

- Q: [0:00] We usually just start with – how do you like to introduce yourself?
- A: [0:05] My name is Emily. I guess that's how I usually introduce myself. Emily Selinger from Maine. I grow oysters. (laughter)
- Q: [0:15] And what year were you born?
- A: [0:17] 1990.
- Q: [0:19] And can you tell me a little bit about where you grew up?
- A: [0:21] I grew up in South Freeport, in South Freeport Village, which is a historic little nook of Freeport that's on the Harraseeket River. It's a very – like densely populated, just a couple of blocks of old houses, a couple blocks from the river.
- Q: [0:42] Where are your parents from?
- A: [0:45] My mom grew up most of her life in Maine. She was born in Syracuse, but my grandparents relocated to Maine in the late '60s, I think. She spent most of her life here in Camden, Maine, actually. And my grandmother still lives there. My dad grew up between New York City and Washington, DC, and then came to Maine for college, went to Bowdoin, and pretty much knew he wanted to stay after that.
- Q: [1:16] What do they do for work?
- A: [1:18] My dad is a lawyer. He does mostly like housing law stuff. And my mom is an artist.
- Q: [1:26] And do you have any siblings?
- A: [1:28] A younger sister named Hallie.
- Q: [1:32] What does she do?
- A: [1:33] She manages The Desert of Maine in Freeport. She has a background working in like art museums and that world, and lived and worked in Boston for a long time doing that, and then moved back here to take over The Desert of Maine, because she wanted to be in Maine.
- Q: [1:50] Do you have any family history of working on the water, fishing, aquaculture, anything like that?
- A: [1:55] Not commercial. Big family tradition of sailing and cruising, and that was my introduction to spending time on boats and on the water.
- Q: [2:07] Can you tell me a little bit more about that?

A: [2:09] Yeah, my grandparents when they moved here – they were both from Wisconsin. They moved around. My grandfather was a doctor in the army. And they kind of bopped around when my mom and her siblings were young, then landed in Camden, and that was going to be the place that they stayed – right on the ocean. My grandfather was just, I think, immediately captivated with the idea of learning how to sail. That was his project. He started messing around in small boats, and it led to them buying a larger cruising boat and then a transatlantic voyage to Ireland and that sort of thing. So I grew up sailing on that boat with them, taking sailing classes down the street from the house that we lived in in Freeport.

Q: [3:05] I'm assuming I know the answer to this, but just to follow the guide, do you have any history with your family of working in other roles, like adjacent to fishing, such as bookkeeping, processing, marketing, bait, gear, anything like that?

A: [3:20] No, none.

Q: [3:22] Are you married?

A: [3:24] No.

Q: [3:25] Do you have any children?

A: [3:27] No.

Q: [3:29] And could you describe your educational background a little bit for me?

A: [3:31] Yeah. I went to public schools in Freeport all the way through to high school graduation. I did a freshman year of undergraduate study at Skidmore College and then left to take a couple years off to go sailing. And then I went back, transferred to the University of Puget Sound in Tacoma, Washington, and I finished my undergrad degree there.

Q: [3:56] What's your degree in?

A: [3:58] Art history.

Q: [4:01] Very useful (inaudible).

A: [4:02] Super. Yeah, art history. (laughter)

Q: [4:05] You can tell. Great. We're going to sort of shift into your role in the sector. How would you describe what you do in the fisheries or aquaculture sector of Maine?

A: [4:16] I'm a business owner. I have built a small four-and-a-half-acre oyster farm in Casco Bay pretty much from the ground up. I've been in operation for about

seven years now, and it's a full-time job for me and a part-time job for my sister and maybe some other folks down the road.

Q: [4:38] Can you tell me a little bit about how you got into that?

A: [4:41] Yes. Sort of on accident through making a friend who was working on a PhD in marine science at the time and had started her own small oyster farm in Yarmouth, kind of just as a pet project, like for fun, with the dream of turning it into a business someday. And we were connected. She was working for my uncle, and he thought we would really hit it off. And I had kind of come back to Maine and was sort of in a transitional phase and trying to figure out what I wanted to do like long term for work. And she took me out – we met, and she took me out to her beginnings of an oyster farm in Casco Bay, and I just thought it was really cool. I was kind of captivated and had a lot of transferable skills that seemed like that would make it a good fit. And I kind of just jumped in and started my own small little operation and went from there.

Q: [5:42] Can you talk about what really hooked you? What made you want to do it?

A: [5:48] I really liked that it was not taking anything out of the environment. It was putting something in, but something that was arguably pretty beneficial for that place. And I thought that was really cool. I also just really liked oysters and was kind of like hooked on the novel idea that I could grow my own oysters from a very basic level. And yeah, I also just liked the idea that it seemed like it was sort of a low entry point, in that I could get a license pretty easily to mess around and experiment and that the costs to get started with a small amount of gear weren't huge. And I already had a boat and access to the water, which was pretty fortunate. So it was kind of an easy door for me to walk through, and that was all really appealing. And from there – yeah, it's just kind of snowballed from there.

Q: [6:56] Can you talk a little bit more about what it was like to start doing it – to get everything set up?

A: [7:02] Yeah, it was kind of a puzzle. I felt kind of lucky that I had this friend in Amanda (sp?), who was also like not that far ahead of me. So we could kind of commiserate and problem-solve together. And there have been a lot of like – I don't know, just challenges to kind of figure out, but they've all been things that I have found a way through, which has made the progressively larger ones that I've encountered – you know, as the business has grown – they're all still like hard to navigate, but I'm a little bit better prepared for them, in the sense that they don't completely derail me anymore. (laughter) Yeah, I have faith that I'll find my way through. And that's been really cool.

Q: [7:53] Can you talk a little bit about your farm now? What does that look like?

A: [7:59] Yeah. It's four and a half acres now. I'm using most of that space. I plant somewhere from 150,000 to 200,000 seed each year, and I harvest 75,000 to 80,000 of those in a year, which is a lot. I work year-round, and I'm mostly on my own on

the water. So it's a lot of work for the time being. But yeah, it's a full-time job. I'm out there four or five days a week in the spring, summer, fall months, and a couple days a week in the winter, mostly just to harvest.

Q: [8:44] Thanks. So which licenses – which commercial licenses do you hold?

A: [8:51] I hold so many. I hold a aquaculture harvesting license that allows me to take oysters off my farm. And I hold a standard lease for the farm. And then I also have a dealer license, which allows me to sell my oysters to whoever I want, and most importantly, to go to farmers' markets, which was something that I really wanted to do from day one. Yeah, I think that's it.

Q: [9:26] Do you own your own boat?

A: [9:29] I do, yeah.

Q: [9:30] And can you talk a little bit more about your role on the boat? I know you're really the only person out there a lot of the time.

A: [9:37] Yeah. I mean, it's like my taxicab out there. It's a work platform also, because I don't have anything else right now out there to serve as a work platform. It's a 19-foot outboard-powered skiff with a center console. It's not really the ideal boat for this, but there are some things I like about it, and I have retrofitted some things to make it more useful. It is what it is for the time being.

Q: [10:11] Cool. Do you have any experience in like bait and gear preparation?

A: [10:17] Yes, in that I worked as a sternman for a few years. So I handled bait pretty intimately in that role while I was starting the farm. It was a great side gig. There's no bait required in oyster farming now, thank God.

And for gear work, I had never really used oyster gear in the past. That was new and kind of a learning experience. But I had done a lot of moorings and rigging and rope work and that sort of thing when sailing. So I had a lot of transferable skills in setting up the structure of the farm, which was nice.

Q: [11:06] Can you talk a little bit more about your experience sterning?

A: [11:10] Yeah, it was two years – I think I fished for two years year-round with a lobsterman named Greg Griffin, who fishes out of Portland. He was the father of a friend of mine. And I had been working a full-time job, and yeah, it just – the oyster farm was more and more pulling me away from that, and I needed something – some way to keep making a decent amount of money and have a little more flexibility and time, and that seemed like the perfect transition. It gave me kind of a cool – I had not had – you know, I grew up around lobstering, but hadn't had any direct interaction with it in that way. And it was nice just in thinking about how I was going to site my farm in and around other folks and fisheries and just gave me

some good baseline knowledge about how lobstering works and that sort of thing. So it was the perfect side gig.

Q: [12:17] And how do you feel like – I don't know, like I'm curious about your impression of the relationship between farmers and lobstermen, having sort of had a hand in both.

A: [12:29] I think it's evolved a lot in the last six years in my time in the aquaculture industry. I think it got kind of like – I don't know what the right word is. I think people think it's a lot more contentious than it is. And the reality is that with the exception of a couple larger farming operations, most oyster farms, at least, are not sited in places where anyone is lobster fishing. If they are, it's very infrequently, and it's a very small boat and that sort of thing. So I don't personally experience a lot of conflict there, nor do I recall hearing very much about it in the time that I was more involved in the lobster industry. I think that gets a little blown out of proportion. Sorry.

Q: [13:42] Sorry, this is going out of order, but just thinking about the marketing – you mentioned having the direct – marketing license or the dealer license. And you mentioned farmers' markets. Yeah, I just wonder if you can talk a little bit about the ways in which you sell. It seems like you probably do a lot of your own direct marketing or maybe all – maybe talking a little bit about that.

A: [14:03] Yeah, I do it all. I kind of from the beginning knew that I wanted this to remain a pretty small business, because I didn't – I just like to be on the water. I didn't want to get to the point where I was not going out on the water – I was sending other people out and managing and doing that kind of work. Because I have done that in the past, and it doesn't really speak to how I like to be active. So I knew I was going to keep it a smaller business. And it felt like it might be wise, given how rapidly the industry was growing, to kind of set myself up to have a really diverse kind of collection of ways in which I could sell oysters throughout the year.

And the farmers' market space – we have so many great farmers' markets in Maine and in this area in particular. I wasn't seeing any oyster farmers at any of them, or any seafood for that matter, which it turns out there's some reasons for that, (laughter) which are challenging. But I just really wanted to explore that, and it's been very worthwhile for a business of this scale. Yeah, it's been awesome.

Q: [15:30] So are there a few farmers' markets you go to? And obviously they're seasonal – probably mostly – but maybe you can say a little more about that. And also you maybe sell oysters here or –

A: [15:40] Yeah. I go to the Portland Farmers' market year round. They have a summer and a winter market. That is my biggest market. We also do, with the help of my sister, a second Saturday. The Portland market is a Saturday market. We also go to the Bath Farmers' Market on Saturdays in the summer, which is a mile down the road, which caters to all my neighbors, which is awesome. When

we're not at that market and also when we are there, my garage is kind of an honor system oyster pickup location, which is quite popular. And last year, I also started attending a Friday farmers' market in Freeport, which I'm going to give another shot at this year. It's a new market, and it's not very well known or attended yet. But my other weekend markets have been awesome. They are where the majority of my oysters are sold.

And yeah, they are kind of in conjunction with a – I started a CSA for oysters – a CSF in fisheries, but I call it a CSA, because I really I personally think of aquaculture as being a lot more akin to agriculture, because we're not fishing. So I started a CSA, which is like a loyalty program sort of deal where folks pay ahead of time for a lot of oysters that they can pick up throughout the season. That's been very popular, and it really goes hand in hand with the farmers' markets with having like weekly places where people know that they can find me and the house pickup as well.

Q: [17:33] Great. That was actually right where I was going, but I'm curious if you have any other experience in marketing or trade or processing with the oysters that you think is worth mentioning.

A: [17:42] No. I mean, I'm really making it up as I go and experimenting with – I'm trying to find things that I'm not seeing other people do, mostly just to see what else works. Yeah, I am really just making it up as I go.

Q: [18:01] Do you do any cheffing events?

A: [18:03] No, I do not have a catering license. I decided that that does not make my heart sing, (laughter) so I don't do that. I leave that to the pros.

Q: [18:14] And do you have any experience in advocacy work or community-based organizations related to fishing or aquaculture?

A: [18:22] Not really, no. I have gotten a little involved since I've been in the industry. But no. No, I don't.

Q: [18:31] When you say a little involved, like which particular organization or –

A: [18:35] Some like organic – like side organizations that have kind of cropped up in groups, and nothing that has really like taken off. But I try to pay attention during legislative sessions and attend things that seem important. That kind of involvement, I guess.

Q: [18:58] Great. And this is kind of a tough question to answer, but I'm curious if you could describe – like what does an average day look like for you?

A: [19:06] There's a few different ones. (laughter)

Q: [19:09] Could you take me through all of them?

A: [19:10] Yeah, it depends a lot on the season. In the summer, the beginning of the week is usually dedicated just to farm work, so it's longer days on the water and a lot of maintenance and taking care of oysters. And then the end of the week, as we get towards – market days are – Thursday or Friday or both are harvest days. So it's typically a shorter day on the water, a longer day on land, just cleaning and prepping and, yeah, sorting oysters and getting ready for that. And then weekends – Saturdays are pretty much always market day year-round, which is a shorter day, but strangely more exhausting (laughter) – a lot of talking to people. And then winters are quieter. There's a lot less time on the water. But usually one short day out to harvest or two.

Q: [20:11] In the winter, do you have some oysters in the lobster pound? Or I know some people – I mean, most people sink their cages, but I know some people keep some floating in an ice-free place to be able to harvest in winter.

A: [20:25] I don't have a lobster pound. I wish I had a lobster pound. That would be amazing. I'm very envious of people who have lobster pounds. No, Inner Casco Bay, in the last seven years, I've been growing oysters, has not frozen over completely. It certainly has in the past, but it's been a while since it's done that. And we get a lot of passing sea ice, but nothing that kind of stays. So I have been able to harvest and get out there by boat I think pretty much consistently since I decided I was going to do that.

I do sink everything, mostly because it helps me sleep better at night, and it's a lot less to worry about and maintain through the winter. My fall involves a lot of grading and sorting oysters and putting aside everything that's ready to go to market and everything that's too small to go to market elsewhere so that I can sink them and know where all the market oysters are. So it's a pretty quick and easy harvest run if the weather is not conducive to spending a lot of time out there.

Q: [21:40] And what does the spring look like as you're sort of shifting into the summer, like workflow?

A: [21:45] Spring is stressful and kind of chaotic, and it sort of goes differently every year. It's a lot of like gear work here – building, mending gear, cleaning gear. It's a lot of schlepping gear in the truck, in the boat, out to the farm. Yeah, I generally am raising oysters in April whenever the low tides around the new moon happen, because that's the easiest time, and it coincides pretty closely with when the water starts to get moving upwards in temperature. So that's usually the timeframe at which I raise all the oysters.

And once everything is up, lots of gear makes its way out. I tend to consolidate things before I sink it so that I can bring as much gear in as possible to get cleaned and fixed up. So then all that gear goes back out, and the oysters get spread back out so that they have lots of room to grow. I try to set myself up so that as things start growing, they have the room, so I'm not kind of frantically running around in June trying to spread things out. So that's kind of where I'm at now.

Q: [23:07] Cool. And how do you feel like your background or identity shapes the work that you do?

A: [23:13] Oh, gosh. I'm sure it does. I don't know. I have a real just deep love of being on the water, and that shapes a lot of how I work, which is without a lot of mechanized equipment that makes a lot of noise. Just because I can hear all the leaf blowers on land, and I don't really want to contribute to the cacophony out there in a place that is so beautiful and otherwise calm. So it's pretty low-tech. And I think that my sailing background kind of speaks to that. I just like being out there and not having as – you know, having as little impact on the environment as I can. What was the second part of that question?

Q: [24:11] Just like how does your background or identity shape your work?

A: [24:14] Oh, identity.

Q: [24:16] How others perceive you.

A: [24:20] I don't know how my identity – I feel like maybe my identity as a woman also plays a part in not wanting to be loud or obnoxious. I use pretty small gear. And that is also an attempt to have my neighbors feel comfortable with me being there and not like I'm a huge eyesore and – yeah, I think that both of those things play into that.

Q: [24:50] Do you feel like that affects the way you're viewed in any way, those things?

A: [24:55] Probably. And I have talked to some other female friends who are farming, and in aquaculture in general, there's lots of conversations about social license and how you gain social license and acceptance from landowners and folks who work in other fisheries around you. I have had a pretty easy time of that, and I think a lot of it is just tied to the fact that I am a woman and that I feel a little bit less threatening to people.

Q: [25:26] I'm curious – you also worked for a little while as a sternman. I guess I'm just interested if you noticed any sort of differences or similarities in the sense of how you might have been treated due to your identity, including being a woman.

A: [25:40] I have a hard time telling, because I have always worked in male-dominated industries and in leadership positions in male-dominated industries and have been treated, I think, lots of different ways, good and bad, just because of my identity as a woman. Lobstering was one place in which I felt very at home and treated just like anyone else from day one. A little bit of that had to do with who I was fishing with, but also like the other boats and captains that we interacted with were people who were always nice to me. And some of them I run into through other – you know, one of them tried to buy oysters for his seafood shack for a while. Yeah, it was always a great work experience.

Q: [26:40] And how do you feel like your work sort of relates to any family or caregiving responsibilities you might have, including any like future plans?

A: [26:48] Yeah, that is an interesting question. I don't have any kids. I do have a partner. We don't have any plans immediately to try and start a family. And I honestly am not sure what I want to do in that regard yet. So it hasn't affected my life at this point. I am working very hard and a lot, and that is part of the reason I think I haven't spent a lot of time thinking about it. And I do sometimes wonder if I wasn't working as much for this business as I am, if I would be in a different place. But I don't have any strong feelings one way or the other, so I'm just going to keep going as I am. And if that changes, I think we'll probably figure it out. But it will be hard. It would be hard to have caregiving responsibilities in my life greater than the dog right now.

Q: [27:58] How does having the dog work? How do you guys navigate that?

A: [28:03] The dog – I should emphasize my partner and I don't live together right now. The dog is my dog. He spends most days with me. He goes out on the water with me on days when there's room in the boat for him and days when we're not harvesting and days that aren't too hot or raining. (laughter) I'm lucky. My parents live in Freeport. They love him. He spends a day or two at their house during the week. I have a great neighbor next door who is often home who is another option to let him out in the middle of the day if I'm going to be gone. So we make it work. He goes to farmers' markets with me. He is everyone's favorite. But yeah, that has been – I really wanted a dog, wasn't sure how it was going to fit into things. My parents initially were like, absolutely not. But they fell in love with him. So it's worked out. It's been fine.

Q: [29:12] Cool. And sort of like shifting towards environmental changes, can you describe any changes in the marine environment you've noticed in your time on the water? Like you could start even as far back as like sailing, lobstering. Yeah.

A: [29:23] Yeah, I'm farming on water that I grew up sailing and swimming in and have spent most of my life around, and it's definitely warmer than it was in the summer. It warms up earlier and it stays warmer later. That's very apparent to me. I think our weather patterns also feel very different than I remember them being as a kid, both in the summer, but year-round. And that's just like – you know, we have stormier shoulder seasons, a lot more wind than I ever remember as a kid, and yeah, kind of unpredictable, weird temperature patterns. Lot of rain last summer. Sounds like that might be something that might be more of our normal existence. But previous years, we were in a drought and it didn't rain at all, which was kind of traumatic to go from that to rain every other day.

Yeah, I think there have been some ecosystem changes that I've noticed just because I have spent a lot of time in small boats in shallow water – just less eelgrass. The salt marsh, which is near where my parents live – there's definitely some erosion that's happening there, some weird different species. The green crabs

have had a very noticeable impact. They are everywhere. And I think those are the big things.

Q: [31:05] How is that impacting your work?

A: [31:08] The longer warmer-water season means oysters are growing and awake for longer, which means more work just taking care of them, potentially. I'm lucky that my site is as shallow as it is, because it means that there's not a huge shift in temperature and environment when I do choose to put the oysters down on the bottom for the winter, which I like to do a little bit earlier than some others, just because we seem to get more and more damaging windstorms in October and November and early December.

But that temperature – delay in the water cooling off is potentially something that will impact my kind of plans around that more in the future. They don't seem to be yet, but we had a very warm winter this year, which is weird. And I'm not sure I noticed any specific changes around that, but I know it plays a role in the thriving green crab population, which are abundant this spring.

Q: [32:30] Can you talk a little bit more about what you're seeing with those and how that's impacting your work?

A: [32:34] Yeah, there's just tons of them. I feel like I'm seeing more bigger ones, which is new. Because I keep most of my oysters in gear, they are pretty well protected from the crabs. I have friends who do more bottom planting in the area, and they have noticed that oysters that they used to plant are now getting eaten by green crabs. So they're having to grow things out in gear for longer and waiting until the oysters are bigger before they plant them to make sure that they are safe from hungry crabs. That seems like that's been a pretty noticeable impact there.

Q: [33:40] You mentioned them sort of along with salt marsh erosion. Are those related, do you think, or they're just (multiple conversations; inaudible) them?

A: [33:46] I don't know. Yeah, it's just something else I've noticed. That could just be something that happens, too.

Q: [33:53] Have you seen any other differences in species other than the green crabs? Anything you've seen more of or less of?

A: [33:59] I don't think so. I think the other – I don't have a lot else going on on the bottom on my site. There's a good healthy amount of European oysters, which have always been there. I have started having some problems with boring sponge, which I think has always been around, but maybe there's more of it. I don't know. It doesn't seem like there's a lot of information out there on the timing for when that species reproduces and sends its spores out to settle on shellfish. I can't find much online about that. So it could just be a fluke, and one year I had a lot of it and then the next year, not so much.

- Q: [34:57] I was going to ask about biofouling. Have you noticed changes in biofouling?
- A: [35:01] Biofouling has definitely gotten worse. Yeah, there's more species of tunicate seemingly every year – different ones and stronger ones and – yeah, definitely. Our water still seems to get cold enough that most of them die off in the winter or stop growing, which is good. I really hope that doesn't change. Because that's a – yeah, they're crazy. They were crazy this past winter. The tunicates were wild, yeah.
- Q: [35:40] Yeah, and all this stuff like the tunicates, the changing water, the green crabs – are you trying anything to cope with that or adapt to it?
- A: [35:49] Yeah, I'm always kind of experimenting with the best way to deal with biofouling. I'm a little limited, just because I don't have a lot of equipment involved in my operation. So it's a lot of air-drying mostly to manage the explosion of things – tunicates, mussel seed when that shows up. Yeah, that's been kind of the most successful thing is to figure out how to really effectively air-dry periodically throughout the warmest months.
- Q: [36:27] And what are some of the – you said you've been doing other experiments. Are there any other things you found that really didn't work?
- A: [36:33] Yeah, I've messed around with how high or low in the water my gear floats. It seems like everything with oyster farming is like you try something new, and there's some other tradeoff. It's like pick your easiest to deal with evil. (laughter) Nothing has been like a perfect solution. I think the things that have worked the best have just been getting the gear and the oysters out of the water periodically. Yeah, nothing has been a complete failure, but it's a lot of small adjustments to things to try and make it that much better.
- Q: [37:26] Can I ask if you've had any – if you see a link between environmental change and bacteria diseases like *Vibrio*, and if that affects your work?
- A: [37:37] That is hard to say. *Vibrio* seems like there is evidence to suggest that it's getting worse in more parts of Maine, and those regulation changes seem great for that reason. I think I've been pretty conservative from the get-go with how I operate with harvests in the summer, so it doesn't change how I operate. It's still just lots of ice. And it's a little bit easier – because I am my own dealer, I can manage the receiving so it is easy on the paperwork with the ice and just making sure everything's at temp when it comes to me – by me. (laughter) Yeah, so that doesn't – that I don't think will affect me that much, that shift.

Our biotoxin closures seem – I don't know enough about what makes for a bad red tide year. They seem very random to me. I don't know. We've had a very easy couple of years in that sense, at least in southern Maine, which has been nice. I don't know. I think the first year that I was selling, there was a very extended PSP closure that was kind of a bummer. But since then – I can't remember if it was

2020 or 2019 – since then, we really haven't had much of any, I don't think, which is nice.

Q: [39:31] What about any relationship – I mean, you talked about temperature changes, definitely. Are you noticing any – like that your oysters are spawning or any change around that or any concern around that?

A: [39:45] No. They definitely – I mean, I tend to buy diploid seeds, so I expect them to spawn at some point. I was actually on the water when they spawned last year, which was really cool, for the first time. That seems like it happens pretty early – maybe earlier than usual – than I would have expected last year. Makes me wonder if we might have longer and longer growing seasons – if we might start to have more than one spawning in a summer, which could be kind of annoying. They tend to be a little – I feel like my oysters are a little fragile around that time. They don't like to be out of water for very long. They don't last as long. Yeah, it's a little – this one ache in my business model is just that summers are such a popular time for people at farmers' markets to buy oysters. And if there was one time of year, just from the standpoint of wanting to sell a quality product, that I would not want to be selling oysters, it's in the middle of the summer. (laughter) But, you know, I have proven to myself that I can do it well and safely at this point. So I will continue. But it does – it makes me anxious around spawning when I know that they're not as strong as usual.

Q: [41:18] And just to go back to the drying, how often do you find you need to do that in order for it to be really effective?

A: [41:24] I am not capable of doing it often enough for it to be as effective as I would like. I am a bit of a perfectionist, though, so some of that is me just being like there's still a lot of slime on that and wishing it wasn't there. But I'm able to do it enough that things are things are clean enough. You know, I'm not having issues with oysters not thriving because the gear is so fouled that they can't. But it's definitely beneficial for me to be proactive about it, just because it makes everything so heavy. And then if we get a storm while things are really heavy, that does a lot more damage on the gear. Yeah, it's something I spend most of the summer doing, I think, is dealing with fouling. I think that's like 90% of oyster farming.

Q: [42:23] Sort of shifting the topic a little bit, did you see any effect from the two storms we got a little earlier this year?

A: [42:29] My oysters were all on the bottom, and because I'm far enough in Casco Bay, we don't get the sea swell. We just get a vicious wind chop. And as long as my oysters are on the bottom, they tend to fare pretty A-OK through that. So I came out unscathed. The boat was fine. Actually, I had hauled the boat for some maintenance and then elected to just keep it out of the water for storm number one and then storm number two when that was apparent that it was coming. So I did OK through that.

- Q: [43:08] What about like the infrastructure you use, like the dock?
- A: [43:12] The town landing in South Freeport was underwater, and the floats were at the tops of the pilings, but everything survived. Again, we're lucky that we're protected from the swell. But yeah, things came out okay.
- Q: [43:36] With all these different things that you were seeing and trying, I'm curious – what's made it possible for you to sort of adapt in the ways you've adapted? And I have more to that question if you need more like to feed the answer.
- A: [43:50] I don't know. I think the fact that this business is so small and that I'm not trying to provide a living for anyone else is really nice, and it allows me to spend – to just invest more money on time to try new things out and prototype things and invest in things that seem like they're going to be really helpful in the long run. Yeah, I think that's the biggest.
- Q: [44:33] And did you draw on any like resources, relationships, training, organization, anything like that when you were thinking about these?
- A: [44:40] A lot on friends – a lot of friends in the industry now. Yeah, there's a lot of information sharing that has been very helpful. And I rely on Sea Grant occasionally for help finding answers for things.
- Q: [45:05] Can you talk a little bit more about the information-sharing aspect of that?
- A: [45:09] It's a lot of just, you know, problem-solving with friends. Hey, have you seen this? What do you do about it? What do you think about this? I have two really good friends in the industry now who both run their own small farms and have started from the ground up. So they've also tried lots of different things. They have different farm environments than I do, and they use different gear. So it's kind of – I'm definitely guilty of kind of getting stuck in my ways of doing things and building things. And often when things feel hard, it's hard to like imagine what could possibly make it easier. So having friends who are growing oysters in different ways has proven to be very helpful when navigating those – wanting to make some things easier. I've gotten some great ideas from people.
- Q: [46:11] And do you find that sort of across the board, people are seeing similar things or having similar problems?
- A: [46:17] I think so. I only really know on a close level people who are operating on a very small scale, too. So I don't know what larger farms are up against or what folks who are trying to employ any number of people are encountering. I have the sense that their challenges are very different from mine. I'm not sure, though. But yeah, because I have elected to sell oysters in a very different way than most people, I'm a little bit outside of the larger main oyster market bubble that people are in. And there seems like there's more and more competition there and more variation in pricing and that sort of thing. I'm a little insulated from that, just because I only wholesale really in the winter when everybody is clamoring for

oysters. (laughter) There aren't as many on the market. So yeah, I'm not totally sure.

Q: [47:32] I'm curious – are there any adaptations you've thought about making that you haven't done yet or that you'd really like to make?

A: [47:38] Yes. I'm kind of just jumping into – I'm buying a barge this weekend, (laughter) a pontoon barge, which will hopefully serve as an alternate work platform that I'm hoping to figure out how to get a mooring out on or near my lease, where that can live in the summer as just another work surface, maybe someday as a solar-powered oyster grader and just something to use as a drying platform as well. That's my biggest next puzzle.

Q: [48:23] And when you look – like even far past that, is there anything you really want to do? Or what does that look like?

A: [48:30] I am not sure yet. I'm pretty happy just doing what I'm doing and just trying to get as many oysters out and just live my life the way that I want to. I think that was my biggest goal. And it would be nice if I could figure out – I could continue to like improve my operations so that things are a little bit easier here and there. I'm sure there are ways to make things easier. And yeah, I think it would be nice someday when I have better infrastructure to have some help on the farm, too. Something like a work platform will make that a lot more possible. Someday maybe a bigger boat would also help.

Q: [49:26] And as you look towards the future, what is your biggest concern for the marine environment?

A: [49:34] I'm always worried about bad actors, I think, in aquaculture and outside of it. And I'm worried about our water quality. And I'm worried about the greater other unknown, sort of known impacts that like just changing climate might have on the marine environment. A lot of it just feels kind of existential. Like it's hard to imagine what 65-year-old Emily is doing, because it just seems too uncertain that like it will even be tenable to grow oysters that far out. I don't know. Yeah, I don't think about that a lot, to be honest.

Something I do think about, though, is just Freeport has – in all of the years that I've spent there has changed so much demographically, and the working waterfront continues to get smaller, and the pleasure boating waterfront continues to expand dramatically. Not that people shouldn't be out enjoying the bay, but there's a lot of people out there who don't know the first thing about common courtesy on the water. And it's scary sometimes. Yeah, it's intrusive. It's like just people going so fast everywhere all the time, not paying attention, running into oyster farms and like just – yeah.

So that, I think, is a very acute Casco Bay/South Freeport problem. I don't think that that happens as much everywhere, but we have a big harbor and a lot of room for people to keep boats, and there's so many more people on the water than there

ever were when I was a kid. And there's plenty of room, but it would be a lot more comfortable if there was a little bit more order and a little bit less – just it feels like there's an attitude of like there's no rules out there lately. (laughter) COVID had, I think, a very powerful impact on that.

Q: [52:07] Yeah. And sort of like with those problems in mind, if you could tell like a policymaker what their biggest priority should be with reference to that, what would you say?

A: [52:19] I would love to see a shift away from aquaculture being the bottom of the pecking order out there. Like we essentially have to prove that we are not going to get in anyone's way ever when we apply for a lease. Yeah, it would just be nice if there was a little bit more respect for the industry and kind of like a conscious decision that this is something that we want to have in our waterways and that we want to support it, and that means that people are going to have to go around it sometimes. I think a lot of how that process is set up makes a lot of sense, but it is – I think just in the interest of making things easy, like nothing has to happen there. Nothing else can happen there. Which is hard – hard to find that space.

Q: [53:26] And you mentioned that – like running through an oyster farm. Has that happened?

A: [53:32] Yeah. Yes, it's happened to me. It's happened to other folks in the area.

Q: [53:37] Like pleasure boats?

A: [53:38] Yeah. There's a lot of anger from people who own pleasure boats about oyster farms and things in the water. They're not supposed to be there. It's like, well, actually, yes, they are all documented. There is this handy map. You can go add them to your chart plotter if you want. It would be nice if there was a way for us to – you know, without having to pay for it, for our operations to be included in NOAA's charts so that they just automatically showed up on chart plotters and that sort of thing. Because people really in our tech age are really glued to their screens when they're blasting about into the sun at sunset instead of paying attention to what's going on around them.

Q: [54:26] Just thinking about the opposition and conflict over space, how did it go – like your leasing process, like the hearings? Did you have opposition at that time?

A: [54:35] I did not. And I am right next to shore. I have a bunch of riparian landowners. I had one family that was concerned, but they had images of larger farms and bigger gear and that sort of thing. And then it was pretty easy to quell their fears, to be like, no, no, no, like that little thing. It helped that I had been growing on LPAs in the same area for a while, and I had a small version of what my farm was essentially just going to look like. So it was pretty easy to be like, you can't even see this, hardly, from your lawn. It's just going to be more of that. So it went well for me, but there have been some like snarky comments from other

people that I don't know well since – like, oh, your farm's in my way. Sorry.  
(laughter) I think that's always going to be a thing.

Q: [55:39] And sort of like switching back into climate, have you participated in any climate resilience – like adaptation training, any kind of program like that?

A: [55:49] No.

Q: [55:52] And what strategies do you think would be really effective in building resilience against those kind of things?

A: [55:56] I don't know. That's really not my area of expertise. I'm not sure.

Q: [56:04] Are there any other kind of changes, like not just environmental ones, that are really impacting your work you want to talk about?

A: [56:11] I think that I've already covered it. The changing demographics really is the thing that I think I feel the most.

Q: [56:23] Can you tell me about any opportunities or positive change you've seen in your time on the water?

A: [56:28] I think in the last seven years – my timing in getting into this was just so – that I think I've seen a pretty remarkable general knowledge of aquaculture that has kind of come down on especially other fisheries and industries of that nature, which is nice. It kind of feels like it's not the outlier quite so much anymore. It is more part of the fabric. I think that folks like me who keep a boat on a commercial wharf with a bunch of other lobstermen and clambers – like that has a big impact on that, like just getting to know people and chit-chat in the parking lot. Again, because I'm a woman, I think I'm more approachable than most. So those kinds of relationships have been pretty easy. And that's been nice. I feel like that has – you know, it may not have reached the masses yet, the folks who are less tied in with commercial industry. But it seems like within that bubble, it's kind of become a part of it and is less of an other now, which is nice.

Q: [57:57] And have you noticed any changes in women's presence, participation, status, anything like that over time?

A: [58:03] Definitely more women on the water in specifically aquaculture roles, either working for people or starting farms, which is cool. I think that's kind of just because of where our society is, finally, and the fact that it is still like an emerging industry and there's room for more people to get in more easily. Also, the capital barrier to start a really small farm is pretty low. So that's been cool.

Because I'm kind of a pessimist about things like this, I worry that like in 15 years that that's not going to continue to be the case because of all of the same old reasons that women drop out of things – you know, childcare, household duties, that sort of thing, because our society hasn't necessarily progressed as much on that

front. And that is really what keeps women back, not whether or not they can just get a job, you know? So yeah, it is nice to have more women around, though.

Q: [59:19] And sort of as you look towards the future, what is like a hopeful vision for the future of Maine's fisheries and aquaculture?

A: [59:25] I think one where we don't get squeezed out by landowners and dwindling waterfront access and dwindling affordable waterfront access. Yeah, that one. Yeah, working waterfronts that are protected and respected for what they are, not just on a state level. You know, you hear a lot of good stuff about it from state-level stuff, and then municipal decisions are often a very different thing, because those people are hearing directly from people who don't want to look at somebody's pile of gear somewhere and who would rather that that public boat ramp that all the clambers used be turned into a park – you know, something like that. There's a lot of that that happens, and it would be nice if it was a little bit more protected and there was a little less anxiety about whether those resources were going to go away.

Q: [1:00:35] Is there anything else you want to share with us before we sort of conclude the interview?

A: [1:00:40] I don't think so. I don't know.

Q: [1:00:44] Hillary, do you have any more questions?

Q: [1:00:45] I guess I'm just struck by – you're right here in Bath. The water's right there. I'm just curious why you fish out of – or why you launch out of Freeport.

A: [1:00:54] I couldn't afford to buy a house in Freeport. That's why I'm here. But Freeport is where I grew up. That's where I have water access. My parents live there, and they love me, and they like oysters. So they let me use their property to store gear and to keep the boat. And I knew the folks at the commercial wharf, so it was easy to get a slip there that I could afford and not need to get on a marina waiting list. So it just made sense to add the commute from here to Freeport in.

Q: [1:01:32] So you kind of have the familiarity, relationships –

A: [1:01:35] Yeah. I was afraid – and I was very fortunate in my timing, because if I had waited another two years, I wouldn't have been able to buy anything anywhere within an hour of Freeport. But I really felt like I was pretty sure that I wanted to stay in Maine. It would have been impossible to build this business this way without owning property to build. You know, the garage is my licensed dealership. I have a little oyster room in there that gets inspected twice a year. Yeah, it would have been really hard to structure a business this way without property.

Q: [1:02:17] Definitely. Yeah, thank you.

Q: [1:02:18] Yeah, great. I'll go ahead and turn this off.

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