Ron McConaughey

Beneath the Surface of San Diego:
A History of Perspectives & Innovations At Depth

18 February 2014
Oral History Recorded by:
Ashleigh Palinkas

Ashleigh >> All right. I'm Ashleigh Palinkas. I'm here with Ron McConaughey. The date is February 18th, 2014. Ron, thank you so much for meeting with me today.

Ron >> My pleasure.

A >> Right, so you were born here in San Diego.

R >> That's right.

A >> In '41?

R >> Correct.

A >> And where did you grow up?

R >> We grew up in Mission Beach, Mary Lou and I both grew up in Mission beach and stayed in the beach area all our lives.

A >> Do you remember the first time you ever wore a mask in the ocean?

R >> I think I do, yeah. It was probably 1949, somewhere around there. I don't have a super accurate memory of that but it was around that year. And I just loved it. I put that mask on and everything was visible for the first time. You know, before that we were looking down through the water and everything is distorted.

A >> Absolutely.

R >> Yeah.

A >> So how long was it before you first used scuba?

R >> Well it was probably 1954 or something that, give or take a year. I'm not real sure about that. I don't remember.

A >> That's all right.

R >> It was an introductory course at the YMCA. They wanted to introduce scuba to people who were interested in it. So I got to put one on in The Plunge and go to the

bottom of The Plunge and look at the grate where the water is sucked out and it was great. I loved it.

A >> Do you remember who it was that trained you?

R >> No, not in that case. I don't remember who it was there. I got very interested in scuba right away and started reading everything I could about it. Cousteau wrote I think it was The Silent World, a great book and I was so hooked. And I managed to get a hold of the U.S. Navy diving manual and read that over and over and tried to understand as much as I could. And I asked all my friends that knew anything about diving and I just got real interested in it in that way. I only had a couple of occasions to use an AquaLung before I started for Scripps. But I did use a hardhat before that.

A >> Really?

R >> Yeah. I quit La Jolla High School halfway through my junior year, I think it was. Yeah. Because, I wrecked a friend's car and I had to pay for it so I went to work. I went to work on a tuna boat and on the tuna boat we had to do some diving and we had to dive in the wells to suck all the dead anchovies out and that sort of thing, and for that we used a helmet and corselette and siphon hose.

A >> What do you remember about your first ocean dives, and I guess if the first ocean dives were the hardhats with the tuna boats…?

R >> Well, that would be the first using anything other than breath holding.

A >> Right. So maybe we will skip ahead to the first time you were able to use a Lung underwater and really kind of look around at your own leisure...

R >> Okay. So that would've been late 1965.

A >> So what do you remember about it?

R >> Well, I remember it was the checkout dive for Scripps because I was going to go on an expedition to the Great Barrier Reef, and they had very little time to train me but I had a lot of experience as a breath hold the diver and it convinced Jim Stuart and Al Stover that I was capable of doing it. So, Jim gave me a written test and Alan gave me a physical check-out on a couple of dives and sent me off to Australia to be the driving officer on the Alpha helix. With almost no experience.

A >> Gosh. I need an opportunity like that. So, where was the dive? Was it in La Jolla?

R >> It was in La Jolla. It was under Scripps Pier, the first dive. And I can't really remember where the next dives were. But they were in that general area somewhere.

A >> And then, so coming back here, you were doing work on the Great Barrier

Reef, and then when you returned to San Diego and began diving back here again, what was your favorite environment to dive in? Did you prefer diving in the kelp forest or the canyon?

R >> Well, it was for work mostly. And I loved all the area around here and they just sent me out to do things that I was more or less a cormorant for. I would go out and catch fish mainly, and when I came back here I was working for Dr. Hubbs. Hubbs was an ichthyologist, as you know. And he wanted me to collect certain fish for him and fish that were uncommon and unusual, and he'd send me out with a list of things to get and I worked with a collector from the aquarium, Bob Kiwala, who was also a very good fish person. He knew a lot about fish, diving for fish, and it was a good opportunity for me to learn more about collecting fish and we were collecting live fish for the aquarium and dead fish for Dr. Hubbs primarily.

A >> As far as getting familiar with the underwater habitats here in San Diego, could you describe some typical sights and if you are doing these fish collections, were there any populations that you found to be primarily more abundant than others? And have you seen any changes in that over the years?

R >> I've seen a lot of changes. And abundance I think was affected by things other than fisheries, pretty much. But not altogether. Weather would have a big thing, a lot to do with it. Our kelp beds are ephemeral. They are there today, gone tomorrow. We could have huge kelp beds that cover, I don't know, thousands of acres at least. And they could get wiped out by one very large storm, which we had. We had the big storm in '78 that wiped out all the kelp. We had a big storm in '82, '83 that winter wiped out all the kelp. Again in 1988 we had a big storm that wiped out all the kelp. The kelp has a huge influence on the environment down below. When the kelp was gone, the cover was gone for all the animals that live there, the food chain was gone for all the animals that live there. So yeah, everything was really in a big state of flux. You wouldn't think so, you'd think things would be pretty stable around here, but they weren't at all.

A >> And those fluctuations were pretty obvious just based on your own observations?

R >> Yes. Kelp bass, being a pretty smart fish, would learn; they'd be the last ones left with the last little bit of kelp. They'd eaten everything else that was in the kelp beds and then they would move inshore and get out of the kelp habitat and get into the nearshore algaes and things to live and make a living in and they would dominate there as well. And abalone and things like that were primarily taken out by disease, not diving. Although everyone believes it was divers, but I was there and working during the last parts of the decline of abalone. And I saw the effect of diseases, several different kinds of diseases and most of them were never actually identified. We had diseases that took out green abalone. Diseases that took out black abalone. The black abalone seemed to go faster than anything and never recovered.

A >> Aside from driving for work, did you ever drive to hunt?

R >> Oh yes, I love spearfishing and I was in the little spear fishing club as a teenager.

A >> Which club?

R >> It was called the Junior [Maos]. It was, let's see, it was run by Phelps sporting goods which was a sporting goods store in Bird Rock.

A >> Were there any kinds of initiation rituals, or what were the requisites to be a member?

R >> If you could swim and had fins and mask and a spear you could go and do it.

A >> Did you compete?

R >> Yeah, yeah. Little competition. We won one pretty big meet, it was an annual meet. Our competition was primarily a club called the Skinsters, I think. And although we won the contest and got the material prizes I think the trophy got inscribed to the Skinsters that year but it didn't really matter.

A >> The trophy is the fish, right?

R >> Right. And it was a lot of fun, spear fishing. But I was a little concerned about how many fish a good spear fisherman could take. But I think it was unnecessarily worried about it. Because compared to anglers, anglers were taking so many more fish and you'd look at the daily fish report in the paper and you could see that.

A >> Right. What was your favorite fish to eat?

R >> Halibut. I like Halibut.

A >> I'm wondering about, as far as spearfishing around here, how were you impacted by the gillnet ban in the 90s? Were you still spearfishing by then and was it nice to not have to navigate around the gill nets, after...?

R >> You know, I didn't have any problems with the gill nets at all. Just, gill net fishery seemed pretty benign. Obviously it wasn't. It reduced the population of white sea bass pretty considerably. And maybe some of the by catch that nobody pays any attention to was affected badly. But for most of the fish that the gill netters took I don't think there was a huge effect.

A >> So what was the biggest fish you've ever seen? Here in San Diego.

R >> The biggest fish I've ever seen here in San Diego had to be a black sea bass and I saw several of those.

A >> Do you remember the first time you saw one?

R >> The first time I saw one? I don't remember. I saw several of them when I was a young teenager. Probably 13, 14, something like that.

A>> Yeah.

R >> Swimming in the kelp, big monsters.

A >> Right and them being big monsters how did it make you feel, was it a little scary, or just exciting, both?

R >> No, no it wasn't scary. My dad was a sport fisherman, a very good sport fishermen. And he caught one. I think it weighed, I think it was three fives in a row, so 555 pounds. And I of course looked at that, marveled at it in every way shape or form but it just looked like a big bass to me, so...

A >> Yeah. Pretty harmless, right?

R >> Yeah, they are not harmless, the bigger ones. But around San Diego they probably are.

A >> And have you seen anything like that since the times that you were seeing the black sea bass or has it been a while since you've seen fish that big?

R >> Well, no. When I went to Australia I saw an enormous black sea bass. I don't remember what the species name is now, but the commonest big one that is over there. Yeah I saw one that is just huge, two of my body lengths long. It was just enormous.

A >> Wow.

R >> There, some of the native fishermen were afraid and there was a story about one of the Torres Strait Island, Torres Strait Islanders pearl fisherman who had been swallowed whole by one and got out through the gill slits and had a terrible wounds on him. So it was something to think about, this big fish. I did see one over there that looked like he was hunting us.

A >> Right . And as far as here in San Diego, have you, how prevalent was it seeing the decline of black sea bass? Did you really take note of that?

R >> Yeah, yeah. I noticed that they started to decline right away. The groupers disappeared and the Black Sea Bass declined quite a bit. Every rare once in a while we'd see a grouper. Mostly broomtails. But every once in a while a gulf grouper.

A >> I'm interested also in sheephead and the sizes of individuals. Have you noticed over time that they kind of, the largest ones are not as large as they once were?

R >> Yeah and it's a funny thing the way that sheephead live and grow. If you find a

population where there are a bunch of large females in the Southern California area, you will find a gigantic males.

A >> Sure.

R >> And if they are small females you will find a small adult males. So clearly something is keeping the population down. They don't get a chance to grow. But I don't know what it is, whether it's fishing or probably not fishing.

A >> Were there any particular dive sites that you found have larger populations than others?

R >> Oh yeah. San Nicolas Island, am I getting too far away from San Diego?

A >> Out of interest, go ahead. But yeah, if you could just think of dive sites in San Diego, as small a scale as Point Loma versus La Jolla or Cardiff, etc.

R >> I noticed that the Marine Street area population of large sheephead declined probably in the mid-50s sharply for a while. And I don't know what did that. No idea. But, they were more large, in the 10 to 15 pounds. You know, they do get huge. They are not too uncommon at 35 pounds, something like that.

A >> Right, wow.

R >> I saw very few of those since the 50s. I've seen maybe one a year or something like that. That size. Sometimes they would homestead a certain area. A big male would hang around for quite a while. But they are remarkable fish.

A >> Absolutely. I'm very interested in their life history. Do you have a particular dive site here in San Diego that was your favorite? I mean, I'm sure you must have had to frequent certain sites for work, but as far as personal interest?

R >> The most beautiful, yeah the most beautiful and interesting to me is probably the Boomer area. The grouper grounds. Nowadays you can see, I don't know about nowadays, but before I retired, which was 13 years ago, I saw quite a few grouper there. Some larger ones, some large broomtails and a fairly large gulf grouper and I love to see things like that. I really enjoy it.

A >> Absolutely. You think those are broomtails coming back from the population that had been wiped out?

R >> I think spearfishing did have an effect on them. How much of an effect I don't know, but they are a top end predator and they eat everything underneath them. If there is nobody to eat them, the population is going to get bigger. Spear fishermen were getting them with some regularity. Even now I see, well, like I say 13 years ago I saw a grouper with a piece of line extended from the side which meant there's a spearhead in there somewhere.

A >> Even though they might have been protected by then?

R >> Yeah, they were protected.

A >> So I just wanted to switch over little bit to some technological aspects.

R >> Okay.

A >> I was wondering what type of gear you used the most, and in particular, what developments in gear most impacted your driving experience overall.

R >> Well, single hose regulators had come into the fore by the time I started working for Scripps in 1965. Water Lung had a small exhaust valve in it, which cause me to nearly kill myself from exhaustion once. ScubaPro seemed to have the best regulators and regulator being probably the most important piece of gear that you had.

A >> I agree.

R >> We didn't use air gauges at the time. I got a hold of a ScubaPro with a sonic alarm. I can't remember what it was called at the time. But it had a sonic alarm where you could hear a tinny sound, where it would start to go [tongue rolling noise] when you'd get down to about 600 pounds. And that was great. Before that, the way we knew that we had to come up was when it got hard to breathe.

A >> Sure. Exactly.

R >> And the regulators were hard breathing in those days compared to today. They did not have Venturi assists or anything like that. But the hard breathing, probably exhaling was tougher than inhaling. For me it definitely was. I got exhausted from not being able to exhaust properly.

A >> Right. And what about, so at that time by the 60s you guys had a pretty good grasp on the effects of decompression sickness.

R >> Yeah. I was armed with the knowledge I got from the U.S. Navy diving tables.

A >> The tables, right. Did you ever have any particular concerns about laws or regulations that you either felt were too strict, or not strict enough or nonexistent? You know, can be hunting laws or access restrictions or safety training requirements or anything like that?

R >> I don't think I was overly concerned about any of those things.

A >> Were you ever really frightened or apprehensive on a dive? Were there any really close calls?

R >> Around here, let's see. The closest call I had, I don't remember what year it

was, but it wasn't too long ago. I bit one of the mouthpiece nubs off and sucked it into my air pipe, my windpipe. I thought I was going to have a café heart attack underwater. How am I going to communicate this to my buddy? I couldn't get it out and couldn't get it out and finally I coughed and it popped out, and then I got a little bit panicked at the time. It wasn't mental panic, but physical panic and so I sucked the nub right back down again. And had to do it all over. I figure that's the closest I've been to anything.

A >> That's probably the most unique close call story I've heard so far. Okay so we are wrapping up. Could you describe your perfect dream dive? And maybe let's hear about one that you've actually done and then also one that you wish you could've done, or even hope to do in the future? The perfect dive?

R >> In the San Diego area?

A >> Let's do a San Diego one and then we can do anywhere in the world.

R >> I love clear winter days. The water can be cold, but if it was really clear, I remember days, I don't know that I can sort them out into one single day, but the beautiful clear water sand channels with the sun sparkling off them and things like that, and fish swimming in the water column looked like they were suspended in air and the algae waving back and forth really looked nice.

A >> Yeah.

R >> Yeah, I liked those days like that and I don't think I could single one out.

A >> And what about anywhere in the world?

R >> In the world I would say Belize had, some places in Belize had the most beautiful sights I've ever seen with so much stuff in them, there were so many fish and large predators. We managed to stumble across that Movie Mountain they called it, which was a Cousteau special. He found this, I guess you could call it a bommie, but it was coral rising from about 80, 90 feet in a big pyramid and the center of the pyramid was hollow and it was full of big fish. And it was just so beautiful, really interesting. I don't think I ever saw anything better than that.

A >> And I just wanted to include a few more questions before we wrap it up, regarding your time spent doing collections for Scripps. I'm wondering what was the strangest animal you collected. Or at the time appeared to be the strangest thing you'd seen?

R >> Well I think the strangest thing I saw was a chaetodon [phosphor] which is the [site] butterfly fish which is the symbol for the Birch Aquarium. I was diving with Bob Kiwala off of Quast Rock. I think you know where that is. I saw a butterfly fish on the bottom and Bob was working on the sand very near me intently trying to get out of a big large [tilia], which is a sea anemone. Is that right? Yeah, anyway, sea anemone. He was a far more experienced collector than I and I knew that he knew

about that fish from, there are one or two specimens taken from south of there. Hubbs I think got the first specimen from Guadalupe Island. Anyway, I had seen a picture of it and that was like, I thought oh my God, what is this thing doing here? And so rather than try and catch it myself I went over to Bob and tried to take it and he was really busy with his work and deep enough to where he did not have all that much time. So I wrote chaetodon in the sand in front of him and I think he said, the fool thinks he's found a mastodon or something; he wouldn't go. So I grabbed him and towed him back over to the spot and he saw the fish before I did and he grabbed my ankle with a vice grip, you know, and then the fish went into a hole that had two exits, one on one side and one on the other. I got on one side with a hand and he got on the other end and we played tennis with the fish until we finally caught it. And then we didn't have a needle to expiate the swim bladder, which is important if you're going to take the fish up from that depth. So I went back up to the boat too fast, way too fast. Got a needle and went back down and we expirated the swim bladder and got back before we ran out of air.

A >> What depth were you at?

R >> It's 70 feet at the bottom there. The fish was probably at 65 or something like that.

A >> Yeah, what was, in all of your years, what would you say is the specimen you had to collect the most?

R >> The specimen I had to collect the most might have been abalone. I collected a lot of abalone for a lot of different people. Cindy Lewis was working at San Diego State at the time. And she was doing some interesting work. Vacquier was doing work on them at Scripps. Vick Vacquier Junior. Willie Swanson, a graduate student of Vacquier's was working on them.

A >> And of the requests you had for collections, what was the most difficult? Did you have any that made you say, ‘oh no, more of these?’

R >> Yeah, there were lots of rare abalone, where they are so hard to find. If you're lucky enough to find them shortly after being asked to find them. And another thing was, that led to a really interesting find was torpedoes. We didn't find that many torpedoes or electric rays. I found a big electric ray on the edge of Scripps Canyon. And I was just getting ready to, I've got to take this back, my memory gets all screwed up.

A >> No, take your time.

R >> I saw two gastropods there that are rare, cancellaria cooperi, which is a beautiful gastropod, large, three inch long gastropod. They were setting on the sand on the bottom and I went down to pick them up which I intended to do, and I saw two spiracles which are the breathing holes for a torpedo ray, which was buried in the sand and they were on top of it and I didn't know why they were on top of it but I took the cancellaria anyway and I thought about it afterwards with the torpedo and

we had to collect torpedos later and as I was thinking about it, what the hell were they doing on the back? It's so rare an animal that you never see. And the next time I saw them I think was at BCF reef which is an artificial reef at Torrey Pines, artificial reef number one, about 65 to 70 feet of water. There were more of them on that. I think there were three or four of them. There they appeared to be feeding, a proboscis was out. It was sticking on the side of the torpedo. So then got really interested in it, that was very interesting catching and that led to a paper that John O'Sullivan and I and Mike Huber who was a grad student at the time wrote. We found out we collected torpedoes, we kept them in tanks at Scripps and we did feeding experiments and we put the cancellaria on top of them and watched them parasitize the torpedo which was really, they are little vampires. They suck blood. So yeah, that was very, very interesting and strange. We caught a lot of strange animals off of La Jolla.

A >> Is there a particular protocol or technique for capturing an electric ray?

R >> You know they are dangerous. They can knock you out underwater. There's been two confirmed cases that I know of divers being knocked out by torpedoes. So we were pretty careful. We used a dip net if we were prepared for them and if we were not prepared for them we used our goodie bag on the end of a three prong collecting spear and we would stick it out. If you tap a torpedo on the back, especially towards the tail, they will do a backflip. They're planning on focusing their electrical discharge at you. So you just hold the bag there and they do a backflip right into the bag. Which is one of the more interesting techniques of collecting fish.

A >> What were some particular studies done by labs that were asking you to do collections for that you felt particularly interested in as far as the research that was being done with the specimens you were collecting?

R >> Well, I thought the abalone were very interesting. Reproduction studies that the Vacquier labs were doing were really exciting, really interesting.

A >> That's great. Ron, thank you so much.

R >> Oh, you are welcome.

A >> Again, I'm here speaking with Ron McConaughey in his lovely home in Pacific Beach, San Diego, California. The date is February 18th, 2014. Ron, thank you so much for your time. It's been an absolute pleasure.

R >> My pleasure.

[INTERVIEWEE CHANGE]

Mary Lou >> And what they had to do was sink weights on each side of the canyon and then have a chain cable across it to suspend this camera from. And to use the weights that would hold in the sand under stormy conditions and the like had to be

heavy enough. So it was like four railroad car wheels.

A >> Right.

M >> And lowering these to an exact spot, Ron figured it out on paper first and they worked like rodeo cowboys, backing the line and keeping it tight, backing their boats up. And they got it right on the money. And then stretched it across and put the other one down and the camera after the weight of it was on the cable, fell to the exact place that they had set up for it. It was very hard work. Very hard to do using such weight and small skiffs. Keeping all the things in condition, getting divers to follow their bubbles or stay close to the anchor line so that the current wouldn't take them away from the boats. You know, just hundreds of things. Trying to teach them to go up the ladder and not get the boat under it, so that it would get a hole punched in it, or when they froze and had their hands on the ladder and their feet in the boat, would not let go of either one.

A >> That is still an issue today with deploying the boats.

M >> They picked Ron to take people like Walter Cronkite from the pier out to a Navy ship and you can imagine what would happen to you if you did something to harm such a national person.

A >> Right.

M >> So he was, he [Walter Cronkite] had an interest in submersibles. He was writing a book about the coasts. And a Bahraini princess had an interest in underwater things, and wanted to dive from Scripps. So that would be arranged. Ron would take her out. You don't touch such a person. Your hand doesn't touch them or people jump out of the bushes.

A >> Right.

M >> You know, just lots of interesting things to happen. And just, helping the aquariums keep the animal content at a good quality level.

A >> Using small boats...

M >> Small boat use is really good because that is your main workhorse. It is what you have to do. For instance, if you want luminescent things and you have to go to the tip of Baja or somewhere then you camp on the shore and you have to be able to do all those things in launched boats and keep animals alive.

A >> Absolutely.

M >> There's a lot of things you have to know. And getting animals from here to somebody else. And, how do you do that, and how do you ship them? There's a lot of things to know. You get a call at three in the morning because the hagfish have slimed the green, and the water is overflowing on the floor. You have to come and fix

it. Things are living in the pipes.

A >> Yeah.

Ron >> Phil got really interested in the tanks when he was volunteering for me, working with me at the time and his business out on Fiesta Island.

A >> SeaCamp.

R >> He was in need of tanks and we had tanks that we were going to saw up and throw away. We gave a lot to Mexico but they did not take all of them, and Phil got a bunch of those. And built it up really well and he got really interested in experimental aquarium stuff.

M >> I came to get Ron one Saturday at Scripps and he was in a wooden vat with windows in the side and there were platforms for people to look in. And, “okay, Ron, number 32”. So in he goes in the water and he's sitting on a cross piece waiting for it to be towed. So he goes in and this is full of poisonous sea snakes. And he picks them up by the head and the tail and brings them up and then they get weighed and you know, like that.

A >> Wow that's really cool.

R >> Well, or stupid.

A >> I know. That's the same thing for me, sometimes I can't tell if I'm really enthusiastic, or just very naïve. Either way.

M >> There were years when, I mean, kids would come in and they have a project, they have no money. But I have a good idea and I want a meter on the pier leg and I want to measure the waves going up and down and you have to think of something and make it work out of nothing.

A >> Right.

M >> Ron is not an obstruction kind of person. He is a person who tries to help everybody get done what they want done. So he would bend over backwards, stay extra hours, do all kinds of things. Find materials, save old stuff up in Seaweed Canyon or something. It would come in handy sometime. He can sew net. He would repair the nets that people tore to pieces, dragging them. You know, and you've got to have that feeling in you if you're working for a university because it's not a pay by the hour kind of job.

A >> Right. The most important quality is the ability to be resourceful towards the bigger picture. You know, the greater good. And I can definitely see how, especially meeting you now, how influential you were on Phil as his mentor. Because he's become the go-to guy for things like that now at Scripps. He's doing really well. He's in high demand. So it's been good for me because I mean, I say, “hey, Phil, what do

you got for me today?" and he's like, "oh, here, tons of projects. Go for it."

M >> Good for him. Ron knows which side of what seamount for what you are looking for, which variety.

A >> Exactly, yeah.

M >> You have to have someone like that.

A >> Sure.

R >> There were days when 30 pound Halibuts used to come under the pier in the summer time. But I don't think there's any more 30 pounders.

A >> Not 30 pounders. I saw one under the pier last Friday. I don't really know, I mean, he was about this long but I don't know how much poundage. And that's a big sight for these days. I think the most recent one I've seen bigger than that was off the Torrey Pines artificial reef. Some pretty big ones out there. And that's open to fishing. But I haven't noticed any breath hold guys there, these days, the reef that I was at about averages 45 feet.

R >> That's number two.

A >> You don't see many guys out there unless it's a really clear day.

R >> Yeah.

A >> Still it is pretty deep. And there are a lot of, I mean spearfishing…I'm not sure if it is making kind of a comeback but definitely increasing in popularity.

R >> Standup board fishing.

A >> Yeah. That will start.

R >> I don't think it's really, it's not going to be an impact sport. There's just not enough good spear fisherman.

A >> Exactly, yeah. I'm not so concerned about it, at least I have not really felt that it was a conservation concern, or a threat.

R >> Angling could be. And commercial fishermen certainly can be. But not necessarily. The things you have got to remember is the last number I heard for the Southern California bite of pinnipeds which probably average about 150 pounds, much higher than that, they are eating at least 10 pounds of fish a day. So how are we allocating resources here?

A >> Exactly. Well I wrote my final paper for my Marine Law and Policy course last term on the harbor seal colony controversy at the Children's Pool. And what struck

me initially was how unavailable data is for one, for an individual to discern their own opinion and take a side on the controversy. There's very few, you've either got the Friends of The Seals, or the Friends of the Children's Pool, both nonprofit organizations….

M >> Or you have tourism in San Diego that thinks that is a great…

A >> Right, that wants to bring that in. Which I can understand a little from the educational aspect. Do you study history, it seems like…?

M >> I have studied California history…

R >> She was a teacher for many years.

A >> Oh, awesome.

M >> I like stuff like that, so.

A >> Yeah.

M >> I was just trying to think of people that had found stuff…and Dr. Taylor found an old Spanish diving bell which was neat.

A >> Yeah, Frank [Leinhaupel] has a few Indian metates that you can still go find out kind of near Marine Room, pretty shallow.

R >> After those big storms sand gets scoured out and there they are stuck in the sandstone at the bottom.

A >> You can't take them anymore now, is the difference.

R >> I'm glad they can't take them anymore. It does not mean people won't take them.

A >> Sure, I mean it's a cool attraction for somebody like me to go take photographs of that.

M >> Ron found out that there's hundreds and hundreds of golf balls off Black's.

A >> The Torrey Pines artificial reef. I found, I ended that dive with a golf ball in my pocket.

R >> There's hundreds of them.

A >> I know. It's funny.

R >> It's amazing that they can find that reef. I mean if you extrapolate, like if you go to the reef and you know how many acres it is and you get 15 golf balls, how

many golf balls are still out there.

A >> Yeah, right? I mean, that's such a small area for that many to be concentrated.

R >> It's really surprising that they go out at all. So they must get started out in the rip, rolling on the bottom because the surge in closer would just keep them on the beach.

A >> Right.

R >> The sand bottom has ridges in it. They go the wrong way and the surge, even though a shore surge goes like this. It goes inexorably in one direction. But it takes a long time to do it. So they are bucking that the whole way and the slope cannot be that steep. You see the T part two is what? A quarter of a mile, no it is more than a quarter of a mile. 3/8 of a mile offshore.

A >> I would say, I don't remember the coordinates and I was just diving there in September. Definitely longer than a quarter of a mile. I would say even around a half a mile.

R >> Half-mile. So it's got to go about a half mile against the surge and it's only 43 feet like you say 45 feet deep. So what kind of angle is it, you know? It can't be much of an angle.

A >> Not much.

R >> It's a flat beach.

A >> And a wide beach.

R >> It's an interesting question.

A >> There we go. I'll go for the PhD. I'm going to figure out the factors behind the golf balls at Torrey Pines Reef.

M >> Going in the water at Mission Beach we knew those types of things, we knew all the seasons… because at certain times of the year, you get in the water and you're little you don't weigh a lot and you end up here, you go in two blocks down…so we just, we used to jump in the water put our feet up and take the ride and come back down.

A >> Yeah.

M >> But we knew that at certain times of year that happened and not at others, and there were certain days that you got bathing suits full of sand.

A >> Absolutely.

M >> We don't have any scientific reason for any of it except that it was fun.

A >> Exactly! And you know that is what is so great, is that that doesn't change for little ones. I mean, that's how I, I think my uncle took me surfing for the first time when I was about five. And I've been surfing ever since and that's another, you know, you just read by looking at it; when you're going to go out there and get pounded or when you're going to paddle out and end up however far north or south…

M >> Strawberries on our forehead and chins.

A >> It is a lot of trial and error.

R >> But certain areas like Blacks feed into the canyon real easily and I can understand that because big surf at Blacks…I remember one wave I caught at Blacks – no, I didn't catch it. It was a clean up set and I dove, I took my seat belt off. I was on a surf ski and dumped my paddles. It was the first and only time I ever did, the wave was just terrifying.

A >> Blacks really can be…

R >> I went for the bottom. It was about 15 feet deep there and the waves sucked me up off of the bottom and over the falls twice and then slammed me back into the bottom again and when I got into the beach my board was all the way down to the Mushroom House.

A >> Really?

R >> The longshore current which is so strong, and it just sucked it down there.

A >> Blacks is a steamroller. That's it. I got held under…I was humbled at Blacks a couple of years ago. Not even, it doesn't even have to be that big.

R >> They are powerful.

A >> It's just like a carpet being unrolled over you, and you can't penetrate to the surface.

R >> Do you know Rick Grigg? He was a big-time big wave surfer and a Scripps student and a professor at the University of Hawaii and he's really good at figuring out waves and how they are formed and that sort of thing, and Blacks was always an enigma for me. I couldn't figure out how the hell it is working. Because what normally happens is waves come onshore, they go faster in deeper water and they slow down as they come toward the beach. As they come toward the canyon in the middle the're still going faster and on the sides they are slowing down, so you get something like this [indicates with hands] happening but when it is really deep there is something else altogether happening, deep and steep. You get the water coming in from outside and the wave going through the water is slamming into this wall and

stopping there and it's making a pulse, you know, that is producing that wave that comes out of there and so far I talked to several physical oceanographers and they can't handle that idea. But it is, it is a machine wave. Like a wave you're trying to manufacture in a deep tank.

A >> Sure. A pulse is like the perfect term for it. Nobody's ever expressed it that way.

R >> That's how I think of it. It comes out, it's faster, the Blacks waves are faster and that's where a lot of the power comes from. How can they be faster? Figure it out. They can't be the regular wave going through the wave train, goes toward the beach it slows down, slows down, slows down until it is stopped.

M >> The people aren't ready for, say, the tide being high and the storm surf occurring at the same time.

A >> The direction the swell is coming from and whether it is groundswell…

R >> And the soup is so deep and the grips are forming. We used to double carry big boards when we were little kids and go down, young teenagers, and walked into Blacks that way. It's a long walk. You know you have to walk over the dike rock stuff.

A >> Right.

R >> Same thing happened than if we got fairly big surf. Nobody had a leash in the old days. Your board would wind up where the Mushroom House is. It wasn't there then. They hadn't built it yet. But it took a longer, when you have really big surf down there that nearshore current I think they call it, is a longshore current but it's not the one that goes on the outside. It goes in the inside of the surfline. It can be just going four or five knots down there, it just rips down through there.

A >> Yeah, just sucking you under.

R >> Yeah, you can see the canyon rip just from the top of the cliff looks so interesting. It's like a sewer outfall. You can see the brown sand going out, way out to the edge of the canyon and then it's almost like a whirlpool, it is going down, you know that's a current, you've got to always think about that when you're diving that current. The turbidity currents there do go down and I've had, I've been nearly killed by them in Los [Railes] canyon down in Mexico, the tip of Baja and I had to climb up the side of the canyon to get out. Couldn't swim against it.

A >> That's brutal.

R >> Yeah, so it could get you. We've had so much stuff sucked down the canyon that you don't think about. They put a couple car bodies down there, Bob Dale and somebody else and the car bodies got sucked down the canyon. I think Stewart took the diving saucer up through the canyon and never saw it, so where did it go?

M >> I still remember the recording of the first, the Cousteau sponsored dive into the canyon and the French pilot. Only one other person could go with him because of the size of it but he was ooh, hoo, hoo! about all the shrimp and everything he could see.

R >> I got a ride up there on the Delta Sub which was really fun.

A >> Wow.

R >> It was really fun. Really a trip. I thought at first I'd be pretty scared, the things that worried me most were a bit too long and I didn't really fit in the sub and so my feet were back in the batteries and the wires. But, you know...

A >> I don't want to unplug anything or have anything ignite at my feet!

R >> We, it's very narrow in some places. It's maybe eight, nine feet wide and steep walls. There was a torpedo ray on the bottom in front of us and we are making a dive right for it like it is going to hit that thing and it's going to discharge and what's going to happen?

A >> Zzz!

R >> It would light up.

R >> We did hit it but nothing happened which is 90% of the time the torpedoes don't discharge just for the hell of it.

A >> Sure, I know. It's more the, just the notion of the electric ray and you imagine it coming out of the kelp at night diving and giving you a big hug and that is the end of that. You know?

R >> That has happened people who were coming up out of the canyon and wore them for a hat.

A >> I heard that. One of, I forgot his name. He works in the collections, the preserved collections room now. I've got to look up his name and...

R >> HJ Walker? He's the tall guy.

A >> Talk guy with a little bit of an East Coast accent?

R >> It's a southern accent, but it's...

A >> Yeah, it might be him.

R >> He'd be 55 now, something...

A >> He, the first or second day of school we were getting a tour and he was showing us around and working on doing some preservations and I heard later that he had gotten a hug from a torpedo on a night dive once. Okay, great.

R >> Well I know people when we worked at beach [sank] down in Baja we get those little torpedoes. I can't remember what the species is on those things, but dardos was the Mexican name for them. They really hit like a hammer.

A >> Really?

R >> People would be like---

A>> Man.

M >> Ron also was on the diving control board for a long time for safety and investigating deaths and hoping that all departments would keep that forefront when they decided to do things. It is the University's vulnerability that you have to consider as well.

A>> Absolutely.

R >> That could stop the diving program right now, if you had a careless, unnecessary death.

M >> Ron also got to map atomic bomb craters. [Inaudible] case people told him it was perfectly safe to go and somebody wanted this done before it was capped and see what sort of life was returning to the area so they set out grids and spent the days in it and mapping and counting animals and somewhere in the middle of the project they decided that it wasn't really safe after all. After they got a full total exposure to radiation.

R >> We had a radiation guy who went with us all the time and he found plutonium in there, which even little tiny particles are, you inhale them, that's the ballgame. It takes a few years, but you are going to die.

A >> Yeah. Was that with Jimmy Stewart?

R >> No, he went there I think in 1953 when they had the original H-bomb shot there.

A >> I read about that.

R >> [Inaudible] has 15 or 20 smaller atom bombs that they popped off there. Crazy stuff. It's awful that they go to the world's second-largest atoll and just poison it.

M >> They keep telling people well some day, you can come back.

R >> They can never go back. I don't think the human race is going to last long

enough for them to go back there.

A>> Yeah, that's why am sticking to my La Jolla Cove kelp bed.

R >> I can't wait till they take San Onofre down.

M >> Yeah. I hope they are careful they take them down here by ship. I hope they stay far enough offshore.

A >> Sure. Sure. What are your guys' opinions, if you don't mind my asking, what is your outlook on the system of marine protected areas we have here, having the no-take at La Jolla Cove. I mean, are you supporters of that? Or do you think...

R >> Interested observers I think is what you could call us. We don't know what the hell is going to happen in regard to that end. I miss anything that is denied. If I like to fish there, or spearfish, I hate it when they take it out, but on the other hand I can see a lot of good.

M >> I used to go to the Children's Pool every day and there were always seals, but they were on the outside.

A >> On the rocks, yeah.

M >> There is a rock out there called Seal Rock. That is the reason.

A >> That was named in 1881 I think, by the first mapmaker, he called it Seal Rock

R >> That's great.

M >> And the Scripps people had plenty of money but it was Ellen, Ellen was the only one that did good works with it. She loved to do that. And she made the hospital. She made the schools. She made the libraries. You know, really good things. And put them in such a way that they were well protected. She gave the Children's Pool to the city of San Diego if they would maintain it for the children.

A >> For the protection, for the children. I have a copy of that Senate Bill that was signed by the governor at the time. Yeah, I mean I did a whole research project on this. It was I believe in 1921. It was given to, '17 was when it was commissioned and then in '21 it was opened and signed to the city of La Jolla as you know...

M >> If they would keep it.

A >> County of San Diego, yeah. But in, I want to say the 90s, but it might not be, it might've been early 2000s that it was actually amended and now says, the enjoyment for the children and the educational resource of marine mammals. The marine mammals got put into it.

M >> Yeah, that wasn't there.

A >> I know, and that is why it was actually a really fascinating controversy, because it was basically the way I felt about it - and maybe it's because I'm a native San Diegan, so I think a little bit differently than some people who are…there's a lot of people that are huge advocates for these seals that may not have grown up here and didn't swim in the Children's Pool the way we did, even the way I did. And they, I think it's a matter of, well regardless, this was a bequest of an individual, and that doesn't expire. You have to honor their wishes.

M >> What they don't think about and they don't know because they don't know much about animals is that when Monterey allowed the animals that they were feeding from the pier to colonize the beaches around, they would go from a cute dozen of them to 400, you know?

R >> Really quickly and they had never been there for sure because grizzly bears and mountain lions and Indians…?

M >> And dogs.

A>> Right everything that thought those things were tasty.

M >> So, but the seals did fine even if they could not colonize the beaches. And you couldn't find a buoy that didn't have…

R >> The islands were completely covered with them. And there was a missed opportunity for doing a lot of great research was when the sealing industry collapsed places like Guadalupe Island which has been wiped out, they supposedly they made the endemic fur seals extinct. It's not true they made a comeback.

A >> After the MMPA was instated, the Marine Mammal Protection Act which was in '72?

R >> No, nobody was messing with the seals anymore. There was no sealing industry and I don't know exactly what stopped it, but I remember the San Benitos got a contract for removing, let's see, Dr. Ross dog food got the contract to remove the seals from the San Benitos Islands which had huge amounts of seals on it and they took them all and ground them up and made it into dog food and that was the last of the legal travesties that I can remember.

M >> But the seals have completely fouled the water with the numbers that they have.

A >> The Children's Pool, yeah, the chloroform levels were unswimmable for many years and there have been proposals to dredge it. Because the thing is, when that breakwater was constructed it was constructed with sluice ways that were closed up after just a few years so that is what is causing the sand to build up. So now with the sluice ways being closed, the first problem is that it's not that safe swim, because I mean, the sand, the entry to the water is almost to the end of the

breakwater and then you know, some of the great aspect of diving from there is that you get your nice entry and then after the breakwater you are swept into a current and you can go out. Now it's like all of those aspects make it more dangerous as a swimming area for children and then not only that, but allowing that sand to build up is just making it more appealing to the seals.

M >> Seals mean sharks.

A >> Seals mean sharks.

R >> Seals go to game preserves for fish and their daily quota is what? You know.

A >> Exactly. Nobody's monitoring that.

M >> The restaurants have found out how unforgiving having seals on the rocks is because of the smell, and birds have already...

A >> The cormorants have always been there. So the harbor seals, you know, there's the problem with them, and now it's basically, they are taking up more space and now they are putting barriers to keep people from disturbing them, but then the less they are disturbed by people the more of the beach they will take over until now there's basically no public access to that beach. That was initially constructed for the public. And what actually caused me to bring this up initially was that Frank said yesterday, he said, you know, I would probably still be diving today if I had an entry point there.

M >> Yeah.

A >> Which is kind of heartbreaking. So then now, that's always been an ongoing controversy since they, the harbor seals were showing up in the 90s, but now the sea lions, they're more of a issue, the sea lions at the Cove. Harbor seals don't have their front flippers. So they can only inchworm up the sand, but the sea lions can kind of climb. And they're all over those rocks. And it really stinks. And this is La Jolla, California and especially right near Prospect. So fancy. All those hotels, yeah. So what they've done so far, so the most recent, is they've made an opening in the gate so that people can walk on those rocks and they are hoping the presence of people will back them off a little bit.

M >> That's all it takes. Except they have to remember that seals bite.

A >> Exactly, and under the Marine Mammal Protection Act there's this term, it prohibits any “take” of a marine mammal. And “take” can be, to harm or harass or alter the behavior of, or any intention to harm or harass. So a diver could be walking, and there's been court cases about this; nonprofits will say a diver, you know, harassed a seal. If they are just walking past it and the seal lifts its head to look at them, then that can be considered as harassment and therefore “take”…that is the frustrations of litigation and the language and how you can interpret it.

M >> And then some movie star will leave their entire estate to PETA, so they can do this on a national level. They need this, this is their religion, to pursue every one of those things.

A >> I mean, just the---

M >> Wait until the baby seals start dying of starvation because there is no food.

A >> And there are no divers, no diving recreation because there is nothing to look at anymore except for just to wade through a bunch of seal poop.

R >> And fish won't be on the menu because there won't be any.

A >> I just don't want to see that happen, you know. That's why all my research is kind of concentrated here because it's home, it's my backyard. Every paper I've written at SIO, for my economics class I did a cost-benefit analysis of the Matlahuayl no-take MPA, and how different stakeholders have different values for it. Fishermen and divers...

R >> You set up a perimeter and make a park and then if you are going to manage it you have to make sure those animals have enough to eat and are safe and that people aren't waiting right on the edge of it to shoot them which they do, you know like Yellowstone or any other. Animals do not read the signs. And they don't recognize the boundaries.

A >> Sure.

R >> We have the opportunity. All we have to do is get the right attitude to control the environment here. We have no idea what a baseline study would give us. It's just not possible. But you could say I'd like to divide it up between keeping these invertebrates, keeping these fish, keeping the seals, keeping these whales and how can we best manage that? So it comes down to a management question. Basically. There's no other way to look at it. Without a baseline study you can't say what do I take it back to.

A >> Exactly.

M >> Other than sport fishermen, but fishermen are talking about their daily bread. If they have a bad season they have a bad season, like a farmer. So they are willing to put their gun across their knees and defend this because they die without it. Well, but all their five sons can't also be fishermen. It won't work.

R >> Sustainability is what makes it, controls the fishery. The commercial fishery, if you cannot make any money at it you will do something else, but when they said okay you can't take any more Dolphins, the tuna fishery said goodbye and they just left.

M >> They only go to the Eastern Pacific, from the eastern Pacific to the Western

Pacific. And got some helicopters and...

A >> Yeah.

R >> But the fishermen won't, the commercial fishermen won't try to beat a dead horse. They will complain very bitterly up till the last fish which they would be happy to take.

A >> Exactly.

R >> But after that they just change.

M >> But now that you got elephant seals colonizing Gaviotas and starting down the California coast.

A >> Phil and I saw an elephant seal off the boat. Pretty close, just off the edge of the canyon on Friday.

R >> You know, Ashleigh I always wondered why wherever I saw them they were hanging out right over the canyon, nose up, just---

A >> Just sticking out, the conehead sticking out of the water, yeah.

R >> Just take a few breaths and then expel it and go back down. They go back to the bottom of the canyon because there's hake lying at the bottom of the canyon there which surprised the hell out of me because they never caught them, rarely catch them on the set line or anything but there they were at the bottom of the canyon and they would be duck soup for a big elephant seal. Elephant seals underwater there are really agile.

A >> And their diving physiology is impeccable. I mean you know, they can...

R >> What does it take to keep one of those big beach masters going all day?

A >> They eat lot, I guarantee you. Eat a hell of a lot.

M >> Then you have the Navy target practicing and setting off drones and rockets.

R >> And we don't know how that affects them.

A >> I mean, I wonder what, if they, I don't know. I don't know how insane it might be to maybe amend the Marine Mammal Protection Act and maybe open a fishery as long as it was stringently managed.

M >> Yeah that's the thing.

A >> Maybe that could mitigate, because when you put a moratorium on something like that it's a lot different, I mean those guys can, they pretty much

reproduce every year or two. And they grow pretty rapidly and mature pretty quickly. It's a lot different than putting a moratorium on abalone that you know, don't, I don't think they sexually mature for at least eight or 10 years?

R >> It's less than that, two or three under optimal conditions.

M >> You would have to have elephant seal on the menus for it to work.

A >> I know, and the thing is maybe from a biologist's standpoint and also learning so much about economics and environmental economics as I have been studying at Scripps, I mean, it is a matter of, you've got to educate the public about what we are dealing with here because otherwise all they are thinking is cute little furry face with whiskers and why would we want to kill those? We want to save those. They have no conception of the fact, of the consequences that those encroaching populations are having on the entire ecosystem.

M >> They dress their animals in costumes and they get buried with them in the pet/human cemeteries.

A >> Yeah I mean you know what, I know maybe this is just because I'm still a naïve graduate student, but I think that, of course not all of them, but a lot of them would care if they knew better. I think the big problem is that a lot of people don't know any better.

R >> Education. That's true.

M >> They haven't grown up and they don't want to. They are never going to grow up. They're playing with their fuzzy toys. They don't want to know. They're going to save them all. It's religion.

A >> Yeah.

R >> You were talking about sheephead and differences in sizes and things like that and places I go like Guadalupe Island that have huge sea lion, fur seal and elephant seal populations now have small male sheep head, this big which is telling you that they're...

A >> Right.

R >> They reproduce and they are sexually dimorphic and they decide when they will become a male or female based on I do not know what tells them to do it. Something tells them.

A >> They only go from female to male, right, and once a sheep head is a male, it stays a male?

R >> That's correct.

A >> That's like one of the most introductory…you know, I'm really interested in kelp forest ecology and one of the introductory aspects of ecosystem dynamics is the wiping out of the sea otters, which, in the absence of sea otters, they're not eating the urchins, and so that can either lead to growing sheephead populations but if people are fishing that sheephead then you get that urchin barrens because nobody is eating the urchins.

M >> Exactly! And if all that deer lived, every single dear lived they're be dying of starvation.

R >> Well in a perfect world there is no pollution and without pollution you would not have urchin populations where they go out over the urchin barrens because they couldn't. There's nothing for them to eat. Right now they're eating sand. You know, they are eating the bacterial film on the other side of a grain of sand and making it, just barely. They change physically at that point. The shell has got a lot of collagen in it, and it can actually do this [indicates], and flex as it grows. Otherwise you couldn't figure out how they grow. But they can make it over into an urchin barren right now, can go over and take everything that is in place. Before we didn't have that population, they couldn't do it. They were stuck in their little place. They'd make as much money as they can right here and if they couldn't make any more, they'd die.

M >> There was Wheeler whacking them with his hammer.

R >> Oh, Wheeler…

A >> Wheeler North?

R >> He did, he had guys out there with the hammers raking urchins and the biggest problem there with many of them have matured gametes. So when you broke them, they would reproduce.

A >> You end up making more. A colleague of mine is doing a study of urchins, on pink urchins, which are a little deeper and she's looking at toxicology, toxicity levels. Those urchins. Then she's actually got some samples of purples, purples or reds. I can't remember.

R >> Reds are the big ones, purples are…

A >> I have to go diving next week. I told her I would pick up her samples because everyone else is too busy to dive. I'm never too busy to dive!

M >> Ask Ron. He knows where they all are.

A >> She deployed some traps near [inaudible], or the processing plant in Point Loma. You know, and then I think, she's got her control trap in, right in the MPA, you know, right near Mia's reef right here.

R >> There is a place right off of Black's beach that's a measured mile out there. There's two markers. They go east and west. You look at these two markers and you line them up and you're at one end. And then you go a mile this way and you find another pair and two come together you've traveled a mile. You take the first marker and look on the chart and you line it up with 100 fathoms out there you can get good pink urchins in a trap there. So it's a good clear place where there's no pollution. And it's much closer to the pier.

M >> Ron had to worry about them taking down trees, or buildings because these are all the markers.

A >> They still do.

R >> We need the cross on Soledad, nevermind religion.

A >> Divers need it.

R >> With GPS you do not have to line it up anymore. You can use that line on an old chart to figure out where 100 fathoms bisects that line.

A >> Yeah and that has value, it has inherent value as local knowledge. You know what I mean?

R >> If you are out diving and you're swimming around and you see something really interesting you can pop up and take bearings if you know how to do it. If you don't know how to do it, never learned you could have something very important down the bottom...

A >> Right, that you cannot get back to again. Or even if you drift, within five minutes you will not be able, in low visibility you cannot find it again.

R >> That's right. That was one of the things that we developed a little weight with a pair of net floats and use the pair of net floats as two hulls of a catamaran. So you tie a loop of line between them like that and then you wrap the line around the other line in between like that and then when you let it go from a diver position on the bottom it will go up to the top unwinding and when it gets to the top it will not unwind anymore unless it is rough. So it will just stay there and you can go back to that spot.

A >> Nice.

R >> It's a nice handy thing to stick in your weight belt.

A >> Definitely.

R >> Also really good for, if you are diving in a current and you have to come up to the top and you are afraid you're going to miss your boat you can go to your first stop, whatever it is and let your weight go to the bottom and let your buoy go up to

the top like that and you can hang onto the line and keep it vertical and you know you are in the same spot. It takes a little swimming, but it works good.

A >> Yeah, it's like an underwater trail of breadcrumbs, almost.

R >> You can say, okay I know where I was on the bottom and I know where I am now in the water column but when I get up in this current I'm not going to know where the hell I am.

A >> Right, that's awesome.

R >> I used that a lot and didn't miss the boat. And when I was afraid of currents, of anchoring in currents, I put out 100 meters of line behind the boat with all of our life jackets tied to them so I'd be able to see it.

A >> Yeah.

R >> That's saved me. I've gotten a last lifejacket couple of times. Otherwise you're miles down the beach. Well we don't want to take up anymore of Ashleigh's time.