Interview

With

# B.J. COPELAND

In

Bear Creek,

North Carolina

Interviewed by Mary Williford

On June 26, 2016

Transcribed by Mary Williford

For Carolina Coastal Voices

# B.J. Copeland

Track Time	Topic
0:00:39	Copeland's educational background
0:02:26	Copeland's tenure at North Carolina State University's Zoology Department
0:04:20	Copeland's initial appointment to the Marine Fisheries Commission in the 1980s;
	Governor James G. "Jim" Martin's "Egghead Commissions"
0:06:08	Dissolving and reforming the Marine Fisheries Commission in the mid-1980s;
	A brief timeline of committees Copeland served on during this time
0:08:08	Copeland's thoughts on what led the state government to act on fisheries;
	Fishing allocation issues related to an increasing population and increasing
	interest in recreational fishing
0:09:45	The role Copeland and North Carolina Sea Grant played in the Moratorium
	Steering Committee and the development of the Fisheries Reform Act
0:11:40	North Carolina Sea Grant's role in collecting and disseminating information;
	North Carolina Sea Grant's involvement with sub-committees of the Moratorium
	Steering Committee
0:14:24	Building trust within a diverse group of politicians, bureaucrats, and scientists;
	Bob Lucas' abilities as a leader of the Moratorium Steering Committee and the
	Marine Fisheries Commission;
0:16:32	A "remarkable" resolution to differences within the group
0:18:10	Challenges in communicating research objectives, methods, and conclusions to
	other stakeholders;
	The importance of social sciences research in fisheries management

- 0:19:10 More on the necessity of compromise in order to achieve objectives;Explaining this concept with the example of reducing commercial fishing licenses
- 0:20:35 Explaining this concept with the example of reducing the Marine Fisheries;
  Commission from nineteen to nine members;
  Changes in the makeup and appointment of the nine-member Marine Fisheries
  Commission
- 0:22:16 Detailing different research projects North Carolina Sea Grant administered for the legislative process;

Focus groups about the overall process

- 0:25:26 Factors that contributed to North Carolina revamping its fisheries legislation; North Carolina's unique geography, climate, currents, weather system, and coastal water acreage
- 0:28:03 Major legislative players in the entire moratorium and reform process
- 0:31:39 Involvement from North Carolinians in the Piedmont and Mountain areas
- 0:32:42 Trying to build flexibility into the Fisheries Reform Act;The Fisheries Management Plan system's intended role in accounting for ongoing changes to fisheries;

The licensing review committee's role in addressing changes

- 0:35:13 Minimal frustrations Copeland experienced during the entire process
- 0:36:24 Major successes of the process and the outcome, notably, the development of Fisheries Management Plans
- 0:39:08 Whether Copeland wished anything had been done differently at the time

- 0:42:20 Frustrations with other attempts to regulate water resources in the state; Contemporary environmental and water quality issues in the state
- 0:45:52 What a Fisheries Management Plan is and how they are created
- 0:48:03 Describing a Fisheries Management Plan in action
- 0:49:40 The Fisheries Reform Act's ability to manage change in coastal communities
- 0:55:50 Fisheries management and healthy coastal communities as mutually beneficial
- 0:56:39 The contemporary political climate and a review of the Fisheries Reform Act
- 0:58:25 The role of communication in long-term environmental and economic health
- 1:02:02 Copeland's career after the Fisheries Reform Act and returning to academia
- 1:06:08 Some amusing anecdotes from public meetings
- 1:09:48 Jule Wheatly being called "the Ayatollah of the Fisheries" at a public hearing
- 1:11:55 Important factors in running a successful public hearing
- 1:15:23General life lessons Copeland gleaned in part from his work with the FisheriesReform Act process
- 1:21:25 Copeland's hopes for the future of North Carolina fisheries

MARY WILLIFORD: Alright, this is Mary Williford with the Coastal Voices Project, the Fisheries Reform Act project. It is June 26<sup>th</sup>, 2016, at about 4:15 in the afternoon. We are here in Bear Creek, North Carolina, with B.J. Copeland. Again, my name is Mary Williford, M-A-R-Y, W-I-L-L-I-F-O-R-D. Um, so, B.J.: could you say and spell your name?

B. J. COPELAND: My name is B.J. Copeland, and it's B-period, J-period, C-O-P-E-L-A-N-D.

MW: Alright, well thank you so much for agreeing to this interview for the Fisheries Reform Act project. Can you start out by telling us where and when you were born and where you grew up?

BJC: Okay, I was born November 20<sup>th</sup>, 1936 in a country home near Mannsville, Oklahoma. That's M-A-N-N-S-V-I-L-L-E, Oklahoma. And I grew up there, went to school at Mannsville Consolidated District #3. From there, I went to Oklahoma State University, where I obtained my undergraduate and graduate degrees. My first job was at the University of Texas, at their Marine Institute. I was there for seven and a half years. In 1970, January 1970, I came to North Carolina as an Associate Professor at N.C. State University. And I retired from N.C. State University in 2002, so I was there for a white. And, let's see. [Pause] I became the director of Sea Grant College in 1973, until 1996. That's about all the background!

MW: What were your degrees in?

BJC: I have an undergraduate degree in Biology and Chemistry, and my Ph.D. degree is in Limnology, the study of fresh water. So, I went to the University of Texas to see if salt water was the same as fresh water and indeed it is, except for a little bit of salt!

MW: [Laughs] Alright, so you taught for a living? What did you do for a living? BJC: [Laughs] I'm not quite sure! MW: You managed to make a living!

BJC: I was what you call a Research Scientist at the University of Texas and we worked in Texas and Central America and Mexico and Puerto Rico and so on. Mostly on water quality issues. My claim to fame, I guess, is the study of Galveston Bay in Texas, for--the state of Texas was concerned about the level of pollution in Galveston Bay and through our research there, they were able to make some changes and improve the water quality of Galveston Bay. Which is a large bay system in Texas. I came to North Carolina, ah, mainly because of the beginning of a Marine Science Program jointly between N.C. State, U.N.C.-Chapel Hill, Duke, and U.N.C.-Wilmington. we were trying to start a graduate program in Marine Science and so I was a researcher and a professor in the Zoology Department, Botany Department, and the new Marine Sciences program. The new Marine Sciences program finally became the Department of Marine, Earth, and Atmospheric Sciences in later years at N.C. State, but in the early days it was just a program.

BJC: Well, after I left [North Carolina] Sea Grant in 1996, I went back into the Zoology Department at N.C. State, where I taught a couple of courses and worked on some--writing papers and books and stuff and became the graduate administrator for the Zoology Department.

MW: So how did you get involved with fisheries management and fisheries--[laughs]-fisheries resources?

BJC: Well, as the--mainly as the--in our research program, looking at water quality and habitat, which leads you into the fisheries issue. And then, when I became Director of [North Carolina] Sea Grant, that broadened everything so that we began to have programs in fisheries management of all sorts. Commercial fishery, recreational fishing, interactions, management of fisheries, how things worked, how we could translate research into management things, and that sort of stuff. So one thing just kind of led to another! So there we are!

BJC: And I got into fisheries management for real when I was appointed to the Marine Fisheries Commission in the 1980s, under the so-called, ah, Egghead Commission! [Laughs] When Jim Martin was Governor, he decided that what we needed to do was increase the intellectual capacity in the Marine Fisheries Commission, as in all commissions that he was interested in. Jim Martin, as you know, was a Ph.D. Chemist from Davidson University to begin with, and so that was kind of a disaster, because a bunch of eggheads trying to manage things is not a very good [laughs] way to get there! We had lots of arguments but little action! So I served on that commission for four years, I guess it was, or five. That finally [pause] whole thing got dissolved. I mean, the state government decided that commissions weren't really the way to go, so the Marine Fisheries Commission was actually dissolved and they started over again. And so there was legislative action to create a new commission, which kept getting things added to, and added to, and added to until we have a nineteen-member Marine Fisheries Commission.

MW: What year was that?

BJC: I think that was 1984. In the mid-[nineteen-]eighties, anyway. And that was also a disaster, because nineteen people can't make any kind of decision. We just argued a lot. And so, what happened with the Fisheries Moratorium Act, I mean--that was one of the factors, that we had an unwieldy commission; no way to get there; we had regulations right and left, none of which were related to others. People were kind of fed up with the whole idea. And so, the Moratorium, Fisheries Moratorium, came because they wanted to stop, look, consider, and really come up with some, something. And so, we had a three-year moratorium on anything; on any regulation, on any activity, any new activity. And that resulted in the Fisheries Reform Act of 1996. So that's how we got there. I was a member of the commission before; a member of the

Moratorium Steering Committee; and then when we formed the new commission with nine members, I became a member of that commission, appointed by Governor Jim Hunt. So, there it is! [Laughter]

MW: So you had mentioned Governor Martin being very interested in forming these sort of committees--you said the 'Egghead Committees'--um, do you think there were any other factors that led him or led the legislative--the North Carolina legislature, to have a particular interest in fisheries management at that time?

BJC: Well, there was a lot of, uh, argument concerning allocation of resources. I mean, at about that time, when we began to have an increase in population, an increase in interest of things on the coast, there were a lot of factors. So the issue of who owned the fish and what did you do with them became much more prominent. And, ah, you know, recreational fishing began to rapidly increase. We always had commercial fishing the last 400 years, probably, ever since the Indians and Sir Walter Raleigh traded fish for bull dogs, we've had commercial fishing. And so, you know, the emphasis then became much more pointed in who and how to allocate fish to. And we've not solved that problem yet [laughs] but we're still working on it!

MW: So you mentioned that you were part of the Moratorium [Steering] Committee as well as the larger group, from [19]94 to [19]97. Can you tell me about, sort of, what your role there was? What sort of, um, help or guidance were you providing?

BJC: Well, the Moratorium Steering Committee was, you know, the considerable effort made to have representation from all interest groups; all stakeholders would be involved. And as the Director of [North Carolina] Sea Grant, I kind of represented the research and information and extension kind of constituency. And so I was on the Moratorium Steering Committee by legislation, to make sure that we got that connection done. Moreover, there was some research

that needed to get done. You know, how many fishermen were they and what kind of walks of life were they from, et cetera, et cetera. And so, Sea Grant was the logical place for that. So, as part of the moratorium activity, the legislature also appropriated some funds for research. And so that got administered through the Sea Grant college program, I mean, so I had that role to play, as well. Besides that, I think I knew about all of the players. So, communication and interaction amongst the players was also important, and Sea Grant played a role in that, as well.

MW: So did Sea Grant work, um, fairly closely or act as sort of a liaison between the [Moratorium Steering] Committee and the, the research that was going on, as well as the fishermen? The people who were out there fishing every day?

BJC: All of the above! As you can imagine, there was a real need to have close interaction of all the parts. And Sea Grant was in a position to do that sort of thing. We--we administered the research; now, Sea Grant was already doing some research related to that, so it was a logical marriage there. We had an active extension program, so we were able to interact with the commercial and recreational pars of the fishery. We were good at getting out information. One of the, you know, one of the age-old problems is [that] it takes a long time to translate research into action, and Sea Grant had a reputation for doing that better and quicker than anyone.

#### [CLOCK CHIMES]

BJC: A good part of our role was to, you know, information exchange. And then somebody needed to be able to help these sub-committees. We had several sub-committees set up to report back to the Moratorium Steering Committee on various issues like licensing, you know, identification of the fishing communities, fish facts [laughs] all of these things. So we had subcommittees that Sea Grant helped to organize and administer.

MW: How was it that Sea Grant was, as you said, so good at getting that information out

there broadly and quickly?

BJC: How did we do that? I don't know. We just did it! [Laughs] We had a network and we traded on two very important elements: one of them was the truth. If you're a bearer of the truth, you usually get along pretty well. And so we had a reputation for doing that. And secondly, we thought that information was a necessary ingredient for anything we did. And so, we were doing that, too. It was kind of a natural fit.

MW: Yeah, so you mentioned that, uh, yourself and Sea Grant worked with a lot of different stakeholders; you know, between politicians and scientists and commercial and recreational fishers. Do you feel like there was a sense of unity in wanting to pass the Fisheries Reform Act? Were there, was there a lot of division that you noticed?

BJC: Well, I think initially, there was lots of elements of su--suspicion. You know, you naturally don't trust politicians, you naturally don't trust bureaucrats, you naturally don't trust university scientists, you naturally don't trust one another. Once we started the Moratorium [Steering Committee] process, the Chairman of that Moratorium Steering Committee--and also Chairman of the Marine Fisheries Commission--was a guy named Bob Lucas. And Bob Lucas was a personal claims lawyer from Selma, North Carolina. Didn't know squat about fish, but he knew people. And he knew how to be persuasive about things that he believed in, and Bob Lucas believed, really believed--and this, I think is important--that the moratorium process could result in something positive. And if you have a leader who believes that, then lots of things happen. And so that was part of it. But the other is that, once we got into this process--and, as I say, deliverance of the truth--I think people were beginning to trust one another. And so, groups came together. Now, we didn't always agree on everything, but we agreed to disagree sometimes, and we agreed that we could get there if we tried. And sure enough, I think we did.

BJC: I think what's remarkable about the moratorium process--and it took us a while, I mean, we had a lot of public hearings, about eighteen of them, I think, across most of the state. I went to, I don't know how many. [Laughs] We went from Asheville to the coast. And through that process, we began to understand one another. We didn't always come to the same point, but we'd begin to understand one another. And so, through that process, the remarkable thing is that when we got to the end, we had about five major recommendations. And all five of those got approved by the [North Carolina] General Assembly. That's a remarkable thing. Probably never happen again! [Laughter] But it did, and I think it happened because we all wanted to do something.

MW: So, it sounds like, um, even though people may've disagreed on the different ways of doing things, that there was a general agreement that something had to be done.

BJC: That--you've hit the nail on the head. I mean, that, we didn't all agree on all of the little things, but we did agree that we ought to do something. Some of our recommendations were compromises, the way it should be. Some of the recommendations were, we just won, outargued everybody, and that happens, too. Anyway. We got it done.

MW: What were some, um, aspects of your job in this process that you found difficult or challenging to communicate to the other stakeholders in it?

BJC: Well, sometimes, you know, it's [pause] the nature of research that all your stakeholders don't understand how you're going to do a piece of research. So, sometimes it was a little bit difficult to explain what piece of research you're gonna do and what it would do. I mean, for example, people have a hard time understanding social science research. [Imitating] 'Ehh, you know, bunch of soft...' Well, in the fisheries issue, that was important. We would just say, 'That's what we're going to do, and here's why we're going to do it, and here's what's

10

gonna happen if we do it.' And so, through that process, we were able to get some--may not be a tight agreement, but some agreement that, yeah, we can get this done. That was the most difficult part, I think. Another difficulty was trying to reach a conclusion about a recommendation. There's always more than one way to skin a cat, and unless you're willing to compromise and agree on one of those ways to skin that cat, you're not gonna ever do it. And so, a lot of times we spent some time--and, when I say some time, I'm talking about two or three meetings--arguing about how we were going to reduce the number of commercial fishing licenses, for example. That was a difficult task; it had to be done. At the time we started the Moratorium, there were close to 20,000 commercial licenses in the business. Today, there are only 2- or 3,000. But we had to get that--'cause not everybody's a commercial fisherman. And there were all these licenses, I mean, all kinds. And so, we had to get that done. And that was pretty difficult.

BJC: We also had to develop and define a Marine Fisheries Commission that could actually function. Because, remember: we're coming from one that had nineteen members where everybody thought they were in there and all this kind of stuff, and we were trying to get down to a nine-member commission. Which we did. And that commission still, to this day, has three people from the commercial interests, three people from recreational interests, and three at large. And that was a compromise that kind of, that people kind of agreed to. Now, three plus three plus three is not always equal. [Laughs] And who's going to appoint those three plus three plus three? And we decided that this is going to be high-enough level that the Governor ought to be doing the appointing, so that's what we, that's the legislation that we did and it got approved. So we still do that. Now, lots of fingers get in that pie and, as you know, that's not a clean, direct thing. All kinds of things can happen. But at least we started out with a clean, balanced commission. I remember that commission, too, the first one. Which, eh, kind of neat! MW: For how long?

BJC: I think I was a fisheries commissioner for twelve years! [Laughs] I think that's what it was. That's four terms, anyway.

MW: So, can you give an example of some of the types of research that your group did to provide information for this project?

BJC: Okay, I'll tell you the projects! One of them was done by Barbara Garrity-Blake. You may know her! [Laughs] She and--I forget now who her partner was--but anyway, they tried to do a, tried to do an assessment of how people get into the fishery and stay in there, or get out, and why. Important information, because we're fixing to set up a mechanism where people are gonna have to opt, they're gonna have to choose whether they're commercial fishermen or not. Not easy! We had another project done by Mike Orbach and Jeff Johnson on how is our fishery characterized. Who are they? Who are the major commercial types? And so on. And so they developed a big chart of what our commercial fishery was and, through that characterization, we were able to set up a licensing structure that we still have today. Ah, we had another project, let's see, it was a group of people to do a, kind of a social science analysis of how rules and laws and things of that get passed and implemented. Out of that came, how do we, you know, what is the commission like, what do they do, how do you appoint them, how many can you have, what do they do? All these kind of things. And they went about trying to analyze that in the context of how North Carolina operates, you know, our social structure. And then they had what they called focus groups where they went around and asked people, 'How do you like that? What if we do this?' And through that process, that's how we came up with the nine-member commission. We also came up with how the Marine Fisheries Commission, the Division of Marine Fisheries, the Department of what used to be called Natural Resources and it's all now screwed up, but, how

does that interact? How is this housed in the governance of our state? And what happens if the Governor appoints these members versus if the legislature appoints these members, or if there's a joint--all those things. So they did, really, a nice piece of research on that issue. We may've had a couple of other research projects; I think we did four or five. I've forgotten what they all were, but they had to do with how we were going about managing fisheries and how, manage it in a context of the society in which we live. That's hard.

MW: Yeah. So you, you mentioned earlier that the big population growth in North Carolina in the [19]70s and [19]80s was a large part of trying to make sense of all these fishing licenses that were out there. What do you think it was about North Carolina in particular, though? 'Cause, you know, the South at large was having a big population boom at that time, and North Carolina was--my understanding was--that we were sort of, one of the first states to put forward something like this.

BJC: [Laughs] Yeah! And you know, and years after that, we had several other states call and ask us how we did it! [Laughs] So I guess we were, I guess we were pioneers! But, North Carolina's a unique place. First of all, geographically and, you know, climate zone, we're sort of everything. We're the, between the subtropical and the northern temperate zones. We're the place where the currents get to, come together. We're the most variable place in the world on weather. Cape Hatteras has the most variable weather system of any place anywhere in the world. So we're sort of in a transition zone, which we have something of everything. That's a hard place to be. So that complicated what we did. Let's see. We are the only state that allows trawling and things like that in our inland waters. In fact, we have large acreages of inland waters. We, North Carolina is the third-largest coastal waters in the United States, exceeded only by Alaska and Louisiana. Ah, so, we're a big, big player. We have a unique ecosystem. We have a unique social

system. We have a unique geographic system. We protrude out into the ocean a long ways, in case you haven't looked! And so, here we are! We're kind of a unique place, and so why shouldn't we be unique? We are.

MW: M hmm.

BJC: It's a neat place to be, actually.

MW: So, um, let's see. What were some of the major players here? I know you mentioned a couple earlier. Can you, you know, who did you--I guess let's start with who did you work with most directly, but then who were some of the, the people calling the shots and really helping to get everything organized in getting everything passed?

BJC: Well, you know, there's a whole, I guess, layering of players. Ah [pause] I mean, Jim Hunt was Governor, and he was a proactive Governor. And so he meant for things to get done. Marc Basnight was President *pro tem* of the Senate, arguably the most powerful politician in North Carolina, and he lived in Wanchese, or Manteo. And so therefore, he had more than just a passing interest in coastal issues. And he meant for some thing to get done. Didn't necessarily be the same as anybody else, but he did. We had some influential [North Caronia] House members who were coastal representatives who had a large stake in this issue. And we had powerful, ah--what do you want to call it? Interest groups--that were coastal-oriented who had influence and connections to the government. So we had all those players in there. And, as I told you before, Bob Lucas was a very strong leader type, a very persuasive type of individual, and so you mix all that together, you got a lot of big-time players doing their thing. That's interesting on one hand, but can be kind of frustrated on the other [laughs] but anyway, we had these powerful groups playing in this field.

BJC: So, interacting with them was inevitable. My role as the Director of [North

Carolina] Sea Grant, I mean, I had a relationship with all these folks because--and, I told you earlier--we were purveyors of the truth. We had a reputation of, you know, you can come and ask Sea Grant a question, you were gonna get an honest answer. And so we could be a player without taking a side. And that was really important, because most people take sides somewhere, some time. And so we worked very hard at not taking a side. In fact, [North Carolina Fisheries Association's] Jerry Schill told me one time that, 'I'd rather have you available even though I may not like you, and I may not agree with you, but I need you because you are the only place that we can get the truth.' I thought that was a compliment.

MW: [Laughter] It sounded like one!

BJC: Yep. But anyway, we were able to get along with all those folks.

MW: Did you have a lot of, um, either helpful input or maybe push-back from politicians or interest groups that were, that were not directly related to the coast? You know, did you have a lot of participation from folks representing Piedmont or Mountain area counties?

BJC: Well, oddly enough, we did! [Laughs] And it wasn't just a coastal issue. And fisheries is not just a coastal issue, as you well know. I mean, this is a public trust resource; it should be important to all of us. And sure enough, we had, ah, political interests in this issue from a lot of Piedmont type representatives. Which was good. They, you know, they could play a role here without having their everyday constituents jumping on their back. And so that, you know, you're right. That was pretty important.

MW: So, you know--given that fisheries management changes and evolves over time the same way our coastline changes over time, what do you think about the Fishery--Fisheries Reform Act's ability to, um, address these changes? Things that might come up that we, you never could have anticipated back in 1997. Do you think that it's sort of flexible enough to bend

and adjust?

BJC: Well, you know, that's a--that's really a good question. Because, at the time, that was one of our issues. I mean, how can we build a system that will work with the change of time? And we thought we did that when we put, in to the Fisheries Reform Act, that Fisheries Management Plan system, where Fisheries Management Plans would be built based on data and catch and all this kind of stuff, and, important, would be reviewed and revised every five years. So, built in, we tried to build into a system here, the fishery plan, Fisheries Management Plan system, a way to deal with changes that would occur and what we thought would be a short-term--five years. Well, five years is a long time for some and a short time for others. But that's what we did, we agreed on five-year review cycle for the Fisheries Management Plan, thinking that that would take care of this changing thing. And we also built in to the licensing system, a licensing review committee--board. So that if you didn't obtain a license, you have an opportunity to do that in the next--in the next interim time. Another way to build in flexibility as we go on. [Clears throat, coughs] That works in various ways. But I, you know, there's nothing that's flexible enough and there's nothing that's too flexible! [Laughter]

MW: Well, what were some of your, I guess, frustrations or major road bumps that you experienced in the process of working with the Moratorium Steering Committee and then the [Fisheries] Reform Act itself?

BJC: [Pause] You know, I can't think of any frustrations we had. It was a process and we knew it was going to take time. I guess the frustrating part was that we thought we could do it in two years and it took three. That's always a little bit frustrating, but I don't think any of us knew what it was gonna be. I mean, how it was going to be. So, but I wouldn't call that a frustrating problem. I mean--it seemed, you know, it worked pretty well. I think you get enough fair-minded

people together, things always work. We had a good committee. The Moratorium Steering Committee was a good committee. I think mainly because care was taken to make sure that all stakeholders were represented.

MW: What do you think were some of the major successes of the, the entire process, really, but the outcome, as well?

BJC: Well, I think two or three major successes was we developed and appointed and got a Marine Fisheries commission that actually worked. And it has, pretty much, although there's some criticism of it nowadays about this, that, and the other, but that's probably normal. But I think the most important aspect was the mechanism of developing a Fisheries Management Plan for each of the major species. Now, that's not as easy as it sounds, of course, and no species stands on its own. You develop a plan for shrimp, you gotta also consider a few other things as well. Most things eat shrimp, you know, it's part of the food chain for other stuff. But I think developing Fisheries Management Plans, reviewing them, and adjusting them, was a major success. Now, they haven't always worked exactly the way we thought they would because we got people involved. But, I think it was a major success story.

MW: You think overall it went very well?

BJC: Well, I think overall it's worked very all. There've been glitches, and there'll be more, and as time goes on it probably becomes less and less doable.

MW: What do you mean by 'less and less doable'?

BJC: People don't remember what we did in 1996, and so [laughs] they think we're taking over every time. But I think, as the players change, issues change, outcomes change. And things aren't always smoothly done. There's contentious interactions all the time. One group gets stronger versus another, and then that changes, and then that changes, and then somebody else

17

gets appointed. Things have a way of just kind of oozing down the, you know, what you call 'average.' You know, in the beginning, we were way up there. But I think it's scooting down to kind of 'average' now.

MW: We've reached, sort of, an equilibrium.

BJC: Oh yeah, that's the way it goes.

MW: Well, are there any, um, I guess any particular areas that you think could've been improved from the get-go, any particular areas that, you know, twenty years out as we are now, you think maybe could've worked better or should've been done somewhat differently?

BJC: Hah! Of course there are, but I don't know what they are! [Laughs] I--you know-we, we did what we could do then, and I think that was the best we could. I'm not sure that there's anything that I would've done differently. Of course, there are things that we can do differently. As I told you earlier in this interview, there's a lotta ways to skin a cat, and we chose this way. We could've probably done some things differently, I don't know.

MW: Are there any, um, implications of the [Fisheries Reform Act], you know, twenty years out again, anything that it's caused or any results of it that you wish you had known back then? [Laughs] Besides 'everything,' of course.

BJC: Well, you know, I don't know. You wish you'd known who was gonna get elected next or how we were gonna do this, that, or the other, or what the things beyond our control, like imports and economics and, you know, all of that, and what the federal government's going to do. I mean, there're lots of things we didn't know, and lots of things we would never know, and some things we wish they hadn't happened at all. But that's the way it is.

MW: Can you name any of those in particular?

BJC: Oh, I don't know, there's a bunch of them. [Laughter] We have, you know, some

federal regulations don't exactly square with ours. The propensity to, how 'one size fits all' is a problem, 'cause one size doesn't fit all. And you wish you could do things on a more real-time basis, but that's not possible. It takes--probably a flaw in how all this works--it takes longer to develop a Fisheries Management Plan than we thought it would be. We thought we'd develop a Fisheries Management Plan in two or three months or something; it takes, what, a couple of years now? So, you know, just things we didn't really know, and they've been kind of problematic. But we did overall pretty good.

MW: Well, what, if anything, that's going on today do you think could or should be changed to ensure a healthier fisheries environment?

BJC: Everything! [Laughs] Water quality is a big problem, and currently the way our General Assembly is operating, we're trying to scuttle most of the control we had. You know, we worked hard to get some of those

### [CLOCK CHIMES]

things into place, like nutrient inputs and sewage treatment and, uh, ground water flows and runoff and, most importantly, these natural buffers that they want to do away with now. It took us, you know, a long time to get all those in place. And they were there all for very good reasons and, you know, most people don't remember how bad it was when the Neuse River turned into a giant fish kill because of excess nutrients from upstream. Most people don't remember the Chowan [River] being you could walk across it because it was so polluted at one time from manufacturing activity. We got those things changed! And now we're scuttling them right and left. I mean, as an aside, I was on a group to enact the Jordan Lake rules; took us four years; finally got it to the General Assembly. This General Assembly of two years ago scuttled it in five minutes and wasted millions of dollars on solar bees that we knew wouldn't work, and now they want to put in some mussels. But anyway, it's crazy. So, we got, you know, we have pollution problems. And we're turning back the clock on that. Habitat destruction, building to close to the water, you know, not having safeguards to keep stuff from running in or caving in. Low-density development, which we had going real well, is out the window now. Stuff like that. So yeah, we got problems.

MW: Do you think there are any mechanisms in the Fisheries Reform Act or anything that maybe came out of it that may be helpful in addressing some of these issues?

BJC: Well, the [laughs] here again, I keep going back to these Fisheries Management Plans. In the beginning, we meant for those to have environmental and water quality parts to it, as well. We don't seem to include that much anymore. And, through that mechanism, we would have a way to describe what kind of protections we needed to have in order to maintain that particular species. So the Fisheries Reform Act, Fisheries Management Plan system could be a major mechanism in dealing with how we go about managing that kind of impact. Yeah, it could work.

MW: And since you've mentioned that a few times now, could you tell me, sort of, the basic components and the process of creating a Fisheries Management Plan?

BJC: Well, it, it--it starts out with the Marine Fisheries Division setting up a management plan committee. They have a lead person who has a responsibility for that species, plus people who know about the environment, people who know about the economics, people who know about this, that, and the other. I'm not even sure the Division has anybody in economics any more. You know, we used to have, that played a role, but I don't think so any more. I don't have much interaction with them these days, anyway. But that--that management committee then, would set up the elements of the fisheries management pan. That would then be presented to the

## CSWMHC Coastal Voices Project

Marine Fisheries Commission who would say yea, nay, or 'hey, why don't you do this?' So there was back and forth interaction between Fisheries Management Plan professionals and the Marine Fisheries Commission manager types. And then this would then be approved by the agency; somebody in the secretary's office would be responsible for that. And so, by that mechanism, there was give and take early on in the process, and then, so all of those elements get in place and then you go about filling it in with data and analysis and interaction and all those things and then this same mechanism would go into play again, where the management committee would put it together, present it to the Marine Fisheries Commission who would say yea, nay, or maybe, present it to the agency, and then ultimately, have the General Assembly to approve that plan. And so, it's supposed to work that way! It doesn't always work that way.

MW: What would, um, a successful Fisheries Management Plan look like? What would it do, exactly, in an ideal world?

BJC: Well, in an ideal world, it would allocate this like, you know--let's take blue crabs, which is one of our more important fisheries: what kind of activity, harvest activity, would be related to the blue crab population? What would trigger a change in season or nets or catch or whatever? How would that feed back then into the fishery? And then, you know, how would the economics of that play back? Do you want to harvest all the blue crabs this week, flood the market, and lower the price? No. So you, you know, have a mechanism in place to do that. There's also another aspect which we could never get through at the time, and there's some talk about it, but--and that is to allocate catch. Let's say you're a blue crab fishermen, say 'Okay, you can catch so-many-thousand pounds of blue crab this year. If you want to do it tomorrow, go ahead. If you want to stretch it out over the next three months, that's good.' And so on. I forget what you call the term for that but--so there're lots of ways to put that in there. That's not always

the case.

MW: Alright, um, what do you think the impact of the Fisheries Reform Act was on coastal communities, especially ones that might really rely on some of these recreational fishing licenses that were set up by this act?

BJC: [Laughs] I don't know. I think it changed some of those coastal communities. [Coughs] Some, some places along the coast--small fishing villages--were pretty much commercial fishing-oriented and with the proliferation of the coastal recreational licenses and an increase in interest in that, has changed some of those communities from one thing to another. Whether that's good, bad, or indifferent, I don't know. Somebody smarter than me has to figure that out. But one of the thing that happened--and, of course, Barbara [Garrity-Blake] was involved in this, too--was that, as coastal values started to, you know, property values went up. People who were in traditional kinds of activities became more and more difficult for them to pay the taxes, the tax amounts and still live there. So that began to affect some of those communities, as well. I mean, you can take places like Calabash, for example, where people moved in and built million-dollar houses, and some of the tax base went up. And if you had been living in a traditional thing over here, your ability to pay went down. And so this tends to change the complexion of the community almost entirely. So, you know, the regular folk get outvoted. And the regular folk can't afford to live where they've lived anymore. And so on. I mean, the one that Barbara got involved in was trying to get traditional use into the tax structure so that a fish house would be taxed at a different rate than a tourism center. And so on. She was successful in it. Barbara is a pretty persuasive person.

MW: Sounds like there were a lot of persuasive people involved with the [Fisheries Reform Act]!

BJC: Yeah. But anyway, so I think the complexion of the whole coastal are changed. I'm not sure the Fisheries Reform Act is responsible for that. I think this is inevitable. I think the Fisheries Reform Act helped us be able to manage some of that, which, you know, I guess is a plus. But it was tough.

MW: Yeah, so it sounds like you're thinking that a lot of this change was sort of already in progress or sort of inevitable, and that the Fisheries Reform Act maybe helped manage it, manage something that was already coming.

BJC: Well, it was already coming. The Fisheries Reform Act didn't have anything to do with that. But I do think that the Fisheries Reform Act gave us some mechanisms to manage within it. Anyway, if you take--you know, population growth in North Carolina has been pretty, pretty high. And so if you're putting more and more people in the same place, they're gonna get crowded. And I keep telling people that, since recreational fishing effort, for example, has quadrupled in the last twenty-five years, then you should actually be entitled to catch only onefourth of the fish you used to catch. Right? I mean, if you got four times as many people then you ought to be just--that's not what everybody thinks. Everybody thinks they ought to catch the same amount of fish. Well, that's not possible! And so the Fisheries Reform Act has helped us to manage that. Not perfect. Not even near. But it has helped.

MW: What do you think were some of the impacts the Fisheries Reform Act had on commercial fishers in the state?

BJC: I don't know the answer to that question, but I think most of the commercial fishermen would tell you it didn't help them any. But I think it helped them a lot. We reduced the number of people who thought they were in commercial fishing--20,000 down to whatever it was, 4- or 5,000. We're now down to about two and a half thousand, whatever it is. So, we kinda

cleaned that up. I think the Fisheries Management Plans--and they won't agree to this--gave them a more predictable [pause] you know, number of fish. I think that the environmental safeguards protected some habitat that wouldn't've been protected in the first place. And so on. So I think overall, the [Fisheries Reform Act] has been beneficial to the commercial fishery. I don't think all of them would agree to that.

MW: And why not?

BJC: Well, I think it's easier to blame the government than it is to blame yourself or elements or the fish.

MW: Do you think ensuring a healthy fisheries environment while ensuring healthy growth in coastal communities, are, perhaps mutually exclusive goals, or do you think that they could work together?

BJC: Oh, I've always thought they could work together, and I spent my whole since childhood trying to figure out how to do that. But [laughs] so, I think they can work together. How and in what ways, is--incredibly complicated situation. But, yes. Otherwise, I probably wouldn't be doing what I did. I believed.

MW: Okay. Let's see. What do you think, twenty years out, what do you think are some of the things that the politicians and legislators and interest groups might be able to learn from just the process of creating the steering committee and the reform act?

BJC: You're implying something that may not be available from the evidence; that they would actually want to care about doing that! [Laughs] I think they, I think that a review of this process and how it operated could be a very useful thing. However, the political climate nowadays is so polarized that they wouldn't even dare to do that. We'd rather say 'no, it's all bad' than to do anything with it.

MW: So you felt the political climate was less polarized then?

BJC: Oh, much less polarized. We actually had bipartisan support. And we actually had bipartisan working together to get something done. That's not the case today. You know, if one party mentions one thing, then it's automatically bad by the other party. And so we get all these people spending all their time tearing down something that they don't know anything about or don't want to know anything about. And fisheries management, by the way, is an incredibly complicated process. So that would take some effort on their part, which they don't seem to want to do, either.

MW: So you had mentioned that, um, you know, there was a lot of bipartisan support, a lot of people agreeing to disagree and, you know, generally being able to work together decently well. Do you have any particular stories [laughs] about working with certain folks that you'd like to share?

BJC: None that I'd wanna tell! [Laughter] Well, I guess the main story is that, back in those days--which I call 'the good old day'--if you wanted to get something done, you could usually go down to the General Assembly and have an actual, reasonable conversation about whatever it was. I mean, you know, I knew Marc Basnight long before he became a State Senator. He was married to the daughter of Hughes Tillett, who was my first extension agent [laughs] in coastal North Carolina. So I could call Marc and talk to him about things. I don't know anybody to call these days, and if I did, I wouldn't know what to say to them. So, I don't know, that's the only story I know is that we were able to do things when reasonable people wanted to do things.

MW: So you think that communication--?

BJC: It's gone. Everybody's suspicious of everybody. Which is too bad. I mean, this is

not just a North Carolina problem; this is a national problem. I mean, it's worse in Washington, D.C. I used to go up to Washington to the U.S. Senate, you know, to talk about Sea Grant support and [Rhode Island] Senator Claiborne Pell used to say, 'Hey, c'mon in here in my office and tell me some stories about Jesse Helms! I need some things on him that I can use!' [Laughter] And so, you know, those days are gone, too. I mean, Claiborne Pell was a liberal Democrat and Jesse Helms was a conservative Republican, but they were friends. That's not the case today.

MW: And what effect do you think that might have on fisheries and the health of, you know, fish stock in North Carolina and water quality?

BJC: Well, I think it's gonna make things worse. Some of these environmental issues, which are gonna get scuttled because of some misinformed position, somebody who's more powerful than somebody else will get their way and so on. I mean, they practice the Golden Rule, you know: them what's got the gold, rules. So, you know, I think things are gonna get worse before they get better. I keep thinking that, one of these days the general public's gonna wake up and say, 'We need to get rid of this bunch!' but that's not happening.

MW: So what did you--you touched on this briefly at the beginning of the interview, but can you talk a little bit about your career after the Fisheries Reform Act?

BJC: [Laughs] I don't know that I had one! Well, after the Fisheries Reform Act, I went back to the academic department at N.C. State and taught a couple of courses, and one of the courses I taught was, ah, what'd we call it? Anyway, it had to do with policy and politics and facts, you know. So over the course, we chose twelve different issues and examined those from what was, what was the issue and pros and cons of that, what was the policy., and then how was that influenced by the politics. And I had students from N.C. State, [U.N.C.-]Chapel Hill, and Duke, and so we had a great discussion! We met one night a week for three hours or whatever it was, talk about these issues. And I'd have guest speakers come in, you know, somebody who'd come and talk about the Fisheries Reform Act, for example, and how that went through, played through the process. And then have the students discuss how they would do that and what they would do and how it would work out. It was a lot of fun! And I think we all learned something! So that was one course I taught. I went back and taught, ah, an old course that I used to before I became, got into Sea Grant, called Estuarine Ecology, Coastal Ecology, and so, talked about coastal ecosystems and how they function and what they bring for us. That was fun, too. Then I became the Graduate Student Administrator and started, you know, bringing in graduate students and processing them and getting them through to a degree. The goal was to reduce the amount of time that graduate students from the time they entered graduate school until they got a degree. It was getting a little long; everybody feeling comfortable sitting in there, you know [laughs] so I kinda hurried them along a little bit.

MW: Did you have a lot of students who were interested in getting into, sort of, the same field as you? You know, working with fisheries management?

BJC: Yeah, yeah. You know [laughs] these kind of things, if you do something that other people recognize, then that begets other people. You know, kind of draws in folks, so yeah. It worked okay.

MW: Do you think there's still a good number of graduates coming out of these programs looking to get into--?

BJC: Oh, I don't know about now. I mean, yeah, there's some opportunities. I think there's, you know, some good things going on down in Morehead City now with the cooperation of Duke and U.N.C. and N.C. State, that's good. You know, this sort of stuff is bigger than any one institution, and the idea was in the old days to get all these institutions working together. That works okay, except on Saturday afternoon on a football field or Monday night in the basketball court, but other than that, works pretty good. Yeah. Well I think, you know, there's a program now where graduate students--I think it's supported jointly by Sea Grant and by the [North Carolina] Division [of Marine Fisheries] where a student can get an assistantship to work on a fisheries management project. That's good!

MW: Do you have, um, I guess any other stories or a retrospective on the process or the results that you'd like to talk about?

BJC: I've forgotten all my good stories. [Laughter] Most the people I tell them about have died and gone away, so, you don't want to disturb them!

MW: You can make them anonymous!

BJC: Yeah, you don't want to disturb those folks! But I don't know, you know. Well, one thing I do get involved in back in the--Governor Hunt's first time, he set up what's called a Costal Water Management Task Force. And I got appointed to that by him, and a guy named Joe Phillips--I don't know if you've heard of Joe Phillips or not, but he was the, held some position down in, State Geologist or something, I don't know. But anyway, our goal was to try to figure out a way to manage water in the coast to protect the environment while giving people an opportunity to farm or drink or whatever. So we set up a stakeholders' committee to deal with that and Joe Phillips and I travelled most of coastal North Carolina. If any civic club or any garden club or anybody else wanted us, we'd come and talk, talk about water management. One night, I showed up in Engelhard--you know where Engelhard is, it's sort of out there?

MW: Yeah.

BJC: And so we go in and I get introduced to speak, and a guy in the back held up his hand. 'Doctor Copeland, have you come in here with your mind already made up, or do you want to know something from us?' [Laughter] And I said, 'Well, I haven't made up my mind about anything, and I would like to hear what y'all have to say.' He said, 'Okay, you can go ahead and speak now.' [Laughter]

MW: He just needed to make sure!

BJC: Could've been a hostile audience! But turned out to be, I mean, the interaction was really great and we did learn a bunch of things about--these were blackland farmers who drained a lot of land and we were concerned about that drainage impacting habitat, you know. It was kind of interesting. You learn a lot of things. Another time, I went to this guy's place and, explaining to him what we were doing, and he listened very kindly, very nicely and finally, when I got done, he looked up at me and he says, 'Sounds to me like you guys are just looking for something to do.'

MW: [Laughter] You're just bored!

BJC: And so on!

MW: Oh, my.

BJC: It's pretty good! I used to go over and I'd tell them, you know, Sea Grant costs every man, woman, and child in North Carolina thirty-five cents each year. And if I got done talking about what we were doing and how we were doing it and they didn't feel like they got their thirty-five cents' worth, I'd be glad to give it to 'em! Nobody ever took me up!

MW: [Laughter] That's great.

BJC: Nobody ever asked for their thirty-five cents back.

MW: Yeah, you had mentioned earlier that you held a lot of public hearings related to the Fisheries Reform [Act] and the Moratorium [Steering Committee]?

BJC: Yes, we did.

MW: Was there anything really surprising or interesting that you learned there?

BJC: Yeah! Well, lots of things! I mean, you know. It's an age-old problem: when the government want to do something for you, they don't ever listen to anybody they're going to do it to. Right? And the most important thing you can do is find out what their thoughts are. And so, we went to all these places. I mean, couple of times it was a little bit hostile, 'cause they thought we were in there to take their fish away. And people got a little bit excited about that. [Laughs] I don't know that you--Jule Wheatly, he's dead now, but Jule was a member of the Fisheries Commission. He also owned what's called Beaufort Fisheries, processed menhaden. And we took turns chairing these public hearings. And so Jule was on the Moratorium Steering Committee, and it was his turn to be the chair. And since he knew all those people Down East in Carteret County, he'd just be the chair of that. Well, Jule was kind of a polarizing individual to start with, and he walks into that room and they pounced on him: 'Turn coat!' et cetera, et cetera. And they wound up calling him the Ayatollah of the Fisheries! [Laughs] We thought we were gonna have to get the--

MW: Oh, my gosh!

BJC: --law in there to rescue Jule out of that meeting, but it finally quieted down and we finally got some interaction going. But Jule had 'em immensely excited. [Laughter]

MW: Oh, Lord!

BJC: Yeah. Ayatollah. So we called him Ayatollah after that for quite a while.

MW: What were people concerned about from the get-go there?

BJC: They were afraid that we were going to take their fish away.

MW: They thought that y'all were basically coming in to say 'you can't fish anymore'?

BJC: Yeah! And, rightfully, they took issue with that. But, you know, generally speaking

what we would do in a hearing was to being the meeting with an explanation about what we were up to. Well, Jule didn't quite have that down! [Laughter] The longer Jule talked, the more they got upset!

MW: That's an important part to have down when you start!

BJC: One needs to have that pretty straight. And, you know, from the standpoint of the folks, they need to know, you know, 'what do you guys want?' Like the guy in Engelhard: 'You come in here with your mind already made up or do you wanna hear what we have to say?' Interesting question. Important one. So, Jule failed to do that and he paid the price! But, you know, the other thing was that we held hearings in commercial fishing villages, in tourism centers, and, as we went across the state, with Bass Fishermen of the Piedmont or something. I mean, some recreational fishing clubs and things like that. You had a little bit different perspective from those types of people, but all in all, you'd finally get down to the real issue, and that is 'we don't have enough fish to go around.' So let's get on with something or other here that's gonna get us where we want to go. So you--gotta kind of interact with them a little bit.

MW: Did you find that there were certain communities or sort of interest groups that were, um, from the get-go a bit warmer to the idea?

BJC: Oh! Oh, yeah! Oh, yeah, yeah, yeah! Some places, you know, hard to warm up at all! But yes, oh. People have a lot of preconceived ideas, people already know what they want to do, they don't want somebody telling them what it is they're gonna do, and so on. Yeah. A lot of that sort of thing.

MW: What types of people generally did you find were sort of, like, hesitant at first?

BJC: Yep. Some were he--well, most of them would go ahead and tell you. You know, the idea was to have some interaction. I mean, purpose of the public hearing is not just to hear;

purpose is to have some interaction so you can actually work something out. Doesn't often happen, but that's what you're supposed to be doing. But, uh, yeah. I mean, the public hearings were interesting, and we had a lot of them. We spent, I guess, over two years doing this.

MW: And was that right from the get-go?

BJC: Yeah. I mean, it took a while.

MW: Well, do you have anything else you'd like to share about your time in this process, or something that led up to it, or something that you've noticed in the intervening twenty years?

BJC: Oh, I never finished the question you had about my career after retirement! [Laughter] I retired and we built this place here, so I started farming. I, you know, had cows and all that kind of stuff. So that took some of my time. But I also got appointed to the Chatham County Planning Board and I'm still on Chatham Planning Board. This is my last term; I can't be reappointed again, so this is it. But I've been there for ten years. And--Chatham County is related to Wake and Orange Count[ies] in that they keep pushing into our County! [Laughs] And we try to maintain a rural character here, but that's being pushed further and further south. And now with the new development around Pittsboro, it's gonna be different. I started to say 'awful,' but it's going to be different. And so we're dealing with, how do we manage this surge in development and the encroaching of big-time towns like Cary and Chapel Hill, and now Apex, a well. And so, it's been an interesting time. That keeps me off the street, you know, things to do. [Laughter] I've also been very active in church work: I'm Chairman of the Board of our church and do a lot of thing there, and of course I was on the Marine Fisheries Commission until fourfive years ago. And, let's see, what else did I do? Oh, I have a garden, if you didn't notice! All around, jolly good fellow.

MW: [Laughs] Yeah! So, mentioning all these things that you've done since then, you've

been involved in so many other groups, sort of advocacy groups and organizational committees. What did you, personally, sort of learn from the whole process of the Fisheries Reform Act that you carry forward into your work?

BJC: Ah, listen. Main thing. You know, like I told somebody just yesterday, in fact: I'm not gonna argue with you about your opinion, as long as you got one. And what people need to remember is that we, you know, we're all in this game together. And that's how it was with the Fisheries Reform Act. And we're not gonna get to the end of that game unless we learn to understand one another. And so that's the biggest, biggest lesson; of course, I learned some of that on the Coastal Water Management Task Force, as well. I mean [laughs] you gotta listen to these folks. They have a firm commitment in where they live. I mean, I have a firm commitment here. You don't come in here and tell me what to do in my place! We may sit and talk about that, but, you know, we're gonna have to listen to one another and we're gonna have to have some sharing of information. That's an important lesson, and we don't do enough of that. In fact, nowadays, we don't do much of it at all. And that's disappointing. I mean, I told you, I'm Chairman of the Board at church; you can ask a question at a church meeting and there's absolutely zero response. [Laughter] I mean, come on! I don't understand! But people don't want to get involved in an argument; they'd rather just have their mind made up and go do it and, you don't like it, shoot me. It's crazy.

MW: Yeah. So you think, um, just sort of--'cause you'd mentioned earlier about how this dialogue and this talking was so important, and being able to communicate, and it sounds like, before that, you just need to listen, learn how to listen.

BJC: Ah! That sounds easy, but that's not easy to do. Okay? I mean, it's not easy to listen to somebody else's opinions. 'Cause I already know what's correct, I mean, you know. And so

that's difficult to do. But we must learn how to do it. Now I fear for our grandchildren, 'cause things aren't gonna get better any time soon. Well, I mean, what is the population of the Earth? Nine-billion now?

MW: Something like that.

BJC: Or seven--no, seven-and-a-half billion. It's gonna be nine billion in 2030, so [laughs]

MW: Somewhere between those two.

BJC: Yeah. And three billion of them are hungry. What are we gonna do? You know, technology can't solve all that. We're gonna have to change our ways somehow. And I don't see us changing our way much. Not soon enough, anyway.

MW: M hmm.

BJC: I shouldn't worry; I'm eighty years old, I'm not gonna [laughs] I'm not gonna last that long!

MW: It's better to worry than to just let it be a problem! [Laughter]

BJC: Yeah, so. Anyway. That's the way it is these days.

MW: This might be a bit redundant of a question, but what's sort of your hope for the future of fisheries in North Carolina in particular?

BJC: Well, my hope is that we will improve the environment and maintain fisheries populations at some sustainable level. My hope is that we will be able to live with the allocation process, and some day, begin to figure out a way that we can balance that. That's my hope.

MW: Well, anything else you'd like to add?

BJC: No! I like your project, I think it's a great idea! Hello to Barbara [Garrity-Blake] and Susan [West] and Jimmy [Johnson]! You know, it's been a while. [Laughter] Good folks.

You're in--you're in good company!

MW: Thank you! I'll go ahead and shut this off.

[END OF INTERVIEW]