Participant: Tom Calvanese Title: Port Commissioner, Port of Port Orford Date of interview: 8/12/16 Location of interview: Port Orford

Courtney: I would just have you state your name and your position and then tell me a little bit about what you do here.

Tom: Okay, my name's Tom Calvanese or Calvanese (with accent) as my grandfather would say and I am the Field Station Manager for Oregon State University here in Port Orford. I'm also a graduate student at OSU in the Department of Fisheries and Wildlife and I'm completing my research here, which is why I'm here in Port Orford, which you can see in this pict...this lovely poster behind me. Um, did some acoustic telemetry research on rockfish at the Redfish Rocks Marine Reserve. And I'm reporting out on that research now. And plan to defend so if I seem a little scattered that's why. I'm also a Port Commissioner here in Port Orford. I was elected to the Commission about, a little over three years ago so I'm in my, entering my fourth year of my term. And I worked here for a couple of years as a commercial diver in the sea urchin fishery. And, I'm also a member of the Redfish Rocks Community Team, which I chaired for the last, about three years and, uh, just turned the chairmanship over to Dave Lacey. You might have heard of him or talked to him. So, uh, those are my, that's the stack of hats on my head.

C: Yeah, so it sounds like your research is what brought you to Port Orford. What inspired you to get involved in some of the community organizations once you were here.

T: Hmm. Well, I... uh, let's see. How do I make this a concise story. So, yeah, short answer is I came here to Port Orford specifically to do my research which is a, an acoustic telemetry movement behavior study of rockfish. Uh, targeted, species targeted for protection at the Redfish Rocks Marine Reserve. Uh, when I came here the marine reserve initiative was just in the final planning stages and soon to be implemented. The legislation was in review at that point. And I arrived at OSU to pursue my Master of Science in Fisheries Science and with a background, an undergraduate degree in marine biology with a background in rockfish, the genus Sebastes, which are fascinating fish. Um, and also a little bit of experience working around protected areas. Some of the research i had done previously was involving populations in protected areas in California and Washington, so when I came to Oregon those were sort of my two interests and lo and behold Oregon was about to implement its marine reserve program, marine protected area program, if you will. And, so it was a good set up for me. I did explore the opportunity of looking at the Otter Rock marine reserve up in Depoe Bay. But with my interest in rockfish populations and physiology, behavior, once I came here to Port Orford and looked at the actual, the site, I got a lot more interested because it, you know, it's called Redfish Rocks for a reason. Because it's, you know, it's history is, uh, the habitat is ideal habitat for a lot of fish that are referred to as redfish or a lot of the red-colored rockfish like Canary rockfish, Vermillion rockfish, Yellow Eye rockfish and so it got it's name from those abundant populations of those fish, which were pretty heavily fished historically and population decline resulted and management interventions, you know, kicked in as a result. One of them being the establishment of marine protected areas. So, it's a relatively small marine reserve by comparison to a lot of

places, including some of the ones that are now in place in Oregon. And so it, uh, it really begged the question about size and that was heavily debated during the establishment of marine reserves. Are they big enough? Are they too big? And there wasn't a lot of data to answer that question. And so, uh, after coming here, exploring a little bit from a, sort of a, just a research perspective, from a policy perspective, and then also meeting with fishermen here who were involved in establishing the marine reserve. They actually had their own questions because they had, they had been part of designing the reserve and establishing the boundaries, the very specific boundaries of the reserve. And they did that based on experiential knowledge of, you know, years of fishing in that area. But there hadn't been any actual movement studies done on those species. And so after talking to the, the guys who, you know, used a lifetime of their experience to design this thing and I asked them, well what's the question then? And so I really developed my thesis in collaboration with those fishermen who were involved in establishing the reserve because, as they put it, you know, we know where they are when we catch them but we don't know what they're doing the rest of the time or where they might be or are they just hanging out there? Or are they doing other things? Uh, so that was a, you know, it was a great way to start the process of developing a thesis and then executing it.

C: Yeah, and then you also got involved with the Port Commission right? What inspired that move?

T: Uh, so, the work, the research involved a lot of field work so the way this works is I go out and surgically implant transmitters in fish. That involves going on with fishermen and fishing, catching fish, anesthetizing them, inserting a transmitter and then releasing them back into the reserve. And then deploying an array of basically listening posts or acoustic receivers that detect the transmissions from the tags if a fish swims within range of the receiver. So that's a lot of field work to develop moorings, to anchor them out there in a secure fashion. To do, catch the fish, do the surgery, release them, then go out periodically, maintain the gear, download the data, so that's, and I'm a... I didn't have a team to do this. It was me. So, I made a team and the team was me and the fishermen who were involved in the project from the beginning. And, uh, for about a year several of them worked on this, you know, as volunteers 'cause they were that invested in the project. So, uh...anyway so I was doing a lot of work out there and at the same time I just to, you know, put food on my table I worked for awhile as a commercial diver. So in both respects I was working as a commercial fisherman and as a researcher so I was working out of the dock here. The port the port of Port Orford is a, historically was a naturally occuring deep water harbor. It became a port because it was one of the few natural deep water harbors that, you know, from between Seattle and San Francisco, frankly. And so it became, also with it's south-facing harbor, it became a sort of harbor of refuge for ocean going vessels historically. And that attracted people here. Logging became a part of the local resource extraction economy. Port Orford cedar is great wood. It's, you know, it's very valuable and ended up becoming a major part of the local economy. And it was transported out of here by ship. So you'll actually, if you want to take a picture later you can see a photo on the wall here that shows a large ship, an oceangoing vessel in our harbor. Before it was altered. So the harbor was altered in 1969. The Army Corps completed construction of the breakwater. That construction, uh, I guess I'll say that construction interrupted the natural sediment transport, the literal cell that exists in this harbor. And as a result the harbor filled in with sand. Within a year it was full of sand and Congress had to authorize an emergency bill on New Years Eve 1970 to dredge the harbor because it was, the

deep water harbor was now a bar, a sandbar. Uh, obviously that has, that had huge implications on the oceangoing activities out of the harbor but there was a reason why they did that because it's also an exposed harbor, exposed to some pretty violent storms that were often carrying huge logs in those days and smashing them into a wooden dock, which sustained a lot of damage. It was destroyed repeatedly apparently. So there was sort of this puzzle that was, that people were trying to solve at that time. How can we protect the harbor? But in the process the solution to one problem became a new problem and it began a 40 year process of having to dredge the harbor almost every year to, at some significant expense. Fast forward to the late 2010s. 2008, 9. Congress passes a moratorium on earmarks, which is how funding was being secured by our Congressional delegation, Representative DeFazio and others, to provide the funding for the dredging. So the year I moved here, 2010, was, all of a sudden the dredging stopped. So by 2011 remember I said it only took one year for it to fill in. By 2011, which was when I was doing a lot of work on the water, the shoaling was severe and there was no dredging that year. And so by that winter it was bad. And on a south swell, that meant that those waves were crashing or breaking on that bar and crashing on vessels tied off getting ready to lift out. I don't know if you are aware of this but we have a pretty unique harbor here. A dolly dock where boats are, you might want to get some photos or video of that. So the boats are not sitting in the water. It's not a marine type set up. They're sitting on a high dock about 30, 40 commercial fishing boats and others. They sit on dollies that get rolled to a crane, which picks them up [Oh, I forgot to turn the radio off. Sorry. Atmosphere. *Laughter.*] So the boats get lifted on a crane and lowered into the water and then when they come back they get lowered out. During that process, if there's swell, if there's waves breaking against that dock that the boat is tied off to it can get pretty dicey and frankly dangerous. Um, I happened to be on an urchin diving trip one day in that condition when our boat was tied off, picked up by a swell, and our sternline that we were tied off on the docks snapped, tied off to the dock with, snapped before we were able to get our lifting straps on the hook to be picked up and there were a few seconds of panic there. It was a pretty dangerous situation. We got out of it okay. We managed to get ourselves hooked up and lifted out but it really opened my eyes to how dangerous the situation had become and so I got together with a couple of other community members and we decided that we needed to bring some attention to this problem. And that summer on the Fourth of July we organized an event here amongst the community called "Let's get dredged." And so we asked people to show up that morning during a low tide when there is literally a sandbar in the middle of the harbor and show up with shovels and wheelbarrows and we had signs and posters and, uh, we just lowered a boat onto the sand. And had some local fishermen, myself, a couple of other folks, Representative Krieger showed up. [I guess I'm just gonna... I'll let that, you know I'm just gonna, can I take that call? Can we pause for just a second? C: Yeah sure. T: 'Cause I'm not sure who it is. 'Hello, this is Tom.' Okay, thanks Chater. *Laughter.* C: That's no problem. T: Sorry about that. C: No, that's totally fine.] So, um, I'm gonna back and try to remember where I was.

C: You were just telling me about the "Let's get dredged" event on Fourth of July.

T: So, uh, so we lowered a boat onto the sand. We had some local fishermen, local, you know, elected officials, talking about how important it was for us to keep the port in Port Orford. That was our tag line. And the importance of, for now, to have the dredging occur. To maintain our, the navigability of our navigation channel and our harbor. We did a lot of letter writing, petitioning. There's actually a little video you wanna, if you want a link to that. There's a video

on Youtube of the whole event. We mark...we joined the parade, the Fourth of July parade. I think we got people's attention is the bottom line and it worked. We got peole's attention, you know, small community, small communities like this that are dependent on commercial fishing cannot be left behind as we go forward with how our sort of commercial fishing businesses are gonna function in this country. Uh, we tend to want to focus too much I think on the big, you know, the huge. And a lot of what's going on in commercial fishing has essentially been a swing in the direction of consolidation. Of industrialization. You know, we've just been built bigger and bigger ships. Processing more and more fish. Um, you know, we're doing factory processing at sea where we're scooping up massive amounts of fish and literally processing them into fish sticks and freezing them at sea so that they arrive in dock, you know, already prepackaged and ready to throw in a freezer in a super market somewhere in the Midwest. And, okay, fine. I'm not saying that you shouldn't do that. Obviously we have a lot of mouths to feed, which is another whole issue in itself. But in the process we can't allow that to distract us from the importance of a culture that we have in this country. We were an ocean, people don't usually, I don't know, I think it's a lot of...I'll put it this way. I think of it that way. We're an, a sea-faring country. We have more coastline than most countries in the world. We, we have probably most...I think one of the largest EEZs in the world. Um, so, you know, we're, we've got a pretty close relationship to the ocean in so many ways. And in part...in terms of comercial fishing, we certainly do. And a lot of that culture I think comes from small communities like this. And even if that weren't the case, just from an economic standpoint, a good third of the local economy is dependent on commercial fishing. In the process of organizing around that event, I learned that Port Orford is pretty high up there in terms of per capita production of seafood. Even though it's small, some people around here like to say we're small, but mighty. Um, the people who do work on the water out of here work hard and the water's that they're working are really productive. Um, so, I think there's a lot of good arguments for investing in the community's capacity to continue to operate as a commercial fishing community. Um, so all that's to say, those things all, those things plus the fact that I needed to get on the water for my work, for my research. So for multiple reasons it was important to address this issue. So organizing the community, bringing attention to it, working with the port, was all a part of that. And as a result I think I got, I know I got, some people's attention. And there was an election coming up for the port commission. There were commissioners who were ready to step down. And I was encouraged by some local folks to run for the port commission, which I did and got elected. And so I've been involved as a port commissioner because of that, uh, mainly because of that and since then that's continued to be one of the things that I think is important. The other thing that I think is super important is the economic development of the port and that is, at the moment, that's taking the form of developing, is a, taking the form of a redevelopment project of the old cannery building that's down there which is, honestly been pretty dilapidated for a couple of decades now. At one time it was a pretty bustling, you know, working waterfront. There were dozens and dozens of people working there, had jobs there working at the cannery. Canning crab and shrimp and salmon and you know, doing other things. And it's, uh, we're not looking at recreating the kind of business that it was, but to redevelop it into the, to support the kinds of businesses that we have now. And that includes, uh, one of the fisheries that's...[T: Do you mind if I close that window? C: No! Go ahead. T: I'm getting distracted by the crows. That's a little better. C: Yeah. No, no that's fine.] So, one of the things that I think Port Orford is, and I don't think, I know, Port Orford is known for is innovation and trying new things so it's a place where the live fish fishery has really taken off which is kind of a niche fishery, pretty unique. In this fishery fishermen capture fish and

actually keep them alive, um, they're purchased or sold alive, I should say, and then kept alive, trucked from here to distribution markets in the San Francisco Bay Area and other areas, but primarily that's where Nor-Cal has its main plant. So those fish are taken all the way, taken alive all the way to market and they end up, they end up in fish markets and restaurants in the Bay Area. And that's pretty interesting, right? The other thing about it that's interesting is that it's, it's interesting econmically because the value of that fish is about ten times what it's worth when it's dead. And so there's economic value for the fishermen who can sell a China rock fish for \$6 dollars a pound instead of 60 cents a pound. Um, and that's good ecologically because if you can make ten times as much for your fish you don't have to catch as many fish to make the same amount of money. So it's an interesting fishery for those reasons and then just as a fish biologist I think I find it interesting that there's, that that capacity exists and that talking with fishermen that do it and people who handle the fish about ways that we can, you know, increase survival rates and look at it as a sort of research question too.

C: Yeah.

T: So, the live fish fishery, the red sea urchin fishery really was, when it, you know, it began kind of in Southern California but gradually moved up the coast as it became more of a market, as the market grew. Primarily Japan and sushi markets, sushi restaurants. It's called Uni so if you're ever in a sushi restaurant and see Uni on the menu that's sea urchin row. The red sea urchin fishery sort of moved up the coast from Southern to Northern California and then up to Oregon and we have a very productive rocky reef here off Cape Blanco called Orford Reef. That's a highly productive rocky reef area, great urchin habitat and it's a place where the urchin fishery really took off. In fact, Redfish Rocks was also heavily targeted before it became a marine reserve. So, we've since learned that sea urchines are, have, are long-lived creatures, their populations take time to recover when, after they've been overfished and in the 1990s during a sort of a boom in that fishery they were fished down pretty hard. So what the, so the boom that, the boom urchin fishery that occurred, that also for awhlie brought jobs to the dock at the Cannery building where urchines were being processed, it crashed. And with it went those jobs. And with it went a large population of urchins. So we now have a sea urchin fishery in Oregon that's essentially an artisinal fishery. For the sake of argument I'll say there's pretty much one boat that's active in the fishery and a handful of permit holders. I've sold my permits since I was, since I did it for a little while, for a couple of years, but I'm still, I'm still familiar with those guys and work with them on other projects. In fact, some of the research, in the process of working as an urchin diver I also got to know the other divers and the captain of that boat and developed a relationship that grew into encouraging them to get involved in doing some of the research work as contractors. So some of the dive work that's been done with the marine reserve in other places, the urchin boat does the urchin surveys. They also have a contract with ODFW to do another project here where we go out and sample juvenile rock fish as part of the monitoring that goes on at the marine reserve. And I think that that's a, generally that's something that I've promoted and tried to do more of here in Port Orford is to encourage fishermen who are willing and interested to add research work to their sort of economic portfolio. So, we talk a lot in fisheries about a portfolio affect or the diversification of your fishing effort. And the fishermen here are pretty good at that. None of them fish for one thing. They all fish for crab and salmon and tuna, you know, and black cod and, or combinations thereof and in many cases some, they've also gotten into adding doing research to that. So it's, you know, another sort of opportunity, earning

opportunity and a lot of the work itself is very similar. You might be, in my case we were hook and line fishing for the fish that I was gonna tag for my research. And that's fishing. Fishing is fishing. There might be a few sort of specific details about how it's done. In fact, one of the fishermen involved in the marine reserve is now finishing, has just finished up the second year of a pilot study that he and I worked on together and pitched to ODFW to change how they do their hook and line surveys to look at fish size and abundance in the marine reserve. And they're not actually looking at that as a new, as an additional method to sort of round out their sort of toolkit about how they monitor marine reserves throughout the state. So I think there's a lot of opportunity that exists in between these different sort of fields. And sort of, that's kind of where I'm, that's where I, I'm into that, I like to explore those relationships and sort of figure out how do we maximize the capacity that we have collectively by actually cooperating, collaborating and working out how to best conduct our business.

C: Yeah. That's very cool.

T: So that's my long story about how did I get on the port commission. That went all over the place. But, yeah, so that's, so there's the uh, this Cannery project, this economic development project the port is working on right now. It hasn't begun yet but the design phase is fairly close to being complete and we've got a good amount of funding sort of lined up. There's a need to secure additional funding, but we have a number of interested businesses to be tenants in the new building. That anchor tenant that I was talking about, Nor-Cal, it is the live fish fishery, they'll occupy a good chunk of that building but then we're also cultivating relationships with small fish processing businesses including one that operates here out of this building. That was incubated in this facility, Port Orford Sustainable Seafood. The business that I, the urchin harvest business that I was talking about is now in the business of growing the edible sea vegetable Dulse that was developed at OSU, so we've just begun to grow that out here at the dock with the intention of commercializing that and he's already talking with the, a larger outfit that's getting ready to market Oregon Dulse. And that's another tenant that's interested in being in the new cannery building. There's another new business that's ready to start up and be in the new building to sell live and fresh prodcut, fish and other products. And, um, and there's a ocean recreation business, a kayak tour business a friend of mine runs called South Coast Tours - shout out, Dave Lacey! so they, what the port is doing now is sort of expanding our economic development profile to say, "We're gonna stay committed to being a commercial fishing port, but we're also going to build our infrastructure up to support the research and outdoor recreation tourism activities that we're also now engaged in and have been for at least five or sometimes ten years, you know, we've been at it for awhile. And what I'm, what I'm personally promoting is in my role as port commissioner, is that we embrace that. We acknowledge that yes, we are what we've always been, and if you spend a little time here in Port Orford you'll see a lot of evidence of how we are how we've always been. You know, an old commercial fishing town that likes being a little commercial fishing town. And I like that too. But we're also living in 2016. And there, people have other interests and we do too. And our community is responding to that and they're, I think in a really positive and powerful way by saying, "Yep, we want to keep commercially fishing and that means we want to engage in the marine reserve thing. We want to engage in research. We want to invite people to explore this area with us. And enjoy it and appreciate it, the beauty of it." And that brings scientists and tourists and visitors and those people all want to eat and stay somewhere when they come here and that's good for local economy. But I think the important

thing for the community to do is to take charge of that process. And own it. And say, "Yep, that's what we are and that's what we want to keep being and here's how we see that happening." And in my experience I know personally I respond to that. I have responded to that. I've been here for about five years and I intend to continue to respond to it in that way because I do respect the community as it is. But I also see value in allowing it to develop in a positve way, in a way that preserves the integrity of that identity but also creates new opportunities as the world continues to turn. *Laughter.* Which is does, and it's... and so, um, I think it's great to see the positive changes that have occured as people get comfortable with the idea that, "Well, you know I can, I can go out fishing with a scientist and still make a little money and learn something and maybe also teach something in the process." Because I think it's a two way process. I'm always learning as I'm teaching. And it cuts both ways, I think. And I think there's a lot of power in that relationship between fishermen and scientists. I think we have a lot to offer each other and when we collaborate I think we, the end result is, you know, the sum is greater than the parts. How does that go again? The whole is greater than the sum of the parts. I can't believe I couldn't spit that out. Um... so, I think you were gonna ask me questions and then I just like rambled.

C: Well, I did have some more questions specifically about fishing. I'm gonna go up to maybe the 10,000 foot level for a second and just ask you to tell me about the community of Port Orford itself, the people who live here, the economy, which you've already touched on a little bit, the environment. Just your kind of your impressions about what Port Orford is as a community.

T: Well, I guess I'll...so 10,000 foot level, so you're looking at a small, coastal community, which has its, it's a historically a resource extraction economy that was a logging community for quite awhile. That changed. It has become, um, in I guess the last couple generations I'd say maybe, way before my time, become an economy that's focused a lot on commercial fishing. I think, I talked a little bit earlier about sort of why that, you know, why here, you know. I think the, just the coastal geology explains that, a lot of that, because once you look at the coast. If you look at that map, you can see the protection this harbor provided. In fact, you'll, if you go down and look right now you'll see a sail boat in the harbor right now seeking shelter from north winds, which are pretty strong right now. And so it is literally a harbor of refuge and that's because it is a naturally occuring harbor of refuge. And that, that drew attention to it from the ocean, which I think is kind of an interesting way to tell the story of Port Orford. That...the discovering, the discovery process was a process of marching from the east to the west across the continent of the United States. Lewis and Clark and all. The Oregon Trail. But when it comes to Port Orford, I think it was more like it got discovered from the sea. And there's a wonderful naturally occuring refuge for seafarers here and that's why it was a port, and that's why it's Port (emphasis) Orford. In fact, that was one of the things we half jokingly said when we were organizing the "Let's Get Dredged" event. The tagline was, "Let's keep the port in Port Orford." Because without the port it's just Orford. It's, it's identity is so linked to the port that it's hard to imagine the town here without the port. So, um, so there's this sort of geological formation, the coastal profile of it, that I think is part of the story. And then as you sort of zoom in, what you see is a community that I think is, uh, unique in that it's comprised of people who are comfortable in a place that is very remote, but also a really spectacular place in terms of its natural beauty, its proximity to wonderful rivers, you know, beautiful forests, this bountiful ocean, these gorgeous beaches. Whether you're, you know, if you're...if what you're attracted to is the natural world this is agreat place to be. And I'm in that club. I like my kayaking and surfing and diving and hiking and

fishing and all that stuff. So, I think those are powerful attributes and attractors. And they draw people here that I think, more or less, have that in common. Whether that, they're drawn to it from a, more of a recreational side or they're drawn to it from a more economic side or even a, you know, just a psychological or spiritual side, I don't know. In my case, I guess, you know, like I said earlier I came here as a scientist to study this amazing place that's biologically diverse and the habitat is, you know, really productive and also super diverse and supports this very rich biodiversity in the ocean that doesn't occur everywhere and a large part of why the kind of biodiversity that interests me are the sort of rocky reef species assemblages that include the rock fish and other groundfish and all of the other species that surround this very productive structure in the ocean. The ocean is a place where...you have places in the ocean that are super, that don't appear to be very productive. You find these sort of sand areas out in the deep ocean that just doesn't seem like there's much going on there. There usually is but it's not as obvious to us and certainly places in the ocean that are not highly, not very prod...you know, uh, productive in terms of, uh, just biological productivity. But rocky reefs are not like that. Reefs in general are not like that. Living things in the ocean love structure. And once those rocks attract life, they become alive. We actually refer to that as live rock. And if you dive - I don't know if you're a diver? [C: I have never]. So, if you dive it becomes immediately apparent as soon as you put your head underwater, even if you're just snorkeling, in an area where it's rocky, in this kind of area where there's upwelling that's providing ntrients that drive the primary productivity, you immediately see that the rock is alive. Every square centimeter of that rock is covered with life and the life attracts other life. Life attracts life. So you just have this amazing place as a biologist to study and learn things. Um, and that also drives the economy of a fishing community. It drives some of the reasons why people are interested in recreating here as well. It's a great place to run a kayak tour business like what Dave does. Or if you want to go diving, just recreationally. So there's a lot to see, a lot to appreciate. And so all of that attracts people. And the isolation of the place combined with what makes it so attractive I think creates a community like this that is small. That's pretty tight-knit. And it's kind of, has a certain stability to it. Even though I think there's things about that we can talk about. But I think the essence of it is, those two forces act on it in a way that creates a certain kind of stability or stasis. So the town hasn't grown much in, you know, I guess a couple of decades. Maybe it's fluctuated a little bit but the population is, you know, somewhere around 1100 people and it, it's kind of, that's where it's at. And there's always people talking abut, "It's gonna grow, pretty soon it's gonna grow." And maybe that's true right now. I don't know. I can't see the future. But what I think is interesting is to see this sort of long period of essentially kind of the stability even though there have been a lot of sort of cultural changes, stability in terms of population and the place itself through many changes seems to, the isolation of it seems to act as an inhibitor on growth. And so that drives that kind of stasis.

C: Can you tell me more about the role of fishing here? You've already talked about the economic side, so if you have anything more to add on that, that's great. But also, the role of fishing in the culture here, in the way of life.

T: Well, I guess I would say the thing that, the way fishing... the way that, uh, commercial fishing affects the town that is economically dependent on it and also cul, in large part because of that, culturally dependent on it, which I think is true and I think that's good. Um, how does that...say the question again.

C: Yeah. What is the role of fishing in the culture here in Port Orford?

T: Okay! So, so a couple of things about how commercial fishing affects the culture. Um, one... in a lot of places, and I'll use my own experience as an example. See you live in Corvallis, right? You're a student. And so you, you sort of have a lifestyle that's dictated by a schedule. You pretty much, you know, your class happens at this time. Your meetings happen at this time. These are the days you have off. And that's just, that is your schedule. You can plug it into your smart phone and you know what it is, every week is the same. Um, and I lived that too for about a year before I came here. And then all of a sudden you're schedule changes. And now it's driven by the natural world. It's driven by the ocean, it's driven by the tides, it's driven by the wind, it's driven by the waves, it's driven by the weather, by the temperature. And all of a sudden you're living a life that is... for good or bad, is more or less dictated by the natural world. And that actually... some actually find that kind of attractive. Sometimes it's maddening because there are times of year when you really need to get out there and get some work done, make some money or accomplish your goals and you can't because the ocean says, "No." Uh, but if you can get comfortable with that and just start learning to respond to it, it actually can bring you more in touch with the natural world in a positive way. It can also get, put you in touch with the natural world in a negative way, because it can, uh, it is... it can be extremely dangerous, uh, and making that call, particularly for a commercial fishing community that's economically dependent on fishing, uh, okay I'll say this and so I've worn both hats. As a research I can say while I really want to get out there and get my data, but today is not the day because of the conditions I need in order to accomplish that goal aren't there. But if it's my livelihood that's dependent on it, that's a different equation. It's a different thought process, a different decision making process. And sometimes that decision is to go, even under adverse conditions. And unfortunately sometimes the outcome of that is a sad one. And, uh, we've lost people here. I mean, in the time I've been here I've lost friends. And, uh, sorry... I'm having a little moment about that. [Tears in his eyes]. But it's, it's part of the experience. You can't really ignore it. We actually just had the fishermen's, uh, sort of the fishermen's annual Blessing of the Fleet here that happens every year in August and that's when we sort of acknowledge and recognize the people that have been lost in the previous year. And it's powerful. It's a powerful event. Um, so I think that that's something you just can't ignore. And at the same time, coastal fishing communities like this are resilient and strong and don't spend a lot of time crying into their beards, you know. It's like, it's part of the equation. It's part of the life. Uh, it's, I think dealt with with respect and honor and, uh, you know and people try to hold their heads up high and not let it bring them down and I think that's part of the, that's also part of the culture. Because if you, if you can't do that it makes it really hard to keep at it, maintain as a community. So there's, uh, I think sort of a cultural process of integrating that risk and that danger into your life in a way that you can live with. Uh, it's not like it ever goes away, but it's like we don't want to dwelll on it. *Laughter." Which is kind of ironic because, like, around these cultural, around these communities there's, you know, modern media that's developed almost an obsession with that dangerous lifestyle, You know, the Deadliest Catch and stuff like that. And that's a little tricky, I think. It sort of... I'm, I'd be interested in talking to people in the community about like how they feel about that. I know they're actually going to be airing a piece, one that's focused on Newport, Dungeon's Cove I think.

C: I think so, yeah.

T: So I think it's, it's interesting. Like, there's this sort of approach avoidance relationship with that part of the culture. Um, but I think what's underneath it all is just a deep respect for people who do the work. And, uh, and I think there's a lot of community intrest in making sure that people outside the community understand that and respect the, respect the lifestyle of commercial fishermen more. And I think that that interfaces with what a lot of places are trying to do including this place to encourage a more... I don't know why I'm using the term respect but that's what's coming to me right now... a more respectful interaction with fishing communities that are providing this valuable resource. You know, economically valuable. Valuable in terms of your, just your well-being. And all that value I think, what people are trying to do in small communities like this is to get people to understand that value. *Laughter.* And by proxy, to value the community that's doing it more. And focus less on, you know, an old economy, that in my opinion, what's an older economic sort of plan or approach which is, how cheap can I get it? Like, it's always about the lowest price. And, of course I understand that living on a GRA salary. I get it. But, I think that it's really important that we move away from that and think more about how valuable that product is and how can we adjust our own value system in our culture to respond to that. Figure out a way to add that value, whether it be just embracing the boat to plate approach, where we get more connected to our fishermen, where our fish are coming from. And we're trying to do that in this community. Like I said earlier, we're trying to promote small businesses that can do that more. I think it's actually a shame that people can come and visit this community, go down to the dock and look around for where they, where can they buy fish and crab and product that comes out of the ocean here? And they cant'! Unless you know somebody who knows somebody, there isn't an obv...there isn't a place where you just go and say, "I want to purchase this product" and by doing so invest in your community. And that's what missing and we need that back, which is why the development of this new facility is important and why promoting these small businesses is important. Because they're the ones that are gonna give people that opportunity to invest in our community. And people want that so...it's a process that's happening I think around the country and all over the world, really. And we're just in the process right now and we need to work more and harder on it. Um, but I believe we'll get there. It's, I feel it's almost inevitable. People will, in general, will want to be more connected to where their food comes from. And we see that in terms of farm to table movements, community supported agriculture. I get my harvest basket from Valley Flora Market every week and my housemates and I love that. Like I know where my food came from and it's good food and it's fresh and I can afford it. And, uh, we're trying to do the same thing with fish. In fact, the business that's operating out of this building, sort of incubating here, that hopefully will end up in the new building, cannery building, has focused on developing a community supported fishery where they buy fish from local fishermen, process it here, vaccum seal it and flash freeze it and then put it on a freezer truck and truck it up and down the I5 corridor from Portland to Ashland. And they have about 250 members. So, I was literally staying with a friend in Corvallis last week and we had some awesome grilled halibut tacos that came from here. The fish came from here. So, that's some of how fishing is affecting the culture here. Um, I think that it's... it's a hard way to make a living in terms of the environment but also just economically. It's expensive to start a new fishing business these days. Permits are expensive. The equipment is...it's hard to maintain a boat, you know. One of my friends likes to make the joke that a boat's like a hole in the water that you pour money into. *Laughter.* But, uh, so it's hard to make aliving. But you can make aliving. Um, but again, it's at the whim, you know, its, the constantly changing environment, all the unknowns in terms of the, just the ecology of fishing, of the populations, and then you add the

management infrastructure on top of that. The permitting infrastructure. So, a lot, there's a lot of unknown var...there's a lot of uncontrolled variables. But if you can, you know, if you can, you work at it. You learn a lot in the process. And in the end you can make it work. And it's, it's the people who stick with it and, you know, pay attention and listen and learn over time that I think ultimately are the ones who are most successful. But it's getting harder and harder, particularly for younger fishermen to get into the business because it's so expensive now. In the old days, it was more of like a family business where it got handed down one to the next. In a lot of fishing families that's still the case, and those that are I think a little ahead of the curve probably are coming out of that environment where they have the privilege of having sort of inherited the business. Um, but now as older fishermen are getting ready to retire or are retired what we're seeing, what's the cultural effect of that, you know, people are referring to it as the "graying of the fleet," if you will. Okay, I'll go with that. Um, some of those guys have gray hair. And some of those women. Uh, so the challenge there is to... maintain that culture through that proc, that transition process as fishing businesses are, you know, they're typically sole proprietor type businesses, especially in the sort of small boat fleet like this. They're sort of one person operations or a small family operation. And so, uh, if there isn't somewhere for that to go or someone to inherit it that business goes away and because of its, because of the economics of it being driven by the cost of the permits and all of that, um... then it's gonna get, the permit's gonna get sold. The business is gonna get sold. And if there isn't someone in the community who has the resources to purchase that business, it's gonna leave the community. And so that's a challegne for a small place like this, because economically it's not power...it doesn't have a powerful economic driver and if the fishing culture has been dependent on this sort of family structure, but then that breaks down for some reason, um, you start to see an erosion of the core, so to speak. So, in the time I've been here, five years, the fleet's gone from about 40 or so down to 30 or less, which, okay it doesn't seem like much but with a small number like that, that's 25 percent reduction. How does that affect the local economy? How does it affect the capacity of the thing to maintain itself? Uh, and looking at it from multiple perspectives, like from a port commissioner perspective, from a community member, from a commercial fishermne, from a researcher perspective, the port has a certain kind of like a floor, let's say, an economic floor. You know, there has to be a certain amount of activity in order to argue for the continued existence of this port, you know. It's not gonna stay in business for 15 boats. So there's a, there's a hard line there somehwere. I can't say that I know exactly what it is. I just threw that number out there randomly, but I think there is a number, you know, and it can't be five. You can't, I mean, you can't argue for an annual dredging operation of close to half a million dollars and, uh, all the maintenance and the staff and the cost of the maintenance of the cranes and all the electricity, etc. for a number of boats that doesn't provide enough revenue in landings, tax and slip fees to justify having the port. So, we've got to do the economic investment to ensure that we continue to attract the small boat fishermen, fishing businesses and the small fish processing businesses, these, the research work, the outdoor recreation work. All of that is a strategy to ensure that we remain a viable coastal community. Otherwise, I just, my take on it, on this community is that it is not ready to not be that. And I think at somewhere, some of the angst is coming from the community right now where there's a lot of passion behind continuing to identify ourselves in that way. And a lot of apprehension about how do we accomplish that. How do we make sure that we can continue to do that given all the pressures and the challenges of just being a little fishing community? It's tough. And then everything is, you know, thing's are changing around the community. Not necessarily in a way that is supportive of it continuing to

be a small fishing community. It bringsme back to what I was saying earlier about value, 'cause like as a, as a nation, as a greater community, we have to go beyond lipservice in terms of our interest in coastal culture. It can't, it has to be more than just we want to be able to go to the shore and have that experience. We have to be willing to say, "That experience is valuable. It has value. And we value it enough that we will commit to making sure the people who actually create that experience for us can afford to live and create that experience for us." It's not a given. And I think that we are, we're doing ourselves a disservice as a culture if we don't recognize that it's not a given. We have, we as a culture, as a country have to invest and we're doing it I think rhetorically. If you look at, you know, NOAA policies, fishery council policies about coastal communities, it's there rhetorically but we've gotta do a better job of actually executing that commitment so that we don't lose that culture, you know, it could, I think it's very tenuous. I don't know if people know how tenuous it is. That how quickly you can go from a viable fishing community that creates that culture that you love to a community that used to be a fishing community. And you don't have to go far up and down this coast to find communities like that, where the slips are empty. There is, they're not commercially fishing out of there anymore. And it's a different kind of community at that point. That I think ends up with a more nostalgic perspective on what a fishing, coastal fishing community is as opposed to actually being one.

C: Yeah. No, that's great. You've answered so many of my questions that I don't even need to ask them now. But, this is more hypothetical, but what do you think will happen here in Port Orford if it comes to that point where all of those family-based fishing businesses are sold?

T: What I think will happen here I'm gonna take the more optimistic take on it. I think what's, what will happen here is that, um, like I said, I'm kind of focused on the economic development that needs to happen and I am working really hard to make it happen. That is focused on the port because to me the port is, the port of Port Orford is the heart of Port Orford and so we've got a heart that's in trouble. I mean, we've got a, you can really, if I want to get metaphoric about it, um, you know we've got some clogged arteries, you know, we've got a harbor that literally fills with sand that clog, it's clogged. The heart is clogged. And if you look at the, you look at the shoaling problem, the sandpit position in the harbor, and then you look at the cannery which is dilapidated and ill-used for decades they're mirrors of the same problem. There's a relationship between the economic viability of the port and its physical structure. As long as it is and, as long as it was a deep water harbor it was a bustling harbor. It was a viable harbor. It was a harbor that a 200 foot ship could pull into and offload resources. Or pull into and offload resources. Uh, so I think we have a chronic problem. Um, but I don't think it's over. I think we have, we have a lot of interest. We have a lot of compassion, a lot of passion about making sure that that doesn't go away. Uh, I think there are ways to resolve the shoaling problem. We are working on the economic development that needs to occur in the old cannery building to revitalize it and essentially bring it into the present-day. To support the current initiatives and economic activity that we are doing right now. So, what I see happening is that we go forward with securing the funds for the economic development at the port. We retain our anchor tenant. We attract a handful of new, small fishing businesses. We continue to develop the infrastructure to support ocean research here, which I'm more directly involved in and I haven't really talked about that much. And we also embrace the outdoor recreation and tourism that we're also already doing. So essentially building the infrastructure up to support the activities we're engaged in now and then look forward to how to grow. Doing that I think creates a more powerful argument for coming up

with a longterm solution to the shoaling problem in the harbor. Now, not everyone here agrees with me on that and I'm okay with that. To me it's a matter of just facts. We had a deep water harbor, a structure was put in there that interfered with the natural process and it's caused a huge navigation problem. Because of the nature of the dock, being a high dock, there's only one place you can put a boat in the water. It's not like we have options. There's literally one place. It's smaller than this room. And if you, that place is full of sand you're whole operation is shut down. So we have a crit...it's like the aorta right, it's like, back to the heart metaphor. Our main vessel has to be kept clear. We have to call on the people who have the expertise to help us solve that problem. And we have to invest in the solution. And I'm not pretending I know what the solution is. But I sure know what the problem is. And it's very clear. So, that I think is gonna be, uh, the challenges are back to what I was saying earlier about stasis and things not changing. So there's a, there's a struggle right now. There's people who would like to see things change for the better. I think most people feel like that's what they're trying to do. Make it change for the better. And there are people who are apprehensive about change. And so there's a tension in the community about that. Um, but I think the only solution is to engage, actually talk about that and figure out what kinds of change are actually, that we can reach consensus about that are gonna be positive and gonna contribute to the well-being of the people who live here as well as the interests of people who are wanting to come and visit and enjoy it with us. And so if we can tackle that, and I think we can move forward with economic development at the port, which includes like I said the commercial fishing operation and the research and the outdoor recreation work, and then we can address some of the sort of, uh, physical structural challenges that we have. And I think all of those things end up sort of bleeding out into the entire community and affecting in a positive way because the eco... if this really major economic driver is healthy, if the heart is healthy, the body will be healthy. I'm gonna stop there with the metaphor about the heart. But, I do think it's, it's really relevant.

C: Yeah. Do you think that the issues related to the graying of the fleet and the high costs of permits and the difficulty young people have getting in, do you think that plays into this effort to revitalize Port Orford or do you think if you, you know, can establish that economic development infrastructure and address some of those more structural issues that the graying of the fleet is not potentially as much of a concern?

T: It's a concern. Uh, and I think it's something that probably is gonna, I think it is gonna require more attention in terms of just more of a, I guess, more of a business development, economic development kind of attention, which is not my forte. But from what I can see, what I would like to see happen is there, I'd like to see more willingness to invest in small local fishing businesses. Uh, some sort of economic development initiative that would really focus its attention on small fishing businesses that are interested, like whether it be a young person here who would like to get into the business but can't afford or isn't coming from a fishing family, let's say. Um, or someone who wants to come here from somewhere else and start that business. And I think all these things sort of intertwine with each other. You know, if you have a viable port that becomes more attractive to people who might want to start a fishing business, you know. And it's, in a way it almost all feels like... like everything needs to happen at once. And it, it makes it a little, a little bit overwhelming. But I do think that's a critical piece of it. Otherwise you start to see with the way fisheries are being managed, we're starting to look at quotas and transferable quotas, those quotas being transferred out... I think, I'll put it this way. The forces that are pulling those

quotas and those permits out of this community right now appear to be stronger than the ones that are pulling them in. And that means a bleed out process. God, here I am with the heart and blood metaphors again. Sorry. But, there's that, you can, you hear what I'm saying right? But, what kind of incentives can we create here and again back to the question of value. Do we value this and other small coastal fishing communities enough to invest in that community in a way that will attract those people that we need to come in and develop those small businesses that we're losing at the other end. And I also think there's a lot of value culturally in creating opportunities for those fishermen and women who are in the group that's graving out, so to speak, I think there's a lot of value there. A lot of experiential knowledge. A lot of just practical knowledge and I don't want to lose that either. You know, that African proverb, you know, when an elder dies a library burns down. Well, the same thing applies. And I know in my work as a researcher I've worked and depended on commercial fishermen who've spent their lives doing that kind of work to help me develop my gear. To help me get the work done. And I've benefitted greatly from those relationships. And I would like to see us, and I'm working with some of them to actually bring, to develop other opportunities for guys that I know that are retiring. It's like, well, we could really use your perspective in this process or in this process. Or there's work opportunities for you to advise on this research project. Uh, and things like that where I think that there's, again, I see that as a cultural value question. And it has to do generally in our culture about how we devalue, or over value youth, devalue age or aging people or graving people or whatever, whatever euphemism we might use. But our culture has a hard time with that.

C: Yeah.

T: I was raised in amulti-generational household so I don't have that problem. I totally understand it. I see that value to me, those are the people who are the most valuable 'cause they have this whole lifetime of experience and knowledge to share. But we do a poor job, in my opinion, generally speaking in our culture of acknowledging and executing something on the, on the basis of that value system because we're, we over focus on the value of youth. Which is also super valuable in its own way. So we need that, we need both. We're stronger if we acknowledge both.

C: Yeah.

[Women steps in momentarily. Tom talks to her briefly].

T: Sorry. So, yeah, I would say that in terms of the whole graying of the fleet thing those are some thoughts. I think that we could do a better job of recognizing the value of those people that we're referring to and at the same time, create economic incentives for people that are younger in their career to make it possible for them to step into those boots, so to speak and get into that. You know, the, I didn't really talk much about this but you know, just the life, the lifestyle I'll say, of working on the water is, I'm kind of speechless. It's unbelievable. It's the best life there is, in my opinion. I think a lot of people who work in the commercial business and work on the water in other capacities completely understand that. That's why they're there. It's one of the greatest fringe benefits 'cause there are those days where, excuse me, there are those days when it's rough on the oc, on the water. But for everyday like that there are days when it's just spectacular and there's nothing like it and you wouldn't trade that moment for anything in the world. So, we could do a better job of promoting that and showing people that are looking for

their path in life that this can be a good, this can be a good path for you. It doesn't have to be just hardwork and danger and a thankless job that nobody really gives you enough respect for. We can retool our perspective on that lifestyle. And I'm not talking about over-romanticizing it. But about a more realistic clear eye view of what that life can be in today's world. And how can we promote that and I think that has, that could actually end up helping us in terms of this economic puzzle of how do we promote the value of fish. Helping people understand that, what that life is about. And that if we want that fish, we better start promoting that lifestyle to younger people so that we'll always have people willing to do that work. And not just doing it as slaves on an openwater factory trawler that's willing to literally kill people for our fish. You know, we've got to retool our perspective on fish, generally. And help people understand we've gotta respect our coastal communities more. And we've gotta stand up to the people that are doing it in nefarious ways better. We've gotta do a better job of dealing with illegal, unreported, open ocean fishing and the two, the two efforts I think will create the momentum to help us drive the whole process in a positive direction 'cuase it's gone too far the other way. There's just tragedy at sea everyday. Not because of weather, because of cheap fish. 'Cause of economics and captains who are willing to fly illegal flags of convenience, treat people literally like slaves and literally like throw them overboard if they can't work. I mean, it's bad. And that this is the alternative, so... I think both things need to happen and we can find ways to get people to hold both of those ideas in their heads long enough to help us move this in the right direction.

C: Yeah. Well, that's the end of my questions unless there's anything else that you want to add, either about the graying of the fleet, this idea specifically or just about fishing and what it means here in Port Orford. Anything I didn't ask you about that you thought I would but other than that...just your closing thoughts.

T: I feel like I covered a lot. Um, I guess the only other thing I would say from my sort of OSU Field Station Manager perspective is that I think that the marine studies initiative that OSU is launching right now. We just hired the new Executive Director for that program, Jack Barth. He's a great guy, oceanographer. The university's behind this facility we're sitting in right now. Um, and we'll be meeting here in a month to talk about this vision of what does this marine studies initiative look like in a community like Port Orford? And so a lot of what I've been talking to you about are the kinds of things that I'm going to be talking to them about. The administrators and decision makers at the University that are working out what that looks like. And what I want them to hear is that it looks a lot like what we're doing and what the community's been engaged in now for five or ten years, I'd say, easy. And what's needed now is the kind of infrastructure, support, resources, expertise that a world class university like OSU can actually bring to a community like this in a sort of practical way. To start really unpacking some of these challenges that I was talking about and really flip, let's start working these problems. Because there's solutions to every one of them. And with young people like you who have the energy to get in there and get involved, even just the process that you're involved in right now about articulating these problems, like, what are the problems that we need to solve? It becomes a big scary ball of problems until you start pulling those strings and drag one out. Like, let's examine this. This graving of the fleet problem. This shoaling problem. This economic problem. This health problem. This danger problem. You know, they all have solutions. And there are people working on all of those solutions and what I hope is that the commitment that I'm hearing, which is, "Yeah, we're gonna build a new edifice in Newport." And it's getting a lot of attention right now,

rightly so. But our initiative is gonna be a coastwide initiative. And we're gonna invest in coastal resilience. And I like the sound of that, because I see a community that's very resilient but it could use some support to continue to be resilient and to enhance its resilience. And I think this is what public institutions like universities really oughta be all about and I think it is what they want to be all about. And I'm excited that here we are in a place where it looks like it could kind of all come together in a great way where this awesome sort of, uh, foundation that's been built by a community with some help is there now and ready to receive this, the building of this initiative that has got a lot of energy and resources coming behind it, a lot of expertise and good will and I think, hope for the future. And that's kind of where I want to leave it. I think the future is bright.

C: Okay.

Afterthoughts - so much opoportunity, so many things we agree on, so much commonality. We're all in the same boat. It's a small boat. Look at catch statistics for Oregon - majority of fish are caught on small boats. The small boat state. A few large vessels, but really we're a small boat fishery in Oregon. If you think of that way, it helps you understand why its important to invest in small communities where those boats are located. WIthout those boats, we're not getting those fish. Values other than efficiency? Families, communities.