

## The Conch Sz5Ep4- SarahSchumann\_FINAL.mp3

**Julie Kuchepatov** [00:00:04] Hello, my name is Julie Kuchepatov and I'm the host of this podcast, The Conch. We are coasting along on our journey with this podcast, talking about seafood and the ocean. And most importantly, we're showcasing some of the incredible people working in the seafood sector, sharing their journeys, examining the challenges they face and the triumphs they've achieved. Today, we are excited to have an incredible guest joining us, Sarah Schumann. Sarah is a 15 plus year veteran of the New England Alaska Seafood Industries, as well as a passionate advocate for the ocean ecosystems that sustain wild fisheries. In 2022, Sarah worked with commercial fishermen around the country to launch the bicoastal Fishery Friendly Climate Action Campaign, which promotes climate solutions that work for marine ecosystems and the people who depend on them, not at their expense. Welcome, and thank you, Sarah, for joining me today on The Conch. Let's get down to business.

**Sarah Schumann** [00:00:57] Thank you. Julie, it's really great to be here.

**Julie Kuchepatov** [00:00:59] I'm really happy to have you here because I want to be able to share your mission, your really critically important mission with our listeners. As I read in your bio, you launched the Fishery Friendly Climate Action campaign. And before we have these conversations, I do a little research on the person I'm going to be talking with and chatting with. And I read a quote from you, and you said, "if anyone should be free to be activists for decarbonization, the fishing industry should be because we are the most climate impacted industries that there is." So what are the climate impacts the fishing industry is experiencing?

**Sarah Schumann** [00:01:34] Well, that's a really big question.

**Julie Kuchepatov** [00:01:35] It is.

**Sarah Schumann** [00:01:36] And it varies. It varies a lot from place to place, and there are certainly people who can speak to that in a far more expert way than I can. You know, where I fish in Rhode Island, we've been seeing over the past the course of the past 20 years or so, an increase in Mid-Atlantic species, a decrease in what have traditionally been considered New England species and, you know, extended seasons for a lot of species, a totally new mix, really, of species in our waters that is a potentially, they sort of represent new opportunities. But there's sometimes a there's a need for management science and management to, to catch up. That's kind of the southern New England picture. But in my travels through the Fishery Friendly Climate Action Campaign, which is bicoastal, so it has equal parts participation from Alaska, the west coast and New England. You know, I've been learning that climate impacts fisheries in many, many different ways in different places. And a lot of those effects can be more negative. You know, Alaska, there's everyone I think is familiar if they're listening to this podcast, probably that the Bering Sea crab fishery has been, was closed for a couple of years because of sort of a mysterious disappearance of a couple of those stocks. It's a pretty devastating economic blow to that fishery. Western Alaska salmon runs have been really underperforming in a major way that impacts local communities. And all of that is considered to be, at least in part, to the changing climate combined with other factors. And so across the board, there are so many different experiences, but the one thing that we have in common is that we are experiencing it directly in our day to day lives, and our businesses are experiencing it, and our families are experiencing it. And when I say that if anyone should be free to be activist for decarbonization, it's the fishing industry. What I'm referring to there is that, I mean, the

wonderful thing about being a fisherman is that you have the ability to have an independent voice. So, if you know, I was an environmentalist before I became a fisherman, and I was trying to think of where is the right place to, what's the right position for me in this world? What's the right role for me in this world? If I want to be an independent environmental activist where I can really speak truth to power on a daily basis without worrying what's my supervisor going to say or what's the board going to say? Will there be repercussions in terms of funding all of that stuff? And to me, what made the most sense for me to do that was to become a fisherman, to become someone who depends on the ocean environment in a very direct way, but also to have that freedom to use my voice to speak up for the environment. The problem with climate change is that a lot of, especially in southern New England, which is the epicenter of the offshore wind industry development in the US, the fishing industry has really felt that not only are we kind of many of the first people to be impacted by the results of fossil fuel combustion through the changing climate, but that we are also among the first and most directly impacted people by some of the solutions that are being pursued to solve climate change. And so it's kind of a double whammy for the fishing industry, and it's one that creates a feeling, I think, among a lot of fishermen that you have to choose one. You can't be for both. You can't be both for protecting the ocean and for solving climate change, because there's a feeling that there's a fundamental sort of dichotomous choice there. But what I'm trying to do with the Fishery Friendly Climate Action Campaign is to say, hey, there's not, you know, we have always been advocates for a healthy ocean environment, and we've always been advocates for a healthy climate and just because some of the climate solutions that are out there may put some of our fisheries at risk, doesn't mean we have to throw at the baby with the bathwater and give up on, you know, being advocates for a livable planet in the form of getting off of fossil fuels and pursuing alternatives to that.

**Julie Kuchepatov** [00:05:11] Yeah, it's not an either or, right?

**Sarah Schumann** [00:05:14] It shouldn't be. It shouldn't be. And if our politicians believe that it is, then they aren't using their imaginations as much as they should be.

**Julie Kuchepatov** [00:05:21] Well, I think, I think that's probably par for the course with many people in our government, right? Probably not using their imaginations. I think that's a really good way to put that. So, tell us. I have a few questions out of what you just said, but I'm going to kind of stick to the format a little bit just to get kind of a more clear idea of what the Fishery Friendly Climate Action Campaign is. So, tell us more about that, please.

**Sarah Schumann** [00:05:47] Yeah. So, it's, like I said, it's a bicoastal campaign. It started only, well it went public, only a year, less than two years ago, but it was percolating behind the scenes for multiple years before that. It started with a partnership with the Massachusetts Fisherman's Partnership and the Commercial Fishery Center of Rhode Island, two organizations that I'm close with in my local fishery scene, and I talked them into going in on this with me and sort of incubating this concept along with me. And at that point, we were sort of focusing on what we just talked about, like the need to navigate these tradeoffs between getting at the roots of the climate crisis by getting off of fossil fuels, but doing so in a way that is fishery friendly by selectively sort of prioritizing and frontloading our adoption of fishery friendly climate solutions, I felt that it was important to make it bicoastal, because in fisheries, we often tend to live in a bit of a bubble. And I feel, you know, I have a bicoastal fishing background which you alluded to earlier, which is that I've been going to Bristol Bay, Alaska, for about 15 years to first process salmon in a cannery. And then more recently I've been working on the boats. So, I've always personally benefited a lot from the bicoastal experience and perspectives that I gleaned

from other fishermen and people in the seafood industry. I just learned so much from comparing notes between New England and Alaska, and so I wanted that for the campaign as well. I just thought it would really benefit from that diversity of perspectives and lived experience. So, I spent as soon as the pandemic lifted and we could travel again. I've just been sort of traveling several months each winter, trying to expose myself to different realities on the ground in different fishing communities throughout New England, Alaska, and the west coast. And as a result of that, the focus of the campaign has grown to encompass some other focuses. So we have effectively sort of four work streams right now. One of them is called Fishery Friendly Climate Action Planning, which focuses on, again, those sort of tradeoffs. And I should not be limited to tradeoffs, because they're also synergies between some decarbonization solutions and the health and well-being of fishery ecosystems, things like restoration of blue carbon or soil conservation and agricultural lands, which can have the co-benefit of reducing runoff or, you know, using less, less nitrogen and agriculture, which has benefits for local waterways. The tradeoffs include things like hydroelectric, you know, offshore wind, which we're still learning about. The impacts have been pretty visible. So that sort of paints a picture of the spectrum of the way the decarbonization impacts can interact with fisheries. And the idea of fishery friendly climate action planning is to really lean into those climate solutions that are compatible with, or even better yet, beneficial to fishery ecosystems, and to pursue the other ones only on an as needed basis to hit the decarbonization goals that we know are so very necessary to keep warming below two degrees as the international community and the scientists of the world have agreed. So that's one of the workstreams. Another one that's been really taking center stage is called Accelerating a Transition to a Low Carbon Fishing Fleet. And this one has to do with sort of looking internally at our own industry, specifically our vessels, and the fact that they depend on generally diesel, sometimes gasoline, both of those are fossil fuels, petroleum based. And, you know, what's the future going to look like in a world that is planning to rapidly decarbonize? What's it going to look like when we can't obtain diesel or can't afford that diesel? And sort of the idea that the fishing industry itself needs to be in the driver's seat of its own energy transition. We've had too many experiences in this industry of ideas that look good on paper being foisted on us from on high, and we want to avoid that with this. So that's what that project is about. A third project is also focusing on our own industry, and it's simple. It's just getting solar panels on to as many seafood businesses and as many fishing family residences as possible, because we know that solar panels, rooftop solar is a highly fishery friendly decarbonization solution because it takes place in the built environment, so it doesn't expand the developed footprint at all. Plus, it has a million co-benefits in terms of saving money for the people who do go solar and creating a lot of really good local jobs. And then the fourth one is a new one that's going to start soon here, which is a collaboration with the Responsible Offshore Development Alliance and several other partners. And it's focused on marine carbon dioxide removal, which is a set of about half a dozen new approaches that are designed to leverage the ocean's natural carbon sequestration abilities but enhance them through interventions. And these include things, you know, your listeners might be familiar with the idea of growing kelp in large quantities and then sinking it to the bottom of the ocean where it can, in theory, sort of represent a carbon storage for thousands of years. Some other MCDR options include things like artificial upwelling and down welling to increase nutrient concentrations on the surface so that phytoplankton there can absorb more carbon dioxide from the atmosphere, and then downwell it down to the depths so it can sort of effectively be stored in the sediments. And there's a number of other ones. And a lot of these have potential impacts on, on the food web, on trophic, you know, the base of the food web that sustains our fisheries. And so, it's something we want to make sure that fishermen are paying attention to from the get go, and that we're able to

effectively engage with the decision makers, scientists, developers, as this new industry gets off the ground to make sure that it is sensitive to the needs of fishery ecosystems.

**Julie Kuchepatov** [00:11:16] I have to tell you that, first of all, amazing. All of it sounds incredibly cool. It also sounds like so much like, how do you how do you have time for all this?

**Sarah Schumann** [00:11:27] I don't. But I'm doing it anyway because we live in an incredibly urgent moment.

**Julie Kuchepatov** [00:11:34] You're making time and you're partnering with people. Clearly. I mean, you mention that. So are you, do you still fish? Actively?

**Sarah Schumann** [00:11:40] Yes.

**Julie Kuchepatov** [00:11:40] Okay. So, you're, so, this is like, you have this thing going on and then your, you know, day job, I guess fishing, which is of course seasonal but. Wow. So. Let's talk about one of these things that you're working on, which you mentioned, which is accelerating a transition to a low carbon fishing fleet. And I read on your website that you started thinking about this with the question, what kind of targeted public programs and policies are needed to spur bottom up, locally appropriate innovation and put the fleet on track to a low carbon future? So, what have you learned, like since you asked that question?

**Sarah Schumann** [00:12:16] Yeah, so that's just another way of saying what I said a few minutes ago is we want to put the fishing industry in the driver's seat of its own energy transition. It's so important. What I've learned is there's no easy answer. Diesel is really the perfect fuel for fishing vessels for so many reasons. It's power density or energy density is really high. Its flashpoint is really low. That means it's really safe. It's just so perfect that it's, no one is convinced that there's something better out there from a safety perspective and affordability perspective, a feasibility perspective, a reliability perspective. But the problem is that in addition to all of those considerations, we also know that we do have to think about getting off of fossil fuels or the industry will be left behind. And so what we're trying to do that project is really build a bridge from the fleet we have right now to whatever the fleet might look like in the future, and then to ask for our federal government and state governments to support us with funding, because that's what they're doing for every other sector of the economy, in bills like the legislation, like the Inflation Reduction Act, the bipartisan infrastructure law, and the fishing industry was not directly named in either of those laws. And so we have to we're sort of undertaking an analysis to look at. There are some existing programs on the books, like the Diesel Emissions Reduction Act, which is managed by the EPA. Another one is the Rural Energy for America program, which is managed by the USDA. And then there are some programs at the state level, like Alaska has a loan program for energy efficiency upgrades. California has a highly successful Carl Moyer program. So, each of these programs do different things. Some can subsidize the upgrading from an older diesel engine to a newer diesel engine that, in theory, is more fuel efficient because newer things tend to be. Although that's not necessarily always the case. Or they can help you, you know, install RSW on your boat so that you can, you know, you don't have to go back to the plant and get ice all the time. Or they can insulate your fish hold so that your RSW system doesn't have to work as hard, stuff like that. So there are some programs on the books, but there's really no form of sort of comprehensive support. And that's what we really need. Like not just programs that will help you with one thing, but programs that will help us with everything. And everything starts with researching and

developing new options. A lot of the modern diesel engines that have come out that are on fishing vessels, my understanding is that they were originally developed for tractors or trucks, because those are much bigger markets, and then they were marinized and they work, but they clearly weren't designed with a marine application in mind. And that's led to some problems. So ideally, there'd be fishermen involved from the ground floor up in terms of research and development and collaboration with companies, whoever the manufacturers are or are going to be of the energy systems in the future, so that they're really designed for this, for this context. We also need a lot of funding for pilot projects, because in order for people to start adopting things, they're going to need to see that they work. There's a huge need for education, and that doesn't apply just to sort of alternative or next generation propulsion, like electric, you know, battery powered hydrogen, ammonia, methanol, biodiesel. It even applies just to making your vessel more efficient right now with your existing engine. I've realized, and this was a surprise to me because I'm a deckhand, so I always assume that captains just know everything. But it turns out that a lot of them aren't thinking about how to make their vessels more efficient, or they just haven't been provided with objective information or information that's specific to their operation. And you can't necessarily take, you know, what's worked on a, you know, a 90-foot steel dragger and put it on a 30-foot fiberglass lobster boat and see the same results. So, it's really like custom solutions, but there is a lot of low hanging fruit out there just to make vessels more efficient today and start saving fishermen money. So, we really need sort of an all of the above approach, and that's what we're trying to build through that program.

**Julie Kuchepatov** [00:16:21] Thank you for sharing that. I mean, incredible work. What does our RSW stand for?

**Sarah Schumann** [00:16:26] Sorry. Refrigerated seawater.

**Julie Kuchepatov** [00:16:29] There you go. Thank you very much. I figured it was something refrigerated, but I didn't get the last part. So, on your website, you also, there was a sentence in there. You've said this already. The industry is the most climate impacted yet it's hard to decarbonize a sector. So, is it hard to decarbonize for those very issues that you just spoke of? So, like the diesel fuel situation, the modernization versus the marinization. Like, is that why it's so hard to decarbonize?

**Sarah Schumann** [00:16:57] Exactly. Diesel is really just the best purpose suited fuel there is for the fishing industry, and it's going to be hard to find something that replaces and does just as good a job as we've been used to for the last 100 years.

**Julie Kuchepatov** [00:17:10] Yeah. So. Wow. Like you said about the captains, you know, they're not thinking about this. Maybe kind of in large numbers, right? And because they're thinking about fishing, right? So how do you know, the education piece. How do you do that?

**Sarah Schumann** [00:17:26] Well, what I'm doing right now is just having a lot of conversations. We've interviewed over 150 fishing vessel owners. When I say we, we have a whole team of us who are who are doing research on this. All of us are either active fishermen or members of fishing families who are doing this sort of on the side, which I love. I'm very proud of that fact, and I really have adored working with my multiple collaborators on this project. So we've had a lot of conversations, and one of the things those conversations are yielding is a list of sort of questions that the captains we interviewed didn't have the answer to, but would be interested in knowing, and what we

think we'll do with that to sort of jumpstart some of this education is try to have sort of like a some kind of format, like a column in a publication or a blog or something, where we would take one of those questions per issue and ask some expert who can provide some information that might serve as an answer to that question, and that will show people what things that they could be doing, you know, right now to make their vessels more efficient or that they might want to think about for the future, while also sort of just building in a focus on this topic among the fishing industry and a sense of camaraderie and social learning around it, and a sense that it is ours. You know, the future is ours to create. So we better get started.

**Julie Kuchepatov** [00:18:47] Yeah, I really like that idea. Do you have a publication in mind, or are you just kind of still mulling over the idea and trying to figure it out?

**Sarah Schumann** [00:18:53] We're still trying to figure that out.

**Julie Kuchepatov** [00:18:54] Well, I look forward to reading that for sure, even though I'm not a captain of a boat. So, the slogan for your campaign, which I love, is "I support climate action led by people in boots, not people in suits." So, can you kind of give me an idea of what this means and why it's important to really work from the bottom up?

**Sarah Schumann** [00:19:13] Yeah. So, the campaign is entirely led by fishermen. As you mentioned earlier, I'm a fisherman. We have an advisory council, which consists of four people currently who are all either fishermen or who work as staff or fishermen led organizations. All of the research associates who have participated in the accelerating a low carbon fishing fleet are also fishermen who are helping out with research in their all season or after hours. And I think that is the most exciting thing about this campaign. It really, you know, keeping this innovation within the community creates a sense of pride. It creates a sense of trust. I would like to think, I really think that the image of commercial fishermen as environmental heroes is not as developed as it could or should be. There are so many individual fishermen, groups of fishermen who have done a lot to protect their local environments, and a lot of times they're unsung heroes. And so I just feel like at this climate moment when everybody is paying attention to, you know, the fate of the planet and how intertwined our own fates are with it, that it's really important to have fishermen be part of the heroes that we're appreciating for their role in that.

**Julie Kuchepatov** [00:20:26] Are there are other sectors, just let's say agriculture, for instance, where farmers are leading the innovation and trying to address some of these really global challenges. Do you know of that? I mean, I'm wondering how much can we learn from other sectors?

**Sarah Schumann** [00:20:40] I'm sure there are. And if I had more time, I would really want to focus on time building relationships with those farmers, right? One who comes to mind is Jim Goodwin, who is the president of the National Family Farm Coalition. And I actually first met Jim four years ago when we protested on the steps of the U.S. Capitol with Jane Fonda's group, the Fire Drill Fridays group, and we got arrested together. So, it was so cool. You know, fishermen, farmers and a bunch of climate activists taking a stand together. So, yeah, there definitely are people from all walks of life who are stepping up on this issue.

**Julie Kuchepatov** [00:21:17] And we can all learn from each other. I agree with you. So going back to your slogan, so when I met you before, you had T-shirts that had that slogan

on it, I and I have one. Are you still selling those t shirts? Because I can definitely put a link in the notes.

**Sarah Schumann** [00:21:31] Yep, we are.

**Julie Kuchepatov** [00:21:32] Awesome. I will do that. Then we will put a link to these cool t shirts in the show notes so our listeners, if they're so inclined, can support your efforts and your campaign to really move the dial and support the fishing industry and in a transition to low carbon solutions. So, going back to what you said around, you know, finding the balance or supporting alternative energy solutions and fishing are not an either/or proposition, right? They're kind of like you can do both. And so, in my work I hear a lot of opposition to wind farm. And we were back east. We were in Maine this summer recording a new podcast that we're launching early in 2024 or in 2024, rather. And we heard a lot about offshore wind development and fishers, you know, were quite opposed to it. And so, I'm wondering like, how do you if we could delve a little bit deeper into how do you kind of communicate or find that balance between really stiff opposition, but knowing that we have to do something right?

**Sarah Schumann** [00:22:34] Yeah. Well, and this gets back to what I was alluding to earlier, is Fishery Friendly Climate Action Planning. I mean, Rhode Island, which has the first offshore wind farm built in the U.S. So I've

**Julie Kuchepatov** [00:22:44] Right.

**Sarah Schumann** [00:22:45] I've been steeped in a lot of this debate for a long time. And I do want to caution that it's not just always straight up opposition, because that using that word even kind of reaffirms that there's this dichotomy. And I think that there are a lot of, you know, it's a lot more multifaceted than just say hello to wind farms for most, for most people who are paying attention. You know, the straight up opposition, which is often the loudest voices in the room, generally comes from those who are at least informed. I think that's true for any issue, but for those who have been and there are individuals within the fishing community, active fishermen and I'm thinking here of members of the Rhode Island Fishermen's Advisory Board. There's a half dozen of them who have spent 15 years at this point participating in the offshore wind planning process and permanent planning and permitting process in Rhode Island, and they have felt that the process is so broken that they collectively stepped down as a block this year from that role. So, they are they were not opposing offshore wind. They participated in the offshore wind permitting process for 15 years in good faith, and they abandoned it because they just couldn't devote any more of their time to supporting something that they didn't feel they had any power to actually influence. Despite that, that was literally their assigned role as members of this advisory committee. So, I just want to say that because I think that the word just like opposition makes it sound like we're a bunch of NIMBYs, and that's not true.

**Julie Kuchepatov** [00:24:13] No, that's a good clarification. Thank you.

**Sarah Schumann** [00:24:15] Yeah. So, I think that in the US in particular, we've been so focused for the last 40 years on is climate change real? Is it manmade? Should we do anything about it? And that stupid, pointless debate has occupied so much political energy and taken so much of the oxygen in the room that we have not yet started to talk about what is the best way to deal with it. Europe is a slightly ahead of us, you know, no surprise, they are a lot of these things. There is some research in Europe that's taking place and sort of like looking at how to reach decarbonization goals, which for most countries and a

lot of states in the US is net zero greenhouse gas emissions by 2050. So, there's research in Europe looking at how to reach those goals while also minimizing environmental externalities from the way we do it. And you don't even have to limit it to environment. You can think about social equity, you can think about food production, you can think about a lot of the other things that we believe are important as a society, and start to have the conversation and do the analyzes of how do you co-optimize multiple objectives at once so that you don't have, you know, one policy body that's in charge of getting to net zero by 2050 and another policy body that's in charge of fisheries management or I don't know, let me back up and think about this for a second. So even the Biden administration has like incompatible goals. For example, installing 30GW of offshore wind by 2030 is a stretch goal that the Biden administration has. The Biden administration also has a goal of protecting 30% of the nation's lands and waters also by 2030, so there's 30 by 30 goals. But in New England, there is talk of how important it is to satisfy 30% of our nutritional needs through local food production by 2030. So, there are all these multiple goals that make it harder to reach the other goals. If you're putting up wind farms in the ocean to reach 30GW by 2030, that's effectively about 2000 wind farms. That makes it more challenging to produce 30% of your food within the region by 2030. And that makes it more challenging to protect 30% of lands and waters by 2030. And so, the US hasn't yet gotten good at developing the tools or having the conversations that would enable us to co-optimize multiple goals at once. And we really need to do that. Start having these really productive conversations about, you know, that acknowledge we need to get to net zero by 2050. It's our responsibility as a nation. It's in our best interests as humans also because climate change affects us. But we need to be smart about it. We need to think about, you know, the fact that a lot of these climate solutions themselves can also have impacts and not be in denial about that, the way that so many have been in denial about climate change, and only by sort of being open and honest about both of those things and embracing them together, can we start to look for solutions that get us to those decarbonization goals without creating a whole lot of collateral damage on the way that turns communities into sources of massive backlash, which is what we're seeing in the case of offshore wind.

**Julie Kuchepatov** [00:27:36] Very well said. Thank you. So how can people support you in this effort?

**Sarah Schumann** [00:27:41] Fishermen can, members of the fishing and seafood industry are encouraged to join. We have the Fishery Friendly Climate Action Forum, which is a listserv. It goes to your email inbox. Anyone can initiate an email. Anyone can respond to an email. So, it's designed to serve as sort of a conversation space for members of the fishing and seafood industry to have internal dialogs about these topics, to provide information to workout collective strategizing, and generally be stronger together so they can go to [fisheryfriendlyclimateaction.org](https://fisheryfriendlyclimateaction.org) and learn how to get onto that listserv. Fishermen also are invited, we have a few sort of processes coming up where we're going to be collecting fishermen's input into things we're going to webinars for. We're going to form a couple of learning committees. I don't have all the details on this, which is why I'm not getting more precise here. But we are intending, as an organization to really start structured conversations where members of the fishing industry can plug in and make their voices heard together.

**Julie Kuchepatov** [00:28:46] That's great. So, we'll definitely put a link to your website and that listserv opportunity, and then we'll keep an eye out for the evolving learning committees that you just mentioned. That sounds amazing. So, I'd like to switch gears



here and hear about you and how you came to fish and start fishing, and how you came to lead this climate action campaign that you're doing today.

**Sarah Schumann** [00:29:11] So I started fishing. As I said earlier, I was an environmentalist before I was a fisherman, I became very concerned about the environment and environmental damage when I was ten years old, as a result of being exposed to it was during Earth Day 1990, and there was a big, big fuss over that Earth Day, you know, a lot of local demonstrations and stuff. And so that's when I first heard about environmental degradation and pollution and all that stuff. And I just got really concerned and spent the next ten years or so trying to figure out, you know, where is my place in all of this? How can I help? And really didn't have it figured out at all. And I happened to find myself on the coast of Chile when I was 20 and, bumped into some small-scale commercial fishermen who fished out of skiffs. And I just immediately was hooked. I fell in love. And I think that is a story that everyone I've talked to who is a fisherman and who doesn't come from a fishing family, had that exact same experience of an exposure and they became instantly, magnetically in love with it. And for me, the reason was that these were people who were involved in protecting their local environment, but from the vantage point of being people who interacted with and depended on that environment every single day of their lives, which to me was so strong and so profound and so inspirational that I just wanted to, right then and there, do that for the rest of my life like them. I had no idea how to do it. So instead of becoming a fisherman, I went and enrolled in the University of Rhode Island Marine Affairs Program in the hope that that would somehow lead to a fishing job. And it did, because one of the students actually was writing a newspaper at that time about the local fishing industry. And so, he knew the industry well. And I was able to, you know, at that time, there were not a lot of women in the fishing industry in Rhode Island. That's still true but it was even more true then. And so I approached him sort of sheepishly, and I was like, you know what I really want to do now that I've graduated from college is be a commercial fisherman. Is there any way you can help me get a leg in the door? As a woman who has no experience in this. And so, he referred me to the woman, her name is Andrea, who runs the bait shop in Point Judith. And so, I went to talk with Andrea, and she's like, I know just the boat for you. And so, I got on a lobster boat, and that was almost 20 years ago.

**Julie Kuchepatov** [00:31:27] How did you end up in Alaska?

**Sarah Schumann** [00:31:30] I ended up in Alaska because I went. As I mentioned, I went. I did the marine affairs program with the University of Rhode Island, and after I graduated, I got invited to go on a research trip with a professor at URI. And that was my first exposure to Alaska. And while we were interviewing fishermen in the Norton Sound region of western Alaska or interviewing community members, a lot of the young people told me that they had worked on pollock vessels, and that they had made a lot of money in a short amount of time. So, I was immediately tempted. So, I tried applying for some of those pollock boats, and they were like, no, no, no, you know, you don't have any experience in seafood processing. You need to start with the entry level, which is salmon. So, the next year I applied to, I think, every salmon processing facility in Alaska, and only one of them gave me a callback. So, I flew up there and wound up spending the next 15 years in Bristol Bay.

**Julie Kuchepatov** [00:32:24] So you transitioned, though from the processing part to actually working on a boat?

**Sarah Schumann** [00:32:29] Well, I did, I worked at the cannery for nine years, really happy years. And I was the first and only female machinist. I didn't start out as a machinist. I started out as a helper but worked my way up to machinist. So that was a little bit of a, you know, glass ceiling experience that I can put under my belt. But yeah, I love that. And then the cannery closed that, you know, market changes in the salmon industry, everything is going to headed and gutted and export markets for reprocessing. And so, they shut down the cannery. And I had always wanted to fish on a salmon boat too. So that was my chance.

**Julie Kuchepatov** [00:33:01] So what's a machinist.

**Sarah Schumann** [00:33:03] Machinists are the people who are sort of the technical experts in the cannery. They're in charge of sort of upkeep of the machines, making sure that everything is functioning smoothly. You typically have one machine that's assigned to you. My machines were the retorts, which are the giant pressure cookers, they were 42ft long and there were eight of them, about four feet tall, you know, in diameter, sort of big tubes, these big giant tubes. And you push big baskets weighing about a ton each containing thousands of little cans of salmon into these tunnels. And you close the door and then you steam to cook them just like a stovetop pressure cooker, but on a massive industrial scale.

**Julie Kuchepatov** [00:33:40] Well, it's a cannery, right? So that's how you're making these cans of salmon.

**Sarah Schumann** [00:33:45] Exactly.

**Julie Kuchepatov** [00:33:46] That's amazing. So, do you still go and fish in Bristol Bay?

**Sarah Schumann** [00:33:49] I do, yeah.

**Julie Kuchepatov** [00:33:51] So getting back to climate, because I have heard before that the Bristol Bay fishery is thriving because of climate change and other salmon fisheries specifically, I think in the Yukon, and different salmon species are not thriving because of climate change. What do you gather about that?

**Sarah Schumann** [00:34:07] That's what I've heard too. And I think what I've heard again, I'm not a scientific expert on any of this, but I believe part of the reason is that the Bristol Bay is predominantly a sockeye salmon fishery and the sockeye spawn in lakes, as opposed to the other five kinds of salmon that that spawn in rivers. So, they're further downstream, and the lakes being further upstream, closer to the snowpack and deeper, are able to retain their colder water temperatures longer. That's my understanding. But again, you should invite an expert on your on your podcast.

**Julie Kuchepatov** [00:34:35] Will do. Will do some fact checking there. Yeah, for sure. No, I think you're right. I think you're right. And I have heard that before. And I had mentioned that we went to Maine last summer or this past summer. And we did also hear many times people were saying that, you know, the lobsters are moving out into colder water temperatures. So, moving away from the Gulf of Maine and other species are moving north. So, there's that represents kind of an opportunity, but it's also a real big problem to the traditional fishing communities and practices that have been there for years, right?

**Sarah Schumann** [00:35:10] And ironically, these kinds of failures are when groups that have traditionally not been, not had access to fisheries. This is our opportunity to get in. That's I mean, when I mentioned earlier that the woman at the bait shop in Point Judith hooked me up with a boat, a lobster boat in Point Judith almost 20 years ago as my first fishing job. Already at that point, lobsters have had been, you know, engaged in a mass exodus from southern New England. Yeah. And so, part of the reason it was easy for me to get a job was that there weren't a lot of crews who are willing to work for, you know, the amount of money that we were making in a fishery that was not super competitive. So I don't know if that's a good thing or a bad thing but when opportunities go away for your traditional pool of fishing crew because of climate change or a disaster or a market disaster, which Bristol Bay and many other fisheries are experiencing right now, where there are very, very low prices and the incentive to participate is a lot lower, like permit prices come down like that's an in for anyone who is who would ordinarily be having to compete against more experienced crew, and a lot of times that includes, you know, folks like women who, you know, middle aged people, which I am now to get a foot in the door if they. They wouldn't ordinarily be viewed as competitive.

**Julie Kuchepatov** [00:36:21] It's definitely some tradeoffs there and challenges and opportunities present themselves. And I think it's part of being nimble and understanding and learning and researching and like you said. So how do you maintain hope in the face of the global climate crisis?

**Sarah Schumann** [00:36:39] I don't know.

**Julie Kuchepatov** [00:36:40] So.

**Sarah Schumann** [00:36:40] Yeah. Go ahead.

**Julie Kuchepatov** [00:36:41] Yeah. Honestly, this is also an assumption on my part that you are hopeful. So maybe it's optimism, maybe it's cautious optimism. I don't know what keeps you going in the face of all these, like really, really intense challenges that you're trying to address.

**Sarah Schumann** [00:36:58] I've heard people say that hope is kind of a fundamental character flaw of most fishermen, that even when the odds are stacked against us, even when we go out day after day after day and catch nothing, there's something in you that motivates you to get out of bed every morning with the absolute faith that today is going to be the day. So, I think it's the fisherman in me that is able to maintain that faith on behalf of the climate activist in me.

**Julie Kuchepatov** [00:37:23] I love that answer. So SAGE is about uplifting and amplifying diverse voices in the seafood sector, and this podcast is one of the ways that we do this, so I'd love to give you the opportunity while I have you to uplift someone or, you know, share about someone that you admire. It could be someone you know, someone you don't know, but who would you like to uplift and why?

**Sarah Schumann** [00:37:47] A person who has made a difference in my life, even though I've. Well, I have met her once, but I don't have a relationship with her is Diane Wilson, the Texas shrimper who became, yeah, became an incredibly badass activist, first starting with a local plastics factory and then expanding her activism effectively around the world, and is currently or has been recently, I'm not sure of the status right now, but on to the latest in a series of hunger strikes to protect, in this case, a fishing community, I think, in

Vietnam that suffered pollution from a, I think, a plastics factory. But again, you might want to fact check this. Anyway, reading her book *An Unreasonable Woman* was just very influential to me and powerful partly because I remember in the early part of the book where she talked about her childhood, where she talked about being very shy, very reluctant to speak to others at all, let alone sort of a crowd. And that resonated with me because I'm the same way. And to see that she was able to despite that, or maybe even because of that and sort of the inner dialog that she had as a result of being a quiet person, that she was able to find the strength to become really one of the most impressive activists that I know, as well as a successful female commercial fisherman, was just that was all just very influential for me. So, I owe her a huge debt of gratitude.

**Julie Kuchepatov** [00:39:07] That's an incredible shout out, and I will definitely fact check that, because I've been following that too. And I also can't remember the stat. I feel like it's over the hunger strike at this point, but okay, definitely will double check that. And then I will link to that book because I think that's definitely something a must read for everyone, honestly.

**Sarah Schumann** [00:39:26] Absolutely.

**Julie Kuchepatov** [00:39:28] So remind me. Remind us how we can find you again online, your address. And do you have a social media presence?

**Sarah Schumann** [00:39:35] You can find us at [Fishery FriendlyClimateAction.org](https://fisheryfriendlyclimateaction.org) and we are on Facebook.

**Julie Kuchepatov** [00:39:40] That's great. Well, Sarah, I just want to say you are a truly impressive person that is working towards a bright future for the people, the planet, and all the critters in the ocean and on land. And I just want to thank you so much for coming on here and sharing your story and sharing your work, because it truly is inspiring, and I just wish you all the best.

**Sarah Schumann** [00:40:05] Thank you. Julie. I feel like it's so important for fishermen to amplify our voices on this issue of climate change. And you've given me an opportunity to do that. So, thank you very much for having me on.

**Julie Kuchepatov** [00:40:17] Of course. Thank you for tuning in to *The Conch* podcast. It would be amazing if you could take just two seconds to leave a review and share this podcast with your ocean loving friends. Thank you.

**Crystal Sanders-Alvarado** [00:40:33] The podcast is a program of Seafood and Gender Equality, or SAGE. Audio production, engineering, editing, mixing, and sound design by Crystal Sanders-Alvarado for Seaworthy. The theme song "Dilation" is written and performed by Satan's Pilgrims. Funding for the podcast is generously provided by the David and Lucile Packard Foundation and Builders Initiative.