Christina Package-Ward: So, can we start with your name and what city you live in?

Robert Mahood: My name is Bob Mahood.

CPW: Either way.

RM: My name is Bob Mahood. I live along Edisto Island in South Carolina. Council Office is in Charleston, South Carolina.

CPW: What year were you born? Where was your birthplace?

RM: What year was I born?

CPW: [laughter] You don't have to.

RM: No. I was born in 1944 in St. Thomas, Ontario, Canada.

CPW: What were your father's and mother's names and their occupations?

RM: My father's name was Robert Mahood. He was a career Air Force. Then after Air Force, he worked for McDonnell Douglas helping build the C-5A, and then he retired. My mother, she worked primarily, I think, with American Red Cross most of her life since.

CPW: Were you always interested in the marine environment as a child?

RM: No. [laughter] My father was stationed overseas when was a teenager. He was stationed in Athens, Greece, and did a lot of diving. And so, I was interested in two things. One was marine biology and the other was marine archaeology, [laughter] and ended up in marine biology.

CPW: Do you have any brothers and sisters?

RM: I have one brother.

CPW: Is he involved in fisheries or any fisheries management?

RM: No.

CPW: Do you have any children?

RM: I have three children, none of them are involved [laughter] in marine fisheries.

CPW: Can you tell me a little bit about your educational background? Where you went to high school and college?

RM: I went to high school in Karachi, Pakistan. I think I was in the eighth to ninth grade in Karachi. Then I was in the tenth and eleventh grade in Athens, Greece. Then I did one year of

high school in Grand Forks, North Dakota, which was the last place my father was stationed. But it changed from [laughter] Greece to North Dakota with the ambition of being a marine biologist. [laughter] So, there weren't any marine biology schools close to Grand Forks [laughter], so that's why I ended up with University of North Dakota.

CPW: When did you start being involved in marine biology at that school?

RM: Actually, I graduated with a degree in Fish and Wildlife Management. I went to work in Kodiak Island in Alaska, working on the three different salmon species, red salmon, king salmon, and pink salmon. I think it was about a five-month job. Then I went to Orlando, Florida. I was married by then. My wife stayed down in Florida with my parents. I went down to Orlando, Florida, lying around the pool, waiting for somebody to call me about my application, not really worried but I wanted to go and be a marine biologist. I had an opportunity to work in with the State of Florida. But I also had, at the same time, opportunity to go to Alaska. Alaska went out. I got called from State of Georgia. They want me to come over and interview for a marine biologist position, not because of anything I've done in fisheries. But when I went to college, I worked for the Agricultural Research Service. I was doing a lot of work with chlorinated hydrocarbon pesticides. I was collecting the data, collecting the animals, the dirt, potatoes, and all that kind of thing. I worked with a chemist who was doing the analysis of the amount of chlorinated hydrocarbons in the various samples I brought her. Lo and behold, about the time I applied in Georgia, all the blue crabs were dying along the lower East Coast. They thought it was attributed to spraying Mirex for fire ants. So, they needed somebody that knew something about how to deal with the collection of chemicals in the set of things in order to look for chemical trace. And so, I got hired as marine biologist because of what I do [laughter] work in agriculture, part-time, when I was going to school. So, it's kind of interesting. While I was in Florida, I was sitting there working in an orange juice plant as an inspector waiting [laughter] to get a different job as marine biologist. So, that was kind of roundabout way that I got into the marine biology field, although I wanted to since I was in Greece.

CPW: How long did you work for Georgia?

RM: I worked for the State of Georgia for fifteen years and became the director of Coastal Resources Division. I started out as marine biologist working with crabs and then shrimp. Then I went to work from the director there to the director of the Division of Marine Fisheries in North Carolina. I was there a little over three years. Then I came in this job with the council, which I've been in since 1986. So, it's 1986, over twenty and pushing thirty years. That's how I got to where I am.

CPW: Have you worked with any notable people in your career?

RM: Yes. Really, one of the first bosses I had in Georgia as a marine biologist was a fellow named Bill Anderson. Bill was one of the first, if not the first, marine biologist hired by the old Bureau of Commercial Fishers to do a research along the Southeast Coast on shrimp and some of the fish species in this state. He was an interesting guy to work for. Number one, he had a lot of knowledge. Number two, he was renowned in the field if you go back that far. They did some of the stories are great because they did their research work off of boat. There's also a patrol boat

for roamers. [laughter] So, they had nets and machineguns that are [laughter] more intense, so he had some interesting stories to tell. But he was very knowledgeable. He was bored. If he told you the boat was leaving the dock at 6:00 a.m., you better be there or else you'll be waiting for him after they were going down the river and that's it. But he was probably the most renowned person that I have worked with. I worked with Ed Joseph, who was the director in South Carolina for a number of years, both of the Division of Marine Fisheries and the S.C Sea Grant office. There's been a few of them along the way that have been pretty influential in shaping my careers.

CPW: So, what are some of the significant changes that you have seen in the way that fisheries are managed today compared to when you first began?

RM: I'm going to go with the assumption when you say in fisheries management, including being a scientist with collecting data and have everything because, actually, you are part of the management program when you play – especially at the state and federal. Probably the most significant thing that happened is computers. I don't know if you had a chance to meet Susan Shipman or had interviewed Susan Shipman. She's been around for a long time too. She had quite a perspective. But Susan was the young biologist we hired. I can remember her coming and saying, "Bob, everybody is getting these computers. We need to get computers." [laughter] I thought, "Computers? [laughter] Why you need a computer for?" I'm thinking, "You got a calculator. You can figure things out." But that made, of course, a major difference in analysis you can do. So, what it led to is better science, better analysis on the scientific data we had. Probably another thing that's really improved has been the data collection. A lot of it was very much seat-of-the-pants when we were young biologists and young managers trying to decide what was the best way to manage the shrimp or the fish or whatever. That's been true in the council too. It's better science, more analysis. Although being more complex sometimes leads to more debate about what [laughter] is a good science or bad science, or how is the science being used, this type of thing.

CPW: Are there any other changes?

RM: I think the data collection is better. The data collection programs are better. One of the big, probably, differences it would affect someone like yourself is when we started in this business, we didn't have a social fisheries scientist or fisheries economist. So, as a biologist, you did all of that in the management plan. You had to try to figure out how this could affect people, and you generally got that by going public hearings and how it's going to affect people and the economics. You just kind of do by the seat-of-your-pants yourself. So, that's been a big difference in different components. Probably, I just want to say recently going back five years, six years, seven years, it has been the NGOs, environmental groups getting involved in fisheries management and having impact and input on the fishermen. That's made a big difference.

CPW: So, what would you say has been the biggest improvement?

RM: Probably, I think, the data collection, the amount of data we have, and the analysis. We now have standardized stock assessment programs, whereas before a lot of the stock assessments were back-of-the-envelope. [laughter] A good example of where we're still suffering from back-

of-the-envelope is our management of the (inspection?) and also group of fisheries, which were stuck with an assessment that was done in a way that would never be acceptable today. But that assessment basically caused us to close down on these fisheries, so you have no more data. So, you can't do a standardized assessment on. Now, we're stuck with what we had back then. It causes us a lot of problems. So, I would say it's better data in some areas where you can get it. The analysis is more sophisticated. That's been improving, but it's got a long way to go. [laughter]

CPW: What do you think remains lacking?

RM: Better data, that is the key to everything we did. Of course, to collect better data, you got people and resources and in government too are very limited on that. Right now, we're kind of holding our own. I've seen the ups and downs over the years of about the resources that have been available to collect data and to do the analysis. To do the analysis, you have to have stock assessment scientist, and they have to be trained somewhere. And so, that is problematic. Then you also have to deal with the Magnuson Act, which we operate under. You have to have trained fishery social scientist and accountants to deal with those parts of it. No longer is a battle [laughter] which somebody thinks the economic or social aspects are enough because you can get challenged on that. But there's been improvements in all those areas. You're here [laughter] and you used to be social scientist in the Regional Office. It's an improvement, and we push for more all the time. We have a social scientist and staff. Probably, I guess fifteen years ago, we did. Time flies so fast. I have a hard time remembering historically what we're saying at these times.

CPW: If you could change anything about the current way that we manage our fisheries...

RM: I'm sorry?

CPW: If you could change anything about the current way that we manage our fisheries, what would that be?

RM: I think one of the things under the Magnuson Act that's been very problematic and started in 2007 is the science part of the management was given precedent, and that science was turned over to our scientific and statistical committees to set the upper boundaries of what the council could do. Then there were also some other parameters put in there that required rebuilding fisheries in certain timeframes, ending overfishing in fairly short timeframes that took away a lot of the flexibility that the councils had. I think we need to get back to having some of that flexibility. You can take probably, maybe not our largest, but one of our most important fisheries in the Southeast, in the South Atlantic, is red snapper. Yet, that fishery has been closed for five years. Why it's been closed? Because operating under the Magnuson Act, we were required to do some very drastic things to keep within the parameters of the law. That law has now produced a situation where even as the fishery rebuilds and you have a lot more fish out there and that fishermen were seeing more than they've ever seen, the dead discards in the mixed-species fishery that the red snapper occur take up all the annual catch level, annual catch limits. So, you end up with a situation where the fishermen had to throw back dead red snapper weighing twenty pounds. This very valuable fish, both sports-wise and commercial-wise,

because of the law, very strict law we operate under, the flexibility has been taken away. Science trumps everything. You no longer can consider the social and economic aspects. Now, it's good that science plays a high role. Because prior to that, when the councils had flexibility, sometimes they didn't do enough. [laughter] But there's a happy meaning that we need to get back to or have some more flexibility. If you're a fisherman out there, you've been fishing red snapper all your life and it may be low levels of sustainability, they're not going to go away. Then all of a sudden, you have three, two-good year classes like we've had recently. I'll send this a lot of rounds. It's a good year. You had a couple of good years then you go back or maybe you don't. Then you have another good year. If I'm a fisherman, at least I'm fishing and getting advantage from those good year classes and recruitment to the fishery. Right now, I'm a fisherman who can't event catch it. And so, there's something wrong with that picture. We just need to get back where the councils can address those types of issues.

CPW: How would we make a change?

RM: The Magnuson Act has to be changed to give the council more flexibility. It's got to be flexible in that in such a way that it just doesn't open a wide-open game where that's the only consideration is how it's going to impact people. There's certain circumstances and certain species, especially in mixed-stock fisheries, where there's got to be more flexibility put in the Act, and special circumstances that councils can address it, where they can maybe go beyond what the scientist say that they should be doing. Because the overall thing is even if we have better data than ever before, we just don't know what's going on if they're managing a lot of cases. It's the supplement that we need to be able to address. Looking around, we've got a lot better data than we've ever had before. But still, we're not where we need to be.

CPW: Are there any memorable moments or periods that you remember most during your tenure as a fisheries manager?

RM: Yes, I've had a lot of memorable moments [laughter] though I can't talk to you about. [laughter] But I think one of the things that struck me – and I don't know if you know a fellow named Mike Orbach?

CPW: Yes, we have.

RM: Mike and I talked about this a lot of times because, of course, it's easy to send. When I was a young biologist, I went to work in Georgia. I was so excited that I finally had my job as a marine biologist. I have my own project. I have a boat. I think my project budget was like \$25,000 [laughter] a year, but I thought that was wonderful. And so, I go to my first public hearing. I'm there to help the fishermen and to help them with their life and their job and manage their resource and all of this. I got my first public hearing, and I found out I'm the enemy. [laughter] They hate us. They call us names. I was so devastated when I went home. I told my wife, "I can't believe that. I thought these people would be our best friends, you know?" She said, "Well, I believe you'll start to get along. But it was interesting because that that kind of set the tone. Of course, now, it's very clear. When you, a marine scientist, even if you're just collecting the data and part of the management system, you're a regulator. When you regulate people, even though you are trying to do the best for the resource to make sure they have a

sustainable resource in the future, most fishermen, it's the short-term that they're looking at. In many instances, now, what this is translated into what we see is, say, red snapper, we say, "We're going to rebuild this red snapper resource and we're going to come back and boys are going to be off catching red snapper out there. It's going to be great. This has been through for-higher segment. A lot them say, "I won't be there. You put me out of business. You along with the down turning economy, I won't be there when all the red snapper come back. I won't be there when all these species comes back." And so, it's kind of hard to deal with them now. But that's how that has played out. Now, there's been a lot of memorable things, I think. These are probably some of the best things that have happened. In the Southeast, we were probably the one council that had the most overfished species. Most species are undergoing overfishing. We have fixed all of that. We've got everything that's no longer overfish, or if they are overfish, we have on rebuilding plans. They're becoming not overfish. We've ended all overfishing. But it's frustrating sometimes because you've done all of this and you get a new stock assessment and, all of a sudden, they're overfishing again. So, if you've listened to me through this week and you've seen how the council tries to deal with that and how they try to plan ahead and have some flexibility building. But there's been a lot of memorable acts. I've enjoyed my career. When I moved to Georgia, the first project I had was actually working cooperatively with the folks in South Carolina, North Carolina, and Florida on this pesticide issue that I was telling you about. And so, I got to go to different places to meetings. I like Morehead City, North Carolina. I like Charleston, South Carolina. I like [inaudible] where I lived in. I've got to work in all three of those places. So, that's been pretty memorable in my career to be able to do that. So, is that what you mean by memorable?

CPW: Yes.

RM: I've got some memorable moments. [laughter] When you supervised a lot of people, there are good things that happened.

CPW: So, what have you...

RM: In the right mind. [laughter]

CPW: What have you enjoyed the most about being involved in fisheries management?

RM: I think I'm a people person. I think just working with the people. I get a lot of pressure from dealing with a lot of different people. As you've seen, from the time you spent here and the time that you spent with NOAA Fisheries, you get to work with a diverse group of people and a lot of very good professional people who work very hard. The fishermen are very sincere. It's been good because over time we've seen so many changes in the fishing community in the constituency. When I started in this process, I started way back as an SSC member with the council. Of course, I was actually a voting council member in Georgia, a voting council member in North Carolina. So, I was actually a voting council member for eight years before I came to be a staff member. We've seen a lot of changes in the way that the council functions. We've seen a lot of changes in the way that constituents approach the council. When we first started, most of the testimony was, "When you [inaudible] how many of you have ever been out on a boat or you don't know blankety, blankety, blankety." Now, the fishermen are much more

sophisticated. They know how the process works. They get together. They develop a plan. They come with input as opposed to just shaking your fingers and telling me, "We don't want anything. We don't want anything." The process has changed a lot in that way. I think it's been very good.

CPW: Why do you think that is?

RM: I think the fishermen, the folks in the industry that really understand that what our doing is a business and understand they have to participate in this process. If you stand outside and just throw rocks to the process, that didn't get you anywhere. What the council wants – and I think you'll see it in this visioning process we're working on, you see how complicated Magnuson Act group of fisheries is. We want to know how the fishermen want their fish to be managed in the future. So, obviously, a commercial guy and a recreational guy may not agree. But they should know how they want that part of their fishery managed in the future. So, we were hoping that we'll get that. We'll give the council guidance, not how it's been or how this running out, but let's look ten or twenty years down the road, how do you want this fishery to look? We don't want these [unintelligible] on a yearly basis and in this type of thing. So, we're hoping to get some items. So far, in the first few meetings we've had, we've got some really good input. It's still going to be difficult because you get down basically here. You're going to get down with the allocation issues. When you reallocate, somebody loses, and somebody wins. But it's far as you know. [laughter]

CPW: What have you enjoyed the least?

RM: I think the least to what I've enjoyed is how you adversely affect people with what you have to do. There's still a lack of understanding that we can't just do anything we want to do. We have got to operate under the mandates of the Magnuson Act and the laws and other Acts and laws. There's another one in place being in The Marine Mammal Protection Act, Endangered Species Act, all these things we have to address when we manage. It's just very difficult. I had one meeting, this is back when we were looking at closing the red snapper fishery. I had a friend in Orlando, Florida who used to be one of my big turkey hunt buddies. We went to Oklahoma together. He was a dentist, but he had like four charter boats that he owned in Jacksonville Beach. He was at the hearing. He even left to hunt, but I think he was mad at me. He was upset with me and really didn't want to have anything. He thought we were crazy even though I tried to explain to him why we're doing what we had to do, because it was affecting that part of his life or in his vessel care that kind of thing. So, that's kind of hard to deal with and then we know that a lot of the for-hire sector have been badly affected by what we've known a red snapper annual reductions and other species. That's one of the worst things. But it's yielded benefits because this last year has been a good year. We've been able to give double the black sea bass ACL, really increased the remaining snapper ACL, and increased the number of species where the fishermen can harvest more fish. That's been great. We were taken away, taken away, taken away into the Magnuson Act for a number of years there. Now, we're finally starting to give some back.

CPW: What do you think is the biggest concern for the future of fisheries management?

RM: I worry about just having the resources and the funds to get the data we need. That's going to be a problem. Unfortunately, we work in a situation where it's never going to be a perfect world. There's a disparity if you kind of what we have in the Southeast, which is our fisheries had been more recreationally oriented. If you look at the constituency, we have a lot more recreational fishermen than commercial fishermen. Our commercial fisheries are very small compared to New England and the North Pacific. You come from out of Oregon, you understand that. And so, consequently, if you go up to like, Alaska, they have annual data streams of fishery, independent data that go back to the [19]70s. So, for their management, they go out and know these cruises. They come in with the numbers. They plug it in to the previous forty years of information. It kind of spits out what their annual catch limits should be in this type of thing. We don't have much independent data, fisheries data collection. We hit today we have. We pull everybody together. You get guys who have computers with models making assumptions and everything else, and we spit out what we hope is the right answer. I say, "We hope," because we don't have the basic background information to know what's going on out there in the ocean like we wish we had. So, I worry about, are we ever going to get to that point? Now, we are building some data streams. We do have more data as the years go by, and each assessment should get better. But sometimes when the law changes, you operate under the changes. Now, you have to look at the assessment and look at what the requirements are relative to the outcome of what the size if they have limits. So, I worry about that. But I'm more optimistic now than I was in the last several years about the future. I'm hoping this visioning program will pay off. The fishermen seem to be participating. Of course, fishermen are always just a little bit of leery when the government comes to "We're trying to help you here, you guys. What else [inaudible]." But that's the main thing I'm worried about, just how we're going to have the data we need? How we're going to have the resources to manage and meet that we need to have?

CPW: What do you think there is such a big difference between the data that we have in the State of Southeast compared at the Northeastern?

RM: Because, no, it used to be Bureau of Commercial Fisheries. That's where the emphasis was. I was under the Commercial Fisheries. That's the whole baseline of – and recreational fisheries have never – the value of recreational fisheries have never really been a big factor in the overall picture. Because it's just much more difficult to get a bag on a recreational fishery than it is in commercial fishery that lands a certain number of fish with a certain value that's extrapolated out through the distribution process until it gets to the public. What is it worth for a guy to be able to go out there and catch fish eggs, it's just really hard to determine. So, that's one of the problems, I think, we've dealt with. It's unfortunate we don't have more work that's been done on the back of recreational fisheries.

CPW: Is there anything that you are particularly proud about, accomplishments in the fisheries management?

RM: Obviously, most recently, I think ending overfishing and rebuilding our fish stocks have been better and being able to consequently, give more fish back to the fishermen. That's probably what I've been most happy and proud about. There's been a lot of points in my career where there's been things that I'm proud about. I've been very fortunate to be in a leadership role

in two of our states in the Southeast and the councils. So, I'm proud of that.

CPW: Do you have any advice for a young person who might want to get involved in fisheries management?

RM: Yes. I had an opportunity when I was the director up in North Carolina to talk to some of my classes. Most of them weren't management oriented. I always tell them, I said, "You got to remember, even though you're just a fish person out there playing with the critters, which is the most fun part [laughter] of the job I ever had, the results of what you do impact people. You must always keep that in mind. You must understand that if you're a university researcher or maybe a little different, that you're part of a state management and work for the state or the federal government, you're a manager, you're a regulator, you're not going to be popular. Because have you think about people that regulates your utilities or regulate this, whatever, that's going to be the situation and a lot of the marine scientists started [inaudible]. "Oh, I'm here to help these guys. They're going to love me, " and they don't. I tried to tell them don't be shocked especially if you go into the policy part. But it's a good feeling. It's very interesting. It can be very rewarding. But you got to realize what you are, and you are a regulator. People don't like that sometimes.

CPW: So, when you were on the SSC, were you appointed to it?

RM: Our SSC, they're appointments. We have a very definite process. As a matter fact, we don't have an SSC selection committee at this meeting. But we have a process where folks apply. Then our SSC selection committee meets in closed session, talks about the qualifications and different things. We have certain number of seats for economists and social scientists and marine biologists, statisticians, this type. We are going to try to keep a balance there. Then also on our SSC, we have a socioeconomic panel. They tend to deal more with the application issues. Right now, we've just went through the process where the social scientists and economists would sit there because most of the discussion was about the status of the stock or this type of thing. But now we're getting more, especially allocation issues. We're going to need more input from our social and economic scientists.

CPW: So, when you were a member of the council, you were representative of South Carolina, or Georgia?

RM: No, I was the representative of Georgia.

CPW: Georgia.

RM: I was the state director from Georgia. I was the state director from North Carolina. I did eight years of voting council member.

CPW: On this very council?

RM: On this [inaudible] council. The hardest thing for me once I got this job was to keep my mouth shut [laughter] because I was no longer just council member. We're the staff, we do what

they [laughter] want us to do. We go to the direction. Of course, you sit there. A lot of times, if I had been a council member, I'd have been opposing the direction they go, and still, that's the case. But that's not my job now. My job is to keep them informed. Our staff provide all the information they need to make the proper decisions.

CPW: I think we've covered all the questions that I have. But is there anything else you would like to mention or think we should discuss?

RM: I don't think so. But I do think one of the things that maybe I didn't talk about a little bit is the Magnuson Act process is a very open, transparent process. Now, we get banged on all the time. But I have informed people with these all kinds of behind-the-scenes stuff going on. But it's probably the most transparent management process that I can think of in this country. We don't do anything that the people aren't like there. The Magnuson Act process was set up like that. You'll hear people sometimes say, "Look, council member should at least have a conflict of interest or whatever." That's just not the case. The Magnuson Act was set up to have the people that are involved in the fishery being the ones that make the decision about how the fishery should be managed. We do that by the appointments of the council members or if we don't, the Secretary of Commerce does and by the advisory panels we appoint and the scientists we appoint. We tried to get a fair mix. You hear them talk about council appointments. They tried to get equal number of recreational constituent tags, and equal number of commercial tags with some other types thrown in which maybe ex-state directors or this type of like data. They served with council in the grants process for years and years and years. Those people bring a lot of expertise. Then you also have the state director. A lot of people will tell you that the state director has more conflict of interest than [laughter] other private citizen council member because his state give him the direct marching orders to go certain directions. That occurs a lot, but it can occur in particular issues. It's a good process. But the interesting thing is that congress ultimately decides what parameters that councils going to operate under. You have a lot of times when the constituents start yelling, it's a congressman, saying, "Well, you guys shouldn't be – this stuff on this, this stuff on that." That's just part of our political process in this country. The appointment process is pretty political. You've got to get on the government's list. A lot of times you got to pick their preferred candidate. Then that's sent to the Secretary of Commerce. You have to be vetted through that process with an extensive background check. So, it's interesting, but I think a very good process. One of the things I've seen over the years that really amazes me, and I probably came out sensitive tear but is that when congress set this up and picked out eight regional areas of jurisdiction for councils, somehow, they did a pretty dang good job. Because as you go around the country and you policing us coming from the Northeast set, the mindset of management is different. You're not on the list because everybody went to the same schools over there. If you're in this part of the world, everybody went to the same. So, the thought process of how fisheries are managed can vary and even varies within in each region. They're not all the same. They got analyst. The councils aren't all the same. So, it's an interesting process. Congress seemed to do a good job of how they set it up. It's evolved in different areas in different ways and how things are addressed and what the tools the different councils have. And so, I've been blessed to work within this process. I think that's about it unless you have more questions.

CPW: I don't think so. I think that covers everything on my list. Thank you for doing this.

[end of transcript]