

Maritime Studies Capstone Seminar Oral History Project

Kelly Shannon Oral History

Date of Interview: May 6, 2020

Location: Waterford, Connecticut

Length of Interview: 00:17:57

Interviewer: CM – Cassidy Martin

Transcriber: NCC

Cassidy Martin: Okay. This is Cassidy Martin. I am interviewing Shannon Kelly, an environmental analyst from the Department of Agriculture, Bureau of Aquaculture. So, thanks so much for coming on the interview today.

Shannon Kelly: Oh, you are so welcome. My pleasure.

CM: So, my first question is, could you describe what you do in the Bureau of Aquaculture?

SK: Sure. As an environmental analyst, we do everything related to shellfish. So, it's clams, mussels, and oysters, and now kelp is the newest addition to the Bureau. Because people eat shellfish raw, or they can eat it raw, we are very involved with the U.S. Food and Drug Administration, the state health department, towns' health departments, towns' shellfish commissions, everybody from A to Z. So, what we have to do is, one, test the water for the bacterial quality of the water. We also test the shellfish meats themselves. We also inspect all the harvesters who harvest the shellfish. Make sure they're following all the correct protocols so that a safe product gets to the consumer. We look at just about everything having to do with potential pollution sources. So, we are required to physically walk the shoreline of every town at least once every ten to twelve years. So, obviously we're not doing those every year, maybe one or two towns a year. We're looking for potential pollution sources. That could be storm drains, catch basins, sewage treatment plants, industry outfall, septic systems, parking lot runoff, everything and anything that could potentially be putting pollutants into the water and get into our shellfish. Then of course, all that data has to be crunched. So, we do all the data analysis and then report-writing, because we have to report back to the FDA. We have yearly reports, triennial reports, and twelve-year reports. We also do dye studies of sewage sewer plants to see where the effluent is going when it comes out of the plant and how quickly it's diluted. Again, so we can figure out where the pollution is going and where it would be diluted enough to be safe enough for folks to eat the shellfish or harvest the shellfish. Sort of the bottom line of all this is that we classify the water. There are several classifications. Approved means that it's safe to eat straight out of the water. We also have conditionally approved, which means it closes after a certain amount of rainfall. Of course, we've determined that through data collection and statistical analysis. We move on from that to restricted relay, which means the water is sort of dirty. The shellfish can be moved from a restricted area to either an approved or a conditionally approved area for a two-week time period when the water is at least 50 degrees, to allow it to cleanse itself. Probably, the worst classification is prohibited. That means you cannot take anything from a prohibited area unless it's very small and needs to grow for another six months. So, very tiny seed oysters, actually anything less than two inches, can be moved from a prohibited area. But it has to go somewhere else for at least six months. The other thing I forgot we also do is we test for hazardous algal blooms. So, the primary one around here is what folks know as red tide. So, we also have to monitor for that to make sure that there's no bloom going on and that's not getting into the shellfish. It's a little bit of everything. Every day is different. We work with a lot of different people.

CM: That's nice that you get to do different things.

SK: Oh, it's fantastic. There's computer work, but it's not all the time. Field work, not all the time. But the field work is twelve months out of the year. So, when people see us in the

summertime and say, "Oh, that must be a great job," yes, it is, except we also do it during the winter [laughter]. Of course, nobody's out there to see that. But we pick our days, you have to be smart about it. But the other thing that I do at the Bureau is I help people get their aquaculture licenses. We define aquaculture as the use of any kind of cage or net or long line. Any kind of a structure in the water is what we call aquaculture. As opposed to just a bottom culture where you're just planting on the bottom and harvesting off the bottom. So, I help people get through that process. There's an application. There are maps that have to be pulled together and then sent off to three different departments within the Department of Environmental Protection and the Army Corps of Engineers. So, I've been doing a lot of GIS to help people plot their spot, plot their gear. I walk people through that application process.

CM: Have you always been interested in aquaculture?

SK: I've always been interested in marine science, except when I was pre-med [laughter]. So, in college, I was pre-med and science. I went to Mount Holyoke College, which has a fantastic science program. As part of that education, what they also set up was during January, we could do what they call J-terms with a person who offered an internship. So, it's for the month of January. One year, I did an internship in Buffalo, New York, with a physical therapist. So, checking out physical therapy. Then the following year, I did an internship right here down in Noank with a marine microbiologist. He was studying the bacteria from shark teeth, but he also worked with the Mystic Aquarium. Met a great group of folks there. I really liked the environment of the marine science atmosphere. Then when I graduated from college and needed a job, I came down to Noank. They said, "Hey, why don't you join us as a lab technician?" So, I worked for (Dr. Sung Feng?), who is a shellfish pathologist, very well-known shellfish pathologist back in the [19]70s and [19]80s. So, I was his lab technician. Then he said to me one day, "I could actually pay you more if you went to graduate school." [laughter] I kind of got into the graduate school and the marine science through the back door. So, Noank is where I did my work for graduate studies, and I graduated from UConn. Because we would have to still go up to Storrs two or three days. It would depend what classes we were taking. There was no Marine Science program per se at Avery Point. But we would take some classes there, some classes up at UConn, and the rest is history. But, yes, kind of got into the marine science thing through the back door and just being in the right place at the right time and being willing to accept people's offers of, "Hey, check this out, try this out." I was also interested in sailing at that same time. I was working on a couple of the schooners out of Mystic and really wanted to stay involved with that community. I didn't think med school was going to be the thing for me. So, while interested in the medical end of things, I was more drawn to the marine science end of things from a lifestyle point of view, also.

CM: Yes. Do you live near the shore still?

SK: I do, yes. I live in Waterford, about a block from the water. So, still, yes, very much marine oriented. Although I don't go boating on the weekends because I do that for my job [laughter]. But do enjoy being near the water. Just the marine community, it's a different type of folk and just really, really like it.

CM: Do you find that there's a lot of challenges facing the marine population, like shellfish and

shellfish fishermen?

SK: Well, I do find that the more you look for something, the more you're going to find. So, especially as far as pollution, the more you look, the more you're going to find, and then you have to figure out what you're going to do with it or about it. I've been doing this for thirty years now, and sadly to say, I have not seen a vast improvement in the water quality. The gains are very small. The best we could do over these years is to offer people these conditional areas where the area can be open until a certain amount of rainfall. Then it has to be closed and sampled before it can reopen. Before we came up with that, the choice was pretty much opened or closed. It was either approved and you could harvest or it was closed and you could not harvest, so that the conditional areas were kind of a medium point between those two. It's a lot of work. It's a lot of work for the town shellfish commissions to help with all of this, because we can't do it. We have very small staff with only eleven of us total in the office. So, we cannot be everywhere. We cover the entire coastline. The office is down in Milford. So, it's a lot of traveling to get from point A to point B. We had a boat yesterday. I left from Milford, came all the way up to Stonington, did sampling, and went back to Milford. A very long day on the water. But that's what we have to do to get the samples to show that the water is what it is. That it's the classification that we have determined that it is. But then we have to maintain that sampling to make sure that nothing has happened in between. Sewage treatment plants are big. When something goes wrong, that's a large volume of water that's going to impact the marine environment. Not only pollution, but public perception and awareness. Some towns are more welcoming of shellfish and shellfishing activities than others. Long Island Sound, I like to refer to as one big sandbox and we all have to play in it nicely. So, there are a lot of people using the same water body be it sailing, kayaking, paddle boarding, recreational fishing, you name it. People are out there and trying to share the same spot. So, that has become the recent issues that folks are dealing with in the aquaculture industry. They also need water access. It can be very difficult to find a place to dock your boat, especially a commercial boat, which is a little bit different. There's a different perception of a commercial boat versus a beautiful sailboat or yacht. Marinas may not want to have a commercial boat. Sometimes, they start very early in the morning. They may have equipment that isn't pretty or doesn't smell as good. Just waterfront property is so expensive that that can be very cost-prohibitive for folks, especially a small business trying to break into the business. Where do you find a waterfront property that you can afford to dock your boat, to put a facility if you need a cooler or to park trucks or to store gear? That can be very challenging. So, it's a work in progress. It's always a work in progress.

CM: So, my last question for you is what is your favorite part of your job?

SK: Oh, my goodness. My favorite part of my job is, I think, the cast of characters that I have met over the years, many of whom have become friends even outside of work. It's like a daily show. I keep saying it's like a TV series. There's just a changing cast of characters, plot [laughter]. No two days are the same. I guess we could put it that way. No two days are ever the same. The variety is amazing. People's ability to come up with different ways of dealing with things is just so incredible, even with this latest Covid issue. Obviously, there's been a really big setback to the industry with restaurants closed, and casinos closed. So, the volume is down. But these folks have rallied so quickly to come up with new ways of getting the product out. Actually, what's happening is they're bringing people in. So, a lot of places, if they have a

facility, they're able to host sales right at their dock or at their building. Other people have been partnering with either wineries or breweries or farm markets or another spot where people can come and pick up their products. So, it's become a more, I guess, in-touch kind of a sale. Usually, boxes go into a truck and they get shipped out. Sometimes they get flown out to other parts of the country. This is becoming more of a neighborhood happening kind of a thing. Like, okay, we know Saturday and Sunday, they're going to be open. Then even some of those folks are adding extra things, like they're inviting folks selling vegetables to join them. So, it's been a real quick, innovative way to try and still sell some product and keep the product in people's minds. You don't want people to forget about it because it's not there for a period of time. Because unfortunately, oysters, clams, all of it, keeps growing. It doesn't stop just because the world has sort of stopped. So, you still need to sell product, move product, and try to provide a livelihood for the folks working on the water and working for the folks doing the harvesting. There's a huge, huge repercussion. So, it'll be interesting to see how online sales start to develop, and local sales versus big things. Then people have to learn how to cook it. I know a lot of people are very intimidated by shellfish, but I know some of the places, they've got videos. They're handing out recipes. They're showing people how to shuck a clam or an oyster, how to prepare a meal at home with something that people are used to ordering out at a restaurant. So, that's been very heartening to see how they're keeping the industry alive and keeping it going.

CM: Okay. Thank you so much.

SK: Oh, you're welcome. Not a problem.

[end of transcript]