

Scott Murray

Interviewed by Jen Brown

March 25, 2022

Corpus Christi, Texas

Transcribed by Alyssa Lucas

[Jen Brown]: Okay, um, this is recording. This is Jen Brown, and it is March 25, I believe, I should have looked (laughs), um, 2022. I'm in Corpus Christi out on the Island, and I'm here with Scott Murray to talk about his life and work with Baffin Bay. So, to start do I have your permission to record?

[Scott Murray]: Yes.

[Brown]: Okay, thanks. So, this is an oral history, and we like to start, um, way back, so can you tell me a little bit about your background and early life?

[Murray]: Yeah, my early life, actually, I was born in the Rio Grande Valley in Edinburg, Texas, on September the 15th, 1945. It was thirteen days after we signed the peace treaty in World War II, and my dad came home, and my parents were Melba Murray and Louis Murray and they both had rural agricultural backgrounds. They both loved the outdoors a lot and really, they exposed me to the outdoors at a very early age and we—we were, you know, in the brush country or on the Laguna Madre most every year that I can remember we. I grew up in Corpus Christi, Texas. I came here when I was probably about three years old, and I went to grade school at a local elementary, Sam Houston Elementary, Baker Junior High and finally graduated from W. B. Ray High School in 1963. Um, from there I went to junior college where I met my wife, Paulette, and spent a couple years at Del Mar. Then got out and worked a little bit and then decided to go back to school and I went out to, at that time called Corpus Christi State University, which is now Texas A&M, and pursued a degree in biology with an emphasis on marine biology and I was very, very blessed to have a—been mentored by a professor by the name of Dr. Henry Hildebrand. Dr. Henry Hildebrand at that time, and probably even now, knew more about the western Gulf of Mexico than any other scientist that I could think of. He was fantastic.

[Brown]: Can you tell me more about, kind of, growing up and hunting and fishing in this area?

[Murray]: Yeah, well, you know, I again grew up here and began fishing at a very early age. I can remember going to Oso Pier, which is now gone, down by the university and having my first rod and reel put in my hand. It was a little metal rod with three eyes—fishing eyes on it, and my dad carefully baited it up and I made my first cast, and that rod and reel just kept right on going so I lost my first rod and reel on Oso Pier (Brown laughs). But anyway, I was hooked on fishing at an early age. My parents would take me fishing quite often and back then, of course, fishing

was fantastic, and you used a popping cork and generally live bait and caught all the fish you wanted. But that was my orientation and then as I got a little older, I got very interested in using artificial lures and began to fish with all kinds of different plugging shorties and bingos and humps and spoons and really got hooked literally on fishing lures to the point of where I started building my own, and to this day I still build my own fishing lures.

[Brown]: Oh really? So, can you tell me what you like about artificial lures?

[Murray]: Well, what I like about artificial lures, I think it takes a little bit more skill (clock chimes in background). First of all, know what depth the fish are, know what time of year it is. Are they hitting on top, are they hitting surface, or are they slightly below? And then of course in the winter you want to fish deeper, slower. But I loved the variability of using lures. They say that trout are somewhat color-blind, but I think that's yet to be totally proven because there is definitely preference in colors and sizes of artificial lures.

[Brown]: Um-hm. Um, can you talk about how the lures changed over time and what you tried to do when you started making your own?

[Murray]: Well, you know, lures have certainly changed a lot. The early lures were made out of wood. Uh, you had Heddon was making some wooden lures for bass that quickly became adapted to saltwater like Super Spooks and topwater baits like that, but wood succumbed to plastic and most of your topwaters now are made out of plastic and you usually have rattles in them or some noise maker, and then, of course, some of the early lures were solid plastic like the humps and the bingos.

[Brown]: Okay. And when you were growing up, what drew you to marine biology?

[Murray]: What drew me to marine biology?

[Brown]: Yeah.

[Murray]: Well, you know, I always had an interest in the water. It just fascinated me and living on the gulf, living on the Laguna Madre, you just were curious more than anything about how things worked in the water. The food chains and the different trophic levels of animals and the pyramids of animals, and I was just very intrigued with it and I decided that, well, if I'm going to think about doing this for a living, I better find out what it's about so I worked for Parks and Wildlife two or three summers as a biotech and then got to work in the Rio Grande Valley off the Arroyo Colorado, and that was 1965 I believe. It was an incredible experience. I worked down there for about four-five months, and my job of all things, I worked for the finfish project leader. The gentlemen's name was Joe Brewer, a fine biologist, and, anyway, our job was to tag fish whether with rod and reel or with nets or however we could catch them. So, I was even more fascinated with what we found in the lower Laguna Madre and in shore waters there. And so, anyway, I worked for Parks and Wildlife and decided, well, that's probably what I want to do. So, I went back to school and decided to try to get a degree in biology with an emphasis on

marine biology and then while I was at the university, we got a grant from Central Power and Light Company. At that time, the Environmental Protection Agency and many environmental agencies were requiring a lot of environmental work and studies for operating permits and so in order to get an operating permit for a power plant, you had to do a before study and an after study, and so it was very important back then to conduct these studies. And that's what we did at the university and then, uh, after a couple of years of working at that, Central Power and Light Company asked me to go to work for them, and I formed an environmental department at that company and continued to do studies for a number of years.

[Brown]: Okay. Um, and along the way—so you were married, and did you have children?

[Murray]: I have, one son. His name is Kirk, and he is also a Laguna addict. He loves the water. He loves to fish. Uh, in fact, we're down here right now on the water and we're going to be on the island for a couple days and then down on Baffin for a couple days, but he's our only child and we're real proud of him and he's been a very responsible young man.

[Brown]: Okay. Um, and can you tell me—do you remember the first time you fished Baffin Bay?

[Murray]: The first time I fished Baffin Bay. Oh, wow (laughs). Well, I'll have to think about that. I had a good friend. His name was Ron Bauch and his dad and his uncle decided they were going to build one of the early cabins down at the land cut, and the way that we built them back then, is we literally get on the beach with the old four wheel drive Dodge Power Wagons and haul the lumber down the island, cross the sand dunes at Yarborough Pass, and go to Yarborough Pass, offload the materials on the boats, and the boats would carry them down to the land cut. So, it was quite an endeavor, and being a young man, they wanted me to help them build that cabin, so we worked on that cabin, and at the same time, we enjoyed a lot of fishing and I guess I was probably, oh, probably sixteen years old, somewhere right in there, and we'd fish a lot around the mouth of Baffin Bay, up in the front end of Baffin Bay, at Point of the Rocks, Penascal, those areas. So, I would say that my first fishing was probably the fifteen- to sixteen-year-old range at Baffin Bay.

[Brown]: Hm, and what does Baffin Bay mean to you?

[Murray]: Well, Baffin Bay, to me, is just a very special iconic bay. Uh, there's just nothing like it on the Texas coast or anywhere in the United States for that matter. It's just a super, uh, I guess you might say, remote area that hasn't experienced a lot of development. Most of the shorelines are unencumbered, they're undeveloped. It's still a wild place and that's what really drew me to Baffin Bay and my interest in it. Uh, it's the only hypersaline estuary in the United States and very few in the world. It also is full of serpulid reefs. There's about ten square miles total of serpulid reefs in Baffin Bay, scattered around the bay. Uh, it's also an incredible fishery. Even with the problems we've been experiencing over the last twenty years or so, it's still the most productive bay on the Texas coast for commercial fishing and sport fishing, particularly black drum. It produces more black drum than any place in the United States. It is an amazing

bay. It's also held two state records, state record trout, so it's very, very well known for trophy trout fishing and that's one of the things that really drew me to the bay because I've always been a maniac when it comes to trying to catch big trout (Brown laughs) and we have caught our share of them down there, believe me.

[Brown]: Yeah, can you tell me about that, some of these big trout?

[Murray]: Well, yeah, I can. It's a, you know, one of the special things about Baffin Bay is for me, is that we were able to acquire some property on the west end of Baffin in 1996, and then, I think in 2000, we built a beach home really for our kids and our grandkids and we've just been blessed to spend many, many hours down there with family and friends and enjoy birding and fishing and beach-going, and it's just still a primitive place. It's surrounded by big ranchlands, well over a million acres of undeveloped ranch land and that's what really makes it special, but one of our key motives too for picking that area to build our beach home was the fantastic trout fishing, and Baffin Bay has a trout population that, it hasn't been totally studied at this point, but there have been some preliminary studies that indicate that the trout in Baffin Bay are genetically different than other trout in the Laguna Madre or Port Mansfield, if you will, and the fish really get big and they're a lot of fun to catch. We're a catch and release family, particularly for big trout. Every once and a while, we'll keep a couple of small fish to eat, but our emphasis has always been on trout conservation. Uh, and I've been involved with trout conservation since, uh gosh, I don't know. For the last thirty years, I guess.

[Brown]: Okay. What is your most memorable experience about Baffin Bay?

[Murray]: Well, again, I'd have to say that being blessed to build a home there and enjoy that home has been amazing. The wildlife is still there. The waterfowl is still there. You get to enjoy the ducks and geese flying every fall. The birding is incredible. It's one of the best places to bird in the US and what was special too from a trout fishing standpoint is that I got to be with both my wife and my son on different occasions when they caught their personal best trout. We were together and my wife caught one that was a thirty-three and an eighth. We didn't get a good weight on in, but it still holds the Murray trout record. She's caught the biggest trout. My son caught one that was between thirty-one and thirty-two, close to thirty-two, and it was an awesome fish. We also released it as well.

[Brown]: Wow. So, can you tell me more about—um, well actually, let me ask this, uh, do your grandchildren fish? How old are your grandchildren?

[Murray]: Well, (laughs) our grandchildren are grand adults now.

[Brown]: Okay.

[Murray]: Yeah, my oldest grandson, Ben, is twenty-nine, and my middle grandson is twenty-six, and my granddaughter is twenty-three. So, there's about three-year difference in my grandchildren, but they've all experienced Baffin Bay. We used to get them every summer and

spend weeks down there. They'd bring a lot of their friends, and we'd teach them to fish. We have a pier, a fishing pier, so we always begin with beginners, we start with the pier and then we graduate towards fishing in the boat, but they all love to fish. They've all caught big trout.

[Brown]: Wow.

[Murray]: Yeah.

[Brown]: Runs in the family.

[Murray]: Yeah.

[Brown]: It's genetics (laughs).

[Murray]: Yeah.

[Brown]: Okay, so can you tell me more about the changes that you've noticed to Baffin Bay over time?

[Murray]: Well, yeah. We've had—I guess when you've been around as long as I have in the same place, you recognize changes when they happen, and one thing I've learned as a biologist was that, you know, you've got to really weigh heavily anecdotal information from the people who live there and work there, commercial fisherman, longtime fisherman, you know, they're just a wealth of knowledge. But we've been blessed to just be a part of that community down there and learned a whole lot from them about Baffin Bay as well. Your question again?

[Brown]: Well, can I ask a follow up to that first?

[Murray]: Yeah, sure.

[Brown]: Um, it sounds a lot like Dr. Hildebrand's influence, right? Of going and talking to the fisherman and—

[Murray]: Yeah, Dr. Hildebrand was a past master at that, and he had his contacts all up and down the Gulf Coast, and he regularly made those contacts. I can remember when I went to work at Central Power and Light Company, when I was running the Environmental Department, Dr. Hildebrand would show up, come up to my office, and we'd sit there and talk, and he just was a very good communicator. He was very good at gathering information. He knew how to source information and, yeah, he was a big influence. I respected his knowledge, and I respected his love for the environment, particularly the Laguna Madre and the Western Gulf of Mexico. He was a big influence, yeah.

[Brown]: Um-hm.

[Murray]: Yeah.

[Brown]: Okay.

[Murray]: And it's kind of funny that I worked at Central Power and Light as an environmental person, but the company had other plans for me, so I finally worked my way through different positions and things I didn't know much about but learned, and finally ended up in executive management with a degree in marine biology so that—but all that time I still had a real passion for conservation matters. I've always been a conservationist at heart and been involved in any number of things over the years, and some we won, some we haven't. But, yeah, my old mentor Dr. Hildebrand has stuck with me a long time.

[Brown]: Um-hm (clock chimes). Yeah, and, um, I guess the original question was like so, the changes to Baffin Bay, and you were talking about—

[Murray]: —Oh I'm sorry (both talking at once)—

[Brown]: —and the anecdotal—

[Murray]: —let's go back. I got to rambling.

[Brown]: Oh, no that's fine.

[Murray]: Yeah, well, what I've seen down there more than anything, and I think this could be highly verified by the locals, is a big change in the fisheries and black drum have been the mainstay down there in terms of commercial fishing and sport fishing to a great extent and their population have been variable. Uh, but I think you probably heard about the jelly fish, the jelly drum. Well, we first found those ourselves because we were close friends with the restaurant owners down there, and they were not able to find good fish several times, and we began to see just an emaciation of these drum and they were literally absorbing their own bodies because they were starving to death, and we attributed that to water quality, and water quality is really the big bugaboo. It's kind of like any other habitat. If you don't have it, you don't have anything. So, you've got to have good water quality. And we've noticed changes in the drum population, more cyclic than anything. The drum still have a good healthy population, don't get me wrong. We've seen a reduction in the quantity and quality of trout for sure, spotted seatrout, and also in flounder and white shrimp and brown shrimp. It used to be a big shrimping bay before they made it a nursery area. Lots and lots of shrimp were caught in that bay. But you don't see those seasonal migrations, you used to see seasonal migrations of shrimp and, you know, follow the birds, follow the birds and you're going to catch fish. You just don't see that anymore. It's gone. The crab populations are cyclic with freshwater inflow, which is a bit intermittent because we don't have any constant source of freshwater inflow. We've got three streams down there that depend on heavy rainfall for any flow at all. That's Los Olmos and San Fernando and Petronila, and they actually feed Baffin. Unfortunately, we've also been fed with a lot of pollution. So, we've seen a big change in the agricultural community.

There's been tremendous land clearing and tremendous agricultural development over the last, I'll say, thirty to forty years, but you can see the changes. We've had episodic blooms of brown tide and other algal forms which have created many issues at times, particularly during the warmer months with low oxygen values and low oxygen values have a detrimental effect on many different species of organisms, so we've seen all those things happening. We've also seen, uh, probably related to all the land clearing, quite a bit of erosion and deposition (coughs).

[Murray]: Yeah, with the agricultural practices, of course, when you strip the land with of brush and grasses, you get erosion, and many of the serpulid reefs, particularly like in the back end of Alazan, some of those places, have now been covered or partially covered with sediment (clears throat). So, the other, I guess, big change that you see is a huge increase in fishing pressure, both commercially and sportfishing wise. You know, back in the fifties, the fifties and sixties, you could probably count the number of fishing guides on two hands at the most, and now in the Gulf Coast, there's around twelve hundred fishing guides and there's more every year. So, we've seen a huge increase in fishing pressure and, of course, the target species for years has been spotted seatrout, which certainly has an impact on the fishery. Coincident with that is, you know, the number of saltwater fishing license sales is going up every year, and we're recruiting more and more saltwater fisherman to the Laguna Madre and Baffin Bay every year. So, pressure's a big factor and we've seen a huge increase in boat traffic, and at the launches, you can just see it expand every year so those are, I guess, primarily the biggest things I've seen, yeah. Yeah, but back to water quality, you know, there's been research that we've been involved with, I'm sure you'll ask about it in a minute, but we've seen a huge increase in organic nitrogen and chlorophyll. That's a recipe for, well, basically over time, eutrophication, but what you see is episodic drops in oxygen because of these plankton blooms, which are fueled by the nitrogen and the chlorophyll, and particularly during the warmer months, and that's bad for the whole ecosystem.

[Brown]: Can you tell me more about—So, well, first, let's—I mean, I guess, can you tell me more about your conservation work prior to the Baffin Bay project?

[Murray]: Well, of course, back in my early days out at the university and then my early days at Central Power and Light Company, that's basically what I was doing was doing environmental studies to determine if power plants were going to have a negative effect or any effect at all on bay systems. We had, let's see, one, two, three, we had three saltwater plants over time which discharged heated water into the bay, so a lot of our work centered around thermal impacts. Also, with the intakes of power plants, we had to look at what we call entrainment of organisms and impingement and you set up a pretty good velocity with circulating water pumps. So, you have to determine what you're taking in and how you screen for it. What do you do with it when you screen for it. So, we did a lot of work in that regard. Um, down in Baffin Bay we had one situation that came up, well, I'll go back a little bit. Prior to that, the Texas Parks and Wildlife has asked me to be involved. I've been blessed to be on just about every trout committee they've ever had, and I've been involved with Parks and Wildlife and making recommendations on regulations and bag limits and those type things for many, many years. In

fact, we work very very hard in the lower Laguna Madre to get the first five fish, and that was quite an experience because you have a, what they call, public scoping meetings, and these public scoping meetings are really at times like rambunctious hearings and you get, kind of, everybody's good side and everybody's bad side. So, they can get pretty interesting, and when you get a bunch of old salties together and they get drunk before these meetings, they can really turn to chaos in a hurry, and I've been in several of those. But, anyway, we were able to get our recommendations through to Texas Parks and Wildlife Coastal Fisheries and they all agreed—matter of fact, that's when Larry McKinney was still with Parks and Wildlife, and got it done and then we tried to get it done for the whole coast and we failed. We came back and tried again, and we got a five fish limit all the way to essentially to almost Galveston Bay. And also, you know, pretty basic things like freezes can surely change the game. Then you have to go back to baseline, go back to ground zero, and I've been involved in some of those assessments as well. Uh, the other thing, the Parks and Wildlife asked me to be on their flounder task force. So, I was on their flounder task force, and we essentially reduced bag limits for both commercial and sport fisherman, and we closed a month, now it's a month and a half, in the fall to allow the mature females to get through the passes and get offshore and spawn, because heretoforth they were slaughtered at the passes by flounder fisherman, and it's been good for the flounder, but we may have some other temperature, global warming kind of issues with flounder as well so the jury's still out, but I was involved with that. We had an interesting thing happen down in Baffin Bay, which I considered to be a pristine remote and wonderful place. We hadn't built our place very long down there and we found out that Mobile Exxon was getting ready to file for a dredge permit to dredge out the old river channel all the way from literally the Intracoastal [Waterway] down to the west end and they were going to place spoil in the bay, make spoil islands in Baffin Bay, and I assume that they're thinking was that they could do this more cost effectively than directional drilling off the Kennedy or King Ranch, but, anyway, we mounted a pretty good grassroots effort, and we even got the local schools involved with kids writing letters to their senators, and we were able to avoid that. They finally pulled up their stakes and left. I was also involved with the first redfish hatchery on the Texas Coast when I was working with Central Power and Light, and we knew that Connie Arnold over at Port Aransas, UT [University of Texas Marine Science Institute] had learned how to spawn redfish and we got to thinking about our thermal affluent efforts and this eleven-hundred acre cooling reservoir we had right here at the Barney Davis Plant at Flour Bluff. Wow, what could we do? So, we did some cage cultures with fish and found out that their growth rates were really much greater having warmer, even temperatures seasonally, and, anyway, one thing led to another, Parks and Wildlife got very interested in doing a hatchery and CCA [Coastal Conservation Association] did as well and we built the first marine hatcheries out there just for redfish at the Barney Davis Plant and there was a Perry Bass facility and others, but collectively we named it the CPLGCCA, I'm sorry, CPL-CCA Marine Development Center and that's what it was known for years, and we literarily hatched and reared millions of juvenile redfish that have been stocked all up and down the coast. Now there's, I think, either two or three other hatcheries as well now on the coast. But that was the first one, we called it the Granddaddy Hatchery, and it's still operational. We're quite pleased with that and it really turned the redfishing around because at one point redfish were really endangered. We had to literally declare it a sport fish, stop commercial fishing, and then we had to supplement the population

with hatchery-raised fish, and it's worked out very, very well. So these are just some of the things that come with the top of my head.

[Brown]: Yeah.

[Murray]: Yeah.

[Brown]: Busy.

[Murray]: Yeah.

[Brown]: Well, can you tell me how you first got involved with the Baffin Bay water sampling project?

[Murray]: Yeah, I sure can. It, you know, for some time down there (coughs), excuse me. For some time down on the west end, Jen, we were experiencing a lot of talk in the community every time we'd go somewhere, to the restaurant or to the store, people were talking about what is wrong with the bay, and these are people that you have to listen to because they lived their whole lives down there, and you don't disregard that. And so, I began to listen, and I also saw big changes myself, and decided that it was time to really do something about it, so we called a meeting at my bay house. This is how it all started way back when, I guess 2012, and we invited commercial fishermen, fishing guides, sport fishermen, a bed and breakfast owner, a restaurant owner, a couple other entities I can't remember, but that's how it started. I also invited Dr. Mike Wetz. At that time, he was with TAMU [Texas A&M University-Corpus Christi], now he's at HRI [Harte Research Institute], and Jace Tunnell with Coastal Bend Bays and Estuaries, and they came, and they listened, and we vented for several hours, and we all knew there was something wrong with the water because of the blooms we were having, and the episodic fish kills it, you know, were getting more and more frequent. So, that's how it started. Mike Wetz went away and Jace went away, and we had several calls back and forth, and long story short, developed a very low-end water quality program because we didn't have a lot of funding. Our first funding actually came from the commissioners at Kingsville, and that's kind of how we got the first little bit of funding to get it started. We decided fairly quickly that for lack of resources at the university we needed to do this on a volunteer basis. And so, my job basically was to source and collect a group of volunteers and to manage them, and that's what I did, and we did water quality sampling once a month. We had eleven stations. I had two teams. I had an east team and a west team, and the reason I did that is because it's such a long bay, you just simply couldn't beat the wind unless you had boats on both ends. So, we sampled for, uh, I guess, a little over four years, right in there somewhere. About four years, I guess, and of course the water quality data that we collected has been invaluable and has been the real baseline for really the, you know, where we are now, and that is we're developing a watershed protection plan which we hope to see agency approval here fairly soon. There's different funding sources coming into Baffin now that we didn't have before and, in fact, there's one coming up in April that hasn't been announced yet. I'm looking forward to hearing about it, but anyway, another one of the things that I had some responsibility for was fundraising and we

were able to get Celanese to really seed some serious money that we could get started in a big way. We had at one time as many as seventeen volunteers, but I always managed to keep twelve, and it would flex a little bit here and there, but we had twelve solid people that were always available and would use their boats and their vehicles to get it done, and we'd go out once a month, sometimes more often if it rained or something like that, we wanted to sample, but that's kind of how I got started with it.

[Brown]: Can you go back to 2012 and tell me more about that meeting at your house and, you know, what was the mood of the crowd, and how did you get people involved, and all those sorts of things?

[Murray]: Yeah. Well, you know, all these people were—first of all, it's a small community. It's a very rural, kind of agricultural, people make their living farming and fishing, commercial fishing, and so you really kind of had to know which people to source to get the right heads there to talk and kind of discuss and decide, but people were not shy, not bashful about telling what they knew about Baffin. For example, one of the commercial fishermen has seen his catches go from thousands of pounds to a few hundred pounds of drum, and so there were a lot of good anecdotal stories there to get people motivated. As far as the volunteers, those are folks that I've really known, for the most part, for years and I knew that they were really, really interested in Baffin and what was going on, and you probably heard a little bit about that from David Rowsey, I'm sure. Uh, David's been a big advocate, although he's a busy guy and he wasn't always available, but we really appreciate his interest and input.

[Brown]: How did you get—so, you called Jace Tunnell and (both talking at once)—

[Murray]: —Yeah—

[Brown]: —they just came down?

[Murray]: Well, yeah, Jace worked for the Coastal Bend Bays and Estuaries Program and the guy that—do you know Ray Allen?

[Brown]: Kind of, I know who he is.

[Murray]: Yeah, yeah. Well, he's the boss. Ray and I worked together at CP&L for years so it's kind of integrated family, if you will, and I knew Jace's daddy, Wes, really well. Wes was one of my good friends and so Mike Wetz was new kid on the block at the time, and I didn't know Mike, but I knew of him, and it was just happenstance that the right guy was available at the right time so it worked out really well, but I think that everybody from that meeting could definitely feel that there was a sense of urgency and something had to be done. And as you know these things take a long time, from the time that you do your research and your science, to the time that you do your politics, and to the time you get your funding, until the time that the watershed protection plan's put in place, to the time it's implemented, and it's a long-term

ordeal. Jace is a wonderful environmental manager and Mike is an incredible scientist and a wonderful educator. You just couldn't have two finer people to get it started.

[Brown]: Hm.

[Murray]: Yeah.

[Brown]: Well, what were you hoping to come out of both the meeting and then the volunteer work?

[Murray]: Both the meeting and the volunteer work. Well, what was—what I was hoping to come out of the meeting with was, “Hey, we got some scientists here and we’ve got a lot of influential people in the community,” and I was really hoping we could get a water quality study started, and hopefully even a biological study, and we’ve had bits and pieces. We’ve had some drum studies and things like that, but the—not to get too far off the rabbit trail, but you may have seen some of the photos I took and some of the presentations, but we had what’s called a dwarf surf clam and it’s a primary food source for black drum and they were literally piled up on the beaches two-and-a-half, three-foot high, dead ones from all over the bay and it probably resulted loads of dissolved oxygen or higher salinity as well, but those are some of the impacts that just were so visible you couldn’t disregard them. But Jace and Mike were at the right place at the right time, it just worked out beautifully. Yeah, I wish I could still be a part of the actual fieldwork, but old age has crept up on me here (both laugh).

[Brown]: Well, what was the field work and the volunteering like?

[Murray]: Well, it was great, I mean we, uh, you know, I had a boat and some of my neighbors that I got involved had boats. We had boats on this end as well, and I would work both ends every now and then. I’d come up here and work on the east team or work on the west team, and it was just a group of people that really cared about Baffin Bay and were willing to learn. We had people from the university that trained us in how to process the samples and how to work the instrumentation, record the data, report the data, pack the samples, get them over to the university. I mean it was quite a process, but everybody was willing, and let me tell you that keeping people pointed in the same direction for forty-eight months, is not an easy thing, unless their hearts are in it. That’s the difference. Yeah.

[Brown]: Is that how you, um, were able to successfully do it then? Is—

[Murray]: Yeah, it’s the people. Yeah, it’s through people. You know, our job was to get out on the bay once a month and take samples, and whether it was rain or shine like the mailman, we were there. Yeah.

[Brown]: Do you have any, um, good stories or experiences out there on the bay?

[Murray]: Where do you want to start? (Brown laughs) Oh my gosh. Yeah, we've had multiple experiences from windstorms to rainstorms and Baffin Bay is a longitudinal bay. It pretty much runs somewhat east and west, and so it has a long fetch, and that fetch relates to big waves, and so it's a rough bay and sometimes we would have boat troubles, sometimes we'd take on water in boats, sometimes it'd get too rough to work, and sometimes it's too rough to go out and we'd have to put it off a day, but we were always able to get our sampling in at a reasonable monthly time frame. I personally was with one gentleman, we broke down out in the middle of Baffin Bay. His motor broke down, and we had to drift a while, and then anchor a while, and then set a while before we were able to get help to get towed in. But I, personally, on my boat, I blew up a motor on my boat, which was quite costly and expensive, but I had to buy a new motor, but luckily, I have a boat partner, my son, so. But yeah, we had a lot of experiences like that, uh, you know, we had incredible fishing experiences out there. You just can't believe some of the wonderful fishing trips that Baffin has provided for me and my family. It's really been unreal. I can remember one of the early times with Texas Parks and Wildlife Coastal Fisheries, I was working out of the Flour Bluff lab, and back then we didn't have the best of equipment. This would have been 1967 or 8, , somewhere in there, and we had what we call net skiffs, and they were very shallow running. They look like a big banana, and they had a box in the middle of them, and in the middle of that box was an outboard engine, and then from the box to the stern of the boat was a tunnel and you could run real, real shallow. That's before tunnel boats were even built, but these were built in Rockport by Texas Parks and Wildlife. Anyway, I was in a net skiff. We were pulled by what we called the mothership which is a larger kind of a crew boat, if you will, and we'd tow the skiff. I'd get in the skiff, and I'd go set the net wherever it needed to be done. One of my early experiences in Baffin was actually in Alazan Bay which is actually a tertiary bay. Baffin Bay is about, I think it's about 33,000 acres, but when you add Alazan, and Cayo del Grullo, and the Laguna Salada, it's more like 60,000 acres, so it's a big place. Anyway, I was in the back end of Alazan pretty late in the day to pick up six hundred feet of trammel net that I had set myself I was on the on the net skiff and I began to pick this net up and it was just full of hardheads and drum, black drum, and so I had to pick the net and be careful of the hardheads, but all of a sudden I was bringing the net over the bow of the boat, and boy something slapped my leg and it was a snake, and this big old snake, it jumped in the net or got tangled in the net as soon as I brought it on deck it got out of the net, into the boat. I jumped out of the boat fortunately it was about thigh deep, and the snake and I had a battle, and I finally dispatched it with an oar. That's the only way I could get back in the boat (both laugh). But those are the days when, you know, when you were down there, you were by yourself. Another time, I won't name any names, but I was down there, and it was late in the day. I was fishing in the Badlands, and it was a Sunday afternoon late and I looked, a little front had blown in and it's in February, and I could see something out in the bay and the more I looked at it, it looked like some guy waving and so anyway, I went out to check on him, and lo and behold, it was three Parks and Wildlife biologists, and they had decided they were going to borrow a state boat and go fishing on Sunday, and it broke down (both laugh). So, I ended up towing them back to Bird Island, and those guys never forgot that, and another time I was down in the Land Cut, I was taking one of our board members fishing, and it was, again, it was in February, had a good current running from north to south that day, and nobody fishing. It's pretty remote. It's forty miles down there, and anyway, we're just getting ready to turn into the

Nine Mile Hole Channel, and I look down to the south, in the Intracoastal and I see a boat just floating, just drifting along with a pretty good clip. I couldn't see any people in it. So, I was with an older man, a board member of Central Power and Light Company, and anyway I said, "We better go check on that," so we ran down there, and the closer I got I could see a guy's hands on the other side of the boat holding on, and it was a fishing guide who had been by himself, fallen in the water, it was cold, his clothes were full of water and he couldn't pull himself up. I don't think he would have made it much longer. I can't remember the gentleman's name, but he sent me a Christmas card for about eight to ten years after that. So, those are just some of the things you run into on the water, and there's a multitude of those kind of experiences.

[Brown]: What else do you want to tell me about this citizen science project, and what did you learn from your involvement?

[Murray]: What did I learn (papers rustling)? Well, what we hoped for from the onset was that we would find something in the bay that would give us some indications of what was going on, and over time, over time measuring water quality once a month began to build a profile of particularly organic nitrogen and chlorophyll, and these were the two big bugaboos and that they were so high. I can't remember the exact readings, but I can tell you this, that they are the highest readings anywhere out of any Texas bay system on the Texas coast. So, what we found were some issues with water quality, but it would take a lot of further research to determine how that was impacting specifically what we were seeing. But we did learn that there were significant water quality issues on Baffin Bay. The other thing that I certainly learned that we alluded to already is that if people really have a passion about something, you know, they'll commit to it, and they'll stick with it, and, again, for holding (papers rustling) people in a pattern for forty-eight months is amazing. I mean the same people using the same boats, same trucks, their same time away from home, same old rough bay, it's just very fulfilling to be a part of that. People care enough about an environmental issue, and what's happening to one of their treasures, to go out and do something about it. I was blessed to have some science background, but I was the only one and these people, you know, owned drug stores and everything else I mean, so that was wonderful. But in terms of what success looks like for me, success to me is, I'd like to see over the next decade, an improvement in water quality. Again, that's the base. If you don't have good water quality, you don't have a good ecosystem. So, my hope is that over the next ten years we will see an improvement in water quality as a reduction in organic nitrogen or a reduction in chlorophyll, a reduction in the elements that are running off that are causing this. I hope to see the state and federal agencies approve our watershed protection plan which is in its final stages at this point. I think that success to me is having a continued outreach to the local and regional communities, to make them aware of, to make them a part of the process. I think success is being able to get into our middle schools and high schools and have an opportunity to influence their thinking in terms of their own backyard here. I would love to see that happen in the Kingsville schools, the Alice schools, the Flour Bluff schools, here in Corpus, and you can accomplish that by having people come and speak to the classes, you know, get them out in the field on field trips, get them involved, let them know what the issues are, and let them know about the history, and what we hope to see in the future, and make them a part of the process, and I think kids are ready for that sort of thing. I

really do. I think that success is certainly going to be measured in continued funding from state agencies and federal agencies as well as private entities and people like CCA and different conservation organizations, so fundings going to continue to be a big issue. I think that success is continued leadership through HRI and Texas A&M University and fine scientists like Michael Wetz and others, Jennifer Pollack, Greg Stunz, and so many out there. They've got to continue to take the lead on this. And, then finally, I think that success is seeing an ecologically restored productive Baffin Bay again, once again. What I experienced in my lifetime in the sixties, in the seventies, in the eighties even, but I'd have to say over the last, at least, thirty years, maybe thirty-five or forty years, it's definitely had a big decline. There's no question.

[Brown]: Can you talk a little bit about—you mentioned getting kids involved, how can we get younger generations to be stewards of Baffin Bay?

[Murray]: Well, I think that's what you have to do. You have to, Jen, you have to get these people, if they're doing marine science or whatever class that they're taking, environmental stewardship, whatever it may be. These high schools and middle schools offer a lot of these things now, and I think somehow that we have to integrate what's being done here that's so important with what they're learning, and I think that, again, I think that there's, for me at least when I was young, there's no substitute for getting out there and getting on a seine or taking a water quality sample, a simple thing. Now we've got all the instrumentation to measure these things. Back in my day you had to titrate chemically to determine dissolved oxygen, but there's just a whole opportunity therefore you know, to make Baffin Bay the showpiece for environmental stewardship, and I think that kids out there are anxious and willing to learn about the Laguna Madre and Baffin Bays in their backyards, just got to get them plugged in. And I also think that we need to do more at the adult level as well. We need to have more outreach on what's been done, on where we're going, and what we hope to accomplish, and I'd like to see that incorporated into the Coastal Bend Bays Estuaries Program, the Coastal Bend Bays Foundation that puts on periodic forums. I think that Baffin Bay needs to be a showpiece at those forums.

[Brown]: That kind of goes into one thing I wanted to ask about too, can you tell me about the transition from the water sampling to the stakeholder group?

[Murray]: I'm not sure I quite understand.

[Brown]: Well, what did you hope, when you stopped sampling, right, and then you all formed this stakeholder group, I mean, what were you trying to accomplish with that?

[Murray]: Well, the stakeholder group wasn't necessarily the volunteers. The stakeholder group was people like Mike Wetz and folks like that, and what we're trying to accomplish is, we've got the data, now how do we get a watershed protection plan developed, how do we get that, what agencies have experience with that, how do we call their attention to this, how do we make this information we've collected available and understandable to these people, and that's what we did. We had different agencies, ag agencies, a number of different groups come in and

we began to coalesce and meet and have meetings. We had at least two meetings down there at the local level, and we had good attendance. We brought in local community people, we brought in agency people, and Mike Wetz was always there to give the dog and pony show on Baffin and what we had found. And so, what that really did is it began to, I guess, gain momentum, and the next logical step was to develop a watershed protection plan for Baffin Bay because it's a huge watershed, and whatever happens in the watershed ultimately happens in Baffin Bay. So, we've really got to get our arms around that. I think we've made tremendous progress. There's still more work to be done in the creeks that's being done now, but I think we're going to have a watershed protection plan, and, of course, that's an incremental thing. It's usually a ten-to-twenty-year plan, and it takes time to do, but that's what we hope to accomplish. We hope to make a dent in the ag runoff, fertilizers, even erosion, even the stubble in the fields that breaks down and gets in the ditches and ends up in Baffin Bay. We hope to see a big improvement in wastewater treatment facilities down there because these facilities have permanent discharges. Most of these facilities are old and antiquated, and they tend to break down and some cases the operators may or may not have been trained properly. So, a lot of that needs to happen, and one of the huge portions of projected funding is for upgrades of wastewater treatment facilities. So, I hope to see that happen. We also need to really spend a lot of time with septic tanks. I hope they remember the plugs were out of that boat (refers to son outside in the boat) (Brown laughs). I don't have my phone. Okay, excuse me.

[Brown]: Oh, that's fine. Do you want me to run out and—

[Murray]: Well—

[Brown]: I'm sure they—

[Murray]: —They'll know it soon enough (Brown laughs). I'll tell you what, would you mind grabbing my phone? It's right in there.

[Brown]: Sure.

[Murray]: You'll see it. It's a green, kind of a green phone.

[Brown]: Green phone. Is it on this, uh, I'm not seeing it.

[Murray]: Paulette? Call Kirk and ask him if he put the plugs in the boat.

[Paulette]: Oh, uh, I'll call him.

[Murray]: Just call him, yeah.

[Paulette]: I'm sure that he remembered.

[Murray]: Well, I thought about telling him everything but that. Tell him the plugs were not in the boat. That's my boat. One of them.

[Brown]: Okay.

[Murray]: If you can't get Kirk get, get Randall Joe. Anyway, uh, oh, I'm sorry.

[Brown]: That's fine.

[Murray]: We were talking about what we hope to see happen, yeah. Well, I think we left off, there's a lot of septic systems that were put in years and years ago, probably as late as even the early nineties that were extremely close to the bay and they weren't under any guidelines at that time. So, we know that there is a septic tank influence on the bay, and I would like to see a full assessment done of the number of septic tanks down there and figure out a way to retrofit those that are really causing issues, and there's already been some groundwater research down out at the university on that already. So that needs to happen. So we can cover agriculture, we can cover nonpoint source runoff, we can cover the sewage treatment facilities, and the septic tank issues. I think that will go a long way. Yeah.

[Brown]: Well, what else do you want to tell me about your work on this project or Baffin Bay or your life?

[Murray]: Well, we've covered a lot of ground here. I, uh, I just would say that it's been a blessing for me to, you know, to be involved. My passions in the back of my heart and mind, even during my professional career, were really conservation matters, and particularly coastal conservation and I've been involved in everything from wind farms to floating cabins. Another gentleman and I, he's an attorney here, wrote the legislation that finally passed to grandfather the number of cabins that are out there in terms of floating cabins. We call them floaters. Anyway, we were able to put a halt to any more construction, and they also now have rules and regs and guidelines on how they treat their waste, things like that. So that's—(Paulette saying something in the background) Thank you, dear. So, that's one thing that I had neglected to mention that was about a two-and-a-half, three-year effort, but things worked really well in that regard, but it's just been a blessing for me to be able to be involved and have lived in this community long enough that I know enough people and I know enough of the right people to be able to get things done, and that's been a real Godsend for me. We love Baffin Bay. Oh, in fact we will be going down there tomorrow, and just enjoying for what it is and the remoteness. It's just a very special place, and it's always had a special place in my heart, and I'm hoping that as we move forward with continued studies at HRI and Texas A&M that there will be other volunteer groups that will commit their time and their talents to doing the work that's necessary for conservation of Baffin.

[Brown]: Is there anything else?

[Murray]: Well, I can't think of anything. Let me just see what I wrote back here.

[Brown]: Sure.

[Murray]: See if I—

[Brown]: —Yeah—

[Murray]: —fell anything out, but we kind of skipped around a little bit, but do you piece this together somehow or?

[Brown]: Yeah. Well, for the oral history, I'll just leave it as is—

[Murray]: —Yeah—

[Brown]: —but for the podcast I'll just take little bits—

[Murray]: —Yeah—

[Brown]: — and pieces, so.

[Murray]: Yeah, I don't think there's anything real big. You know, I think there was a question in here. One of your earlier questions about how things have changed, but with fishing tackle and those sorts of things and I was saying that there's a chapter in my book that related to that. My book is called *World Class Texas Trout Tomorrow* and I wrote it specifically to inform people, to educate people, and to motivate people to think about fishery conservation, particular spotted seatrout, and that's our passion fish here in Texas, and I think the book has made a big difference. It really has. We've sold a lot of copies for a mom-and-pop operation. There's a lot of interest in the book. So, that's been a very, very good thing, and it's been a lot of fun to do it. I actually wrote it on the west end of Baffin Bay, yeah.

[Brown]: Wow.

[Murray]: But it—

[Brown]: —Um—

[Murray]: Go ahead.

[Brown]: No, sorry.

[Murray]: Well, I was just going to say ask the question earlier about changes in fishing equipment and tackle, and of course that's in my book, but it wasn't that many years ago where a fifty-horsepower engine was a big engine. I mean you were top cat if you had a fifty-horsepower engine, and a sixteen-foot boat, and now the boats are three- to four-hundred

horsepower, twenty-five, twenty-six foot boats, and they'll run sixty to seventy miles an hour down the channel which is, we call it the ditch because that's basically what it is, and it's a very narrow space for fast boats and lots of them so that's really changed, and, of course, technologies like GPSs, back in the day we used to rely on visual aids to establish our locations for big fish, and lots of fish and whether it be a pole or a shoreline or a particular yucca plant or little hill of oaks, a motte. We used to mark it visually, and nowadays, it's all GPS, it's all on way points, and there are no secret fishing places. There's no more secret honey holes, believe me. So, lures have changed tremendously, rods and reels, fishing line with braid. It's just been incredible how things have changed so rapidly, but anyway the target has always been trout and it will continue to be, and I really fully expect at some point in the not-too-distant future that Parks and Wildlife is going to be faced with establishing seasons on spotted seatrout, on flounder, and perhaps even black drum and redfish, we'll see. But I really believe that's going to happen first for trout because it continues to be the species that's targeted by lots and lots of people.

[Brown]: Um, well if there's nothing else, I'll turn off the recorder.

[Murray]: Okay, well, I thank you—

[Brown]: —Thank you—

[Murray]: —for your time and I'm sorry about my croaky voice, but thank you very much, Jen, for the interview and the opportunity to overflow a little bit here.

[Brown]: Well, thank you for your time—

[Murray]: Yeah.

[Brown]: —and memories—

[Murray]: Yeah.

[Brown]: I'll turn this off.

[end of recording]