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Lent, Rebecca ~ Oral History Interview

Ruth Sando

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Voices from the Fisheries
166 Water Street
Woods Hole, MA 02543

Interview with Rebecca Lent by Ruth Sando
Summary Sheet and Transcript

Interviewee
Lent, Rebecca

Interviewer
Sando, Ruth

Date
July 19, 2016

Place
NOAA Headquarters
Silver Spring, Maryland

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Use Restrictions

Biographical Note
Dr. Rebecca Lent knew she would study economics in college after taking a course in high school. She obtained her Bachelor degree in Economics from University of California San Diego and her Master's degree from San Diego State. After graduation, she worked at Oregon State University in the economics of the salmon industry. While there, she pursued a Ph.D. in Marine Economics graduating in 1984. Dr. Lent worked in academia for 10 years in Quebec before beginning her career at NOAA Fisheries in 1992. Over her 22 years at NOAA Fisheries, she served as an economist, a Division Chief, a Senior Executive, Deputy for Regulatory Programs, and the head of the International Fisheries Office before becoming the Executive Director of Marine Mammal Commission in 2013.

Scope and Content Note
Interview contains discussions of: Marine Mammal Commission, marine mammals, Deepwater Horizon, individual transferable quotas, sustainable management, World Bank, highly migratory species, underwater acoustics devices, U.S. Navy, whales, drones, cryptic mortality, Alaska Native Harvest, Arctic, subsistence, traditional environmental knowledge, Tuna Regional Fishery Management Organizations, Kobe Plot, Kobe 2 Strategy Matrix

Dr. Lent discusses her career at both NOAA Fisheries and the Marine Mammal Commission. She compares MMC and NOAA Fisheries and her ability to be proactive and focus on the big

picture at MMC versus the day to day work at NOAA Fisheries. She describes how economics can help with the protection and preservation of marine mammals while also positively impacting the commercial fishing regulations. In addition, she spent time working on international fisheries especially focusing on highly migratory species.

In her role as Executive Director at MMC, she has implemented a variety of changes one of which was a listening session in Barrow, Alaska meeting with the Natives to hear about the impact climate change has on their lives. She is proud of the work she has done throughout her career and recounts how she is considered the Mother of Kobe 2 Strategy Matrix used by the Tuna Regional Fishery Management Organizations.

Indexed Names

Boness, Dr. Daryl J.
Holt, Dr. Sue
Reagan, Tim
Tromble, Galen
Twiss, John

Transcript –

Ruth Sando (RS): This interview is being conducted as part of the Voices from the Science Centers project funded by the Northeast Fisheries Science Center. It's also a part of the Voices from the Fisheries project that is supported by NMFS Office of Science and Technology. I'm Ruth Sando and today I'm speaking with Rebecca Lent at the NOAA headquarters in Silver Spring, Maryland. We are meeting on July 19th, 2016 at one o'clock in her office.Dr. Lent is the Executive Director of Marine Mammals Commission for NOAAs National Marine Fisheries Service--

Rebecca Lent (RL): Ruth, can I just stop you there? I hope this isn't a major problem, but we are not part of NOAA. We are part of the government, but we are not part of NOAA

RS: Oh, Ok, alright.

RL: I did work for 22 years at NOAA Fisheries, and three years ago I came to Marine Mammal Commission. We are an independent, 100% federal agency not connected with any department, Interior, NOAA, Commerce or anything. Because we are an oversight agency, we work a lot with NOAA. We work a lot with the Department of the Interior, with Fish and Wildlife Service and the Bureau of Ocean and Energy Management. We work with the Navy. We work with any federal agency whose actions impact marine mammals.

RS: Alright, I did not realize that. I thought you were officially part of the organization of NOAA. Thank you for clarifying.

RL: Do you think that would be a concern?

RS: No

RL: Alright, I can always speak from my 22 years of regulatory experience at NOAA Fisheries, of course.

RS: Well, I think some of the issues that others have addressed are ones that you'll comment on as well. Certainly sustainability - and some of the other big, big issues.

RL: Absolutely.

RS: So let me ask you then, knowing that this is an oversight group to describe your role and the role of the oversight organization.

RL: So our role is making sure that federal agencies are implementing the Marine Mammal Protection Act as Congress intended. To that end, we review draft regulations, policy documents, guidance documents, guidelines, to ensure that they match up with what the Marine Mammal Protection Act says. We work a lot on ensuring native subsistence harvest rights, and just generally dealing things that impact marine mammals. We are not only writing all those comment letters and recommendations, which by the way agencies are either required to follow or explain in writing why they don't follow our recommendations. We also are pro-active in a convening role in bringing people to the table if we have a major issue such as the survival of a marine mammal species that's in particular peril. We might bring all the private sector and public sector people around the table, or all the federal partners around the table. We convene to get everybody there. We're seen a little bit as a fair and neutral, although we are government, entity. We're a non-regulatory entity so we don't really have this problem of having to make these final decisions on regulatory measures, getting sued, and all that stuff, but hopefully we're proactive in avoiding problems before they become too difficult.

RS: So what is a sort of brief history of the organization in terms of when it started and how it was organized the way it was?

RL: The Marine Mammal Commission was created when the Marine Mammal Protection Act [MMPA]was passed about 42, 43 years ago. It's in the MMPA that the Marine Mammal Commission will be created because it was obvious that the implementation of the MMPA was going to be across a whole bunch of federal agencies. So there was kind of like one clearing house which is the Commission. So it was created then and it has grown somewhat, but it's still a rather lean and mean agency. We have 13 FTEs [full time employees] and been here for 40+ years.

RS: That is a small organization considering that length of time.

RL: Yea, small, and it's older than NOAA. I guess it's roughly the same but a little bit older than NOAA is what we like to say.

RS: So NOAA is one of the organizations that you are looking at, overseeing, much like the others.

RL: Correct

RS: How did you begin? I know you mentioned that you can speak to other issues about NOAA from your history. How did you, when and how was it that you began to work in this role?

RL: At the Marine Mammal Commission?

RS: Yes.

RL: Well, I had been working for 22 years at the Marine Mammal Commission, oh, I'm sorry, NOAA Fisheries, and I was just looking for other opportunities. I had had a sabbatical year and this opportunity came up and it was something that's related to fishers, because fishery entanglement and bycatch is the number one killer of marine mammals, so I had that bridge, and I'd worked with protected species in the international fishing area such as the dolphin fishery and the eastern tropical Pacific. So for me it was a new opportunity for me to learn new things and to grow and to expand my wings and they were looking for someone who is not just a marine mammal, not necessarily a marine mammal expert, but someone who could open up the commission to the world, and to other agencie, do more work on Capitol Hill, more work with the other agencies, so I took the challenge and got the job.

RS: Sounds like a wonderful opportunity, one that wouldn't come up very often.

RL: It's amazing. I'm so grateful. Ya, it's like my third career. I was in academia for ten years, then I was at NOAA, and now I'm at the Marine Mammal Commission -- it's really great.

RS: Who or what does the Marine Mammal Commission [MMC] report to? What organization is it part of?

RL: This is it.

RS: It's completely independent?

RL: Correct.

RS: So you're funded by. . . .?

RL: We have a line item in the budget in Congress. We fall under Commerce, Justice, State Department, but there's separate funding for us. I do have three White House appointed, presidentially appointed and senate confirmed commissioners. They just work part time, they're all someplace else, and there's a nine member committee of scientific advisors. They all have other jobs, but they advise us as needed. So anything that's a recommendation goes past my commissioners and the CSA [Committee of Scientific Advisors].

RS: So it's not part of the 13 FTEs?

RL: No it's not.

RS: Now the political appointees, you know often it's very hard to get people confirmed. Has that been a problem?

RL: It has been a problem actually, and these folks are nominated and then confirmed and then they serve basically until they are replaced. So, my chairman actually resigned over two years ago but the replacement has not yet been confirmed. So, it is a problem getting the confirmations. He's luckily sticking with it. I joke with him and say your job is like a hotel California "you can check out anytime you want, but you can never leave." So he's hanging in there, Daryl Boness is our chairman. He was a scientist at the Smithsonian here in DC. He's semi-retired in Maine, although he's the editor of the Journal of Marine Mammal Science. So he's very busy.

RS: Well, that is difficult on people. I hope they understand when they take the role that they might not have an end to it.

RL: Right, Right.

RS: So you operate under a line item, and you are part of - you said Commerce and State?

RL: Well, if you look in the Congressional record, and if you want to look at the budget for the Marine Mammal Commission, and you look under the heading which is CJS - Commerce, Justice, State Department. There are a number of other small agencies that are under there. And we fall under a paragraph that's in there, but our budget is completely separate from anything going on at NOAA or State Department or Justice Department.

RS: So it's just in terms of the funding coming through that line item, but otherwise it's not really a relationship there.

RL: Yeah, it's just that committee that covers our budget. So we go down to the Hill just like everybody else with our presidential budget, and say "Here's our budget, it's around $3.4mil" We justify it, and we get our budget and we've been fortunate to be flat lined if not a slight increase over the last three years. I consider that nothing short of a miracle because it's difficult times on Capitol Hill for natural resources right now.

RS: So sequestration really hasn't affected you?

RL: Not yet. Knock on wood.

RS: You are fortunate.

RL: Of course we are a very, very small budget, and I like to tell the folks on Capitol Hill that we're the $3million agency with a $10 million impact -- because we take our money and we invest it in group projects and have others bring their money to the table and hopefully have an impact above and beyond in our convening role.

RS: Ah hah Well given that it's such, so unusual organizationally, and so independent --What surprised you about it when you joined the organization that you hadn't realized?

RL: I was surprised by the difference it makes in your day to day working operations when you're not a regulatory agency. There's not that constant grind, and that constant pressure and the constant thought about, you know, I got to get this out, and I have this deadline, and I've negotiated this timeline on a rulemaking with a plaintiff. So I was surprised by the fact that we could actually sit back and think. Though we do have projects that come down the pipeline like a letter, if there's a comment period and we have 60 days to write our official comment letter, and some of those are complex when we're dealing with the Navy and sound and stuff. But for the most part there's not that pressure cooker feeling so we have time to kind of sit back and think about the bigger picture. See where we can be helpful and constructive in avoiding some of these problems before they happen. So that's kind of the big difference for me. I can plan my day and plan my job a little better than I could at NOAA Fisheries.

RS: Can you give me an example? You mentioned about avoiding some of the problems of the kind of problem that because of your non-regulatory nature that you can help to mitigate?

RL: Yes. How about this one. . . The Deepwater Horizon oil spill happened off shore. We know that marine mammals were impacted, but the problem is a lot of the funding that's coming down the pipeline is focused on coastal things like rebuilding a wharf, or rebuilding our community center, or tourist centers. We were concerned that the various parties who could apply for funding, these billions of dollars coming down the pipeline, that they wouldn't necessarily think about marine mammals. So we convened a workshop, we brought in researchers from state, from academia and from the federal offices who all work around the globe from Mexico, brought them together and said here's the evidence of impacts on marine mammals. What are some of the research projects we could do -- you can't really restore a dead animal but you can certainly take better care of them. What are some of the on the ground policy steps we can take to make sure that marine mammals who are left, who are not impacted, will be carefully protected –such as, increasing observer coverage on fishing vessels. We know that marine mammals were impacted by the spill. We want to make sure that those that are left are carefully monitored for marine mammal bycatch in the fishery. Can we make sure that states apply for funding for stranding networks so that as these sick animals are washing up on the shore, we have money for people to go down and pick them up, take the specimens, get them sent out, get them tested -- so we can monitor the long term impact. It does take a long time for marine mammals. They're like humans, they live a long time and they eat fish and it takes a while. So it's that kind of thing. We convened that group and came up with the report with what needs to be done? What are the gaps in our knowledge?

RS: Then, having disseminated the report, are you responsible for follow-up? Do you see what happens down the road a few years?

RL: We're not responsible other than to ourselves and since we made that investment, we are definitely following up. We're in contact with the people who came under the workshop. We're letting them know, we have regular updates on what we're hearing about the money and the

opportunities to apply for grants through these funding lines. So yes, we're definitely following up.

RS: And your fulltime employees… are they engaged in research and publications? Is that ahmmm. . .

RL: A few of them have done publications. We have some people who work on sort of the science side of the house and some of the people on the policy side have done some publications. I have had one publication since I came here. I'm an economist by training, and so my publication was on what can economists bring to protection and conservation of marine mammals. I've also got a submission in with the co-author from the National Marine Fisheries Service on incentivizing approaches to reducing by-catch, marine mammal by-catch. We have aguy who's just wrapping up a book on Right Whales, and we've had one article on what are the trends, status and trends in global large whale populations. Yes, it happens. It's not necessarily our main focus, but we like it when people can succeed in the journal world.

RS: Who do you see as your main audiences? I'm sure there's more than one.

RL: Audience in terms of our recommendations and our comments on rules and stuff are those federal agencies. But we've made a concerted effort to do more outreach to the general public to Capitol Hill and to some of the stakeholders such as the fishing industry, or the NGO community. So we've totally revamped our website. We've got Twitter account. We're sending out a quarterly newsletter. We're on Capitol Hill regularly. We've been to outreach and listening sessions in the Arctic because we're very concerned about the survival of marine mammals in the Arctic and therefore survival of the communities who are dependent on the hunt of these animals for millennia, and are now not able to hunt because there's less ice to go on, or the animals are sick, or they're not available. Our stakeholders are pretty large even though most people would say well, our formal communication is mostly with these agencies that we oversee. I'd like to think that it's bigger than that, and who doesn't love a marine mammal. Our website is gorgeous.

RS: Do you see the effort for communication something that has become more important and is a growing area of focus?

RL: Absolutely. And I think we've been inspired by agencies such as NOAA and the Fish and Wildlife Service, DOI [Department of the Interior] in particular. They have great websites and great Twitter accounts, and these are things that just raise the awareness, and it's all for a good reason. These are resources that belong to the American public, but it also helps us when we go to Capitol Hill and we say "this is important to Americans." They want to be able to eat seafood from another country knowing that marine mammals didn't die in that fishery. We're making a point that people really care about these marine mammals, and the more they know, the more they'll care about it.

RS: Is most of the communication pushing information out? Or is there an effort to, you mention Twitter, to bring information in?

RL: I don't know if we make a conscientious effort to bring information in such as through a questionnaire or whatever. We do have a mailbox, and people can write in. There's a place where you can contact us on the website and we are good at responding to that. We do get letters from the public, but most of our correspondence is formal correspondence commenting on proposals by federal agencies.

RS: Um hmm. . .well, let me, I kind of went deep into the agency and I wanted to ask you about yourself and what inspired you to pursue a career in economics and in the marine science area?

RL: I was inspired to study economics because I had a high school civics teacher who gave us one semester of Economics. And I loved it. I was always good in math and I was good in analytics, and I found it a great sort of combination between math and philosophy, human philosophy, human behavior. So I had no doubts that I would major in that when I got to college and ended up just with a regular economics bachelor's degree. When I went for my Master's program just by happenstance, a professor there had received a grant from Sea Grant to study the California Harpoon Swordfish Fishery, this is how old I am - they were still fishing with harpoons back then. And she needed a research assistant so I worked with her Dr. Sue Holt. She inspired me.

RS: And that was at what school?

RL: That was at San Diego State. UC San Diego for my bachelor's, San Diego State for my Master's, and then I got a job at Oregon State working on a salmon project, economics of the salmon fishery. After working full time on that project for a year, they accepted me into the Ph.D. program where I continued my work on salmon and did a thesis on price determination under uncertainty using the salmon market. The great thing is Economics is interesting in and of itself, but what's really interesting is when you use it, and I found that fisheries was a great place to use economics. Most of the management and the people who've been running the business at the Fishery agencies have been biologists and their emphasis has been on make them inefficient, make them inefficient, make them fish less time and economists emphasis is on let's meet our ecological goals but let's also make them economically efficient. You wouldn't go to a steel mill and say you can't use fire anymore because it's too efficient, just use a hammer. But that's kind of the equivalent of what we've been doing for decades in the fisheries world, so the economists come forward with different solutions that, frankly, are working finally, getting a foot in the door such as individual transferrable quotas for management, rather than an overall cap and the race to fish.

RS: Individual transferrable what?

RL: Individual transferable quotas. So let's say that biologists tell you ok we've done the stock assessment, we can catch 1,000 tons of fish in this fishing season. A biologist would say fine, you guys go fishing; we're going to track it, when you reach 1,000 tons we shut you down. That's called the derby fishery, the race for fish. It's wasteful. It's ridiculous. You end up with everybody wanting a bigger boat so they get a bigger slice of the pie, and you end up with a fishing season, in the case of halibut, it was one week. One week per year and it was just, people had their motors roaring. At 8:00 they'd take off and go fishing. People get killed. It was sloppy.

It was by-catch, a lot of waste, and the processing plants in one week had to get all the halibut catch. They finally switched to individual transferrable quotas (ITQs). Each boat got a certain percentage of that 1,000 tons and that can vary and they fish when it's safe and the weather is right, when the price is right, and the fishing season is longer. The price is higher cause it's all fresh halibut, high quality, you bring in a few, there's no race. And there's no waste. So that's what the economists have brought to fisheries.

RS: How hard was it to get that transformation?

RL: It was really difficult. There was the initial use of ITQs was in Alaska. A few disgruntled people who didn't feel their first free allocation was big enough, complained to Congress and Congress put a moratorium on ITQs. Moratorium was finally lifted and today we have ITQ fisheries in many fisheries around the coast of the United States and in other countries. In Canada, we were inspired by the Canadians. New Zealand is almost all ITQs, and for Marine Mammal by-catch it's a better idea, in my view, to have a careful fishery where people aren't rushing it. They have a marine mammal entangled in their gear they don't have to worry about "Oh my God I can't stop fishing! I got to keep getting my big slice of the pie." They can stop, they can get the gear untangled, or do whatever it takes to take care of the marine mammal. This is counterbalanced to some extent by the fact that the fishery might be extended over a longer period of time, but for the most part, I think that's beneficial to marine mammals.

RS: Well, it's a great example. Really. It's kind of night and day I'm sure for the fishermen. The impact. So, moving ahead, you were inspired to get into economics, and the discipline of marine science . . .

RL: Marine Economics -- which is a science.

RS: And so what happened with your career then?

RL: So when I finished my Ph.D., I had actually worked with my major professor on establishing an international association of marine economists. I was so excited because I actually went to their meeting last week in Scotland and I was pointed out as one of the few persons in the room who had been at the first meeting. . . it's called IIFET, International Institute for Fisheries Economics and Trade. So through those travels and meeting people and organizing that first meeting, I met some marine economists who work in France. I'm a Navy brat, I lived in France when I was a kid and I speak French so they invited me to come and do a post-doc in France. I got some funding and went and did a one year post-doc in France. When I was done, I didn't really want to go back to the States, I wanted to keep working overseas and I got a job offer in Quebec from a small university and Quebec was just ramping up their university system. They were looking for people who spoke French and had Ph.D.s because there weren't that many at that time. So I got a job there as a visiting professor in a small university way up on the Gaspe Peninsula in Quebec. I don't know if you've ever been to Quebec, it's beautiful. And I had to relearn French. It's a very different French, it's an older French, 16th Century French in Quebec, and taught there for a couple of years, and then I got a tenure track position at a bigger university in Quebec City called Universite Laval, and I taught there for another 6 or 7 years. And then I had gotten married a couple of years before that, my husband was not very happy in Quebec, he

came up to join me there, and so he said let's move to Washington because there's dual career possibilities, and then I immediately, not immediately, but after a few months I got a job at NOAA Fisheries.

RS: Hard to leave Quebec, huh?

RL: It really was. I was kicking and screaming. I mean it was tough. A lot of really, really good quality life in Quebec I thought. Well worth the tax rates and the prices. Well worth the cold winters.

RS: So you came to Washington really without a job?

RL: Right. I came because I had a sabbatical year. My husband had started a new job, but throughout the sabbatical year I was looking for employment, and it was pretty clear that I was going to stay here.

RS: It worked out beautifully.

RL: Yeah, it worked out great. And I loved the job.

RS: And when you when to NOAA where did you start?

RL: I started in highly migratory species -- which is tuna, swordfish, sailfish, sharks in the Atlantic which are the only fisheries which are not managed by their regional fishery management councils. They are managed directly by the Secretary of Commerce. That was new legislation that passed in 1992 - that was the year that I started at NOAA Fisheries. So here we are inside NOAA Fisheries, doing the management, writing the management plans, doing the regulations and NOAA, which has to approve anything that comes in from the regional councils would certainly say, you know, at least come up to our standards. So we had to really be the poster child of management and do good, fair, effective, rational, well prepared, management with good fishery management plans and supporting documentations, excellent public hearing, and responses to comments and dealing with constituents -- That was a really tough job. I started as the economist, and after 4 years I became the division chief, and to this day that's the hardest job I've ever had.

RS: I can imagine why the pressure would have been incredible.

RL: Talk about a meat grinder. It was awful. We had to put out the first fishery management plans, all the regulations that went along with that. Public hearings where my life was threatened and enforcement agents would escort me to the car. It was tough because these guys had never been regulated before, but it was satisfying because you could see a Fishery Management plan. You could see your management measures being put in place and monitor that and it's like instant feedback. It's kind of like when I got home and cook a meal, I see the results immediately. I enjoy it and I get feedback from people, was it good or bad. That's satisfying, right?

RS: Umhmm

RL: So there I was in the pressure cooker doing that and then I had an opportunity for a Senior Executive job.

RS: Well let me ask you how long you did that?

RL: That was, gosh, I guess maybe three years as the economist and three years as the division chief.

RS: And did the pushback and the anger that you were seeing, did that die down over that time?

RL: To some extent. You know I always felt like we gave people a fair shake because we listen to them, and I just pick up the phone and call and say "you know we're not going to be able to do what you want us to do, and here's why and I know you're upset." And I would say that to this day, when I see constituents from that fishery, they are happy to see me. They say "You know Rebecca, we didn't always agree with what you did, or what you said, but you always heard us out."

RS: Ah ah

RL: So as difficult as it was, and as I was always kind of walking on eggshells, I think we all, the whole team - I had a great team of people - I think we all succeeded in listening well, and in responding.

RS: So would you say that was one of the key accomplishment was to communicate and to be perceived as fair?

RL: Fair to the extent you can, or at least listening and providing some rationale for why you couldn't do what you were going to do. Part of that job involved international work as well because these are species that go all over the Atlantic, so I ended up going to the international meetings and being a part of the negotiating team, so same thing. You have a pie; this is how much Bluefin tuna you can catch this year. You have to divide it between Europe, the U.S., Canada, and Japan -- fights over who gets 12.2 to 2.5%. Swapping some of that for swordfish quota -- that's very stressful. The international arena is so stressful because there are no rules. At home when you're setting a total allowable catch, you can just point to the legislation and say "Congress told us you can't set it any higher than that. That's why it's here. You think this quota's too low? Go to your congressmen, I can't change the rules. I'm following the rules." So it's crystal clear. But when you go to international, there's no rules. There's some general guidelines that say try to be sustainable. So international is a real challenge. But it was helpful to speak French, a little bit of Spanish. We worked a lot with West African countries and being able to talk to them in French was really helpful. Then I got a senior executive job which those are few and far between, but it was an important opportunity for advancement and it was in California. The link with the previous job was a big part of that was Tuna. So I took the Tuna experience and I managed to get that job in Long Beach California. I left with a suitcase. My poor husband, I said "when the school year's over, sell the house, clean the house, sell the house,

pack up, and come on out to Long Beach." Bless his heart. So he quit, but NOAA was good enough to give him a one year detail with NOAA Fisheries because they were trying to hire a lot of economists at the time and he's an economist as well. He's a farm economist, but so he got a one year job and then he spent a year looking for other jobs. In the end, it's a complicated story, but that region was closed. It took a few years to close it, but I came back in14months and I was back at headquarters. And I had another promotion where I was working as Deputy for Regulatory Programs in the F Suite in the leadership at NMFS. That was another tough job, but not as tough as HMS Division Chief. So I was there for 5 or 6 years and there was reorganization. I got a change in jobs. Some might call it a demotion but I was happy with it. I went over to lead the International Fisheries Office, which is great, and I spent 6,7,8 years working on international. I'm adding up all these years sounds like I've been there for 50 years. And then ahh, some things, some circumstances change and I managed to get a detail at the World Bank working on International Fisheries as well. And that was a great experience.

RS: So was that like a secondment?

RL: Yea, it was a secondment, exactly, because they wanted to have a membership on this world ocean council, global oceans initiative and you could do that by either sending $150,000 or sending one person. And so I parlayed my way into that detail. It's every economists dream to work at the World Bank, right? And it was a good experience but it made me glad that I didn't work at the bank. It was good to visit. And just as I was coming back to National Marine Fisheries Service International Affairs, I found out about this job and I was solicited by commissioners who said please apply and I applied and I got the job.

RS: Well, you know you have quite an international background before you came into the international division. Tell me a little bit about your responsibilities there and what that work was like.

RL: Well, part of that is just getting ready for these international meetings and saying we're going there, we're worried about a number of topics, but what are our top three priorities? Because at most international meetings you'll never get more than two or three things that you're going after. And what are our talking points, what is our actual written proposal. Two months before the meeting, sending that to friendly countries saying would you guys support this. If we table it, can we table it with all our country names on it, providing documentation, providing explanation of how that might work. So preparatory meetings and then by the time we get to the actual meeting it's a little bit more of a stork dance because you've already done all the background work. Very stressful at the same time because one country can raise their flag and say we object or this is offensive. You deal with so many cultural sensitivities, so around the table there are people 30-40 countries. I remember when Egypt first joined the Atlantic Tuna Organization; I went up to the head of delegation and said "So wonderful to see you." I think I even said "Salam Aleichem" and I put my hand out and he wouldn't shake my hand.

RS: Because you're a woman?

RL: Because I'm a woman. Some of the women on their delegation wouldn't shake hands with our men, but they'd shake hands with us. So that type of thing that you have to be careful about

and even how you touch people or not touch them. Yeah, so in trying to be finding a solution, by talking with someone and not getting frustrated and saying "oh that's ridiculous, I'm out of here", just say "Oh okay so that's causing you problems, is there another way we could do it". I learned a lot from watching people who are really good at it.

RS: And well the decision making process is so different in other countries as well, so that must have been challenging to understand what was going on behind the scenes with each delegation.

RL: Right. You might speak with one member of the delegation who thinks its' fine but then comes back the next day and says we can't do it. So, knowing who to talk to, or maybe talk first at that level and work your way up.

RS: Yeah, understanding who is the authority?

RL: Yeah. So it was always an interesting experience. Pretty stressful, very stressful. It's a wonder I'm still alive. [laughter]

RS: You make it sound like you've finally arrived at that place where some of that stress is not quite as evident. So let me ask you a question about the organization you're in right now. Having 13FTEs is not a lot of staff. I assume that if you had an opening you'd be looking for somebody to come in fully prepared to do the job. It's not one of these areas where there's training involved or development.

RL: I would say that's the case just because our FTEs are so few and far between, we have to be very careful when we hire people. Most of the hires that we've had since I got here have been at levels that didn't necessarily require or jobs that didn't necessarily require a lot of knowledge on marine mammals but we were fortunate to get good people. Like, I hired the communications person who used to work with me in International Affairs. I stole him from the National Marine Fisheries Service, and I knew that he had done his master's thesis on marine mammals. I also knew that he was very good with communication with Capitol Hill and websites and stuff, so he really hit the ground running. We hired a Sea Grant Fellow who had a little bit of a background in marine mammals, but she had worked on oysters for her Ph.D. cases, but she has done very well. We hired a woman from the National Marine Mammal Laboratory - NMML - in Seattle so obviously she came and just fit right into the job.

RS: Do you find among people coming out of universities now and coming into the job market that this kind of career is desirable and that NOAA and the Marine Mammal Commission would be desirable places to work? Or government service in general?

RL: Oh, absolutely. In fact, I was on a panel for work/life balance at the Society for Marine Mammology which is held every two years and we were talking about work/life balance and careers and I just told people don't hesitate when you think about whether or not you'd want to work for a government agency. I said I can guarantee you because I've done academia and I've done the government. It's really satisfying work when you're setting the policy and you're writing the rules and you're working with broad-based stakeholders and the nice thing these days when you work in federal agency is that it is possible to go from a federal agency to a university

and visa-versa. In my day, if you didn't go to the university right away, you could never get back there, but there's been some back and forth. Some of the people who retired from NOAA went into university life, so I think it's a great opportunity. It's just the hands on. It's like you can sit and study all your life, the genetics of this and that, the migratory routes of this and that but what a cool thing to go to a federal agency and say I wrote the rule that sent the ships around that particular area.

RS: How satisfying.

RL: Um hmm.

RS: So anybody interested in applied work would find it very gratifying.

RL: Applied work that is what actually leading to conservation, or sustainable management in the case of resources that we harvest. What could be more important? Why do all of us do this work which is very important while all these scientists do this work, it feeds into better policy decisions.

RS: You know that raises a question for me given that you've had not an extraordinary long tenure, but a long tenure.

RL: Yeah, it's been long. [laughter]

RS: Looking back on the ability to assess how marine mammals have been effected by overhunting or overharvesting or by environmental degradation and so forth, what are some of the changes in methods and tools that have assisted in our knowledge about that?

RL: Well, some of the more recent changes in techniques to detect presence, absence, migration, and even stock assessment are the underwater acoustic devices. They put these machines in the water that hear the clicks or the whistles of whales and each one has a different signal, not just by species, but also by individual. That was discovery because the Navy had sonar underwater or detective devices so that they could find submarines and they discovered that they were getting all this data on marine mammals migration. So that's one way that it's done. Another way now that's used more and more are drones or other types of devices. Because normally when you're trying to figure out how many dolphins are in the eastern tropical Pacific, you take a boat out and you go what they call "mow the lawn" you go back and forth and back and forth and you have people staged on each side of the boat with big eyes and they count the number of pods they see and they estimate the size of the pod. And they do that year after year after year and they compare the trends and they try to come up with it but can you imagine its $9.5 million to do the ETP [Eastern Tropical Pacific] with a drone, you might be able to do that going back and forth with a drone that takes pictures and you analyze the pictures when they come back. Drones are going to be used in aircraft, fixed wing aircraft they're going to be used for assessing Ice Seals and Polar Bears in the Arctic. So these are new technologies that save money and get you better results. The dolphin survey is so expensive we haven't done one in ten years.

RS: So the collection of data is probably getting cheaper, or more efficient, but then you have all this data coming in. Do you have more data coming in? And how is that being handled?

RL: I'd say to some extent the collection of data is getting more efficient, but at the same time we are finding out that we need more data from each collection. So when an animal is stranded on the beach, it used to be they'd cut it up and look maybe at the stomach, maybe at the ears figure out what's going on. But nowadays, they would want to do genetic sampling. They want to take the earwax out. They want to do all these different things on the marine mammal so that it's more work because there's more observations. And I would say crunching the numbers is something that people are always trying to catch up on doing but I'd venture to say that there are so many data hungry if only graduate students out there that there are adequate analysis underway of the data we're collecting. We just need more and more, we're finding out more and more. The more we find out about some of these marine mammals, and even salmon or seaturtles, the more we divide them into subgroups because we're finding all these genetic differences. So, whereas you might have had this whole population was doing okay, now you've sliced it into 8 and this one is endangered, and this one is threatened.

RS: So the methodology and the data feeds back into the science itself and the .....

RL: Policy decisions. Right. It could make your life more miserable. Another thing that we're working on cryptic mortality which we know that whales get struck by ships, they end up washing up on shore, floating somewhere with the propeller marks, but a lot of them sink to the bottom or are eaten by another animal, and that's cryptic mortality. So if we're only seeing 20% of the dead ones, our problem is we may have more dead ones. We've got to figure out what's going on. So through cryptic mortality studies we should be able to add to that but that's going to add to our problems because we're going to have a higher level of mortality than we thought. And we're going to have to do more careful restrictions.

RS: So it's estimating the absent information.

RS: The ones that die but we never saw them.

RS: Yea. Well, how has the, I mean you're on the economic side, how has sort of the philosophy changed? I know that the issues around sustainability have changed over time. What have you seen and you mentioned genetics being a new emphasis, what else has it changed more in the, not the methodology, but more in philosophy or the science side?

RL: I think there's more attention paid to the ecosystem as a whole which is part biology, but it's also part economics. What are the contributions that a marine mammal can make to the ecosystem because they bring up nutrients from the bottom. I believe there's also more attention paid to non-market values for species. Though someone might say we keep catching these dolphins and they have absolutely no commercial use because I can't sell them or whatever but then people turn around and say "you know we have a huge dolphin watching industry that when tourists come and spend $50 a pop to go out on a boat and watch the dolphins." So there's more of a sense of what are the economic contributions of animals that are not sold. And there's also just people in Kansas who write to their Congressmen and "say you know I really care about

those dolphins. I want you to save those dolphins." And they're willing to fund that. So more emphasis on some of the socioeconomic aspects of conservation. Not just doing it for conservation sake, or just for the dolphins sake, but for the humans who really want this there.

RS: Do you feel that the idea about conservation has become more embedded in the public's mind over time?

RL: I think we're all more savvy. It might have happened in the elementary schools. There's been, ah, I don't remember as a kid in elementary school, part of my life at least I was in the U.S. but I don't remember a lot of emphasis on the environment the way kids have now. They have gardens and they go out and they do cleanup and it's great. It's been added to the curriculum in a lot of schools and it's fantastic. I've gone to visit some of the schools and be a speaker and talk about tunas or whales or whatever. I think our national consciousness is raised because people focused on the kids, and they grow up and they are more savvy.

RS: And how about internationally? Do you feel that the U.S. is sort of in line with other countries in terms of its environmental consciousness?

RL: In some ways. I always thought that in the fisheries world we are somewhat greener than the Europeans are. The Europeans are greener on other things such as taxing gasoline so that we use less and taxing people's use of plastics or bags. I'll always remember that some 55 years ago when we first moved to France, the first thing I noticed when we were driving in this military bus to the hotel was how small the cars were because gas was already 4 or 5 times the price that it is in the U.S. And how you'd go to a market and they wouldn't give you a bag, you had to bring your own bag. Eventually they got plastic bags, but now they're eliminated. Now we're eliminating plastic bags, and now we're finally driving small cars. It took a long time. Just think of how different the world would be if the U.S. had paid attention to that. But on the other hand it took a long time for Europe to come around to sustainable fisheries. We had the hardest time with them internationally, until they finally got some really decent leadership at the Fisheries Commission in Brussels, and ended up agreeing that yes, we should cut back on fishing, we should rebuild the maximum sustainable yield. It's not always the same, now other countries, African countries for the most part, India, other countries, some South American countries, they're catching up because they got to feed their people first, and they're focused on that and it's difficult to say you know, cut your fisheries quota in half and you'll be better off. It's going to take 20 years for the stock to rebuild, but you'll be better. What do you do for 20 years? How do you manage that transition? So it's different around the world. I wouldn't say that we're always first? Gas is still too cheap in this country. Gas is a real problem - gas consumption. Excuse me for just one second. I wanted to get a proposal out to someone. Let me just send a quick email.

RS: That's fine. [brief pause] I appreciate you taking the time to talk to me today.

RL: I'm sorry. It's just a little crazy.

RS: It's always a challenge getting on people's calendars.

RL: I just got back from 10 days of travel.

RS: You must do a lot of travel in your position.

RL: You know, I used to do a lot more, but not that much now. I just happened to have back to back meetings in San Diego and Scotland, the IIFIT conference which as so cool. My alma-mater. It was like a high school reunion. OK. Let's keep going.

RS: On your bio, if I'm correct it said that you started out as an Environmental Policy Specialist. Is that correct?

RL: At NOAA?

RS: Yeah

RL: I actually started as an economist.

RS: Oh, ok. Well, I wasn't sure I had the right information. So when you started as an economist. What was the major paradigm at that time? Which you would look back now and say "Oh boy, that's where we were then, but. . . "?

RL: I would say it was more of a journeyman economist type thing. Like we would be proposing regulation to change the quota and I'd be asked to say what would be the change in the revenues to fishermen. So I'd take the landings before and multiply it by an average prized landings after the change multiplied by the average price. I tried where I could to collect cost data. I did a little survey to collect some cost data so that I could actually do net revenues -- you land your fish you sell and you get a pile of money, but you got to turn around and pay your gas, pay your ice, pay your bait, pay your crew. That net revenue is what's really important to the economists. Because if you don't have any net revenue then you went fishing for nothing. So I focus more on that type of thing. I tried to work on things like limited entry. At the time there was a cap on the number of boats, having some form of transferrable quotas, setting something up just trying to work towards more rational management but it was very different in the beginning and today it's amazing.

RS: Was the feeling then that the data you had was reliable and that there was enough data? Or was there a feeling at that time that you know it was weak or that we really don't know?

RL: There were enough data to meet the goals of the biologists which was tracking landings and sizes of the fish and sampling. There were not enough data for economics. Nobody was collecting prices. And I recall there was a log book that they set up for fishermen and I said "can I just add a few questions at the bottom of the log book, just you know, how much did you sell your catch for? How much ice did you use? Then I would find a price." And there was so much research just" oh no if you do that they're not going to feel like the rest of the questionnaire and then we're really doomed." So it was a really high bar to get over to convince the biologists that their data collection would not be jeopardized by adding a few questions.

RS: So you were like hanging on to the tail end of their research, it sounds like.

RL: Can I just add a few quick, because I couldn't start my own logbook, economics log book. So every economist around the country at NMFS we're struggling with this and we all worked together. Went to the leadership and said let's just try this in a few places and if it's a disaster, we'll back off. And of course it wasn't. You go to the fishermen and you explain why you're doing this. We want to know how your business is doing. We're looking at the business side of things. Not just the fish.
RS: I would have thought that since they were trying to earn a living that that would have been immediately practical to them, that they would have seen the value in it.

RL: Yeah, but you have to kind of explain that. It's also if you just give it to them without explaining they're going to say "are you going to report me to the IRS? Because you're asking me how much I'm making here and that's a problem." So you have to be very careful in that sense. It's one thing to say how many fish you caught but to turn around and say well, this is what my fishing costs were. All that stuff goes into their accountants and goes into their tax returns, right.

RS: So you had to overcome that suspicion about where the information might be going?

RL: Right. And of course fishermen are suspicious when someone says can you just let us know when you see a whale, or when you interact with a dolphin. And then the fishermen say "yeah, as soon as I start telling you that, you're going to start telling me I can't fish there anymore. Why would I give you information that you're going to use to shut me down?" It's understandable.

RS: Do you find that their thoughts about government and government interference and so forth, has been sort of stable over time? Has it increased? Has it decreased?

RL: I would say for the most part it's gotten better. If only because in many case, even in New England fisheries there have been groups form called catch share groups that actually have a right to access a certain portion of the quota and they're taking care of it. And I would say for the most part, nationwide, people are working a little better with the government than they used to. It's not just regulate, regulate, regulate -- it's "Let's sit down, we'll give you part ownership in this fishery,and tell us how you think we ought to operate it." The Council system is working a little better because the fishermen are not just there to say "How are you going to regulate me now?" They're there to say "I own a piece of this quota, of this overall catch and I want to make sure we fish it efficiently and then I make some money." They have an investment in it. So I think it's better. Now, some people inside the National Marine Fisheries Service might say it's still so awful, they yell at us. That's possible. I think it's better.

RS: Thinking about that, the Marine Mammal Commission is small and unlike NOAA which has regional offices, it doesn't have the ability to kind of be everywhere or have a presence so do you rely on other organizations for outreach? How do you manage that? What are important organizations to you?

RL: Well, it's really important for us to partner with NOAA Fisheries in particular and with Fish and Wildlife Service and the Bureau of Ocean Energy Management. Those are huge organizations. They have great outreach offices, public education and websites. The guy who

does my outreach and website and Twitter and stuff know them and he partners with him. So yeah, we do need to work a lot with them. We do have our first ever employee who is remotely located -- he was thinking of Portland, but he ended up going to Missoula for his spouse got a job, so he's in Montana. But I don't rule out that someday someone on our staff might want to be in Seattle, or be in Long Beach. We can't have everybody gone, but I think it will be good for the Marine Mammal Commission to continue, this is sort of an experiment, but to have a person in some of the major NMFS offices, I think that'd be a good thing. Because these days most of the people telecommute at least two days a week, so on any day there's a lot of people absent and working by phone. We've got the camera thing set up on our computers. But if you're working from home, you could be working from home in Long Beach, you know, so we're going to give that a try.

RS: Yeah. Do you do a lot of meetings domestic or international through Skype or remotely?

RL: Webinars, that's something, this WebEx. That's something that we hadn't done until recently, and with the arrival of this communications person who knows all the software and the tools, we've had webinars and WebEx meetings and including with NOAA and with people who are just down the hall, so it's a lot better than the telephone conference call because you can actually see the person.

RS: You know if they are listening [laughter]

RL: Yeah we were having a meeting yesterday, leadership team, and my guy in Missoula all of a sudden wasn't there, and he comes back with a cup of coffee and I said "where you been?" because you can see it.

RS: Tell me about some project here at the Marine Mammal Commission that you're particularly proud of.

RL: Oh, I would say our last annual meeting. I mean, I'm proud of the stuff I've done in economics, which is fun, but our last annual meeting instead of what we usually do, which is we go to a place and we bring in people and they tell us about the marine mammal issues intheir region San Diego, Charleston, Hawaii. We decided we would go to the Arctic. Not just Alaska but the Arctic and that we would listen to the native hunters rather than have a meeting where we have science papers and whatever. We would just so totally make it a listening session that instead of calling it an annual meeting we called it listening sessions. And we did it in February, huh. We went to Barrow, to Kotsubu, and to Nome. And we took our commissioners, our chair of our advisor committee and four staffers and we just asked questions. What are you seeing out there? What are you witnessing in terms of changes to climate? Changes to your access and how is that impacting you and your family? And we had a special person who is on our advisory committee who works for the North Slope Borough in Barrow who came and facilitated the meetings. He knew exactly what to do and started with a prayer by one of the elders.

RS: So this was all focused on Native Peoples?

RL: Alaska native harvest. Through the lens of your harvest, what are you seeing in the environment and in marine mammals? So this guy was just an expert and we just listened and we were told he'll start the meeting and ask for people's comments and it'll be quiet. Don't try to fill the silence, just listen. That's part of it, just be there. And then he would gently call on an elder, make sure the elders got to speak first. They said make sure you have food, we had food. I'm proud of it because for all of us it was just a cultural shift to put ourselves in these communities in the time of the year when most people wouldn't set foot in Alaska. I mean it was thirty below in Barrow. You couldn't walk around the building. So I'm proud that we went there, that we listened and that we learned. When we were done, we had a report out session in Anchorage where we did a webinar and we had our committee of scientific advisors by webinar, and we had the Alaska natives there, and some of the representative committee, and we just said "This is what we heard. Did we hear you right?" And at the end of every listening session we'd say "Here are some of the main things we heard. Did we miss anything? Did we hear you right? Do we understand? Just so we could take that back and one of the persons at that meeting in Anchorage read from a letter that we had written three months earlier and I thought "you know, if I wrote that letter today it would be different." So I knew I learned. We had all learned. We just had a totally different perspective. So I was very proud of that that we got that done. We should have done it a long time ago, but I'm so glad we did it.

RS: So is that going to be a model for other efforts?

RL: We hope so. We heard that some of the federal agencies aren't doing such a great job of communicating, of listening, of taking the time necessary. Because when we come from this world, we're just court ordered deadlines and the legislations says this or that but sometimes if you have a year, it might actually take two years, it might take three years. But if you don't take that time, you just have a train-wreck. These are the kinds of things we learned. And we went back up to Alaska a few months later to have a meeting on polar bears because there's a regulation coming down the pipeline from Fish and Wildlife Service that we just felt like we needed to get everybody in the room to talk about it so that everybody understood what is that rulemaking exactly? And what does it mean? How's that going to impact us? So we took time and we took money and we brought people together. And we're proud that we did that. One of our commissioners is half Alaska Native. He's from an Indian tribe, not an Arctic Aleut tribe. He's half Tlingit. He's great at this, just understanding where people are coming from.

RS: This sounds this is something that is a change of direction. Something really new for the commission.

RL: It's new for us, and that it's always been one of our priorities - looking at the Arctic because we know the environment is changing quickly and marine mammals are being impacted. The ones that are there and new ones are coming up that didn't used to be there because it's getting too hot down south, so definitely a focus on that. And through the lens of these people who have been there for thousands of years. It's amazing what you can learn.

RS: So what happens then to this learning? Does it get funneled out to other agencies and organizations?

RL: Well, if we're commenting on a proposal to list walrus on the Endangered Species Act, yeah, I mean there may be some things that we would share or write about to other federal agencies to say we think you ought to take these steps, or we'd be happy to facilitate a meeting to look at traditional knowledge. Just being actively engaged in a way that keeps in mind what we learned from the Alaska Native community. And in looking at the way the regulations are set up and how data are collected. Are you using Alaska Native folks in the village to do the data collections and some of these people are very savvy. The people at the Bureau of Ocean Energy Management, in particular, with the Arctic drilling have done a great job, and they have Alaska native advisors who is extremely helpful and they spend a lot of time just sitting in a room talking and listening, listening, listening. And making use of the traditional knowledge or the people who are already in the communities if you're going to be collecting data information, or having listening sessions. I think it gets translated in the way we handle the major issues that are being addressed in the Arctic.

RS: So is this a change? Trying to incorporate traditional, environmental knowledge?

RL: I believe that the federal agencies have been making an effort to do that for sometime. For the commission, it's just more of awareness of how important that is to the affected communities, and how we need to make an effort to incorporate that and keep it in mind. We have an Alaska native advisor as well. She's a woman who's from Nome, who's from one of the islands there. And she helps us in making these written recommendations to federal agencies. So it's good, it's good for us. We've learned a lot and it's exciting.

RS: It was quite a change. I mean a challenge too to say we're going to take this time, we're not going to go out there with an agenda, and we're going to.... you're sort of flipping it on its' head.

RL: Of course for the commission, it's relatively easy because we're not a regulatory agency, but at the same time we feel that we feel that regulatory agencies such as the Fish and Wildlife Services that regulating polar bears needs to be keenly aware of that and that working together we take that time. Sure, we've got deadlines, and we've got things we've got to get done but let's just do it one step at a time so we do it well and we don't have the train wreck and get it in place.

RS: Well, let me ask you about your time on the international commission. What would be an important project that you look back on and say I was so glad I was part of that, or I made a huge contribution that's a real landmark in my career?

RL: Well, this is something that's kind of interesting. The entire globe is covered with five tuna regional management organizations, so we call them the Tuna RFMOs - Regional Fishery Management Organizations. The Japanese had a great idea many years ago to call a meeting of all the leaders of these five Tuna RFMOs to a meeting in Kobe, so they had the Kobe meeting where they got together and said "What can we learn from eachother? What are some of the standards? What are some things we might want to standardize, or synchronize or whatever might be helpful?" So that was Kobe 1. At the Kobe 1 meeting, someone came up with something called the Kobe Plot which was just a clear way to present the results of a tuna stock assessment. Are you over fishing? Is the stock overfished? Are you in a green zone? Are you in a yellow zone? Are you in a red zone? Just three colors, very easy visualizations. That was the

Kobe Plot. For Kobe 2, the United States wanted to put forward some easy tool that would allow the commission, the people that make the decisions on the quotas, to ask the scientists for specific information. So we came up with something called the Kobe 2 Strategy Matrix and I worked with someone at State Department on this and she and I came up with the plot and it basically says this is our goal in terms of the size of the stock. We want to be at a biomass that supports maximum sustainable yield, for example. And then we would have up here the number of years to get there. Like we want to get there in five years, which might mean no fishing, or ten years, or 15 years, or 25. So we would set a time goal for rebuilding the stock, and then we would also set a probability of achieving that goal. So we want 50%, just a coin flip, we want 60%, we want 75% probability and then that matrix is basically all the labels are on the top and along the sides and the scientists would plug in the quota levels that would get you to BMSY [biomass sustainable yield] in 15 years with a 60% probability. It's kind of a framework, so it's the Kobe 2 Strategy Matrix. And the idea is first of all the commissioners who are making the decisions, they fill out the top and the bottom, they hand it to the scientists and the scientists run their stock assessment and they put their numbers in there. It was something called, it got shorthanded, K2SM and it's still being used in many tuna RMFOs around the world. I had a marine biologist one time tell me "You know Rebecca, you are considered the mother of the K2SM." I said "I guess that's a good thing." So I'm proud of that.

I'm proud that we were able to reach agreement on Bluefin tuna quotas. Bluefin have not in the Atlantic, they've not rebuilt in the western Atlantic on the U.S. side which is frustrating because they were so good about staying within the quota. In the Mediterranean, the eastern Atlantic where they blew through the quota some many years, but they finally started complying, stocks are just going through the roof. I mean it's so unfair, because their fish grow faster, they reproduce at a younger age, the western ones don't reproduce until 8, 9, 10 years of age and there's something funky going on. But I'm proud that we got to the correct quota that the scientists recommended and that we are rebuilding or stable.

RS: I see what you mean about having an impact.

RL: Yea. It takes a long time though.

RS: Well, it's beginning of the career, and then you see it at the end of the career I guess, you know.

RL: Right.

RS: It takes a while. Well, let me ask you, I don't want to stay too much longer because I know you've got something coming up. What are some of the big challenges in your current role right now for the commission?

RL: Well, one of the big challenges is having a profile that's very different from the previous executive directors. I'm not a marine mammal scientist. The initial executive director here recently found out, I believe he was a lawyer, but he certainly knew a lot about marine mammals and he was kind of a giant. You can see on the wall behind me John Twiss, so he was a very famous guy. The guy who was the first executive director and served for many years. He was a

great guy, so those are big shoes to fill. And then the guy who was right before me was Tim Reagan who had been the Chief Scientist for many years. Just considered one of the most brilliant marine mammal scientists in the nation. And here I come, first economist ever hired, but the ideas still work. We're changing things at the commission so it's important when you're the leader even if it's just 13 people. It's important to have the confidence of your staff. So getting the confidence of the staff was important. I think for the most part we're getting there 3 years later. I certainly turn to them and say "you know if you give me a letter saying that pinnipeds die at 80meters it better be right because I'm not going to be able to correct you on that." What I can do is talk about the tone of the letter, how long it is, just the general messaging and is there another way we could get these messages across? So that's been a bit of a challenge and it's good. It's good that I'm challenged by the staff to prove that I can do this. I think I've had opportunities, although it's been a challenge, I've had opportunities to advance ideas about economic approaches to marine mammal conservation, a lot of resistance but it's going ok. I was just sending a report from the IIFIT meeting and some of the things that I learned and the presentation that I gave had . . . it's good.

RS: Well it sounds like you're standing on the shoulders of giants as they say.

RL: Yea, yea. It's tough acts to follow.

RS: But at the same time, they probably laid very firm groundwork for the commission.

RL: Yes. The quality of the science and the policy advice are just impeccable and the letters that went out, the products that went out -- just top notch.

RS: It was a wonderful opportunity to get this.

RL: It really is. I just feel so fortunate that I'm able to do this.

RS: Do you see yourself retiring from this job?

RL: This will probably be my last job. Yeah. I was hired when I was 59, and I plan to work at least until I'm 65, if not not longer. That is one of the questions I had in the interview was how long do you think you'll stay in the job if you got the job? Are they saying that I'm old? They said "No, no, we're not talking about retirement!" And I just said you know it would be such an investment and such a rampup that I can't imagine I would go through all that trouble and then leave after a couple of years. So here I am 3 1/2 years and holding. And it's good, and it has not always been easy. I mean there were days that I thought, "wow, am I really in the right job here?" You get reinforcement, you have little victories, somethings go well. It takes a lot of courage and sticking my neck out and maybe being silly -- I'll put an idea out and boy, the people here, they don't hesitate to write back and say "Are you crazy!? You want to do that?"

RS: So you get good feedback?

RL: Yea, and some things are slow to change, somethings do change. We used to do a 600 page annual report and now we do a one pager, front and back, with web-links. It's all web

based. I mean, in the day of internet, you don't need to write a tome on marine mammals every year.

RS: Wow, that's quite a change.

RL: Yeah, it took a while because we wrote one and I saw that it ate up several months of each staff person's time so I said "why are we doing this?" All this information is available someplace else. Nobody goes and reads a 600 page volume anymore, they Google it and if we wrote a report last year in our workshop on the Gulf of Mexico Marine Mammal research, why do we need to write a whole chapter on it? You know? Just put the link and click on it. We have a brand new website, gorgeous. You can get everything you want.

RS: Much more efficient use of staff too.

RL: Yea. I think, well, the staff backed me on that no problem. They helped me write the justification to take to the commissioners to get their permission on it. And one guy who used to work here, I was at a meeting where I had left the stack of our one page annual reports and he came up and he went "Oh my God. Oh my God, Rebecca. If you do nothing else, this is such a lasting legacy. BRAVO!" And that meant a lot to me, just that little comment about if nothing else, this is great because he'd seen just that horrible end of year where everybody's just nose to the grindstone, no Christmas vacation, nobody leaves until the annual report is done. And the annual report just became a curse, and we don't need to do anything more. Even Congress said we didn't have to do it.

RS: You know it's funny -- Ideas like that can have such a big impact. Well, speaking of having a big impact like that, you know an idea where you're realizing that with the technology that you can shake things up. You don't have to follow the old model. What advice would you give someone starting out in their career now if they were following the sort of path you did where it was the economics but also marine disciplines, and of course the times are different now, the methods are different, but you have a lot of learning. What would your advice be?

RL: I think it's just to say you can't change things overnight. You have to do a lot of listening, you have to prove yourself, you have to bring in some help -- maybe work with your peers to say here's an idea that you could advance. It is better now in the sense that it's certainly better for young women than it used to be, and I would say it's better for economists as well. But it just takes one step at a time, and it takes getting the confidence of the leadership. Do your job well, come forward with new ideas, but be brave about it. Be daring. Have your substance ready. When I was preparing this response to what my CSA Chair, he responded with some questions about the economics talks that I heard because I had sent a summary. And I took a couple of days to write it and I was really careful because here's one of the top marine mammal scientists of the world, and I'm trying to tell him why economics can actually make a contribution, here are some things you can get it what it needs. I took a lot of time, and paid attention to the quality of my response. That's important.

RS: Do you think that, you know there's a lot of disciplines where there's more Ph.D.s coming out than can be employed, and do you think that in terms of economics people have good career prospects? That it's a good discipline to go into?

RL: I think so. I think, I know I've heard from my husband in agricultural economics -- both of us have our degrees in agricultural and resource economics -- might not be opening as many doors as a Ph.D. in in economics with a certain specialty, and it may be that eventually these aggie con departments will just go right back in and merge with the econ departments, so that might be one piece of advice that works. I think at USDA, they're hiring mostly economists and not aggie economists. But there'sdefinitely a lot of possibilities out there. The economy is what it's all about. Right?

RS: That's what they talk about.

RL: Are you going to be interviewing other economists by any chance?

RS: I have interviewed several people actually. I only have one more interview tomorrow. Galen Tromble.

RL: Oh, I love Galen.

RS: I'm going to meet him over at the other building. So let me stop and thank you for your time.

RL: Ok.