

Oral History Interview
Peter Jefferds – Penn Cove Mussels

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Interviewee: Peter Jefferds
Interviewer: Judy Lynn and Gary McIntyre
Transcriptionist: Judy Lynn

PJ – Peter Jefferds
JL – Judy Lynn
G – Gary McIntyre

Good morning. Today is February 7, 2017. This is Judy Lynn and Gary McIntyre interviewing Peter Jefferds. We are at his home, near Coupeville, and he is going to tell us about Penn Cove mussels and other things. Thank you Peter for having us here to learn about this business.

JL: First of all I would like to ask you when and where are you were born.

PJ: The when was November 6, 1927, and where was Madison Wisconsin, not very close to the sea.

JL: Peter, how did you end up in Coupeville?

PJ: The only reason I came to Coupeville was for the mussels. I wouldn't have been here otherwise.

JL: Tell me about the mussels?

PJ: I had 20 years in the Army and before I got out I realized that my college degree in geology was obsolete and the jobs that I had in the Army didn't train me for anything on the outside. I knew I didn't want to sell insurance or real estate and I didn't know any other options.

One night at a party someone asked me what I was going to do when I got out? This was very close to retiring so laughingly I said I don't know, maybe I'll grow crawfish. Crawfish were something you couldn't buy here. That got a laugh, got the monkey off my back.

That spring, just prior to retiring, I signed up for a career change seminar in Seattle. At that point I realized that growing crawfish was a joke, not a reality, especially here in Washington State. You could do it in the south, you could do it in California or Louisiana, but it was not practical here, at that time.

During numerous boat trips to the San Juan's my wife, Beryl, and I had seen mussels growing; that would have been in '73 and '74. You couldn't buy mussels and I wondered why. I say you couldn't...occasionally they'd show up at the Pike Place Market, but they were always from the east coast and thick shelled, sandy, and very thin... gleaned from the beaches...not farmed. They didn't get many repeat customers because of that. Mussels weren't consumed out here except by the few people who gathered their own.

After the crawfish comment, the next idea I had was maybe I could grow mussels. I had no idea how. I had never eaten mussels except here, those that we picked ourselves. I'd never seen them grown except in Korea and then just by chance. I was swimming in Ulsan Bay and saw a long line of floats...an aquaculture program. I swam out to see what was being raised and saw they were raising mussels. I saw that and it registered but that was it. It just registered as an aquaculture program.

At the career change seminar I was asked if I had any ideas and I realized that the one idea I had was maybe raising mussels. And that was the start of it. That was in the spring. I retired in the summer and was living in Seattle. On one of the boating trips that summer we were near Lopez Island and gathered some really nice mussels from underneath a dock. I thought why not....why not raise them.

PJ: I want to go back and do this logically. One of the things that they asked at the seminar was "Is this business that you want to start practical? Is there a market for the mussels? Go out and research it and come back and we'll talk about it again." So I did. I started at the University. A student there had just come back from and had written a paper on mussels. Her name was Linda Chavez. She didn't go into a lot of detail except for what she saw in Spain but she did have the name of a Dr. Figueras who ran the aquaculture program in Galicia.

After seeing the mussels on Lopez I decided to go to Spain and see what raising mussels was all about. That was in November of 1974. I flew to Spain and met Dr. Figueras who very graciously devoted three days to me. He took me around and introduced me to a number of mussel farmers and processors. He gave me a good tour and I took photographs. In those days I was cautious taking pictures because it was expensive. I remember going through a roll of 36 exposures for the first time. When the camera said 37 pictures I realized I didn't have any film in the camera. I have no photographic record of that trip. What I realized was that mussel farming was a pretty simple thing. It was just a matter of work....manual labor. So I came back home and at that point I committed myself to the 'farming' of mussels.

The first thing that had to be done was to find a good area to grow them. I thought that if pollution was ever to be a problem it would start in the south Sound.

One weekend my son Ian and I made a search of every cove north of Seattle up through the San Juan's. Our sophisticated search method was to look for mussels on buoys, floats, and pilings. The area had to be sheltered and not near a marina or other polluting sources. There also had to be a school. Penn Cove was the best we found.

JL: So that was before you bought the house?

PJ: Yes we were living in Lynnwood. I needed to find a house big enough for three kids in Coupeville high school. My daughter, Leah, was going to Western Washington.

I was having a hard time finding a house big enough. I ended up buying a small house on 9th Street and was going to use that to live in while I stored the furniture we had in Seattle, but I kept hearing from Harold Smith about the Bishop house, a large house on Sherman Road. The first two times I went there all I saw was a house trailer. There was so much growth, wild shrubbery growing since the Bishops had been there that I missed the house. No one was living in it. I finally bought it from the Bishop Estate. We moved there in September of 1975. It is now the office of Penn Cove Shellfish.

JL: Can we get back to how you started?

PJ: I had already made applications for the farm with the county, the state, and the U.S. government. Everybody wanted his or her finger in the pie. The Corp of Engineers was the lead agency, but other agencies included the Department of Fish and Wildlife, the EPA everybody. It took about six months to get all the permits. I thought that was a long time but it would take a lot longer if you got started today.

JL: What about the neighbors?

PL: The neighbors weren't a problem. I talked to those who had questions but no one really knew what to expect. I had support from some.

Let me back up....In Spain the rafts to raise the mussels were made from old boats, old hulks, barges. They would put a grid of long poles on top and hang the mussel growing lines down from the grid. They were great big floating platforms anchored in bays.

We didn't have anything like those old boats here so I had to design something different. Dr. Quayle at the University of British Columbia, in a paper on oyster culture, suggested using large cedar logs that would be resistant to shock. If a big wave hits a boat, the boat bounces up. The shock could cause the crop to fall off the lines. Waves would break over the heavy logs without shock. It sounded like a good idea to me.

JL: Did the logs come from here?

PJ: The logs came from Port Gardner, Everett. I bought fourteen 32 foot cedar logs, seven for each raft. I had them brought up by truck, taken to the Seaplane base and launched into Crescent Harbor where I tied them together and towed them over to Penn Cove. I built the rafts off-shore at Good Beach, with permission of Harold and Marion Smith. I used their property to get to the water.

GM: How did you keep them stationary so they didn't float away?

PJ: Until they were a raft the logs were just tied together and anchored.

To make the rafts I cut 2 feet off the end of each log and used those pieces to space the logs; seven logs per raft, side by side, with spacers in between at each end. I drilled horizontal holes through the ends of each log and through the spacers and then ran a cable from one side to the other. With a bolt and nut at the end of the cable it tightened up and secured into a fairly rigid raft.

The two rafts were tied end to end, and anchored parallel to the tidal flow.

The anchors at each end were oil drums of cement on front of kedge anchors that I had made-up.

I had permits from the state that allowed me to anchor the rafts close to Coupeville.

JL: Were there boards on top of those logs?

PJ: No, just logs. The lines were hung every 16 inches along both sides.

JL: What are the lines made of?

PJ: The first lines that I started with were made of manila, hemp. It was salvage rope from marine salvage yards in Seattle. I guess I had a monopoly on old manila rope. However, it didn't take long to realize it was worthless in the water. It got slimy and nothing would grow on it. So I changed to synthetic. It looked like hemp rope, but it wasn't.

The 'growing' lines hanging off these logs would go down about 20 feet. They would go down as deep as the water was rich in plankton. They were weighted to hang straight. I got the permit in the spring, the rafts were ready, and got the lines in the water. I got my first "real" crop in 1976.

JL: Where did the seed crop come from?

PJ: The seed crop actually came from the water in Penn Cove. I didn't have to bring any mussels in. They were already there.

JL: When did you build more rafts?

PJ: By then I realized I needed more rafts than I had and about that time I was contacted by George Adams of Oak Harbor. He came to me with the idea of using big steel tanks that he had as floats to support a wooden grid. The floats were held apart by 8" I-beams that he welded in place. I anchored that for my second generation raft.

The third was from Weyerhaeuser. They had tried to get into the salmon raising business in the south Sound and had a huge 50' x 50' raft which they sold it to me for a token cost. Part of the agreement was they would deliver it at the mouth of Penn Cove. I think this was in the late fall of '76. Weyerhaeuser said a tugboat would call when the raft was in my neighborhood and I should go out and tow in into Penn Cove. I had a twenty-one foot fiberglass boat as a work boat.

In January I got a radio call from a tug that said they had the raft off Camano Island, please come pick it up. This was at 2 o'clock in the morning. Ian and I took off as soon as we got dressed. It was very dark, very cold, but also calm. Penn Cove had about a quarter inch of ice all across. We broke ice to get to the mouth of Penn Cove. It was so dark when we got there that we couldn't see the tug, couldn't see anything. I didn't have very good lights on the boat but I did have a flashlight and the tug saw us. It was waiting for us over by Camano with big log-boom. At the end of the boom was our 50' x 50' raft. I asked him if he thought I could tow the raft with my boat and he said "Sure". He wanted to get rid of it. When he radioed "Are you hooked up?" and I said "Yes", he was immediately moving away.

By the time the sun was up we were coming into Penn Cove. The hard part as we were coming into Penn Cove was that the ice started stacking up in front of the raft. The ice was thin but it started stacking on top of itself and it was like pulling a deck of cards. About that time the ice was breaking up but the tide was changing. It was a slack tide and I was just terrified...what was I going to do with the raft. I was afraid we'd start getting washed back out.

Right about then Roger Sherman showed up with the Sea Scout boat. He was coming back from somewhere with Sea Scout kids and said he'd help. He took the kids to shore and then came back. He towed the raft and I pushed. The raft was made up of fir logs 2-deep that were 50 feet long....huge.... very heavy.

I can't remember how long it took to get it anchored but it would have been impossible without Roger's help.

JL: Did Roger bring it all the way in?

PJ: Yes, to the leased site, just west of Coupeville's property line.

So now I had three rafts in the water. Two log rafts tied end-to-end, one steel raft, and this huge squared off log raft. Weyerhaeuser originally had salmon pens in each quarter of the raft. I put mussel lines where they had been but it was just an inconvenient raft to have. It sat there for a long time and I really didn't use it that much. I would hang things on it temporarily for storage. At the time I was buying oysters from a farm in Samish Bay and I would hang the oysters off that raft until I had orders.

I came out one Saturday morning and there was a 40-foot sailboat tied up against the side of the raft. I took my boat out and told him he couldn't stay. He agreed to leave but he had to get his stuff organized so I pulled out and left.

The raft had a walkway around it about the width of this table and when I turned around and looked back I saw that he had let his dog out onto it. I didn't do anything....I didn't go back. After he left I went out to clean up the mess that the dog made and then found out he had also taken about ten dozen of my oysters. I had bought the oysters so that was money I lost. It wasn't much but...a guy with a 40' boat?

Another story. There was a bull sea lion that used to climb up on that raft. At first when I pulled up with my boat he would jump off. Later he got used to me and didn't jump off until I got very close. But he stank. He had horrible odor.

Gradually that raft started to come apart. The 50' logs were held together with long bolts, top to bottom. The nuts were on the bottom and they hadn't been peened and they eventually fell off. After one big storm it all came apart.

Anyway, staying with the rafts, after a few years I found that out the metal raft wasn't working out. Constant flexing by the waves of the 8" steel I-beams caused them to eventually break.

As for the cedar log rafts. They lasted about five years. I went out one morning and one was sinking. Teredos had riddled the logs with holes. I hadn't worried about Teredos....I knew about them; they are also known as shipworms but are actually a boring clam. They bore tunnels about a quarter of an inch in diameter by eating the wood. I didn't worry about it because when living in Seattle I used to buy herring bait in the ship canal out of pens made of cedar logs and they had been there maybe 50 years. But that was brackish water.

So I unloaded the log rafts and towed them down to Long Point where they were disassembled, and trucked to Sherman road. I had them planked out as worm-eaten cedar. I sold some of that planking in Greenbank where they used it for wainscoting in the cafe.

I wasn't sad to see the cedar log rafts go. It had always been difficult to harvest from them. The space between the logs was about 20 inches and mussel lines were on both sides of the logs every 16 inches. That meant the area was congested and the lines of mussels were too big around to be pulled up between the logs without scraping many off.

The solution was that I would dress in a wet suit and scuba gear and dive below the logs. The crew would lower large nylon bags by rope and I would fill them with mussels. They would then drag the bag to the end of the raft where they could pull it up. This was very inefficient way to harvest and very uncomfortable for me.

I finally came up with a better design for a raft using large Styrofoam 'logs' for the floats and a wood grid for hanging the mussel lines.. Basically the same design used today.

JL: How do you catch the mussel seed?

PJ: A simplified explanation would be that in the water the eggs and sperm of spawning mussels mix and shortly after develop into tiny micro or macroscopic organisms. They stay in suspension but can't really go from here to there...they just drift. The tide washes them back and forth. Eventually as they get heavier they need to attach to something or fall to the bottom where they will probably be eaten. By this time they extend a little thread called a byssus that sticks to most anything it touches. When it attaches, in our case to a collecting line, the tiny mussel excretes more threads and hangs on.

JL: When do they get their shells?

PJ: The shell is forming very quickly from the time they hatch. If they get too much shell they sink. So they attach to something.

Basically what happens, you have thousands of them attached to a collector rope...Just take one small section of the rope, thousands could be on there. As they get bigger they start to crowd each other out and the only way out is farther from the rope. At that point they start attaching byssus threads to their neighbors until very few of them are still hanging onto the rope collector. If the rope is shaken, the few still holding the collector may lose grip and the whole 'Sleeve' of mussel seed will slide down. To prevent them from sliding off the rope I would put a stiff piece of power cable through it every few feet. . I bought old Puget Power cable, aluminum on the inside, plastic coated outside that I cut into 8" pieces and put through the rope. They would be like steps on a ladder. That way the 'sleeve' of mussels wouldn't fall all the way to the bottom

GW: I thought you also thinned them?

PJ: At the very beginning I just didn't have the ability. I had a small crew but we were working on a boat. I would bring them in by the bucket full....some times bringing them to shore and to clean them. After that I had a better platform but it was all open. Mussels too small to market were thrown overboard.

JL: Tell a little more about how you started the business.

PJ: Beryl, my wife, and I started the business. She was the 'encourager'. Early on she helped clean them. At times, if it got dark before my work was done, I brought the buckets of mussels home to clean. We had a large laundry room, or mudroom. Sometimes, not often, we would work until 11 or 12 at night cleaning those things by hand.

One January the crew was working and it was so cold, well below freezing. We were working in the afternoon shade and it was so damned cold. We finally put everything in

the boat and took it to shore. We loaded all those clumps of mussels in the back of a pickup and drove over to Ebey's Landing where we set up shop in the sun and cleaned the mussels on the beach at low tide. The tide came in and cleaned up the mess. That was before the area was declared a park. .

JL: Does anything eat your mussels?

There is a big problem raising mussels in this area because of Scoter ducks. They are a large sea duck that will dive down and tear apart a cluster of small mussels just to eat one, letting the rest fall. They come in large flocks and can be a disaster. The solution is to put nets around the rafts down as deep as the lines. The nets get fouled and are a bother, but they are necessary.

Side line: Scoters reminded me of Daffy Duck. I didn't like what they did to my crop but I did like them individually. At times one would get stuck in the net and I would rescue it, too wet to fly. As I held the duck I could feel that it was frightened. After a few moments it would calm down and then I could feel, and hear, its gizzard grinding the shell of the small mussel it had just eaten whole.

In about 1984 I decided that rather than build more rafts I would try long-lines. Long lines are the preferred system in New Zealand, Korea, and many other areas. They are relatively inexpensive, accessible to harvest, and give the mussels best exposure to food. A long-line is made up of two parallel lines 100 yards long with floats about every 10-15 feet holding the lines a couple feet apart. The lines become one at each end where they are anchored. The growing lines are suspended between the floats along the 'long lines'. I put out several long-lines but after a year realized that I could not protect them with nets and I couldn't keep the ducks away.

About that time my world turned upside down. Beryl died.

I was depressed and wanted out so I decided to sell the business to of my sons Ian and Rawle. Their last payment was 1987 and they've owned it since then. The first thing they did was to get rid of the long lines.

JL: What about the processing boats that are out there?

PJ: That all took place after I sold the business. When I had it all the processing of the mussels was done by hand. In 1984 I went to Holland and I bought a mussel declumper. It was a big industry in Holland whereas it was really nothing out here. I bought the machine in 1984 but I never got it to operate properly. Since then my sons have designed something similar that works to separate and wash the mussels and to also remove the beards.

JL: I have a question about the Laotians? There was a family sponsored by the Methodist Church. What is that story?

It wasn't a family. It was one man... Songsay Khongsavanh. He was a political refugee who swam out of Laos into Thailand. He left his family to come out later. He was living in a refugee camp when the Methodist Church sponsored him, brought him here. They approached me to hire him and he was a good worker. He could barely speak English, so he and I had a game. I would ask him to give me a contrasting word like left or right; top or bottom. He was learning words fast.

One day Songsay decided he didn't want to work on the water anymore so he quit and went to work for a dairy. He worked there for a while but didn't like dairy work so then went to work at Kenny Pickard's mussel farm. Unfortunately while he was working there he drowned. That was much later, August of 1990.

JL: I remember the story. They had harvested the mussels and were on their way in. He always told the workers never to tie their boots so they could get out of them if they went overboard. But his boots were tied.

PJ: I don't necessarily think that his boots were the problem. The two high school boys in the boat were able to swim to shore at Good Beach. I think Songsay was trying to save the boat as it was taking on water and he was just overtaken. The two boys gave him credit for trying to save them, the crop, and the boat. I think he got a mouth full of water. He knew how to swim. He did get across the Mekong River. The boots wouldn't have helped him any, but the boat didn't sink. They had life jackets but they weren't wearing them.

Shortly before Songsay left I hired another Laotian named Tongsay Ayaseth. He helped find a number of Laotian women to work. They were really good and could process mussels very fast. When I sold the business the entire crew was Laotian. They were good workers for me.

JL: Who were you selling the mussels to?

PJ: I was shipping some out of state and selling to most of the better Seattle restaurants and markets.

When I took that seminar on career changes they said check to see if I had a market. First I went to the Pike Place fish markets. I told them that I was going to grow mussels and they were going to be a better quality than anything they'd seen. Would they buy them if I produced them? And they all said yes. Then I went to various restaurants, French restaurants, continental restaurants, any place where there was a chef who might know how to cook mussels. I approached them and they all said yes! So that would've been in 1974.

In 1976 when I had a crop big enough to sell, I went back to the Pike Place Market. I was wearing a sport coat and tie....trying to look official, like a business man or something. I approached Pure Foods Center Fish owned by Solly Amon. He was in the middle market. I stood there and tried to screw up my courage to go up and say "Hey, you committed to buy them. I have a crop now". What's funny is that he thought I was a food inspector so he came across to see me, to make sure everything was okay. When I told him why I was there, that I had mussels and was he ready to buy them, he immediately said "I need 50 pounds on Tuesday". I went home and harvested the 50 pounds and I think sold them at \$.80 a pound. It wasn't very much money. I delivered at that time in 5-gallon buckets. A 5-gallon bucket will hold 30 pounds of mussels. I used to heap them so I knew I didn't have to worry about the weight, didn't need to weigh every bucket. They were probably getting 33 pounds. I delivered the 50 pounds of mussels without asking where they were going and went about the business of contacting other outlets to eventually get a route going.

The following Monday in the Seattle P.I....remember Emmet Watson? On Mondays he

had a column. He would talk about all things that went on in Seattle and the market the previous week, and at the bottom of that day's column he explained that a master chef from France had to come to conduct a seminar on cooking at St. Mark's Cathedral. All the best restaurants sent their chefs to it. As the master chef was leaving Washington, flying back to France, he had two comments: One, "the butter in Washington is too watery," but two, "the mussels from Coupeville were first rate!" I had business the next day. You couldn't buy that kind of advertising!

Another digression: When I went to Spain, and looked up Dr. Figueras, he said "Are you associated with Ed Meyers?" I said no, but I knew who Ed Meyers was. Nine months before I arrived to see Figueras, Ed Meyers had been there to do the same thing, to find out how to raise mussels. Ed Meyers was a man I'd never met, but on two occasions while I was in the service I bought lobsters, delivered live from a company called Abandoned Farms in Maine. Abandoned Farms was owned by Ed Meyers. Meyers had been written up in Reader's Digest, how he wanted to get out of the stress of business in New York so bought a farm in Maine and was shipping lobsters.

As a result of Myer's visit to Spain, Abandoned Farms was the first mussel farm in the United States. The second farm was Penn Cove Mussels. Ed Meyer's farm never really amounted to anything. It was in an estuary and it was small. Ed was more interested in promotion of seafood than the actual farm production. Ed and the farm are gone now. Penn Cove Mussels is not the first but is the oldest mussel farm in the North America. Later other mussel farms started in the US and Canada but they came later and many first came down to see me about my farm. Prince Edward Island is now a major mussel producing area.

I called the company Penn Cove Mussels. My sons changed it to Penn Cove Shellfish.

JL: I have friend who just had them in Hawaii.

PJ: I tried to ship to Hawaii but couldn't get a permit at that time. They didn't want anyone introducing a live foreign specie into their waters.

PJ: Another story. When I started the business I had heard about, but wasn't concerned about, red tide, Paralytic Shell fish Poisoning. There was a Washington State publication....a bulletin....that said you didn't have to worry about red tide east of Dungeness Spit.

Periodically I had to send a small sample of the mussels to Seattle to be tested for coliform....for sewage. One day in 1977 or '78 I got a call back that said I needed to shut down the farm and recover any mussels sold that day. I was told that I was being shut down for red tide. I asked how could that be since I am east of Dungeness spit, and said I didn't even know they were checking for red tide. He said "you're shut down." Two days later I sent another sample and the count was higher.

The test is reduced to a graph where a score below 80 means that shellfish from the area can be sold. Above that number, no sales. My score was 325. The next sample was about 700. There had to be a safety factor but they wouldn't tell me. I was a bit doubtful about the test and decided to eat a couple of mussels to see what happened. I ate three small mussels raw and went home for lunch. About that time I noticed my lips starting to tingle, then my tongue felt funny and my fingertips started to get numb. I wasn't worried

because I knew from my Army training that if you get into nerve gas you get a shot of atropine. If it got worse I would go to the hospital and take care of it. What I was told later is that atropine doesn't help for PSP.

PSP, a neurotoxin, causes your nerves and muscles to cease to function. In severe cases you quit breathing and they put you in an iron lung that will breath for you until you recover. At the peak my teeth felt like they were floating but the effects soon went away.

I kept sending samples and the count kept going up . The state sent an expert from Alaska to see what was going on. Dr. Neve, who had seen counts as high as 5000, came down and stayed at our house while he studied the problem. Eventually the Penn Cove count got up to 22,000. I was out of business for six months.

The first indication that I was out of business, besides being told I was out of business, was that the ducks left. The first indication that things were better came when the ducks returned. They are effected by the same toxin.

JL: What causes it?

PJ: It's a Dinoflagellate, Gonyaulax, that's toxic. The shellfish eat it and concentrate the toxin. It is called Red Tide but it was more the color of tea. You probably won't ever see it. The red tide you can see washing up on the beach that looks like tomato soup is noctaluca, not toxic.

JL: So what happened to all those mussels that were growing?

PJ: The mussels were not affected. They kept on growing and eventually, after the plankton bloom was over, discharged the toxin.

The mussel is used as control, an indicator of red tide because it's metabolism is high and it concentrates the toxin. I continued to send in samples until I was told it was clear and I could harvest. The mussels got it out of their system and the ducks could eat them again.

JL: So you didn't lose the crop.

PJ: I lost six months of income because I couldn't sell. Penn Cove Mussels was set up to produce a product on demand. They were not warehoused or processed. I would get the order first and then harvest.

GM: How long do they grow before you get harvest the crop?

PJ: About a year. It can be less or longer. It just depends upon the season.

JL: What about the neighbors once you started putting rafts in their view.

PJ: I really didn't have any problems with anybody on Good Beach. Any problems started when others wanted to get their own farms going. Kurt Johnson set up at Race Lagoon. He had an entirely different way of raising them. He was going to raise them inter-tidally, which has advantages. He was going to raise them just off the beach on horizontal lines just off the bottom. The mussels would grow when the tide was in then at low tide he could tend the lines or harvest. It was a good idea but not for volume.

In the northern part of France, near Mont St. Michelle, they raise mussels on tall poles set in beaches that are very, very flat. There are thousands of poles that are under water at high tide and exposed at low tide. The mussel seed is collected on horizontal lines. After the mussels attach to the seeded lines they wrap sections of that line around each pole in a loose spiral. When the tides come in all the poles of mussels are flooded and the mussels grow. The excess migrate from the collecting line to the pole and when the tide is out they can be thinned or harvested. They can be accessed by vehicles, which is an advantage. Mussels are accustomed to staying closed when the tide is out, which is a big advantage in that it extends their 'shelf time'. But when the tide is out they are not feeding which is a disadvantage in that it takes them longer to grow.

Just as an aside, the farms on the east coast, Prince Edward Island, use long lines. They don't have the duck problem so they can do the long lines. It is easy to harvest in the summer but their waters freeze over in the winter. Before the freeze the lines are lowered below the ice level where they are safe. Once the ice is thick enough they pull the lines up and onto the ice to harvest. They say it's easier to harvest them on ice than from a boat. There's a period in there where you can't harvest because it's too thin. They have a problem. So everybody has a problem. We have a duck problem...they have an ice problem.

People problems started when the county decided to designate aquaculture districts. Penn Cove was one; they put another off the end of Penn Cove which would be a salmon growing area. And they chose various areas around the island where they thought aquaculture was feasible.

JL: Not in our view.

PJ: Most of them didn't have a view. I wasn't applying for anything at that point but went to the meetings and supported the applicants. "Why not, let them do it." I would go to the meetings and there would be maybe a dozen of us for it on one side, on the other would be these.....please don't take offense, but they were predominately little old grey haired ladies. I don't know what clubs they belonged to. They had a mission. I'm sure the churches didn't do it, but it was like a church was inspiring these people. They would march in and sit down overwhelming the room. At one hearing (Rep) Rick Larson and (Senator) Jack Metcalf came in. They had always been supporters of aquaculture and I thought we had friends. They walked in, looked at the few of us who were for it, and looked at the other side. When someone slapped an SOS (Save Our Shores) sticker on them they both moved to that side of the room.

GM: They counted up the votes. So I guess that was it for new Aqua farming? There hasn't been anything for years.

PJ: Eventually all of the sites for salmon farming were removed. They decided it wasn't a good idea.

JL: Did you have a lease?

PJ: Yes I had a lease of the land on the bottom of Penn Cove. The water column came with the lease. I had a lease for 30 acres until Will Jones figured out that part of my lease was in Coupeville's water so they cut off 5 acres. The district was made bigger and Kenny (Pickard) got in there with 20 acres and Tom Gunn with 10 acres. Tom never did anything with it. My son Ian, finally bought out Kenny and acquired Tom's lease as well.

There was another mussel farm in the cove, Penn Cove Seafarms. MacDonald, owned it but I think she sold out to Kenny. I might be wrong.

JL: Starting when you did was good.

PJ: It certainly made it easier. You asked about people objecting. The objections didn't come for a long, long time.

As I have said, I always had a problem with the ducks. One time I borrowed a butane cannon, the kind they use to scare birds from berry fields. It was supposed to sound like a shotgun but it sounded more like a cannon. After a few shots the sheriff showed up. Later the state gave me some shotgun shells that propelled firecrackers. They would go out maybe a couple of hundred feet and then explode. Again, they were used to scare birds away from berry farms. I tried them in Penn Cove and they worked, but you had to be on the water all the time. The ducks stayed away while we worked so I would shoot at the end of the day to keep them away, but before evening they would start coming back. I changed my tactic

I would go to the high bank below our house and hide in the trees with a .22 rifle. When the ducks came back they would come in like a fleet of ships. The first to arrive would dive and be immediately followed by the rest. I would shoot the water where they just had gone down and I guess they heard the impact of the .22, small as it was, and they would pop back up. So I would shoot the water again. That made them very nervous and at a third shot they would all leave. I would wait a little while, maybe 30 minutes, they would come back looking like a string of ants. The bravest ones we're in the lead of a single line. As soon as the first one dove I'd shoot again. Then they wouldn't come back for the rest of the evening. The next evening would be a repeat of the first. By the third, the first shot would send them away. After that they would stay away for 3 or 4 days.

One day when I was sitting behind a tree waiting to take my next shot and I heard a voice above me say "What are you doing down there? Why are you shooting the ducks?" It turned out it was a woman who lived just down the road. I told her I was not shooting the ducks, just scaring them. I could see that she was pregnant so, trying to be polite, I asked her "When is your baby due?" She said "I already had it!" We got off on the wrong foot. When she asked why I was hiding I jokingly said I was hiding from people like her. I really got off on the wrong foot then.

She went to Mary Kay Doody, (editor of the Coupeville Examiner) and Mary Kay went to the county saying the shooting distressed her. A 22 rifle isn't very loud but it was enough that the county said I had to stop shooting.

JL: I wanted to confirm something. I thought you had to put the seed mussels in the water, but I guess not?

PJ: No, the native seed mussel was already in the water after the normal spawning period. When I first started I put the ropes in and took what I got....heavy at the top and thinner at the bottom. Then realized it's not the way to go....put in a horizontal collector and take the seeds from the better zone. At the time I was just letting the seed grow without thinning them.

After a trip to Korea to see what they were doing I started their method of thinning. The Koreans started with two thin lines and every couple feet they would tie a 'rung'...a

piece of wood or whatever they had. They would separate the lines and put clumps of small mussels in the gap between the two lines just above the rung. A weight at the end of the line kept it tight to hold the mussel clump. The seed would reattach there and grow into a large clump, sometimes into a very large clump.

You asked me about building the rafts. I built that first log raft off Good Beach. I had met a Navy Seabee who was interested in what I was doing and hired him. He borrowed a generator and a big drill so we could drill holes in the logs while they were in the water. To tighten the nut at the end of the cable that was threaded through the holes I had bought a large wrench. I never thought about tying a rope to it and, sure enough, dropped it in about 20 feet of water. The raft was only anchored at one end but I thought I knew how to find it.

I had just finished scuba class. The last thing they tell you when you go out the door is "Don't go out alone. Go with a buddy." Well, I didn't have a buddy. I didn't have anybody who could help. So I went out by myself to where I thought the wrench was.

I was swimming along close to the bottom when all of a sudden from in front of me a big Starry Flounder shot up. I hadn't seen it. It scared me and I pushed up about 5 feet from the bottom thinking 'it's just a fish'. I forgot to mention that I had just finished reading the book Jaws. Almost at that same time from behind and below me this black thing came "whoosh." I almost came out of the water but before I got up to the surface I realized it wasn't a shark, it was a sea lion. I got to thinking should I be up here or be down low. I had been told that sea lions will nip fins of divers. About 30 feet away there was the sea lion looking at me as I was looking at him. I spoke to him and he left. I never did find that wrench.

PJ: The last part of the story that I didn't think to tell you was about the dock. In 1977 I think it was, I bought the dock at San de Fuca. You know, on the north side of Penn Cove. It had been a fuel off-loading dock. Before that I don't know what it was.

JL: It was actually where the Mosquito Fleet would come in and bring the mail and people and everything else. Chuck Arnold's tractor came that way.

PJ: All the fuel went into a tank farm across the road. By the time I got here they weren't delivering the fuel any more. It had been empty without a delivery for a number of years. The dock was in terrible shape. There was a fence but somebody had torn the gate out. There were pieces of plywood covering holes and kids were on it fishing. I thought I could use the dock. It was owned by Chevron so I wrote to them...I said I knew they were self-insured and that one day one of the kids was going to be hurt and Chevron going to be liable. I made them an offer and I got a reply that they accepted it. Not only did I get the dock but I got 300 feet of beach with it. Sounds good but there's no land, just the road. What I ended up with was the tidelands. I rebuilt the dock in the 80s. I had it down to just pilings and even had to add a few more because some were bad. It was all new above. That was about the same time that Coupeville rebuilt their dock. They rebuilt with pressure treated wood. I couldn't afford it. I had wood from Oso.

PJ: In 1980 a Mussel tasting competition was organized by a seafood trade magazine, Seafood Leader. It was held in Seattle at Ray's Boathouse. Of course Penn Cove Mussels were entered. Others were from the east coast, New Zealand, and Ireland. The last two were frozen and at a disadvantage. I wasn't there but was told that each entry was cooked the same but served with a different wine. Also, they were to be cooked one after the

other. Mine were cooked first but then had to sit on a steam table while they waited an hour for one of the judges, the governor Dixie Lee Ray. The final score had PCM so far out in front that the east coast entrants complained the competition wasn't fair. It probably wasn't.

Two years later the east coast announced another competition, this time in Boston, one that would be fair. To be fair the organizers didn't invite me. I only heard about it when Seafood Leader asked if they could enter my mussels for me. The day after the event I got a phone call from Ed Meyers saying "You won" nothing more. Later an east coast trade publication confirmed it. Again PCM was way out front. The score was PCM 228, second place 201, and the rest down to 185. There hasn't been another competition that I know of.

JL: Thank you for your time and memories, Peter!