Interviewer: It is the  $6^{th}$  and we're here with Bem.

Bem: Yeah.

Interviewer: Okay. So, Bem, can you tell me a little bit about your experience in the fishery and where you fish and how long you've been here and things like that?

Bem: Well, I was born here in 1936, so I've been here since then, 83 years. And I grew up around the water I've fish and everything else but I never really remember ever seeing any red tide and probably until the mid to late '50s, probably in '57 for so long now. And then it was just like a little plateau, it would be right between Doctors Pass and Clam Pass on the north beach and that might be for three or four hundred feet and the fish then-- and then it wasn't as toxic because the dead fish you'll see down would mainly just be mullet catfish.

Interviewer: So let's actually draw that area. So, when you say the first time...

Bem: I remember saying it was right where Doctors Pass is.

Interviewer: Yeah, so where is that on the map?

Bem: I can't see through it, this is north Naples or is it just....

Interviewer: Here's Naples.

Bem: Where's Gordon Pass?

Interviewer: Here's Doctors Pass?

Bem: Yeah, right there. They use, it was apart a bit from here maybe a quarter mile north, they are probably in 57.

Interviewer: Was it White Lake near the coast? Was it right on that?

Bem: It was right on the beach.

Interviewer: Right on the beach?

Bem: Yeah.

Interviewer: And then do you remember how far it went out?

Bem: Not very far because you can see the, actually the fish were sick because we were working up as we seen it. And it was sick fish for maybe a day and a day or two later then you started seeing them dead but the only thing you seen was catfish, a few little mullet and a few little bottom fish like lane snappers, [00:02:00] and so that was it. And it lasted about a week and then it was gone. And then we never had any more for may be a year or two. And then even in the

'60s, it was very rare. We probably didn't have over two or three spells of it. And it was maybe a little bit bigger than that one and but it never got inside in the end on the waters and it was always along the beach when you see it.

Interviewer: So, this one is from what year, about what year?

Albert: Yeah.

Interviewer: Which year?

Albert: '57.

Interviewer: 57?

Bem: Yes. I remember seeing it because we were working up there and then I don't really remember seeing any more until after Hurricane Donna in 1960, that only we didn't have that you know...

Interviewer: Yeah. I want to ask you a few more questions about this one?

Bem: Yeah.

Interviewer: So, you said you saw fish that were sick?

Bem: Yeah, for a day or two, you can see them swimming around, the-- I guess, little lane snappers and grunt, but nothing big, you never seen any big groupers. And I think at first, even in the '60s all the sick fish and dead fish were all mainly mullets, and like catfish and severum and you never seen any snook or pompano or groupers ever, you know.

Interviewer: And how long did it last?

Bem: I had one in the '60s, it probably lasted two weeks, you know, that you've seen. They killed enough fish that end the tide, you know, drip some down because the main tidal flow here goes southeast and I think that's where all the pollution comes from that accumulates down there because it comes out of open ground in Tampa Bay and then it all runs south. So, it winds up down here. [00:04:00] And the, I don't ever remember until probably up in the late '80s seeing a huge fish kill like we sort of see it now.

Interviewer: So, in the '60s, was that in that same area that this one was in?

Bem: Yeah, yeah.

Interviewer: And you would always see it in this area?

Bem: No, no, no. No, it was just that one instance. No, we'd see them all up and down the beach. And then when you see them in the Bay, I think they were already dead and they just

drifted in with the tide. I don't think they really had red tide in the Bay here like they get it in here now.

Interviewer: When do you say in the bay?

Bem: Yeah in Naples Bay.

Interviewer: In Naples Bay.

Bem: And Gordon Pass, yeah, there was-- I know ten years ago it was strong in Naples Bay there actually you could hardly breathe. And so, the water was definitely in here, the tide. But up until then I don't ever remember it bothered me.

Interviewer: So, in the '60s where did you see those like anywhere outside of this?

Bem: The main ones I've seen in the '60s was probably around Gordon Pass and on the beach.

Interviewer: So, where's Gordon Pass here?

Bem: It's farther southeast entrance into Naples. It's probably right along there. Probably right along here somewhere, that goes up into Naples Bay.

Interviewer: Gordon Pass?

Bem: Yes.

Interviewer: So, you would see them at Gordon Pass.

Bem: Yeah, you would see them on both sides of the Pass and then eventually you would see them up in Naples Bay. But I think it was the ones that died out there and just drifted in. But I know like I said, last few years the red tide was in here, it killed fish in the Bay here. That would be all the way up to here.

Albert: You, Amanda?

Interviewer: Yeah, yeah.

Albert: I'm Albert.

Interviewer: Hi, nice to meet you. Yeah, I guess just join us, have a seat and [00:06:00]

Albert: You know, much as I do, he's been here forever too.

Interviewer: Okay great. So, I just want to talk to you about-- we are recording, as well. We might use this for places of the fisheries, which is a collection of stories from fishermen that we're doing.

Bem: Oh I could really tell you is, it's getting worse every year. It's lasting longer like now and don't even go away.

Albert: No.

Bem: It's somewhere all the time. It used to like back in the '60s, I'd say it was very rarely. You'd see a little spell of it and then it go away. But now, I think it's fertilizer may make that happen.

Interviewer: Yeah. So, back in the '60s, and you saw at Gordon Pass, how far north or south did you see it?

Bem: It wasn't widespread. You would see a few fishes, not like now. I mean, you see a bit wide sometimes. And originally I've never seen anything but catfish and mullets and stuff like that. Now it's everything groupers, jewfish, pompano, you see dead everything.

Interviewer: So, how far-- yeah go ahead.

Albert: Once the stuff started, they have been there like last year so, I'd never seen red tide kill a porkfish ever.

Interviewer: Until...?

Bem: And now the rate is 25 or 30 of them.

Albert: They pulled in nine of them last week. We didn't have to go down to break.

Interviewer: A week and half of them.

Albert: A week and a half of-- nine of them at one time. And that's not red tide. Red tide don't do that.

Bem: No, that's something else because actually I was always led to believe that it just took the oxygen out of the water and they are suffocated. That's what we always were told. But that wouldn't kill a porkfish because hell, they breathe air.

Albert: Yeah.

Bem: Yeah. And turtles, this stuff now has killed turtles. [00:08:00]

Albert: It killed thousands of turtles. You see dead turtles floating everywhere.

Bem: And so, it's got to be something else or it's got terribly a lot stronger. But it is not like probably two-thirds of the people of Collier County live in golden gate and they all own septic tanks. And then they will drain eventually into the canals and then that drains into this bay and it

drains at the gulf and just like that in front of Gordon and Charlotte County and all that like this, that's got to be that the fertilizer and these humans.

Interviewer: So, I want to kind of focus on starting back, going from the '60s and the '50s and moving kind of slowly forward and talking about how this has progressed over time and also mapping it. So, the ones in the '60s that you saw around Gordon Pass, what was the span of those like?

Bem: Just a few days and they are all up there. You want enough nobody been talked about red tide as there wasn't enough of it. But kept getting more and more every year.

Interviewer: And then what about spatially to like how far did it go out?

Bem: I don't ever remember seeing any of shore fish kills. I mean I did fish offshore a lot, but it didn't affect, the crab didn't affect anything really.

Interviewer: Where were you mostly fishing?

Bem: Inside along the beach, you know. And in fact, only a few dead fish I've ever seen south of Cape Romano I think was probably ones that tide left it around there. As for red tide, I don't think it ever went too much farther.

Interviewer: Farther than where?

Bem: Cape Romano.

Interviewer: Yeah. So, in the '60s ...

Bem: But now, I don't know now because I don't get on the water no more. That might be going differently. This affect the crab in all the way it ever....

Albert: And two-and-a-half weeks ago the red tide was really bad from the cape shells [00:10:00] moving down to Shark River. And then on television, they will tell you, ha there's no red tide in State of Florida.

Interviewer: Yeah, I saw that report.

Albert: And dead fish everywhere floating down there everywhere, from the cape shells over to Shark River.

Interviewer: So, in the '60s that you saw, would it be this whole area or whether it would be...?

Bem: Yeah, that was about four as it was and like I don't know about Lee County because I'd never been up there.

Interviewer: Yeah. And would it be like would it be consistently like you have red tide?

Bem: No, it wasn't consistent. We have lot of years we didn't have any.

Interviewer: Yeah. But what about if you saw like some red tide here would you also see some red tide down here at the same time?

Bem: I'll be honest with you. It wasn't bad enough to really remember, all you see a few dead fish and you only think nothing about it. I know you can't help but, so it was probably everywhere.

Interviewer: So, what about moving forward from the '60s. What was the next kind of like larger red tide event that you remember?

Bem: It's the same about, we'd get a little patch. So, it's somewhere almost over a year but, you know, like I said it wasn't bad.

Albert: We had a real bad-- about four-and-a-half years ago, five years ago.

Bem: Yeah but that would be, you know, in the teens.

Interviewer: So, in between that and like...

Bem: Yeah before 2000, we had very little red tide. We would get spells of it, but it's been since 2000, it's got really certainly bad. And my dad, I never heard them talk, they were born here in every place in 1890s and they never talked about red tide in the way it was.

Interviewer: So, when you said little spells of it, did you see fish kills?

Bem: Do what now?

Interviewer: Did you see fish die offs? Did you see any fish die [00:12:00] with the smaller spells?

Bem: No.

Interviewer: No? And then what about how long did they last?

Bem: I'll say no, you mean this.

Interviewer: The red tide events, before 2000.

Bem: Not very long. It probably one day killed them but then they were around for three or four days. So, I mean it wasn't no prolonged deal like it is now.

Interviewer: And did that affect your fishing or anything like that?

Bem: No, not really, it didn't. It wasn't enough of it, but now it affects it big time.

Albert: How do you kill the crabs off?

Bem: Yeah.

Albert: We have crab no more.

Interviewer: Yeah, I know that.

Bem: I don't really know if it's actually the same thing right now, the same pollution because I wasn't near as toxic like it is now.

Interviewer: Yes. So, let's keep...

Bem: Like you don't even see sick fish anymore and they're dead. And I've seen, like I said back in the '60s, I've seen them swimming around trying to get air for a day or so before they die, but you don't see that now.

Interviewer: Yeah, I definitely want to talk about stone crab and everything. I want to just keep slowly moving forward into 2000s and what was it?

Bem: After 2000, I wouldn't know how long you'd been better off talking to Albert because I haven't fish now the whole time.

Interviewer: So, before because I want to ask you specific questions as well, but red tides in the 2000s. What was kind of the first red tide that lasted a long time or that was, do you remember between that?

Bem: I don't know no because I wasn't fishing. So, I don't really know. But I know we got at Naples Bay because I go up down the bay a lot. You could really, it burn the ice two or three times.

Interviewer: Yeah. Do you remember when it got up into the back?

Bem: Yeah, that's probably it got after 2000, you know I remember.

Interviewer: And then [00:14:00]

Bem: And I've seen lot of dead pompanos, sea pens and stuff in Naples Bay along that same time, you never seen that before. And when we had the red tide on the beaches back in the '60s and '70s, I never really ever seen any dead pompanos or snipers or anything. Now, I think it kills everything.

Albert: It kills everything. You see everything floating.

Bem: Yeah. So I mean I don't know if it's still the same poison or whatever it is, that is either a lot stronger or you know, and it's damn sure more widespread.

Interviewer: So, from this area, along the beach, I guess in the 2000s you said you noticed that.

Bem: No, I didn't. I wasn't paying any attention to that because I don't go out there.

Interviewer: Okay. And previously that was recreational fishing?

Bem: Huh?

Interviewer: It was recreational fishing?

Bem: Yeah, that's mainly all I do now.

Interviewer: Yeah.

Bem: I commercial fish up until they band the nets, you know, not before. But after that I wasn't on the much after that. And most of the time when I go now, I go south and you don't see any red tide.

Interviewer: Did it ever impact your fishing?

Bem: No. No because when I quit, I mean it wasn't even--

Interviewer: And you quitted in the net band?

Bem: Yeah, now it would because I'm in-- I was killing too many fish off. And nobody wants to buy them now because they think they are all poison, you know?

Interviewer: Yeah. Why do you think it's been getting worse? Why do you think the red tides, you said it's been kind of...?

Bem: It get worse as more people and more pollution. It is basic thing I mean health. You take in the '50s and '60s [00:16:00] there're probably 3000 people in Naples, now there's 300,000 and that's just in Naples. And then Fort Myers, they're going Nelson, Port Charlotte, Sarasota and all those places, you know. And they're all four times of fertilizer-- and like I said, septic tanks don't help.

Interviewer: Yeah.

Albert: It seems like it's worse, north of us. A lot worse. We got the....

Interviewer: Yeah, that's what we've been hearing as that it kind of it comes as far south and then right at Cape Romano, it kind of--

Bem: Yeah, they were always seem like it was sure that all the pollution that was causing the red tide back in the '60s, 70s was coming from the big fertilizer places in Tampa Bay, you know, because they used to have that falsely piled up 300 feet high on the east side of Tampa Bay that were coming right here, they unloaded-- trains that [indiscernible] [00:17:01] and they made Monsanto, I think it was, made fertilizer. They were in bagged and that was the base for what they use for fertilizer. And when it rained, it washed that stuff right down into the bay and they finally stopped there, years ago but still, you know. And then they used to load it on ships on Boca Grande and they'd spill more of it at loading on the conveyor, put it on them boats and that all go into water.

Interviewer: Yeah. So, in the past when you'd see red tide, you said you noticed like this would be kind of sick and they die off and it would be, and you said just be a smaller fish and still it'd be, they started affecting larger fish.

Bem: Yeah, so it's definitely either different or stronger now because it just killing everything.

Interviewer: Are they any other differences visually or with the way that it smells or it looks or anything like that?

Bem: I don't even remember smelling it [00:18:00] when you see them little patches before, you could see it on the water that has been, they called it red tide. You can see like little red film for a little while, you know, but did go away quickly, you know.

Interviewer: Hi.

Albert: [Indiscernible] [00:18:13]

Bem: He was a big polluter, he had a septic tank to last year, brought that out in Naples Bay, at his house.

Albert: Who?

Bem: You.

Albert: I was not. I had a septic tank it was legal.

Bem: I remember legal.

Albert: Well.

Bem: I mean that you aren't breaking the law, that I mean is just a sort of all the nutrients are coming from.

Interviewer: Do you think there's any fisheries management related measures or anything that could be done to help fix this issue or anything like that?

Bem: I don't know, I think yeah, they got to do away with the fertilizer, but I don't know how they are going to do that. They've got to do something like make different fertilizer or something, you know, people won't use it but if you just look at home depots, lawns and garden centers between here and Tampa, that piles of bags of fertilizer it all goes to the ground and it all washes off.

Interviewer: So, have you noticed any other environmental changes in this area over the whole time you've been here, when you think back to how it used to look and everything?

Bem: Oh, yeah because this is all mangroves around here. And for me, I was born rather out there, and there were nothing over here, nothing down in Port Royal or the other side of the bay, it was all was natural, but I mean that's all went away. [00:20:00] But I don't know if that side of the, you know, I know right here and he slips that will be like a diesel fuels came all over the water, a whole salmon and you shall see those snappers swimming anywhere under--

Interviewer: So, you don't see as many...?

Bem: No. But there's still lot of fish in here, you know, I mean this never was or loaded on them. I mean you got to just catch a fish here any time you wanted, it comes and goes.

Interviewer: Do you think there's other questions we should ask them before we start talking taking about stone crab?

Interviewer 2: I don't know, I mean so it's really interesting, you talked about that your parents never mentioned anything.

Bem: No, they don't. There wasn't red tide to worry about.

Interviewer 2: Yeah, I think that's pretty neat. We have a little chronology so wherever...

Bem: And like I say, I never thought about it because it never bothered us. So, you get one little patch and just go somewhere else to go fishing. But now, it's got bad enough it controls and it's killed all the fish around here on the beach and stuff now and the crabs, even if it didn't kill the crabs, they ate so many of the dead fish, they don't eat the bait, the traps, so they aren't catching them but now it's killing crabs.

Interviewer 2: And now, when would you say you first, if you can remember the year where the groupers you see the big dead of groupers?

Bem: I don't remember the date. It's been last few years.

Interviewer 2: Last, so that's more recent...?

Bem: ...I thought they're killing groupers and stuff here, but like I said I hadn't been on the water that much in the last 20 years, 25 years. That would go every day and spread them. But I know even the king fisherman-- [00:22:00] normally stay around off Naples, they didn't show up

this year, the one big bunch come through and one on south and then it's gone. And I don't know whether-- they did kill them but I mean they probably get smart enough to stay away from it because they know the water's bad, you know.

Interviewer: I think that's most of what I want to talk about with this map. We kind of have a larger chart that shows another Tampa. So, I think those are the areas that you might know some areas offshore that you have some part that you might have red tides stuff like that.

Bem: Well, I know the fishing guides like, is this at the end of Tampa?

Interviewer 2: No.

Bem: Well, that one if you have looked, there's a compass routes on it out about 70 feet and that was where it's about 34, 35 miles west where all these one day guides when the city dock go. That's where the main stay where the groupers-- at all. They'll go all day with six people not catch one.

Albert: They catch a couple over on the [overlapping] [00:23:10]

Bem: They never knew where they are.

Interviewer: And that was just in the past year?

Bem: Yeah, that's the main, if it weren't for grunts now, they won't be catching anything. And it just happened here in the last year or two.

Interviewer: Yeah, what do you think and this is a, super terrible question to ask but if this happened next year, if we got kind of the same long extended red tide and the year after that, what do you think the impact of that would be?

Bem: I don't know. Well, if it affects the crabs like it's doing now then it's be no crabs works because I mean they got to live, and they can't live.

Albert: If I sold out nothing, I don't know.

Bem: And the nephew Paul Coving out there, he work hard too and he don't even make his fuel money back, he'll go all day and maybe have 15 pounds [00:24:00] and two years ago, even last year, 150, 180 pounds and that really dropped off from what it was even a few years before that.

Albert: Can you just talk to my nephew out there-- he pulled a 150 traps and got five close.

Interviewer: Wow. It's a lot of work.

Bem: Yeah, plus if you take a helper you got to pay him.

Albert: Yeah, you got to pay for fuel, you got to pay for bait, fix boat, whatever, license.

Bem: Yes, it's just one really I don't even know after this year if any of them make it one more year, and finish it. It will mean--

Interviewer: So...

Bem: It did seem to bother the king fishermen this year because they were fishing 50 miles from here, you know southwest. But it did affect them because the fish where they used to catch close in wasn't there this year because I don't think they even went around it or stayed north.

Interviewer: So, after 2000 and in that time, I don't know whether any other significant red tide events before than that you can think of like starting years or sometimes besides what Bem explains is taking...

Albert: Because like that-- if we just get them every once in a while, never that strong, you know, a couple of days and it will bother you. Now, it is here for months.

Bem: I'm going to have to, I think.

Interviewer: Okay.

Bem: I think Albert can tell you, you know, more than me for now. I'm failing my helper out 36.

Interviewer: Okay. Thank you Bem.

Bem: Uh huh.

Interviewer: It's nice meeting you. Also I want to have you sign a form for us.

Bem: Okay.

Interviewer: One sec, here we go. This one, [00:26:00]