Interviewee Name: Chris Petersen

Project/Collection Title: The First Coast, Bar Harbor Collection

Interviewer(s) Name(s) and Affiliation: Galen Koch (The First Coast)

Interview Location: Hancock, Downeast, ME

Date of Interview: October 25, 2019

Interview Description: Chris Petersen is a faculty member at College of the Atlantic in Bar Harbor. Petersen also serves as the Vice-President of Frenchman Bay Partners, and he is a member of the Bar Harbor Marine Resource Committee. In this interview, he discusses current issues faced by aquaculture and wild fisheries in Downeast Maine, with a focus on shellfish and salmon. He discusses the management of clam harvesting throughout Maine and how they are threatened by green crabs and climate change. He describes research on clams being conducted by himself and students at College of the Atlantic and ends with descriptions of COA's two island research stations, including names of people heavily involved with their histories and operations.

Keywords: aquaculture, Bar Harbor, clam licenses, College of the Atlantic, community identity, Great Duck, invasive species, Mount Desert Rock, resource management, shellfish beds, wild fisheries.

Collection Description: Interviews with Bar Harbor community members from The First Coast's residency in October 2019. Transcripts by the Mapping Oceans Stories Project.

Citation: Petersen, Chris, The First Coast 2019 Oral History Interview, (October 25th, 2019), by Galen Koch, 16 pages, Maine Sound and Story. Online: Insert URL (Last Accessed: Insert Date).

Transcribed By: Olivia Jolley

GK: Galen Koch CP: Chris Petersen

[0:41:05]

[00:00:00]

GK: In that vein, what I'm interested in hearing from you is why does it matter that there are fishermen in Bar Harbor?

CP: Why does it matter? For me, one of the reasons is I want Bar Harbor to be a community that's not isolated from all the other communities around it. And so if I'm in Downeast Maine, which has a huge tradition of having fishing communities, I don't want Bar Harbor to abandon that and become a tourist town, strictly a tourist town. I want it to maintain that diversity. I also just want people to be able to make livings doing that kind of work because I think it's important. I mean, one of the things that we come up with a lot in some of the groups I work with is wild fisheries harvesters, so fishermen, being really worried about the push towards aquaculture. It's interesting. There are people that are kind of going, "Okay, so I'm going to explore aquaculture," but there's also people that are kind of going, "I feel like I'm being pushed towards aquaculture and people just don't think we should have wild fisheries anymore."

[00:01:27] I actually don't think that's true. I think that when you have wild fisheries and they're working well, those people are part of a culture that helps maintain that research in a sustainable way. So if you look at wetlands in the United States historically, who's been the best protector of wetlands in the United States? They're duck hunters. They're the ones who have been really at the forefront, a hundred years ago, a hundred and fifty years ago and doing that, right? The same thing. I think fishermen are there and can help protect that resource. I mean, we work on alewife runs a lot and one of the things we've been pushing on really hard is to allow harvest of alewives. So alewives and clams are two species that the state allows you to have local control over; everything else is pretty much state-run. So alewives are another co-managed group. In alewives, the town can actually ask the state to have management of that run. If there's no data, the state wants ten years of data before you can do any harvest. So to ask somebody to come in and to help conserve that resource and manage it and to do that for ten years before you can take a fish out for bait?

[00:02:58] The only reason I think they did that is they had a ten year rule on sturgeon which is a really old fish and lasts for a long time, and with alewives they said, "Oh, let's just use the same rule for alewives." So people have just been going back to the state and going, "If it's on the increase and if we're managing it well, can we start opening up the harvest in a very limited way?" Maybe one day a week instead of like five days a week, which is what the state allows. It either allows four or five days. The state has actually gotten to the point where they're starting to listen and the Department of Marine Resources, DMR, is starting to listen and is actually taking that proposal to the regional agency to see if we can change that. So now, if I'm doing a run, and I'm being a good manager, and I'm doing good conservation, maybe I can start taking some [alewives] and start selling them to fishermen, then fishermen are also happy to see that conservation happen. You get these win-wins, where everybody's getting what they need, the fish are getting what they need. What you're doing to make those fish runs better is you're helping in terms of conservation. You're helping in terms of those populations. You're helping in the streams is an estimate.

[00:04:19] But there are impediments set up against it that I don't think people thought of as impediments. So trying to find ways to get past those things. This is a long way of getting back to the question of why fishing is important and why people being able to harvest some resources is important because they're also really potential good conservers of those resources. So as somebody who really believes in the conservation of sustainable resources, I want those fishermen out there doing some fishing, but I want them doing it in a responsible way and in a way in which they are aware of what's going on and they have feedback and understand what's happening. So yeah, I'd like that, and I'd like that in Bar Harbor; I'd like that everywhere.

[00:05:10]

GK: It does make me think about [how] it's almost like a connection to the environment even though it's not strictly like they're naturalists or environmentalists, but at the same time, if you just have folks coming and experiencing a town from the tourist perspective, that doesn't feel like there's a connection to the land.

CP: No, there isn't. It's funny because, like with aquaculture, there's a lot of pushback in aquaculture right now by local landowners, right? If you're living on the coast, but at 4:30 AM when you hear a diesel engine go by, people think of that as natural because it's a lobster boat, and they've been doing it forever. But if you put an oyster aquaculture farm you know that you can see from your land, that's seen as very, very different than a lobster boat, which is interesting. I mean, I can see it.

[00:06:08] One of the big problems that happens in aquaculture that makes it a little bit harder is that this is a problem that happens a lot for people that are worried about an issue. So we have a lot of people that don't like cruise ships, that don't like the level of cruise ships we have. We have people that don't like the level of aquaculture that we might have here.

GK: In the town of Bar Harbor?

CP: In the town of Bar Harbor even, right. But across the whole bay, across all of Downeast, but for cruise ships more here. Aquaculture in a lot of places, especially when there's places where there's more affluent coastal landowners that aren't making their money on the water. For those guys what they do is they come to somebody like me who is a scientist, and I've literally had somebody say, "I want you to go show what's ecologically wrong with this aquaculture facility so that they don't put one here. I want you to scientifically show me why it's wrong. I want you to prove that it's wrong so we don't have to have it in there." And I kind of go, "Nope, not going to do that." I'm not a hired gun to go out and make a statement. But the reality is the reason they don't want those cruise ships there, the reason they don't want that aquaculture there, are quality of life reasons, they're aesthetic reasons, they're these other reasons, but they don't feel that those reasons are privileged in the same way that scientific information is. I think that's a problem that we just have societally. How do you value -? I think we're doing a better job than we used to, but how do you value somebody's aesthetic response to something that says, "I don't think this is appropriate for this particular place." But that's a relative comment, and somehow they see a scientific answer as being an absolute argument that's irrefutable and not something that can be argued on a couple different sides.

[00:08:10] I think it's hard because I think that you have to find ways to incorporate those aesthetic arguments, those quality of life arguments into your decision-making on the coast and a lot of times, at the policy level, we don't do a very good job of doing that. We kind of look at it, it's like "Okay, is it going to affect an eelgrass bed? Is it going to affect shorebirds? Is it going to affect a species of concern? Are there bald eagle nests nearby? If none of that's happening, "Oh, then it's okay," and this person's going, "No, but it's not okay. I don't want it there." They're restricted to kind of going, "Okay, I need you to see if there's eelgrass there," or something like that instead of the real reason that they're against it, which is, "I think it's going to be horrible to have – I feel like I'm in a place that's residentially zoned and I'm going to have an industry two hundred feet off my shore." You wouldn't be able to do that on either side of me on land, but offshore you can do that? Is that legit, right? If I have a big oyster farm, I'm out there everyday processing and making noise and doing things, and it is kind of like having a manufacturing plant there. So how do we address that?

GK: Kind of.

CP: Kind of, right?

GK: That's kind of a stretch though, don't you think?

CP: Well, of course, it's a stretch. Oh, it's totally a stretch, but that's the sense that they're feeling, I think. They're feeling "That isn't what I came here for." It's that kind of thing. It's interesting that it's treated completely differently than lobstering.

[00:09:48]

GK: Well, that's a question too that I have about – sorry, I'm having a very itchy ear moment. [laughter]

CP: That's okay. You can take care of that.

GK: But that's a question that I have about communication and how you teach, or how you can change the idea, the identity, the feeling of what the identity of a place is? It's actually not a shift in identity for Bar Harbor to have cruise ships.

CP: Right.

GK: It's actually something that's gone on for a hundred and fifty years or so. The volume is different, and they're different ships.

CP: People from away have been coming to Bar Harbor for a long time.

GK: Totally. I think with aquaculture, it's a really interesting thing because I understand salmon pens are hard to look at. That is a form of aquaculture. Oyster farms are very different. This is just speaking as a Mainer. Just looks different and has a different effect on the natural ecology.

CP: Yes. Ecologically, in terms of aquaculture, I consider an aquaculture where you are just putting things in the water, and they're using what's in the water as being very different than when I'm throwing things into the water to grow something. So salmon pens I consider very, very differently than I do either kelp farms or any kind of aquaculture that involves shellfish, so an oyster farm or a mussel farm. I think that those are radically different kinds of things.

[00:11:35] Here the history of aquaculture Downeast and as you go farther Downeast, and you've been down around Cobscook, and so you're pretty well aware of this, that the history of that initial cell of salmon aquaculture is owner-operated aquaculture that then ultimately got morphed into industrial aquaculture by Cooke. I think a lot of people felt betrayed by aquaculture in that, and so aquaculture becomes a very hard sell now as you get farther and farther Downeast. So if you go to somebody and say, "Oh, hey look, we want you to do owner-operated oyster aquaculture," it's kind of like, "Yeah, we've already gone down that route once." So that's tough. The other thing that happens – here, if you get to like Frenchman Bay and you start going west, the aquaculture tensions are different. They're much more about affluent landowners on the shoreline not wanting stuff right out their window, and that's not really the problem that I see in places like Cutler or Machias, wherever you happen to have stuff, or in Cobscook. So it's interesting. A lot of these wild harvesters, what they will tell me is they'll go, "Look, I see clam numbers going down, I see aquaculture going up, I think the state is just selling us out and is just putting all of their eggs into an aquaculture basket, and they don't care about wild fisheries anymore in the intertidal." So part of our communication there is to try to communicate both with the state and with the harvesters that no, we actually think that for a sustainable economy we'll probably need to have both and how we can do that in a responsible way is what we're trying to get at.

[00:13:36] None of the groups I work with are interested in looking towards aquaculture to the exclusion of wild harvest, right. But as you go Downeast – I mean I've talked to people Downeast that when you talk about, "Well what would it be like if people did aquaculture here?" and they kind of say, "We wouldn't leave that stuff in the water. People would steal it. People would destroy it." Pretty strong feelings against aquaculture. It's always about the individual landowner that lives right there.

GK: Yes. Obviously, the phrase climate change is not yet readily accepted by everyone, so we still have to deal with that even though factually it is happening.

CP: Oh, it's real.

GK: How that plays into some of these – especially the aquaculture farms that do have a positive impact – and you could tell me more about this because I'm sure there's some studies going on here at COA [College of the Atlantic], but just diversity of species that start to show up when you're having filtering of the water – is there a way to shift the narrative and how do you deal with people –? I guess this is a bigger philosophical question about our communities, but the individualism of communities along the coast, especially – I mean, individualism in America has become more and more praised. When I'm doing my interviews, people always talk about missing this sort of community feeling. And people from away, tourism, that all has an impact on

a community feeling, but also I think making more money has an impact on that in the fisheries and this sort of "I'm looking out for my own" - I think there are ways -

[00:15:58]

CP: Just thinking about a couple of examples of how we've tried to look at some of those issues. One of the things about this very localized clam committee structure that's set up is it makes clam management very parochial; it makes it very, very limited town to town. One of the things we've identified in [the] Downeast Fisheries Partnership, and other people have identified, is that towns aren't communicating very well with each other about what works and what doesn't work. I mean, there's a little bit, but not very much. I actually have a student that's - her project part of it is to look at all the DMR data that they collect but don't necessarily look at and try to ask the question, "What do successful programs look like? What are they doing? Can you export those successful models to other towns? How do you get people to start talking, getting together?" So we actually have meetings where we bring folks together, like in Milbridge and various places, and say who's doing what, what's working, how could you export this to other places. So part of it is trying to reduce that little very limited town by town feel and try to start getting them to make a feeling to where they're part of a community. In this part of the state – yeah, in different places where I've lived there's different units that are really important. Towns are really important in Maine. Towns really define stuff. I think it's probably even more important than town, if you could outline where the high schools are, high schools probably matter. If I go to the south, it's probably churches. Other places, it's other kinds of units.

[00:17:45] A few year ago, when the governor was trying to save some money, they went, "We should get rid of some of these small high schools and merge these high schools and make bigger high schools," and the amount of flak they got back was huge, and it's because that was how people identified themselves locally, was that school. So by removing that school and merging it with this other rival school, it was the worst thing you could possibly do in terms of community identity. So finding that identity, maintaining that identity, and in fishermen groups especially in things like clam and lobsters where they're really local and they either legally or de facto have local territories, those guys do become kind of that community and interact with each other. In terms of the benefits of things like aquaculture to ecosystems, we know that they change stuff. I mean, we know that when you put a bunch of oysters in the water, it's going to probably reduce the amount of plankton that's in the water; it's going to clear up the water a little bit. In Frenchman Bay and a lot of these places in Downeast Maine, we have such low population density [that] our water's just in awesome shape to begin with. So it's not like suddenly we're in Chesapeake Bay and we're going to reduce pollution and reduce anoxic zones by putting oysters in there. We don't need oysters to have good water quality; we have really good water quality. So the oysters can grow here; they'll probably change things ecologically a little bit. Whether they have any dramatic impacts, we don't really know. It's odd; with clams, we're in the middle of doing some experiments right now, and other people have done experiments to ...

[00:19:36] We're doing experiments, and people like Brian Beal at DI [Downeast Institute] have been doing experiments where we're trying to understand why most years we hardly get any little clams coming in anymore. So when we go out in the fall and we look, we just don't find little clams, and there's lots of reasons that could be true. It could be that their life in the

plankton is too hard because there's not enough productivity or the ocean's too acidic. It could be that [as] soon as they land, the acidity of the mud fries them and they dissolve. It could be that there is some kind of predator. What Brian's been doing, and what I've been doing, and a few other people have been doing, is putting out some kind of boxes that exclude predators from it. When you put those out, you get just huge numbers of small clams compared to what's in the mud right next to them. So it's pretty clear it's not ocean acidification; it's not a problem in the plankton. It's the problem with a predator and the undoubted predator that's causing most of the problems [which] are green crabs. And green crabs are totally temperature dependent on how abundant they are in Maine. So the collapse of the clam fishery, which's been decreasing over the past several years, is pretty clearly a climate change problem because of an invasive predator. So the reduction in that fishery is a real, real issue. What it does is – the solutions to that are really difficult because one solution to that is that the only way I can grow clams then is to grow them under nets, and I can't really grow that as a wild fishery anymore because I can't put enough nets out there. It's also a shared intertidal; guys are going out and worming in that same intertidal so how do I do that? That creates this huge conflict in that these green crabs and the climate change that causes them are causing a massive change in one of the most important fisheries historically in the state and identifying it as a global climate change problem.

[0:21:49] So this year, we're going to go out next week and start collecting – actually, we're going to go out this Saturday and start counting clams this Sunday from these experiments. Actually, this year, because green crabs don't seem to be as bad this year, it seems to have been a colder winter, in the mudflats anyways. We're expecting when we go out, we're actually going to find a lot of clams still in the mud, baby clams, for the first time in like four years. The reason we're going to find that is because green crabs aren't as big of a problem this year. But when they come back again next year, they'll eat the slightly bigger clams, and so you would need like three cold years in a row to get clams to be able to do really well in the wild at this point. The problem is with global climate change, I just don't think that's going to happen. So these populations are in real trouble. In Bar Harbor, we hardly have any commercially harvestable resource of clams anymore.

GK: Yeah, I was going to ask you about that. I was trying to get in touch with David.

CP: Yes.

GK: And I will at some point. He seems totally fine with it, but is he really the only active clammer? Is that true? That's what Natalie had written on this thing.

CP: So we have four commercial licenses.

GK: Wow, that's it.

CP: That's it.

GK: Wow.

CP: They're all sold. But the reality is - so, in this case, what happens is - one of the rules that the state has is if you have a fixed number of commercial licenses, once you start, you have ninety days to sell them. If you don't sell them all and there's still ones remaining, the state then takes over and says, "No, they're now open to anybody because we don't want you to be restricting in such a way to where it's odd ..."

[00:23:51] So, we have four licenses that are commercial. There's unlimited recreational licenses for residents and non-residents, but recreational licenses, as in most places, are limited to a lower amount of clams, a peck in here, which is like two gallons dry. It's a lot of clams to catch; it would be a great meal. You'd have a great family meal with that many clams, but that's the limit. So those licenses are really cheap. The commercial licenses are typically substantially more. We actually have a requirement to get a commercial license; you have to do seven hours of conservation work in this town, and the only people that doesn't apply to are people that are sixteen and under because the Department of Labor says you can't make them work for nothing. So David has bought one; another fisherman has bought one; it's not clear that he's really been using it much lately because he's lobstering. Then, in the last minute, before ninety days are up, two kids have come in and bought them that we don't think used them at all. So what's happening, I think, is that David is getting other people to buy up those licenses so those licenses don't become available to people outside of the town because as long as you have fewer than six licenses, you can round down to ten percent rounds you down to zero for commercial nonresident licenses, so we don't have to have any non-resident licenses in Bar Harbor. Everything is restricted to residents unless there's leftover licenses after ninety days, and then somebody can buy it. So even though there's four licenses, and they're all used up, we think there's one active harvester and three ghost licenses to buy up the other - to buy up the other ones, right?

[00:25:45] Whether or not David's paying for those guys or not, no idea, you know, that's, that's not where I'm going. So that's why we think David is the one commercial harvester right now.

GK: The number of licenses is limited because of how many places there are to harvest?

CP: The reason we're so low is because we don't have tons of resource. A lot of our coastline is really rocky, and plus this whole area through here from Bar Harbor all the way up through Hulls Cove is closed permanently right now for two reasons. One is that there's a couple of sewage treatment plant outputs there, and so precautionarily you always have closures around them. Then the other is there's about four historical overboard discharges, OBDs, from old houses. There used to be twenty-two in Bar Harbor and now there's five or something, so most of them have gone away. Those all potentially all have treatment plants, not treatment plants, but some kind of treatment before the water goes out, but because they aren't monitored by the state, the state has precautionary closures. So a big part of our resource that might exist is closed, and so we're really stuck with this kind of area up in here, and there are a few spots where there's nice mudflats, but a lot of it there isn't that much resource. So when you compare it to these upper bays that are all muddy – because in these upper bays it's all mud; in the lower parts towards the points it's all rocky coastline. That's one of the reasons Winter Harbor probably never had a clam committee is because they didn't have that much resource until you got farther up into the bay.

[00:27:31]

GK: It's interesting that where I grew up, Deer Isle, was like clam city.

CP: Oh, big time.

GK: Actually, clam city. [laughter] It's called that. But it's so interesting because it's kind of in the same –

CP: It's in the same area, but it's really different. Along here, there's really not any clamming going on except when you get up into like Otter Creek and stuff, so along that coastline it's just a little too jaggedy. It drops off too quickly along our little ocean drive area, along the Park Loop road really. So this upper bay, these seven towns, have had up to eighty commercial licenses. I think they're down to about forty now, and so that's just a matter of having less resource because of green crabs. But Bar Harbor's always had a small number, no commercial non-resident licenses. But the other thing that's odd about Maine is that – well, I don't know if it's odd. So the only way in clamming that you collect data on harvest is through selling through dealers. If they sell to somebody like RDR [Lobster & Shellfish, LLC], then that gets reported out to the state. If I sell all of my clams out of my house which I can do - I can get a license to do that - I'm actually not obliged to report that number to the state. Depending on the town I'm in and how much of it goes through a dealer and how much doesn't, I don't have a very good idea of how much is actually being harvested. Well, the other thing that happens in the state is that the state has a rule of three in terms of reporting, and so unless there's at least three people harvesting or being dealers in a particular area for a particular species, they don't actually report out that number because if there's only two, then those people know what the other one's doing, and so it's considered a privacy issue or a business issue.

[00:29:45] So, for example, salmon because it's all Cooke Aquaculture, when you look at state records and you look at how much is harvested, there's this other that's fifteen percent, and salmon is in that fifteen percent so it doesn't get reported outright. Sea cucumbers are in that fifteen percent. So we actually don't know what percent of the total harvest is sea cucumbers in terms of the state revenue from those basic numbers because there aren't enough different people to make us feel like we can report that number, and we've decided as a state that we're going to allow that knowledge to be proprietary really, which is odd. We can see how many clams our clammers sell to RDR, but if they're selling them all out of their houses, they could be selling ten times as many, and we'd have no idea, so we actually don't know how much commercial harvest is going on in our town. We're managers, but we actually don't know the most crucial piece of information you would want, right? Or one of them.

GK: It seems a little bit antiquated in some way because what knowledge are you going to gain from knowing that there's -

CP: I know.

GK: - how much?

CP: It's a weird thing. So if I walked up to a clammer and asked them a simple question – or if I walked up to any fisherman. So walk up to somebody, walk up to a lobsterman, and say, "How much money do you make a year?" and they will just laugh at you, right? Because they're not going to tell you that. The same thing with a clammer. That's their knowledge. In terms of trying to manage it at a town level, in particular, it's really hard to kind of know some of the details you'd like to know to be able to do it.

[00:31:36]

GK: What time is it?

CP: It's 11:52.

GK: Okay. We can wrap up here.

CP: Okay.

GK: I'm curious what time are you going out on Sunday?

CP: On Sunday, we're going to be in our zoology lab sometime in the morning. We'll figure it out today. In fact, I have a meeting at twelve with the student. We're probably going to meet at our lab which is on the other side of the whale skull at nine o'clock. She's going to go out Saturday afternoon and do the collecting with a couple students. We have six sites where we've got some arrays of cages and things and flowerpots and various things in the mud. We haven't done all the counting in the way we're going to try to do it this time. So we're going to do one site, see how long it takes, and then kind of figure out how to schedule all the other sites over the next week and a half. But over the next week and a half, we're going to be counting thousands of little, tiny clams in our zoo lab.

GK: Yeah, Greta, who takes photos for me, is coming, I think Sunday afternoon into Monday.

CP: Okay.

GK: So I don't know if you want to let me know if there's anything happening Monday, we [inaudible] her –

CP: We also might be counting Sunday evening, too.

GK: Okay, cool.

CP: So if we are, I'll let you know. If we are, it'll be in that -

GK: Before dark?

CP: No, no. We'll be inside counting them. So we'll actually be in the lab in the evening doing it. The lab we're doing it in is just the lab that's on the other side of the wall where that whale

skull is. So you can just walk right in there. I just have no idea how fast we're going to get the counting done because last time it took forever, but we were literally measuring every clam, and they're tiny, and there's thousands. This time, we're doing a big count and then just taking a little handful and measuring the little handful and seeing how much that speeds things up.

[00:33:35] We're going to have about seventy samples to count, and so, I don't know, we'll probably count a hundred thousand little clams by the time it's – yeah, it's going to be crazy. But we have students that are going to be helping, a lot of students. We've got some work to do.

GK: Well, there's a lot more we could probably talk about.

CP: Oh, yeah.

GK: Maybe we'll have to talk again.

CP: Okay, good deal.

GK: Because it'd be fun to – everything that you're doing – I don't even know everything that you're doing, but there's some bird stuff, too, right?

CP: There's some bird stuff going on here. The person who does bird stuff is John Anderson. So we have two islands. We have two field stations that we got when they decommissioned lighthouses. So when they decommissioned lighthouses up and down the coast, and they decided that the coast guard wasn't going to have many more – they were all automated – they first put them up to any nonprofit. If they were willing to take them over and do the upkeep, they could take them. At that point, we got Great Duck and Mount Desert Rock. Great Duck is more of a terrestrial station, and what it really does is there's a bunch of nesting birds on it – herring gulls, blackback gulls, and leach's storm petrels are like the main three species that they follow. John Anderson has had students out there every summer for, I don't know, about twenty years now. Then the other one is Mount Desert Rock, which we used to use as -it's always been used for marine mammals, and it used to be that one of the main places marine mammals fed was right around there. So instead of going out on a boat and watching marine mammals, you could actually go to the top of the lighthouse and take data that way. It was this great platform to do marine mammal research from, and we've been using it forever. As long as the school's been around, we've been kind of using Mount Desert Rock. It's a much tougher place because it's just a couple of acres, [and] it's way far offshore.

[00:35:43] Then the other thing that happens is with climate change [is] it's getting inundated on big storms, and so we've twice had to kind of go out and do a major rebuild, and doing a major rebuild on a tiny little rock is not an easy deal at all. We've got it up to speed now and we've tried to really reinforce it, but if a hurricane comes through, it could level the whole place because maybe it's fifteen feet above sea level at its highest place, but not very high.

GK: Woah.

CP: Yeah, so it's tough. Those are the two places. And Great Duck, John's kind of been in charge of maintaining that field station, and he's been doing the seabird research. He's on sabbatical right now, so he's not going to be easy to find until early next year.

GK: Yeah, that's okay.

CP: But early next year, he's around. He's a fun – he is full of stories and a really strongly articulate and interesting person to talk to. That's where most of our seabird stuff comes from. Then, for the marine mammals, it's Sean Todd. Sean and people that have worked in Allied Whale, there's a bunch of people that have worked in Allied Whale for a long time, including Judy Allen, who's our registrar now, and Tom Fernald, Mindy Viechnicki, Rosie Seton – all those people at Allied Whale have a long history of marine mammals in the Gulf of Maine. We're the local stranding network spot, and so although we don't keep them here – we don't have a marine mammal facility for holding them – we do a lot of checking and transport, and then we also do a lot of necropsies on dead animals when they come up and doing that kind of work. So there's a lot of people here you can talk to.

[00:37:30]

GK: Yeah, it's interesting, too, to think about – I was talking to Kaitlyn Mullen. Do you know Kaitlyn? Just about some of the environmental monitoring and testing that she's been doing independently for a long time. The college probably has data that's similar to that –

CP: Some.

GK: - but it's not so broad, I guess.

CP: No, no. We have little bits and pieces.

GK: Right.

CP: Between me and the clam committee, we've been collecting clam data for a while. We have some Ph.D. – we have some bits of data. One of the things we did [was] we actually had a meeting about Frenchman Bay in September where we're talking about water quality. One of the things that we're trying to figure out is how to put that on the Frenchman Bay Partners' website, and one of the things Julia's working on is she's working on a kind of a quick and easy how-to guide, where all the water quality data exists that's published. Here's the link to this state data, here's the link to this data, here's the link to the cruise ship reports, here's the link to this, and these are all the different kinds of data that exist. So we're trying to figure out how to put that together and get it out there so that when people want to look for that kind of data, they can find it. You're right; different groups have little bits of data here and there, but it's just all over the place. That's one of the reasons why we did this atlas, The Frenchman Bay Atlas. We did it because one of the first things when we started Frenchman Bay Partners, was people were asking us questions that were clearly data questions; they were asking about things. We didn't know the answers, but we thought that there might be answers out there, so we tried to pull together all that

data that was out there. So there's a live version of this on our GIS website where you can add layers and take out layers and like your own map kind of thing.

[00:39:36] And so it started as this kind of static version, but then almost right away, it became clear that a better user version would be to have all these GIS layers active where you could go and decide which ones you wanted to put in and then look at it and make your own comparisons. So this actually surprised me. This was a thing that, when we came up with it, really has been well-received, and we basically – I just parasitized money from a couple of different grants and used it to start it. So this was just responding to a need because Frenchman Bay Partners started about 2011, and so this was like one of the first projects we worked on at the school. So Alex [Brett] was a student at the time; it was me and Gordon Longsworth, who's the head of our GIS Lab.

GK: It is an interesting thing to start to think about putting all that data together in some way.

CP: Yes.

GK: I mean, I was surprised by Kaitlyn saying – because I don't know that much about it. I'm not really in the science world. It's just something that I talk about and observe – but NOAA [National Oceanic Atmospheric Administration] doesn't fund that kind of monitoring.

CP: No.

GK: Which just seems kind of crazy, but that's the way it is.

CP: It is, no, it is. So, cool, so we can meet up anytime when you're around. [00:41:04] [End of Track One]

[Start of Track Two] [00:00:17]

CP: So if a town has an ordinance, the state gives them privileges, and then they have responsibilities with that. The privilege the towns get is they get to decide if they want to close down a particular clam flat or have reduced clam harvesting in that clam flat. The state allows them to take up to a quarter of it and turn it into aquaculture to lease it out. The state also allows them to restrict mussel harvesting in the intertidal if they're worried about it because they put out seed or something like that. In return, the state demands that they have some kind of warden or somebody that does something. So somebody that monitors, that does some kind of enforcement, and then they have to have an ordinance that they pay attention to. They also have to do surveys. They have to have some kind of assessment of their resource. So most towns have it. A few towns don't. And then they also have to have a committee. That committee is typically made up of clammers. For example, upper – if you don't have a committee, if you're a town that decides not to go without co-management, you're just part of the state general plan, which means that anybody with a state license can come there and harvest.

[00:01:42] So, for example, in upper Frenchman Bay – it was several years ago; it might have been like late 2000s, 2008 or 2009 – they had a year where the entire state had a shellfish poisoning event, like PSP [Paralytic Shellfish Poison] or something came in, and almost the whole state was closed to clam harvesting. The only place that wasn't was Upper Frenchmen Bay, which is like Ellsworth through Sullivan. There's seven towns through there; none of them had ordinance, so it was open to any harvester in the state to come into, and every harvester in the state came in. So guys in Lamoine, the guys in Franklin, the guys in Sullivan went, "This is insane. What can we do?" The state said, "Well, you can form clam committees." For each town to do that would have been really tough and really a stretch. So they made up – the state helped them to develop a seven-town shellfish management plan. Now they have a management plan. So now you have to have a commercial license from them to harvest there. Winter Harbor, where Schoodic is, doesn't have a clam management plan. So anybody can come in there and legally harvest. One of the things I think that that did, going back to when the park warden started coming in and busting people for harvesting and telling them they had to dump out their worms, or they had to dump out their clams, was that worm licenses are statewide licenses, so they're run differently from clams. So two guys can walk out with a clam hoe. One guy can go worm harvesting; he can go anywhere in the state and just dig, and it's fine. A clammer has to have a license for a town if it has an ordinance. So they're much more restricted geographically than wormers are. As best I can tell, that's just not due to any policy considerations; it's just the way historically it evolved because clamming has been around a lot longer than worming. It had this kind of town ordinance aspect to it.

[00:03:53] But the problem is if they would have had – if Winter Harbor would have had an ordinance when they first had those problems, there would have been a point person for the park to be able to go to and talk to. They could have gone to that clam committee, and there would have been local people that they could have developed a relationship and worked with, but because they didn't have an ordinance, it was just the state clammers and the state wormers. It was really diffuse in terms of who they could interact with. That communication was much more difficult, I think, early on in that game. That was one of the things that I think made that hard early on. Eventually, the park kind of -a couple of people that are really active in the worming community, like Fred, came in and started in the park, reached out to them, and started talking to them, and they developed a relationship. You talked to Becky [Cole-Will] the other day. She went out worming for a day with them. That's what you do, right? You go out into the habitat with the people. You go to them; you interact with them. You're both people; you both understand each other. So Becky and that group did a really good job. They brought them into meetings. They were about to do – so the park is in the process of doing their management plan for the intertidal. They were starting it already when this happened. They went, "Can we ignore this? No. We can't ignore it. We have to include it." So the early meetings actually included clammers and wormers. Well, the meetings that they've had, all the meetings, have now included clammers and wormers, where I don't think they were thinking about that beforehand. Then ultimately, they passed legislation allowing for traditional harvest, commercial harvest, in the intertidal. There's still a question there because traditional is such an ambiguous term. It'll certainly mean clamming. It'll certainly mean worming, I think. Does it include elvers? Does it include rockweed? I think rockweed harvesters and elder harvesters might say yes. I think the park might say no. So they didn't resolve all of their problems, and some of the ambiguities are there, but they will. They'll have to deal with them down the road at some point, probably. I

think actually, the park, although they really did not handle it well initially, ultimately did a pretty good job of making sure they were communicating well with people and were open to alternatives.

[00:06:21]

GK: Do you think people go to harvest there, in the park itself, on a regular basis? If I were a harvester, maybe I wouldn't feel completely comfortable. But maybe people feel completely comfortable?

[00:06:35]

CP: Well, one of the things that happened was – so over at Schoodic Peninsula – there was a big area of that that wasn't park. Then it became park, and then they added another new section. That section included a cove that traditionally had had worming and clamming. So when that became park, nothing much changed, except now it was park. So people that had been traditionally clamming and worming there before just kept coming. That's when the problem arose. I think the park, when they took that in, didn't even register – because there were multiple ways they could have accessioned that property in, and they did it in such a way to where they put it inside the park boundary. There's other things that parks can do that don't make them specifically in the park boundary but give them a lot of the rules of the park. They didn't do that. They actually changed the park boundary and brought it in there. By doing that -I mean, one thing that's really important is parks allow very, very little commercial harvest. So I can go into this park and pick blueberries, but I can't go and pick blueberries commercially in the park. So recreational harvest of things – somebody told me the other day that – I think it's a park in Utah – Capital Reefs or one of them has an old historic apple orchard that they allow for commercial harvest in there. But there's really, really rare exceptions where you have commercial harvest within a park because parks just don't think that's appropriate. So this was a really tough one to do because you wanted to pass legislation that solved this problem, but you didn't want to open up commercial harvest or any kind of other things like mineral resource use in parks. How do you restrict it but make it to where it'll work in this particular case? It took a couple of years for that legislation to get through.

[00:08:28]

GK: Yeah, yeah. It's an interesting relationship.

CP: Yeah, it is. And the relationship is also when the park first came – when the park took over that Old Navy base, a lot of it was – one of the interesting things was the community was really, really concerned because that was a huge employer in that peninsula. I think that it's pretty clear that they came to the park and said, "Whatever you do, don't just turn it into just a park with no other facilities here and with nothing here because we need some employment here." That's when they came up with those research and learning center ideas of Schoodic. But if you look – so here's the Frenchman Bay Atlas, which is something we did as part of Frenchman Bay Partners a bunch of years ago. If we look at coastal development, maybe – I don't know which one would do it. Let's see. Working waterfront, coastal access, tourism.

GK: It's cool.

CP: Yeah. So one of the things we did when we started – yeah, so this is change in housing units. Everything is pretty much positive, positive, positive, and you get over to Winter Harbor, and it's minus. The census difference in ten years was actually – it went backward in Winter Harbor, and that's because of the loss of that naval base. They lost a school. So this is a real fear for a community to have that happen. So having that there, having it have some employment, having the park be good neighbors are really important things.

[00:10:14]

GK: Yeah, especially in a place where -I mean, especially Bar Harbor and the island; there's so much of an economic driving force behind -

CP: Oh, yeah. Bar Harbor is the gorilla in the bay, right? I mean, it's true. One of the other places where people really see that is when we had all the cruise ship discussions about whether cruise ships were going to be able to use this old ferry terminal. Part of that idea was these cruise ships love coming to Bar Harbor; it's a real plus. They hate having to use the little boat tenders back and forth to get people on and off because everywhere else they go, they can tie up to a pier, and people can just walk off. So they really wanted to be able to tie off at a pier in Bar Harbor. That would have meant extending out at the ferry terminal; the ships would have been like a thousand feet out from the shoreline and right up against the shoreline. It would have required more building, not necessarily a pier that goes out a thousand feet, but another really big platform that you could tie off to out there. It would have been this huge thing. Through all that discussion, what really upset somebody that's sitting over in Sorrento and looking out or somebody in Hancock that's looking out, is that this discussion was all happening just in Bar Harbor, even though it was affecting the whole bay. So they really felt like they did not have any voice, which, frankly, they really didn't. Ultimately, Bar Harbor said, "No, we're not going to turn this into just a cruise ship terminal. Cruise ships can use tenders to come to this, but we're not going to turn it into a big ..." There was clearly an aspect of that pro-cruise ship, probusiness, we need to make it work for the cruise ships. So let's do that. They're bringing in a lot of money. They're bringing in a lot of work. And they do. They bring in a lot of people.

[00:12:16] For some people – I was there one day. I was at the harbormaster's office one day when one of these hurricanes was rolling through, and he was fielding calls every other minute from local restaurants and stuff wanting to know what the cruise ships were doing to know how they were going to staff for those next couple days. For those guys, at that time of year, after Labor Day, from Labor Day through mid-October, it's a huge economic engine for a lot of those small businesses in town. That's when it actually really became clear to me; it's like, "Oh, my God, they're calling because they don't know if they need to have three people or seven people that day." So that's real. But, at the same time, just about everybody – I really feel for – if I'm a lobsterman in Bar Harbor and I'm using the pier there to load and offload, which is where you have to do it, I don't know how they deal with it in August and September. I honestly don't know how because when I try to go down to the Port Authority building where the harbormaster is, it is a zoo. I think we've already reached the point where we're really having problems with multiple use of those facilities when the cruise ships are at their peak. I don't know how we get that back to where it's useful enough for those fishermen because I don't want to lose those fishermen from those places. I want that to maintain its working waterfront. I don't know how they quite do it right now. I mean, they've made some - they've done some things with parking. There's specific

parking spots for fishermen. But still, the trucks have to get in. The buyers have to get in. The bait trucks have to get in. The gas trucks have to get in. All that has to make it in. I don't know. You have to sneak in the back door to get to the pier right now. It's not an easy trick. I am worried about those guys either going to a different harbor or just losing that whole tradition in that harbor that it just becomes overwhelmed with the cruise ship tourist stuff. I don't know to what extent it would be good or bad to either move some of the fishing work or some of the tourist work out to this new old ferry terminal that the town is buying. It could help, but I don't know that we've really thought that through well enough.

[00:14:48]

GK: Yeah, I have a couple of questions. The first being - or just a comment. Thinking about the argument that you want to appeal to cruise ships - but the thing is Bar Harbor hasn't needed to do any work, and they're coming. They're not stopping.

CP: I mean, the pull that we have is we're really in the driver's seat. If we want them to use tenders and to go to place X, they will use tenders and go to place X. If we lose a cruise ship or two, it is not going – I mean, we do not have a problem. In the past five years, I've seen a huge transition in how crowded it gets here in the summer. It kind of reminds me – I don't know if you've ever been to – I think it must be Great Smoky National Park or whatever national park it is in Tennessee. Right at the north entrance is a town called Gatlinburg, which has Dollywood and everything. I remember being in the park and then driving out through Gatlinburg and going, "This is such a gross town." [laughter] It was just bright lights and six people wide on the sidewalks walking across, and it was bumper-to-bumper traffic leaving that. It was such a juxtaposition to the park. To me, I see Bar Harbor becoming another Gatlinburg, and that bothers me.

[00:16:15]

-----END OF INTERVIEW------Reviewed by Molly A. Graham 7/23/2022