has before.

Amanda: Yeah.

Interviewee: It's killing everything.

Carla: So you think that the discharge from this area then the red tide that they mix together and become, there you have an interaction with each other and become more toxic?

Interviewee: That's what I assume.

Carla: Yeah. That's why we're here -- one of the place we want --

Interviewee: Yeah. And like I say, it's I am not blaming all of the lake, I am blaming on ourselves as well.

Amanda: Yeah.

Interviewee: You know everything that's got phosphates in it, which is fertilizer and weed killer and pesticides, they got to stop homes from using that period on the water and also of course I know they can't stop that, but mosquito control has been my biggest right for since I was a kid [00:32:00] because that's poison. And that's where all our fish start growing and that's why they ate this mosquito larva --

Amanda: Yeah.

Interviewee: So they -- they just you know, I mean, but mosquitoes have killed more people in the world than anymore is combined. So that's her justification to spray the mangroves where live starts you know, in our ecosystem.

Amanda: Yeah. With those areas you know, you said you don't you're not really sure what the long-term impacts are yet, you're going to realize that --

Interviewee: Well, right now it's been what six months, eight months now six months and they're -- they're starting to catch fish in shore now small fish --

Carla: Six months up not being able to catch anything inshore--

Interviewee: Right. Now they're starting to catch little spot tails and grunts --

Carla: Okay.

Interviewee: So -- it's livable down there --

Amanda: Yeah.

Interviewee: You know now so it'll -- it'll probably take a few years for them to get back to normal that don't happen again. My reason for red tide getting deeper I used to dive a lot around here and the thermocline climate would be 40-50 feet around the gap --

Amanda: Yeah.

Interviewee: Like even in the summer time, we go up to 60-80 foot dive in and 30-40 feet down it's like oil and vinegar and it'll be cold 10 degrees at least. Well, when we would have out tide -- red tide, it never would kill anything down the bottom, because I don't think it could get through that thermocline, just a guess or what I assume and now the thermocline send about a 120 feet before the water gets cool, so now it can get deep because there is nothing there, there is no barrier.

Amanda: Yeah.

Interviewee: No cold water on the bottom like there used to be, cold or warm unless you have Trump. So, that's -- that's what's happening with water is getting warmer, our surface temperature is 10 degrees hotter than it was 10 years ago, and like the hurricane it's the harder the water the bigger the storm [00:34:00] the warmer the water the worst the red tide, ain't no change in that.

Amanda: Yeah. So with these impacts with, you know, you're fishing that you said there are going to be, you know, less group were out there and less --

Interviewee: Less everything.

Amanda: Less everything. Did -- does that change your business? Do you -- are you going to try would you target a different fish or --

Interviewee: No, while I am getting old anyway --

Amanda: Yeah.

Interviewee: you know, I am up in my years. But now what will happen is, because I've been doing it so long is that the weak ones would go out a business, there will be less competition, less pressure on the grouper and the grouper they do start small offshore as well, you know, if it cuts my production by 50% I can probably still got enough money to I don't take a lot of money to live, you know, I don't have kids anymore nothing. So it don't cost lot, but it's going to hurt the commercial business oh yeah they – and it's going to hurt everybody --

Amanda: So you think it's --

Interviewee: this is tourism --

Amanda: Yeah.

Interviewee: you know, just people that own motels and big resorts. I mean it's devastating restaurants I mean it was bad around here.

Amanda: Yeah.

Interviewee: You know these people working in the restaurants and you know, get paid on tips and actually nobody came to the beach or restaurant or the water it just wiped them right out. You know, it's a huge impact on the economy.

Carla: Yeah. So you're -- you're saying that some of the smaller commercial guys who you know, have -- have kind of smaller business that they're not able to deal with the kind of the hit like this and -- ?

Interviewee: Well, it's more companies with they owned the boats and they have crews around them ---

Carla: Yeah.

Interviewee: you know, and then because they don't get a -- I don't remember boats ride here crew boats here --

Carla: Do you have a crew -- do you have a crew?

Interviewee: One guy.

Carla: One guy?

Interviewee: Yeah and so but if I had somebody run the boat, well then I'm missing the crew share you know, [00:36:00] and they are not catching enough it doesn't pay, can't make a living. So with me running I get a crew share, you know, and I take care of my boat, keep the

expenses down so you know, I can I've seen it getting banned the commercial fishing before because it being over fished and I survived. So you know, --

Amanda: Yeah.

Interviewee: Let's hope I survive. If I -- if I go out of business, there ain't going to be nobody left --

Amanda: So you -- have you seen in the last year or are there people that you know that were commercial fishing and then they weren't able to and they went out of business?

Interviewee: Well, it hurt the guide business --

Amanda: Yeah.

Interviewee: You know this my buddy Eric Davis you know, like I said he charts 280 300 days out of the year --

Amanda: Yeah.

Interviewee: and he lost out for three four months --

Amanda: Yeah.

Interviewee: They ain't going by chatter here, you know, so wet and hammers everybody.

Amanda: Yeah.

Interviewee: You know, it hurt the whole the industry harder no party didn't touch everybody --

Amanda: Yeah, I know it's been really surprising the range of it in the past year.

Interviewee: Yeah. Bottom line, too many people per ecosystem, that's the bottom line and they're still coming.

Amanda: Yeah it's true.

Interviewee: You know I was born and raised here, you know, I can remember eating oysters out of Fort Myer Beach, you know, when I was a kid. There ain't even an oyster, the sand bars are just singing now, there is no shells, there is no nothing and that's because of us.

Amanda: Yeah.



Interviewee: We're here you know, there are zillions outboards that put carbon monoxide right in the water, they are all through have exhaust dumping carbon on the bottom god knows what that does, you know, that sinks I know that right to the bottom.

Amanda: What kind of other environmental changes have you noticed like --

Interviewee: Just more boats, --

Amanda: Yeah.

Interviewee: more pollution, more people and just too much for our environment, we don't get enough the gulf strangers, don't come in here [00:38:00] you know, we get very little limited water. It isn't like the east coast where the gulf strangers ripping by all the time, you know, but here once this it gets polluted and the bottom gets fuller, bad grass that bad brown nasty grass and all that stuff it really don't go nowhere. You know and then we get a storm and it shakes it all lose and it comes to the surface and then it mixed with everything else and that's our problem. And I like I say the only way to fix is to or slow it down would be to really enforce some rules for pesticides and whatnot.

Amanda: Yeah.

Interviewee: That's my pick or at least slow it down, make it better. You know, we just don't get enough fresh, good water.

Carla: Yeah. And do you have any other questions?

Amanda: No, I think I was doing all right keeping up --

Carla: Is there anything else that you wanted to add?

Interviewee: No, I think that's about it.

Carla: Okay.

Interviewee: Let's see okay here is Eric Davis' phone number --