Karen DeMaria: April 3rd, 1993, 8:45 a.m. I am talking to number four. Comment?

Don DeMaria: Then you don't even have to say who it is, you'll know. [laughter]

KDM: I am going to ask you some background information first. How many years and what area of the Keys have you lived in? How long have you lived here in Keys?

DD: How long I've lived here?

KDM: Yes.

DD: Probably [19]77. But I've been coming down here since 1965.

KDM: Visited, right?

DD: Yes.

KDM: Since 1965?

DD: Yes.

KDM: In what location? When you lived here, did you always live in the same area?

DD: Key West.

KDM: When did you move to Summerland?

DD: Eighty-four or so.

KDM: I know that. You graduated from a four-year college, right?

DD: Yes.

KDM: When you moved down here permanently, when did you become a commercial fisherman? When would you say you were a commercial fisherman?

DD: In [19]72.

KDM: When did you start fishing in Tortugas? I know you fished a lot in Boca Grande and Marquesas. When did you really start doing Tortugas?

DD: It was when I came down with (jacks?). So, that would have been [19]77.

KDM: So, when you moved down here permanently, you would always run off to Tortugas?

DD: Yes.

KDM: Then that is same with Marquesas and (Indian Shores?)?

DD: Yes.

KDM: Have you ever been a volunteer involved with the water? If so, what and with whom? I am talking about fishery advisory councils, Coast Guard Auxiliary, beach and reef cleanup.

DD: Just the fishery thing.

KDM: When did you work start with the Gulf?

DD: Seven years ago, I guess.

KDM: In [19]86?

DD: Something like that.

KDM: [19]86 or [19]87?

DD: Something like that.

KDM: What about the Atlantic?

DD: About two years ago.

KDM: Ninety-one. With the Gulf Council, you are on what advisory council?

DD: On the Reef Fish Advisory Panel.

KDM: The Atlantic?

DD: Snapper-Grouper Advisory Panel.

KDM: So, tell me about your fishing experience. Pretend you do not know me, I am meeting you for the first time, I am a scientist or something, tell me what do you do and how do you do it?

DD: I spearfish and catch tropical fish.

KDM: Are they intermingled all throughout the year or is there a time of the year where there might be one more than the other?

DD: You catch more tropicals in the wintertime, spearfish in the spring and summer.

KDM: Always in the same type of areas or is it...

DD: Yes, pretty much.

KDM: Have you ever done anything else besides spearfishing and caught tropicals down here?

DD: Down here?

KDM: Yes. Do you do longlining?

DD: Oh, yes because of the sharks.

KDM: When did you do that? Years?

DD: About five years ago.

KDM: [19]88?

DD: Yes, something like that. I'd catch the yellowtail and kingfish and all that stuff.

KDM: [inaudible] or...

DD: Yes, at the same time.

KDM: When was that? Same time as that or?

DD: Yes, prior to that.

KDM: Is there any areas on the reef or between Key West and Tortugas that you go to more during certain times of the year? Like when they used to do a lot of Gulf diving, by certain times of the year you go out to the Gulf.

DD: In the summer.

KDM: What are you doing when you go out there?

DD: We are spearing kingfish as well as the amberjacks and grouper and snapper.

KDM: Rec fishing. Is there any other areas like that? Is there any specific reason why you go to Tortugas during certain times of the year?

DD: Yes. Well, during spring and early summer for snapper and grouper when the water used to be clear down there, like now.

KDM: Spring and summer?

DD: Spring or early summer.

KDM: That is when fish come to your mind?

DD: Pretty much so. When [inaudible] in the spring.

KDM: Why?

DD: Because the water is clear there and there's grouper and snappers.

KDM: Has this always been the same between now and say ten, fifteen years ago or have you noticed...

DD: Has the water clarity been the same?

KDM: No, the fish populations.

DD: No. There were a few groupers when I first came here and then they were gone for a long time and now they're reappearing.

KDM: Why?

DD: The fish traps.

KDM: When did the first traps first come down here?

DD: I don't know.

KDM: Do you have any idea of the year?

DD: Mid- or late [19]70s is when they really started. So, I got here at the tail end of when they started and watched the fish decline.

KDM: Is that in all the areas were the same?

DD: Yes, all of the Keys.

KDM: What year did you start seeing the difference? Was it a gradual difference or very quick?

DD: It was quick.

KDM: Do you know when?

DD: When the state prohibited them, they stopped fish trapping for a while around the early [19]80s, [19]80 or [19]81. Fish made a brief comeback and then they got that overturned, they started fish trapping again. Then it's just been downhill since until this last ban in the South Atlantic and now they're seeing them come back now.

KDM: When did that ban go into effect, [19]92?

DD: Yes, I think so.

KDM: We are talking about fisheries right now. Anything else that you have noticed? Has there been one spot where all of a sudden, the fish were not there anymore that used to be fish or there is more fish?

DD: Kingfish have definitely come back because of all the prohibitions on them. They were gone for a while too. They were here when I first got here and then got fished out. Now they're coming back some.

KDM: Fished out, when was that? What years?

DD: Early [19]80s. It was early to the mid-[19]80s they were pretty much nobody really fished for them with handlines. To an extent, now they're coming back.

KDM: So, why do you think all of a sudden, they disappeared? When you say fished out, how was that done?

DD: Well, they were netted out. Very little restrictions on them and they just wiped them out.

KDM: So, you think the restrictions are helping?

DD: Yes, definitely.

KDM: I guess I am asking if they are the same general areas you have been fishing now for ten, twenty years?

DD: Yes.

KDM: You used to fish before coming down here full time. Where did you used to fish?

DD: In West Palm Beach and Jacksonville.

KDM: I want you to fill out this fish [inaudible] for me. What I want you to do is to – full time or part time. What you do is make a check under "sometimes", "always", "never". This is for the present right now.

DD: What do you mean?

KDM: Well, this is more full time. Part time is like for handliners and stuff, they part-time fish in the course of one year. Did I do the math wrong?

DD: What's between part time and seldom?

KDM: Those are two different things. That is just like occupation wise, full time all during the course of the year you shoot snappers and groupers. Part time might be that you might go out and handline for –

DD: So, you want me to fill out any of this over here then?

KDM: Yes, this is what you put a check underneath. So, like king mackerel, do you always, sometimes, seldom, or never now catch them?

DD: Seldom.

KDM: You keep going down the thing it just might help you.

DD: Do you want the full time and part time thing too?

KDM: Yes, if you could. You did, that means during the course of the year. Is it all throughout the year or if it is just certain times? I guess it would help if you keep the line across if you have any comments that you want to make about the fish as you are going down the list. Just draw a straight line down if they are all full time.

DD: I guess it is.

KDM: Each of these rules applies. Half of these I have to probably think of tying the good one. Surgeonfish are the ones you are not supposed to catch.

DD: I think they're all surgeons there.

KDM: Yes, they are all in the same family.

DD: All of that as well.

KDM: You are probably the first person I have had that has to fill out all four pages.

DD: All these. Did you seen any of these, captured some?

KDM: Have you noticed any differences in those groups? We are going to get to that later on. I am going to ask you the differences that you have noticed between the past and the present. I want to step back a little bit on the areas that you fished. Tortugas, do you fish on the oceanside or the Gulf side?

DD: Both.

KDM: Both?

DD: No, most on the oceanside.

KDM: How about the Key West and Marquesas area?

DD: Oceanside.

KDM: In what areas? Is there any particular spots that you like to go to more than others?

DD: Along here.

KDM: What is this area called? You said around here?

DD: Keep going.

KDM: I guess top of the Quicksands? Anywhere else?

DD: Around here into Rebecca Channel.

KDM: Is there a particular reason? Unique formation?

DD: There seemed to be more fish there at certain times of the year.

KDM: I know that you do a lot of research work. When did you start doing that more and why did you change from doing commercial fishing all the time and now doing also research?

DD: Was it about four years ago? That or three years ago.

KDM: [19]89?

DD: It was just fun. That's really the only reason. It wasn't for the money.

KDM: Do you see yourself doing more of that, you think?

DD: Yes.

KDM: How come you stopped all the longlining?

DD: We ran out of sharks.

KDM: [laughter] When you are talking about bycatch, I know spearfishing does not have a bycatch. Does tropical fish have a bycatch on that longline?

DD: Some. For sharks or what kind of longlines?

KDM: Well, I guess what you did. You used longline for sharks.

DD: Maybe the stingrays and that's about it. There were sharks you could catch with this.

KDM: Do you know if there has been any sort of a change in that bycatch with that kind of fishing gear and technique?

DD: I don't know.

KDM: You have not done that in a while. Have you changed anything about the way you fish over the years? Yes, or no?

DD: Yes.

KDM: If yes, what, and why?

DD: When I started going further away in the Gulf to get fish.

KDM: When did you start doing this? What year in the year span?

DD: It was the late [19]80s.

KDM: Anything else?

DD: Spearing more. There came up fish that you couldn't even sell like triggers and jacks and all that.

KDM: Comparing to today's fishing, to catch the same amount of fish in the past did it take you more time, less time, or the same amount of time?

DD: Today?

KDM: From today to ten years ago, so 1980.

DD: It takes more time now and my gear hasn't changed.

KDM: Fifteen years ago?

DD: It takes more time now.

KDM: Was this a gradual or rapid change for you?

DD: It was rapid and it coincided with the fish traps.

KDM: So, the year that you gave me before for the fish traps would be...

DD: Right.

KDM: Any other comments you want to make about that, about what else that you have seen

changes for the fishing?

DD: Swordfishes dropped off too. It was a big thing here for a while too, now it's gone.

KDM: When was that?

DD: In the late [19]80s. The late [19]70s there were a lot of them around the coast, now it's all the small ones.

KDM: Now small commercial boats?

DD: Smaller fish.

KDM: Oh, smaller fish.

DD: They're much smaller. The groupers are smaller too. The yellowtail they're probably at least as many or more than they've ever been.

KDM: Is there a difference in the size at all with them, you think?

DD: I guess. They're probably not as big as they were, but there's certainly a lot of them.

KDM: Did you ever have any traps of any kind?

DD: No. I put five fish traps out one time years ago once.

KDM: [laughter]

DD: It didn't really count.

KDM: So, did you pull them once and that was it or?

DD: That was it. I lost two or three of them. I went down and got them up the next week.

KDM: When did you do this?

DD: I might have done this [inaudible] someone out with me on the boat. I put them around the wreck but they just got tangled up. It made me sick when you find them.

KDM: That would have been late [19]70s?

DD: Did it one time and gave them away to [inaudible].

KDM: [laughter] Have you changed your target fish species throughout the years?

DD: Throughout the year or years?

KDM: Years.

DD: No, not really. I was getting other stuff too.

KDM: Like you said, the jacks and triggers?

DD: Yes.

KDM: Is there any of the other ones?

DD: Jacks, trigger, (Muraenidae?), mugils.

KDM: Is there a market for them now?

DD: No.

KDM: Has there always been a market for snapper and grouper that you have been down here?

DD: The price is much higher now.

KDM: Have you noticed a change in the numbers and types of fish seen in a specific fishing area over time? I think I asked you this before.

DD: Yes.

KDM: Did you notice an increase or a decrease in these areas?

DD: A decrease.

KDM: Again, is that going back to fish traps?

DD: Yes.

KDM: Have you noticed a movement of fish from one location to another?

DD: No.

KDM: Have you noticed a change in when some species of fish fill up here in the Keys?

DD: Change?

KDM: Yes, change that's more for your [inaudible] kingfish?

DD: No.

KDM: Have you noticed a change in fish behavior in relation to gear? Or have you noticed fish behavior in relation to gear?

DD: As far as fish traps go, they don't seem to comprehend them at all. You mean change in behavior?

KDM: Yes. Well, let us expand on that. What do you mean the fish do not know?

DD: A lot of fish just don't bite, hook, and line very readily. But they readily go bite the (angels and parrots?). Sometimes the groupers just don't bite or you can't get close to them underwater. But they never seem to be able to escape the fish traps. So, they've got a natural curiosity for them or something. It's very deadly on those kinds of fish. Where all other methods have failed, a fish trap won't.

KDM: Is there any other kind of gears? Anything else you want to add to there?

DD: That's mostly the basic one. They were all the monofilament nets. In the shallow water, they used them for snappers. If they could comprehend monofilament, they wouldn't have wiped out the snappers and (we found?) the mangroves for years. They're coming back because some nets were banned.

KDM: When was that?

DD: I forgot when.

KDM: Very recent?

DD: Several years.

KDM: How about a change in fish behavior in relation to weather changes seasonally during the course of the year?

DD: Yes, it's seasonal. Fish move into the shallow water in the wintertime when it gets colder. In summer they move out when it's hot.

KDM: Anything else? I guess the spearfishing is going out with hook and liners and recs and neither will do the monofilament.

DD: Yes.

KDM: Is that right?

DD: It's becoming dangerous to dive. There's just a lot of monofilament for inexperienced divers as they would be. Somebody's going to drown on one.

KDM: Anything else? Any other garbage that you are seeing a lot more now or?

DD: Mostly the monofilament one. There was always nets and what not. There's less nets around now than it was years ago. So, you're not seeing an increase in that.

KDM: Have you ever seen any crinoids?

DD: Yes.

KDM: Where?

DD: Tortugas.

KDM: Do you still see them now?

DD: I think they're still down there, yes.

KDM: Are they down there now?

DD: Yes, they are.

KDM: They are?

DD: Here, I don't know. I can't remember seeing many here.

KDM: Yes, I was told that one time they were here and they are gone.

DD: Right there.

KDM: I was just trying to...

DD: Long spine urchins were too, they're gone completely.

KDM: That is the next question. [laughter] When did you see the decrease happen?

DD: In urchins?

KDM: Yes, the Diadema.

DD: That was towards the late [19]80s when they vanished.

KDM: Did that ever happen before?

DD: I think so. I don't know when I really observed all of that though.

KDM: Do you know of any reasons why they might have vanished? Have you heard of anything? Let us get out anything. Just have a look at it. Just look down there. I have a book

here. I just want to see what they all look here just to see if there is anything on there that you have observed something with. Look down there and tell me. If you see something you want to tell me a story, tell me a story.

DD: [laughter]

KDM: Pretty much everything that is on that sheet is in here, the picture. If they are looking for any changes that have occurred that you have observed for the better or for the worse.

DD: Do I write on this?

KDM: If you want to. Can you tell it to me?

DD: More moon jelly now and more of those cannonball jelly. Cassiopeias are more. (Kind of like the Semaeostomeae?) there's much less of.

KDM: Common jellyfish, when did you start seeing more of moon jelly?

DD: It must have been mid-[19]80s, I guess.

KDM: Any reason?

DD: I guess the algae in the water.

KDM: Cassiopeias are more in shallow water, correct?

DD: The canals, yes.

KDM: Same type of thing or is that just always gradually been seeing more and more?

DD: It's gradually being seeing more and more.

KDM: What about the cannonballs?

DD: This is the first year I've really seen them like that.

KDM: Where is that off of?

DD: Key West.

KDM: In the harbor or out?

DD: All the way up to the reef.

KDM: You never saw them before down here?

DD: No.

KDM: You said [inaudible]?

DD: Much less of those.

KDM: Why would that be, you think?

DD: The algae.

KDM: Some people might think it was due to collecting.

DD: The jellyfish?

KDM: No, no, the [inaudible] around here.

DD: Oh, yes it might be.

KDM: If they really...

DD: They all disappeared all of a sudden it seemed. They could have gotten down to a point where they just weren't enough of them to reproduce. They were collected pretty heavily.

KDM: When was this going on?

DD: There were a lot of them up until about two or three years ago.

KDM: Anything else?

DD: Not really. Probably the oysters are less of them this year. Especially at the beginning of season, I haven't seen any.

KDM: That season usually is when you should see more of them?

DD: Yes.

KDM: A weird question, have you noticed any manmade submerged objects in the water not associated with artificial reefs?

DD: Maybe.

KDM: Drums, cars?

DD: You have some stuff, yes.

KDM: Do you think it is increasing or it is decreasing?

DD: It's increased as time goes on.

KDM: It will. I mean purposely. This question goes more towards that I have heard it and a lot of people ten, twenty years ago used to make their own little reef areas around little personal fishing spots by putting parts of cars, concrete block, and drums and stuff like that. Just wondering if that is still a practice that is common now or if people pretty much –

DD: They put drums out still. The cars, no, they never did that around here.

KDM: I think just the hood.

DD: Unless the panhandle. Yes, they used hoods for crawfish, yes.

KDM: But it is pretty much still...

DD: It's almost all for crawfish. Individuals don't really make artificial reefs here. That was off the panhandle they did it when there was no bottom.

KDM: Otherwise pretty much for crawfish?

DD: It was all for crawfish.

KDM: I guess it is like with the canal, how everyone seems to have their own little lobster motel. Seems like those things have changed.

DD: Sort of.

KDM: [laughter] Is there anything else that you want to add? We are pretty much over here. Is there anything? I know I did promise. So, I wanted to sit down and talk to you about it because I need to streamline what I am going to work on.

DD: [inaudible] asked some of the same things over. They're more than one question.

[end of transcript]