

Karen DeMaria: All righty. I spelled your last name wrong. It's N-O-L-A-N-D, right? N-O-L-A-N.

Joan Nolan: Correct.

KDM: First name is Joe?

JN: Joan.

KDM: Joan.

JN: Everybody calls me Joe.

KDM: Joan. What is your mailing address?

JN: Route 25661. Summerland.

KDM: We are out too late.

JN: Yes.

KDM: What is your occupation?

JN: Well, I'm just a housewife.

KDM: You have been living in the cave since 1971, you said.

JN: [affirmative]

KDM: Okay. What is your water experience?

JN: I've dived the whole time.

KDM: Diver?

JN: Firstly, a lot of snorkelling and scuba diving.

KDM: How long have you been snorkelling and scuba diving?

JN: Of course, we did a lot of diving before that. Nobody used to worry about that before.

KDM: I know I do for five years before being certified, and the only reason I got certified is a close friend of mine was mortified that I was not certified here on the dive shop.

JN: [affirmative]

KDM: So, where is the location of most of your water experiments?

JN: Right around here.

KDM: Sugarloaf?

JN: Sugarloaf out Pelican Shoal on up to Blue Key. Then the backcountry from the contents on down.

KDM: You graduated high school? You are going to college right now?

JN: [affirmative]

KDM: How long have you been so far? Two years. Three years?

JN: A couple of years. Yes, but I'll probably be in my technically my second year.

KDM: Homemaker.

JN: [laughs] Well, I've done everything. I've had my own businesses down here. My husband did charter for a while, and I was the first maid. I help my husband. He's a residential contractor right now.

KDM: Well, I am sort of a gofer, really. Now, that is when I am not doing this. What I used to do, that is what I normally do. My husband is a commercial fisherman. He does research. So, you end up doing whatever you have to do to keep life happy. Have you ever been a volunteer involved with the water?

JN: Yes, I helped recently put in some mooring buoys, used their hydraulic drill and stuff. I held an [inaudible] with her Stargazer project. My husband and I did all the underwater videoing. Not all of it, but a lot of it, and the underwater. Some of the underwater photography that's with her. In her video that she did.

KDM: Do you know Billie Jean?

JN: Yes.

KDM: Billy is my friend at Moor Mortified.

JN: [laughs]

KDM: He is a wild and crazy guy. He is something, I must say that. Okay. You understand what I am trying what my research projects all about?

JN: Well, you could explain it to me a little more.

KDM: Basically, I've been hired to go up and down the Keys and talk to people who have spent a lot of time on the water and document what changes have occurred to the water that they have observed. Also, at the same time, I'm talking to real old timers and trying to get stories as to how things used to be or how things used to be done, and then by putting everything together, I hope to come up with some sort of a paper that says, well, this is the way keys used to be. This is the way it is now. These are the changes that occurred, what time frames. Hopefully, if you've got a lot of items that fall nice and neat into one little column, so to speak, then instead of scientists wasting research money studying that one thing, it's like, "Look, guys. This is pretty much a given." Solve the problem instead of deciding whether there is a problem. So, I think ultimately the goal is to help direct research monies into the right areas.

JN: Well, we all feel George next door, he's an old friend down here. We've been neighbors for [inaudible]. No, that's George [inaudible]. A lot of locals really, really feel that we spend a lot of money on these experts coming down here. I mean, it started with you, and I don't remember what it was. I read the whole paper when it first came out. They did a study on the garbage sites here in the Keys. I forget what it was called. Gosh, I even read it. Anyway, they spent \$500,000 on it, and a kid from kindergarten could have given, you know, ran the criteria through a computer like they did and said, yes, there's only one road coming into Sugarloaf Shores and blah, blah, blah, you know, and it didn't stop at \$500,000. They did two more studies that I know of that went over a million. So, we don't need to be told that we don't have any place to pile our garbage. We already know that. This is what you're going to try to do, I hope, because this is just the silliest thing I've ever heard of.

KDM: A lot of this stemmed from Don Axelrod used to be the director of marine conservation for the Nature Conservancy. Don used to work in Australia for 15 years at the Great Barrier Reef program, and he started going to these meetings, fisheries meetings and sanctuary meetings and heard the fishermen, the commercial fishermen saying, we try to tell you that 10 or 15 years ago, no one would listen. At the same time, he heard these scientists get up and do talks. In the back of the room, you hear these comments saying, "That's not right." You know, or tell us something we don't really know, we don't know. So, he saw this as something that, you know, someone really needs to go around and find out what the people of the Keys are saying and what they've observed, and then go from there. I mean, I can't guarantee what's going to happen with the paper after it's finished. I hope that by mass mailings and calling up people and scientists and stuff, that the bureaucrats will read it and do something positive.

JN: Well, I feel if the people will lead, the government will follow. We have to lead. We have to take the bull by the horns and we have to lead. I just started to get actively involved here in the last few months, and I have found that it's tough.

KDM: Feel like you're walking into walls?

JN: Yes. It's like they just don't want to hear it and we don't want to listen to that. It all boils down to the buck, how they can make it the easiest. Let's not change anything because we don't want to change the status quo. Once a bureau has been originated, let's just take the Tourist Development Council, for instance. They're up to a \$10 million budget right now. I'll tell you what, the Keys are no longer the best kept secret in the world. Everybody on earth knows about

it, and we don't need to let anybody else know about it. I am all for just terminating the Tourist Development Council. I just think it's done its job. It's over. Forget it.

KDM: I think there are a lot of people feel the same way.

JN: The \$10 million budget that will just go up in smoke. All of a sudden that money will be gone. If in fact they did terminate the TDC, which they won't. But, you know, it doesn't make any sense to me to build a prison down there on Stock Island that has now escalated to a cost of over 60 million, which started at 38 million, and the kids are renting rooms on Big Pine to have school in. We had this school problem back in 1974, when I had five of my kids in the elementary school system. That's when they brought in those little trailer offices and stuff, and the kids used to go to school in those. I mean, this is a long term problem.

KDM: Well, that's a problem. It's in the entire state of Florida. We spend more money on our prisoners than we do our children. I mean, it's, you know, I'm not going to spend money when I start having kids. I don't plan on sending my kids to school for a while. I'm going to home-teach them until as long as I can. You see more of that down here now and very successful. But it's really scary. It really is. You spend more money on prisoners than your own children in the future. What kind of three areas that I'm focusing on, which is almost everything fisheries, water quality, and benthic communities, benthic communities being sponges, corals, seagrasses, etc. Which one of the three do you feel that you have the most observances?

JN: Well, I had my own stone crab license from 1971. I didn't have a lot of tryouts and I pulled them myself, basically. I usually had about 18-to-30 traps. Back in 1971 until I can't tell you when the license used to be free. You used to just have to apply and you just got a license. I used to have my traps out by what was used to be called loggerhead, which is now a monkey on the island. Right. I used to get stone crabs. [laughs] That would knock your socks off. This year the pool that I had, my girlfriend and I now have trap license together, and she and I go out and pool what I even have to keep a record. I've kept a record of the stone crab pool for the last few years on a calendar. Usually we pull four and five-hundred pounds of crabs. This year we were lucky. There were no tall grasses there. Not here. Not there.

KDM: If they were just a few last year, what did you get last year?

JN: Well, I got a record of it, but I'm sure it was close to five-hundred pounds.

KDM: So, it was definitely this year was the year that just...

JN: We were probably down. I would just take a wild guess and say 70 percent.

KDM: And that is the year it is going to end next month?

JN: Yes, I already pulled the traps out. It's no use even pulling them anymore. They're stacked right back there.

KDM: Yes. I saw them when I came up.

JN: And hers are at her house. We had 22 traps out this year. But that's just in Sugarloaf Bay. I don't know what the other areas are doing. But usually in Sugarloaf Bay you have a real consistent crab catch. We're pretty selective about females. We always leave one claw on a female and, you know, da da da da da. We got an octopus living in there. We let him have his eggs, and we don't even bait the trap unless we just feed the octopus. You know, one of those deals. But we're not, you know, hard core commercial fishermen. We've never even sold anything. We just give them away or eat them ourselves. But the catch was definitely off this year.

KDM: Do you have any feelings as to why?

JN: Well, I...

KDM: Is there anything that you observed?

JN: Well, there were more males this year than there were females. But I didn't really write anything down or anything. It was just an observation. It seemed like there weren't a whole lot of females. Females were kind of small. I did notice a couple of just observations. A couple of the claws were misformed, deformed. That could have been anything from being a baby and getting it nipped off. Or I did notice that some of the claws had these round black spots on them. That seemed to be almost like a pimple or something. It was like just a round piece, like a rusty spot or something. It went back into their shell. It didn't affect the meat or anything, but they did have some of those spots on them. I didn't know what that was like. Pimples or a zit or...

KDM: Are these the ones that are also kept by loggerhead or...

JN: No, that was years ago. These are...

KDM: Now you pretty much do Sugarloaf [inaudible]?

JN: Yes. My husband and I used to have traps out in Turkey Basin and out in the front and in Hawk's county and stuff, but it was just too big of a hassle to go check them. It's just easier to run right out here.

KDM: Yes. That is true. That is true. What have you noticed as far as changes in the 20 years that you have been here? What is the first thing that comes to your mind?

JN: Well, visibility for scuba diving is the first thing that comes to my mind. You get all ready to go scuba diving, you spend thousands of dollars on a boat and all this stuff and your tanks all filled up. You finally get one good day, and you go out there and you can't see. Then when you get down to the bottom, all you have to do is wave your glove over stuff. These clouds of sediment just...

KDM: You noticed a definite increase in sediment on the corals and stuff?

JN: Oh, yes. I even have a friend of mine who's a marine biologist. I made him get his microscope out of his attic and I took some baggies down. We like to dive right between 60 and 90 feet.

KDM: The bar area?

JN: Yes. I brought some samples back for him, and he says, well, Joe, what you usually bring me is algae. There's lots of algae. It's everywhere. You know, I try to bring samples. Several different things. But he said, you know, the last one you brought me, you said was really troubling. He said, now the algae is even dead. [laughs] So, I said, well, I don't know what that means. You know that the algae is dead.

KDM: So, do you ever say, like, give you names of the stuff that you were bringing in to show him?

JN: Oh, yes. He knew the names, though, and stuff.

KDM: But you do not remember them?

JN: No.

KDM: When did you first started noticing that? The sediment. [inaudible] really?

JN: I'll tell you, we went away for four and a half years. I hate to say this, but I took my kids out of Key West High School, and we quit our jobs and everything. We took them up to Virginia, put them in a nice high school, and we started another business up there. Got them through high school and then came back. We came back in 1985 and when we first went diving again, it was so noticeable. It was pathetic. What had happened in five years was during those years when we were gone, they completed the bridges and tourists really started coming down here. That's when the changes really started to happen. We left in 1980. We came back in [19]85. That was it. You know, it was sort of like our lives were really changed too, because we to everything, you know, it really puts you back financially to try to take your kids away.

KDM: [inaudible]

JN: Well, I'm real glad about it. I had already lost one daughter to drugs. She had run away. She was a straight-A student down there and just got in with the wrong gang. You know, the whole works. She's great now and then through college and all. But that was a real tough time for us. I vowed it wasn't going to happen to her.

KDM: Yes. We had a surrogate son who went through some real bad problems, you know, thing to solve the problem was to get him out of there.

JN: Yes.

KDM: Not uncommon, but your ideas are – what else when you are diving? What else have you

noticed? What about, like, the corals and the algae?

JN: Well, the thing of it is that when people are down here diving, especially people who've never dove here before, like, let's just say Blue Key. They go out there. Yes, Blue Key is beautiful, but everything they're looking at is dead. It's still beautiful. What you are looking at is beautiful, but it's the skeleton of the coral that was there. As far as underwater videoing, there's still a lot of really pretty fish. I'm amazed that there's still many fish hanging around.

KDM: Tropicals?

JN: A lot of tropicals. Now, out on the Gulf side, I've been trying to film this one small fish, and he's been there for years. They're beautiful little black and white fish. They're not the jackknife fish, and they're not, you know, it's some other kind of little fish. The last time we went out searching for him to film him, he wasn't even there anymore. So, I'm afraid. Maybe we've lost one little species that maybe nobody even knew what it was.

KDM: You have not spotted them?

JN: No, it was a real tiny little fish. I have to tell you the truth, I wanted to film it and figure out what it was, to tell you the truth, but I don't know. I couldn't find it the last time we were out there and we looked, there was four of us really looking. So, I couldn't film that one. But as far as the choral goes, let's just start on the Gulf side. Let's start in front of Sawyer Key if you want to pin it down. There was one spot --

KDM: In front of Sawyer Key? This side or that side?

JN: On the Gulf side where it starts to get deeper.

KDM: Okay.

JN: We used to dive out there. That was gorgeous green corals and all kinds of hard corals in these pockets of corals, you know, like just huge round ones sitting right on the sand almost. A couple of sports seasons in a row, they put ropes around those, gave them a yank and they tipped a lot of them over trying to get the lobsters. Yes, get the lobsters out. But that wasn't the only thing that happened. A really, really noticeable thing that happened just in the past, I would say, maybe six years, because we went out in front of Sawyer to try to find those coral heads again, and we found them. Of course, we couldn't see very well because of all the sediment. Even in the summertime, that sediment is, you know, you think, well, we'll wait till summer and we'll really do some good diving and then just happened. But we went out there and I'm driving on these coral heads and I'm noticing what is all over these coral heads? It's like -- it was beautiful. Anybody who didn't know would say, wow, what a beautiful coral head. I started probing around and it was totally coated from top clear down to a third of the sides with sea anemones that had these, I don't know what kind they are. Black tentacles sticking out like that. Like it almost looks like thorns. But of course, they're soft. It was just colonies of them. They were all over them, and of course the coral underneath was gone. I saw this on, probably, colonies of at least starting at 10 to 2000 on most of those coral heads. Then we really started looking and they

were all over, you know, everything you looked at them.

KDM: Looking back to book. If there is anything in there that might. These are really nice books. Might not be in there. I am not sure. Recognize all these?

JN: I'll tell you what it was. It's sort of like a sea anemone that I've never seen. It was sort of like, you know, these pumpers that are in the canal, but those are, you know, they're jellyfish. They're not.

KDM: Yes. That is upside-down jellyfish cassiopea.

JN: Yes, well, they don't attach to anything. They're not sea anemones, but that's what these look like. But they were attached. They were sea anemones. They were definitely. Because I took my finger. I tried to dislodge them, and then they were sucked right on that.

KDM: They had like the – did you see their mouths at all or just did you pretty much just see the fingers?

JN: I just saw their thing sticking up and man, they were big. They were about this big around, and they, man, they had a lot of them. You know what it looked like? It looked like that crown of thorns that you see on TV, but it was a sea anemone.

KDM: The black tips or black fingers?

JN: Yes. Black and grey. Once you got to looking at them, they weren't all that pretty.

KDM: It was just probably, I guess...

JN: It's not in here.

KDM: Okay.

JN: Not here.

KDM: Okay.

JN: The closest thing would be this. But this isn't it. The tips are pointed in in their black and gray. These would be more like these. Only varied in a bit.

KDM: And were they all over that area?

JN: Oh man, they were on every coral head. It seemed like they were only on the coral heads in places where the coral had died or whatever.

KDM: And the crevices and stuff?

JN: Yes, they weren't on the grass or anything that I could see. They were clustered like this. But then when you got your hand going like this, you could see that it was all separate bodies. Even this is kind of similar. See how it's growing down in the limestone? That's what these were doing too. These little tentacle things looked a lot like that. Little feathers, but only in the black and gray. Even this looks a lot like it. That is a lot like it.

KDM: Defeated an enemy's. Yes. See those in the sides of canals and rock.

JN: Yes.

KDM: These are beautiful books. Really are [inaudible]. The third one is the reef fish. It has all the different reef fish.

JN: Well, see, it's funny because I just got back from the West Indies and I did a little diving there, and I hate to inform people, they're all dead there, too. We went on this so-called, this cruise. This boat where you do the limbo and all this stuff. They take you to a beach and all this. He's got these – this glass bottom, right? He says, "Okay. Well, now we're going to look at the coral reef." I saw where he was taking us. We were inland. But and we were in Saint Thomas and he pulls over this stuff. Of course, my cousins have all been down here diving with me and everything. They were with me and they said, "Hey, Joe. What do you think?" I said, "I don't see any coral." You know the only thing I saw? A couple of cathedral coral. [inaudible] Just a few small ones and they were alive. Because you could see the cilia on the side, and very, very few fish. Only a few sergeant majors. I mean, there were no tropicals.

KDM: None were in the West Indies?

JN: Saint Thomas.

KDM: Yes.

JN: I was on a sailboat for over a month, too, traveling. I was lucky, really lucky, to go and do a lot of diving. A lot of snorkeling in the Bahamas in 1969 or 70. It was very, very beautiful there. I'll never forget that trip. The water was just like gin. It was just pristine. You know what would be neat? If I could get in touch with you after this summer, my husband and I had just bought a small marine trader trawler. An old one. We're going to go to the Bahamas, and we're going to video and dive. We're going to try to document any living coral that we see, just to have film of it. We're going to do that this summer. So – and we're going to go to some of the same places that I'd been in [19]69 and [19]70. So, I'll be able to really make a comparison, because I remember – I even found Live Tiger topshells, which are they've been extinct here for years and years.

KDM: Yes. My husband just been spending a lot of time in the South Pacific. I was lucky, yes. I spent a month in truck in December.

JN: Oh, yes?

KDM: And he spent two months in New Guinea and two months in truck. He is leaving Sunday to go and spend a month in Indonesia diving.

JN: Oh, how does he do it?

KDM: He has been hired by the Coral Reef Research Foundation. So, some friends of his that have a five-year research grant to collect invertebrates for the Cancer Society. They have hired him as a diver to come out and help do the collecting of this stuff. Because he is a really good collector and a diver, one of those people that is more natural in the water than on land. We have, I mean, like, you always heard people saying, "Oh, the coral reefs are dying all over the world," this, that, and the other. We're like, "Wrong, wrong." They are only dying where there is people – they are only dying where there is industry and stuff of that sort. You go out to areas where you don't have people or industry healthiest can be.

JN: That's what Billy Jeans was saying. He said, we could take you to some places that you wouldn't believe right here in the Keys where there aren't any people going, but it's a good kept secret, and that's why it should be a secret.

KDM: We have videotape from New Guinea where you just look at this and you have perfectly clear water. You feel like you are suspended in air. You cannot even – you forget that there is water there and just fish everywhere. You look like I am one of the drop offs. He let the camera sit there, and you look and there is like, there is no room for anything else to grow. It is coral on top of coral, on top of coral, live coral. It is just, I mean, you look at it and you are just stunned, you know, because you are just like...

JN: You know, my husband and I were just talking about Indonesia and someone that I knew. I can't remember who it was just a couple days ago said that they were in Indonesia diving, and it was the best scuba diving they've ever done in their life. So, I told Jeff, we've dove in the reef and a few other places and stuff. The reef is beautiful. There's a lot of live coral there, but there aren't any fish.

KDM: So, yes, my husband has been all through the Caribbean and he is like – you know, he sees what is going on here. I mean, he is a commercial diver and he has not been able to make a living at all in the last two months because the water has been so dirty. When you cannot see 5 feet in front of you, you cannot work, you cannot make a living. He has been all through the Caribbean and stuff. I am like, "Well, Don, what are you going to do? Where are you going to go?" We are like, "Well, maybe parts of the Bahamas that are still okay, that we might be able to –" But he is looking more towards moving up and moving to the South Pacific just because it is over with here.

JN: Yes, it is. It is. Yes, I hate to say it, but it's like, it's crazy. We have got a dinghy with an outboard. We've got that with an outboard. We've got our trailer. We don't go out.

KDM: Why?

JN: Well, it's beautiful and everything, but the things we really want to do, we don't want to just

take a boat ride. You know, we want to dive. We want to shoot a nice big hogfish because we're very selective. We don't shoot everything we see. If I see a really nice grouper, I might shoot one a year. If I see a really nice hogfish, I might shoot two a year. Then my husband won't even shoot two if they're together. If there's a small one, a large one, a breeding pair, he won't shoot the big one. Yes. You know, it's not like it used to be.

KDM: What about. Have you noticed a difference with the hogs, the sizes or fish in general? When you said pretty much tropical seem to be okay. What about the rest of these fish?

JN: Well, even the tropicals, I've noticed when I'm videoing and just sitting on the bottom.

KDM: Bottom.

JN: Yes.

KDM: It really – it really seems to see.

JN: I don't know anything about it. Of course, you could actually see a whole lot more.

KDM: So, I think in this area you would notice.

JN: Oh, yes. There used to be along the beach here all along. I think I've only seen two just in this so far this year. I want the sponges. They're just why, you know, you still seem to be quite a few more ales and little Wolf fields. I've seen a few little wolf fields lately. You know what's there too, is I've noticed a lot of dead sponges that have been washed up on the beach. We went down to Boca Grande with our marine trader and we noticed just piles of dead sponges. You know, I don't know if that means that their mortality rate is higher and they're all dying and washing on the beach, or if that's a normal thing.

KDM: What kind of sponges?

JN: It was all time. Really. It was all those long, skinny ones. All these here that I could.

KDM: Is that the beach that is on the channel side of Boca Grande?

JN: Yes. The one you can walk on and nature.

KDM: Yes, that is a big channel there too. I could pretty good current.

JN: Yes.

KDM: Hope there is a jewfish living in a coral head in that channel. The only time you can go and visit him is when flat tops and lack current.

JN: Yes. How big is he?

KDM: Five-hundred pounds.

JN: Wow.

KDM: It is one of the spot that my husband was doing some gray snapper research work. That was one of the locations that we would shoot ten and then collect the gonads and stuff. They had four different tours on the reef, and two were in shore locations. It was just so much fun because such big coral head. That is what is the spot in this Jewfish just had the area carved out inside. It is probably not the same Jewfish, but there is always seems to be a small jewfish in there. After we do our ten and we start shooting some other stupid things and feed them, or if you are trying to shoot these, you know it is hard to shoot those damn mangroves anyway.

[laughter]

KDM: Here you are. He is trying to steal your fish from you. It is like, wait a second, I will shoot one for you yourself, okay?

JN: Yes, right.

KDM: Have you noticed anything like here? Do you have anything else? I guess with it being...

JN: Well, actually, we have a lot of little corals that try to grow here, and there are a few sponges growing in here. But whenever I see those sponge boats in this channel, if they start to come on the edge, I'll just run out here and I'll say, no, molesta. Stay away from my stuff here. This is a biological experiment. Stay away.

KDM: No. What do you mean by your experiment? You explained this, I think, on the phone to me a little bit.

JN: Well, let me show you these. This is not a wooly sponge. This is a – I don't even know what kind to call that one. It's the one that looks like a woolly, but it isn't. These are just small pieces that were attached. These discs are the discs that the sponge farmers used out here years and years ago. I have some...

KDM: So, you just took a sponge and cut it up into pieces and attached them to these discs, and then put them in the water right here in the shallow water.

JN: I've got them underneath my dock because they're at risk out here because, of people and the dog and unbeknownst to people, would step on and say, you know, so they're not really in a very good test spot because they get way too much shade, so they're not growing as fast as they normally would. Oh, sea urchins. I don't see any more sea urchins.

KDM: The long spines?

JN: Very, very few.

KDM: Did you notice one that sort of dropped off.

JN: When we came back from Virginia in 1985, I noticed there just weren't any.

KDM: So, it was like they were there in 1980 and then they weren't there in 1985.

JN: Yes. It's like overnight. They were like no sea urchins. Where are they? You know, everybody says there's no more sea urchins that it can't be. You start looking and you don't see them.

KDM: What about in the flats here, there is shortspine urchins or in the grass flats in the back country? Have you noticed anything with them?

JN: The only thing that I noticed that are still there are those sea biscuits that have those little short spines on them.

KDM: They seem to be okay?

JN: Well, there's some. No, nothing seems to be okay. We used to walk on the flats and you'd find, oh, you'd find 25, 30 whelks buried in the sand. There aren't any more. I think that all taking of any kind of a live seashell should be banned.

KDM: I do not think. I have a house full of seashells, and I do not take anything alive.

JN: An egg casings. You used to see a whole lot more egg casings than you do now.

KDM: There really are not – which ones? The spiral ones for the whelks ones?

JN: The whelk egg casings.

KDM: Have you noticed? So, have you noticed a decline in whelks, too?

JN: Oh, yes. In a really dramatic decline in the whelks. The small whelks. Years ago there used to be a lot. A lot of those.

KDM: That's in the grass flats?

JN: Well, you know, milk trucks like to hang around underneath those ledges where it's been washed out in front of, like, the barracudas and stuff. If you do find one, it's pretty rare to find a live one. There's just not a whole lot.

KDM: Actually, seeing with hermit crabs.

JN: Yes, and I had one. Actually, I found this one out there last summer. It was a beautiful, beautiful one. Of course it was empty. That's one of the biggest one I've seen in a long time.

KDM: Nice condition too.

JN: I think it was just a fresh kill laying by a hole. There might have been an octopus or something that. Sucked him out.

KDM: Real good condition.

JN: Yes. Pretty warm. But, you know, we did our share of writing in years ago. I can remember going out to Lukey and bringing 6 or 8 cocks home, eating half of them and wasting half of them just for the show to send home to my mother. You know, I really feel bad about those days when we were unconscious. Of course, there's nothing I can do about it now.

KDM: A lot of it is just, I mean, back then though, everything was so plentiful. Who thought that there would be a problem? You know, but now there's just so many other factors involved, including people.

JN: Well, I think it is people.

KDM: Well, it is like what somebody made a comment to me about, well, first of all, have you noticed that the population of cock have increased or decreased?

JN: Well, I was kind of disappointed on Lukey when we went out last fall that there weren't a whole lot of rollers, the juveniles. But then we went out to Pelican Quay and it was loaded. I couldn't believe the cocks that were out there. It was really I know. I got so excited I couldn't – I just put my stuff on and I jumped in and I'm just looking. I told Jeff, I said, in every square yard there's at least 3 or 4 rollers. It was great because there were some adult ones too. They were all over the place, but that's the only spot that I've seen a whole bunch. Of course, that's just one little spot.

KDM: I have had people say that that they have noticed an increase in adult cocks. It is like their comment is, you know, we do not think we are ever going to be able to take a cock again. I said because a lot of it is in order to be fair, you allow every person to take one cock, you just wiped out the entire population because there's just so many people. That is right. There is no real, you know, unless you do some sort of a lottery system or something like that. But I mean, how can you fairly, you know, people are taking them now anyway. You know, there is a small take.

JN: A friend of mine caught some people eating cock. They were sitting on that, Pelican shoal where you're not even supposed to go on the beach. You know, it's a little rookery thing. Now, you're not supposed to be on there. They're sitting up there doing stuff with cocks, and the guy told them, hey, man, you guys shouldn't be doing that. But, you know, it's hard to say things to people. People will shoot you over absolutely nothing these days. Your life means nothing to someone. If you get involved with them and you push the wrong button.

KDM: Then on the other one, what is your other choice? You know, call the marine patrol. I

mean, there is not enough staff to deal with all the problems in the water. I mean, it is like we will find things, when we call the marine patrol up. It is like, if you want to sit there and wait for an hour or two hours for them to finally show up, fine. But you do not have the time. So, people are getting away with murder.

JN: A lot of people, it's the same old thing. We'll be out in our boat and we'll be diving. Jeff pointed it to me the other day. He says, look, there are people standing on that coral. I said, wait a minute, they know better than that. They were out there with a group looking. It's like the Rangers trying to scurry around and yell at people and stuff. It's like, these people know better. They're not supposed to stand on it. Yes, I was diving in Grand Cayman and I'm driving along and I look to my right and here's feet and this coral head and this guy standing on top of it. I looked up and I said, man, you're not supposed to be standing on that coral. But it was already dead. I mean, I know because everybody stands on that particular piece --

KDM: Finished going down that way?

JN: Yes, yes, yes.

KDM: If he knows you mentioned octopus before with your traps. What else have you noticed in the traps that is different? Have you noticed some other things that are in the traps that you didn't have as much before, or things that used to be there? They are not there.

JN: Lots of slime. Lots of this crap that grows on the traps that didn't used to grow on the traps.

KDM: Like what?

JN: I don't know what it is. It's slime. It's the same thing that's growing on everything else.

KDM: Is it like a green or brown?

JN: Well, there's lots of green, beautiful, bright green algae in streams, like hair that grow on it in places. But then there's this other sediment, a sort of slime that gets on. I have to brush the trap every time we go out and pull them. I have this big stiff brush and I brush the traps. Of course, I know the stuff grows on things that are in the ocean, but this isn't the same.

KDM: Is this something you just noticed in the last few years?

JN: Yes. Like in the last five. Last four. Tulip shells. You don't see many of those anymore. Well, mango tongues, you got to really look for those. That stuff grows on the track. Yes, yes.

KDM: Cute amorphous.

JN: Yes, but that's not the stuff that bothers me as much as it is that, I don't know, it's just slime. It's just goo. I don't know if it's just ocean goo or what, but it's not anything that -- it's like a build up of sediment. Then there's stuff growing in the sediment, almost.

KDM: It is sort of like a mucus.

JN: Yes. It gets thick and it's – yes, absolutely.

KDM: And you have wooden traps still or do you have the plastic?

JN: We have half plastic, half wood.

KDM: Is it the same on both or is it different.

JN: I suppose the same on both. Once it gets situated.

KDM: Right, right. Is there, like, maybe any particular area where you have your traps that seems to get it more than others? More coverage on them.

JN: I didn't really notice where that green stuff was growing. See that island right there? They're concentrated behind that island in a big horseshoe shape right back there. So, it's all in real shallow water, right? So...

KDM: It would not matter.

JN: Yes, pretty much all the same bottom cowries. You never see a cowry anymore. Helmet cocked to get that horse conch. I maybe seen one diving on an Labriola. I found a nice big horse cock. Brought it up, showed it to everybody, put it back. I think it was key or pelican shell. Found a nice big horse cock and I took it away and hid it.

KDM: I thought you have to do. That is right.

JN: Yes, we hid that. Jeff hid something. What did he hide? I think we did find a small helmet shell, and we were in front of Sugarloaf. There's an osprey nest right at the end of the street on top of the telephone pole.

KDM: Oh, yes. That is the one that is over there by that two lots, the old Navy property.

JN: You know, there's two bald eagles. There's one between here and Big Pine and there's one between here and Boca Chica. My husband and I have both seen it.

KDM: Yes, I have seen that one. When I go across the bridge, I'm like, bald eagle and another one. The other one. You are talking both of them?

JN: It was like that can't be.

KDM: No, no.

JN: It can't be. But look, it is. I think...

KDM: The one over on Big Pine, I was driving on us one and this, it was real low. It was like just over the rooftops and I am like, no, I did not see that. We saw a juvenile bald eagle up at was that little duck key right before Seven Mile Bridge sitting on a telephone pole. I was like, it had to be a juvenile because of the way its modeling was. It was definitely an eagle. The storm, you know, kind of really concerned. The storm really wiped out a lot of babies. A lot of the nest. Even with the ospreys, too. We lost two of two nests on Summerland. We have two left. We had, like, four or five nests. I know we lost at least two nests.

JN: Good thing we can rebuild those.

KDM: You can put platforms and stuff. You just have to make the conditions right for the Ospreys. There are ways of doing a platform so that the nest will not blow off. But it is up to the osprey.

JN: Yes. These little oyster shells that used to grow on the canal walls. I don't see a whole lot of those anymore.

KDM: The flat black?

JN: Yes.

KDM: Like queen oysters?

JN: Yes. I see a whole lot of those. Boy, I'll tell you what. When you make a list of things, you realize the things you don't see anymore. Hawks wing call there. Oh, right. You know where it used to be Sheriffs Island now that.

KDM: Little palm.

JN: Little palm on that sand flat out in front of little palm. It used to be loaded with those little. You getting hot?

KDM: Yes.

JN: It's the little fighting conch. It has the little hook on it. It's about this big. Really pretty. It used to be loaded with those. It used to be loaded. I mean, there used to be everywhere there, though.

KDM: Obviously, they are not there now.

JN: No. In front of Sheriff's Island, all those coral heads used to be gorgeous. There used to be a couple of bull sharks hung out there too, and of course, that's history.

KDM: When did you notice that kind of being history that just...

JN: Well, the kids and I used to dive there back in the early seventies. Then when we came

back from Virginia in 1985, we took a ride out there and just dove it. I think we were on our way to the boat races and we took a dive there. I couldn't believe it. It was like, you know, before and after picture. Yes. If you don't dive it every day, then you notice. You notice more anyway.

KDM: Your guard dog is observing, right?

JN: We could be invaded by, you know. I doesn't matter.

KDM: Yes, I would prefer to have. I wish my neighbors had more dogs that did not bark.

JN: We have a real dog barking. They bark at the same thing. The UPS guy.

KDM: I hate when they bark at night.

JN: Yes. Well, I still have some of these clocks. Most of them lived. I mean, sponges and I use the same ruler. Do I have my newest photos? Well, I can show you the real thing. This is the information that we got from the public library on the Key West sponge fishing industry. This was some of the research that we did. Here's some of the old sponges that they used to get.

KDM: Right, how big they are.

JN: We don't need an expert to tell us that we don't have these sized sponge anymore. We also – actually, if you'd like, that's an extra picture if you want that extra picture.

KDM: I would like to see the title on that too.

JN: Okay. This was at the library down at Key West Library. Here's some other information on the old timers who used to live here and what they were like and what they did, and the kind of the history of this bay as a sponging industry. This was back in 1966 that this I guess, this woman was writing an article.

KDM: [inaudible] on one of the books on the keys...

JN: That was her. That was her. Here are some things about Sugarloaf.

KDM: Could I borrow these and make photocopies and I drop them off on my way home.

JN: Sure, sure.

KDM: Because I am going into my office to make some other copies of stuff.

JN: Okay. But what – this was about the commercial sponges, right? Yes. This is an extra copy. I don't know. Make sure it's all here. Commercial centers. Here's one you can have.

KDM: Do you want this one or this back left? Back two pages seem clearer on this one.

JN: Oh, that's okay.

KDM: I can read these. Great. Thank you.

JN: You're welcome. So, the only one that you don't have is this one.

KDM: Do you want it? Do you want to copy this one?

JN: Oh, wait. This is – no, there's a different. Yes, you probably want all of it.

KDM: Yes, that is the other thing I am doing is in between doing these articles. I am reading a lot of these old books and stuff. Then in June, I sit down and finish with the interviewing. I am going to sit down and spend some time with the historians to try to get some follow up information.

JN: These were some photographs that were taken back in the early seventies. Unfortunately, these pictures have been through a lot, but you can see the water clarity here.

KDM: Yes. It is clear.

JN: And this is right in front of Sawyer Key in the golf.

KDM: Yes. Okay.

JN: And this and this is another one. You can see the water clarity. Then this is how this island used to look. Here's this house where we are right now. Here's that cut right out there. You can see the color of the water was different. The clarity of the bay was different. There were other things growing out here that I noticed too. There used to be beds of seagrass that I forgot were even there.

KDM: Yes, that is what I was looking at. I was looking at there and I just stood up to see.

JN: Yes, it was not there. It's not there.

KDM: What have you noticed? Like on the reef and in Hawk's Channel with the clarity of the water?

JN: Well, this channel used to be a different color also.

KDM: What color?

JN: Well, it wasn't so green. It just seems like it's an algae color now.

KDM: Were you always able to see the bottom and Hawks channel?

JN: Actually, yes. I can remember riding along and I can remember looking straight down at the bottom. Of course, of calmed. My daughter spotting a shell and diving down about 22 feet and getting it coming up with it in her hand. So, yes, you could see the bottom of Hawk Channel.

KDM: When was the last time that happened?

JN: Well, actually, I could glimpse the bottom during that real, real calm time. We had that really nice fall weather last year and we went across and I could see the bottom a little bit during a dead calm day. Yes, it was the same though.

KDM: What is your – you talked about the clarity of the water and the color of the water. What is like the most first thing that jumps out at you about the water?

JN: Sediment. When you're diving, especially when we're diving, like on a ledge out there, it's like there's pieces of mucus in the water, these long strings of things. I don't know what it is, but it's there and it's the same stuff that gets on the traps and everything else. I don't know what it is.

KDM: So, besides it just being a lot more silt in the water and being the clarity, it is actually – there are particles in the water.

JN: Oh, yes. You can see them. There are things in the water. Stuff...

KDM: When did you notice this? What year?

JN: When we came back from Virginia.

KDM: Is it something that has been gradually getting worse, or is it something that is suddenly all of a sudden got worse really bad one year or got really good?

JN: I don't know, I think it's been a gradual thing. Another thing too, are the sea fans. I noticed that right away because I'm always looking on the sea fans for the flamingo tongues. I'm checking them out and seeing how many are there and seeing if they look good and whatever. I noticed the sea fans, you can take course, you're wearing gloves. A lot of the sea fans are black. They're not purple anymore. They're black or brown. You can take your gloves and go like this on the sides of the sea fan and clouds of this stuff will come off and you can see the nice healthy sea fan underneath where you've brushed it off. But I'm wondering, what is that stuff all over the sea fans? I mean, it's all over them from top to bottom and they're coated. I don't know what it is.

KDM: So, that is like – it is like a covering of someone dipped the sea fans in something.

JN: Yes. It's like dust or and it's clinging pretty good. You can't go like this and get it off. You have to go like that with your gloves and it'll come off. You can see the sea fan is still purple underneath.

KDM: The corals itself, have you noticed a decline in coral coverage on the reefs that you go to?

JN: Oh, yes. Like the coral heads out in front of Sawyer. There's not a whole lot of live coral out there. There used to be huge brain corals. I mean, they used to be just big brain corals. So, that doesn't exist. If you see just a piece of brain coral anymore, you think you've really hit it big, and of course, Elkhorn. Gosh. Out at West washerwoman, the kids and I used to dive out there on this one bed of staghorn coral. There had to be as big as this lot. This is about, I don't know if this is a half-acre or about three quarters of an acre or whatever, but it was all beautiful live staghorn in about. It was great to take the kids there because it was in about six feet of water, and they could all snorkel over the top of it and look at all the tropicals down in it. It was all alive. It was just a garden of staghorn coral. Now, of course, since then that's all gone, and it's just bones of coral...

KDM: Dying off.

JN: Yes, I think maybe a storm might have wiped it out. But the true test is when you bring a girl, my daughter down here who hasn't dove in years and years and years, and you take her to a place like that, and she comes out of the water and says, mom, what happened? You know. I mean, she can see. She notices because she saw it when she was little.

KDM: Have you noticed, like, locations of pillow coral around here?

JN: Yes, there are some out at, West washerwoman. There are some really nice, healthy stands of pillar coral out there.

KDM: Look side of it or where is it at?

JN: It's on the hook. Let's see. It would be on the ocean side. It's sort of in a spot where people don't do a whole lot of diving, although I've seen more boats out there lately. You know, those places are no longer a secret either. There's some hogfish out there, too. There's not any big hogfish out there, but if you're real hungry and you want a pan sized hog that you can find one you got to hunt around.

KDM: Are there any other areas of pillar coral or staghorn or elkhorn coral that now or that used to exist that are gone now just like you told me?

JN: Oh yes. Well, there used to be a whole. Well, Lukey used to be an island. There used to be a palm tree out there.

KDM: Really?

JN: Yes. That was the winter of 1970, I remember. I remember that because I remember seeing the stump of it sitting there. Of course, Lukey was out of the ground. I mean, off it was out of the water. It was an island. It was like Pelican Shoal. Of course, that's all gone now. Marilyn Scholl used to be an island. It's gone now, too. The other island that was on the other side of Pelican Shoal is gone, too. Pelican Shoal has eroded away until pretty soon, you know. But there used to be a lot of live lettuce coral and elkhorn coral and stuff out at Lukey, and of course,

I don't see much of that anymore. There's a few pocket areas. There's one stand of Elkhorn on the inside of Lukey that a lot of people don't drive. There is some there, but I'm not sure if it's still alive or not. I don't know if it's just the skeleton of what it used. Pelican Shoals. There's a little pocket behind there on the Hawk Channel side to where there was some live Elkhorn coral. Very little staghorn. There's none of that. It seems like it's just too fragile to.

KDM: What do you think that a lot of this coral is gone? I know you said with the one stand at West Washburn, you felt like a storm probably hit that one. Would that be the same conclusion you would have for some of this other stuff? The other Elkhorn?

JN: I think heavy weather has a lot to do with it. I think anchors on boats have a lot to do with it. I myself and my husband were diving out at West Washerwoman and found three huge metal blades off of a big boat laying on the bottom. Yes. We saw where the boat ran aground and it made a huge gouge and knocked off half of this brain coral. Well, I took pictures of it and Don put it in their newsletter that this was probably a couple of years ago.

KDM: So, you want to talk about things that there are more of now than there was before, and that is flies.

JN: We never used to have any flies. Regular house flies, used to leave the house open all the time. Now there's house flies. Not a lot of it. Yes, that was damage caused by goats.

KDM: Where was that?

JN: [inaudible] A huge.

KDM: Have you noticed the areas of significant boat damage or user damage, whether it is in the seagrass flats or on the corals or in the backcountry?

JN: Went to live without diving at Lukey with the kids. This was back in the early seventies. The tide was just going out, but you couldn't see the reef like Lukey was still underwater, and I watched a guy go right over the top of it.

KDM: Oh, God.

JN: He did. He went boom, boom right over the top. It's like, "Man, don't you have a chart that you – oh, God, I look awful." I've watched people run aground everywhere. I don't know why the Coast Guard took down the channel markers in the backcountry, because that was one of the most stupid things. You give people charts. That's a road map. If you don't give them a road, how are they going to know where to go? Especially these people that rent boats and they go out. They rent a boat, they don't know where the hell they're going. I have a hard enough time and I've been down here boating for years. We need channel markers. We need them. We don't need them in front of our houses. We need them where people usually go right out there. Then we need a few out there, and we need some going out to the Gulf. I've talked to some. I work out down at the conch Jim, a lot of the charter boat captains and stuff come in there. They were telling me they've been running aground when they went up for the weekend to go to Snipe Key,

because all the markers were gone. So, we need markers. We need channel markers. I don't know if you need to make them like blueprints signs for these tourists. Just tell them, you know, "Don't touch the coral. Stay on the mark." You know, if they're green, stay on this side of it. Education, man. People need to know. We've got all these people coming down here who don't know anything about boating.

[end of transcript]