

NOAA Beaufort Lab Oral Histories
Stanley Warlen Oral History
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Interviewer: JS – Joseph Smith
Transcriber: NCC

Joseph Smith: Joe Smith here. We're at the library of the Beaufort Laboratory, January 23rd, 2023. Today we'll be interviewing Dr. Stan Warlen, who worked at the laboratory. Present with our group are doctors Doug Vaughan, Jeff Govoni, Don Hoss, and Bud Cross. The last two were former directors of the lab. I believe Dr. Haas will begin the questioning. Don?

Don Hoss: Okay. This is Don, and I'm going to start off like we usually do. I know where Stan's from, because he's a fellow Show-Me State person as I was.

Stanley Warlen: Yes. Chiefs fan too [laughter].

DH: Yes. We were from different sides of the state. The different sides of the state are quite different actually. But we've managed to stay friends over the years. I've even been to Kansas City once or twice [laughter]. But I'll let Stan tell you. What I'd like you to do is kind of explain maybe where you went to school, how you got into marine biology, how you got to Beaufort. I know that was a two- or four-step process, but just a little background so we can then go on from there. After you get to Beaufort, we'll go into some detail. So, Stan?

SW: Okay. Thanks, Don. Appreciate being here and good to see you all again after years. Yes, born and raised in Kansas City, Missouri and graduated high school in [19]56 and went off to the community college and got my two-year degree there and then went on to the University of Missouri at Kansas City and got my Bachelor of Science in Zoology there, and decided, well, I need more training, more education. You get so much, but you don't get much like marine, estuarine, oceanographic sort of thing. So, I got a two-year degree or two-year program at the University of Delaware. I spent two years there and two summers at their marine lab down in Lewis, Delaware. So, I had some good experiences there and finally ended up getting my master's degree there in 1964. It was actually [19]63, but it was awarded in [19]64. Applied for work. Because I had at that time, two children, two young children, and needed some income, of course. So, I applied and got a job down at the Oceanographic Research National Marine – wasn't called National Marine Fisheries Service at that time. Bureau of Commercial Fisheries, I guess it was. I got that job in September of 1963. The job entailed a lot of oceanographic cruises on ships. In fact, I was only there a year and a half, and I had three big cruises, probably like three weeks, three weeks, and one of them was five weeks. Went to South America on the ship, *Oregon*. I don't know if you're familiar with that one or not. But this was getting to be a little bit too – it wasn't much marine science. No research. So, I decided to get away from all this sea travel and that I'd look for something else. I looked around and found the list of possible openings for the Marine Fisheries Service at that time. So, there was one here in Beaufort. I applied and got the job and came here in about early 1963 – no, [19]65, I'm sorry. Been a long time [laughter]. So, I got the job here and came in to – at the time we had two separate laboratories, the fisheries laboratory and the radiation lab, whatever.

DH: Radiobiology.

SW: Radiobiology lab. So, I spent my first few years over there working under John Reintjes. I don't know who the director was. Ken Henry may have come in later. Joe Kutkuhn was there later too. Spent my first few years there. Did a lot of the monitoring of the catch sampling program for the menhaden program, visiting all the laboratories where we had people doing

surveys and counting and studies of the catches at those places. That was soon to end because I applied to, and I got the award of being able to finish up more graduate schoolwork at North Carolina State University. The lab did allow me to take nine months up there in Raleigh, at the campus. I did that and came back here. I got a research program that you all supported in many ways. That was finally done in 1974, after some years of work and so on, early – mostly with the early life history of menhaden and other fishes. Spent my time there doing that sort of thing. Did list of all the papers, *Marine Fisheries*, of course, the senior author in many of those and the co-author in some of the others. Let's see. I think you were on one or two, Don. Let's see, there's one you and Alex Chester and RT Barber. He was not with us. We even had an occasion where we had two investigators from other countries that came here and spent a little bit of their sabbatical time. One was Perce Powles, who most of you had met and know him. He's still alive, by the way. Talk to him occasionally. Unable to travel anymore, but he did some.

DH: I think Perce saw me – he probably wouldn't travel a lot anymore anyway.

SW: Yes.

DH: He's 90, 92.

SW: I talked to him here a month or two ago. He sounded great.

DH: Yes, he sounded great.

SW: He sounded like he did thirty years ago.

DH: You know exactly who he is.

SW: Yes. The other one was – what was his name – Cesar Flores-Coto. He's from Mexico, University of Mexico. He was here for a while. In fact, we had a paper that he did. I was a co-author with him, "Spawning time, growth, and improvement of larval spot into a North Carolina estuary." It was published in U.S. National Marine Fishery Service, *Fishery Bulletin*, and [inaudible]. There's a list of the presentations on age and growth research that I was involved in here.

DH: Who was your advisor here? Was it Doug?

SW: Doug Wolfe and William Hessler on campus, those two. Not sure where he went. Did he move out to the West Coast or something?

DH: Doug's on the West Coast right now.

SW: That's what I thought.

Male Speaker: Stan, let me ask you, you were in the fisheries, what was the fisheries laboratory – and became the fisheries division. What was the situation that led to your moving from fisheries to the ecology group?

SW: The lab was getting some research money on insecticide residues, pesticide residues in fish. We were getting a large amount of money. So, for some reason, I decided that might be a thing to do. I did that for several years. That kind of ended.

MS: That led you then to the larval fish [inaudible].

SW: Yes, and that was my rest – the balance of my time at the lab, until January 3rd, 1997. I finally retired after 30-some years, 32 years. Let me say my research interests, my primary and continuing research interest is on the ecology and biology of larval juvenile marine fishes, particularly, interests include aging and growth studies employing analysis of daily growth increments on otoliths, to estimate age, growth rate, birthdate, distribution, and contribution, birthday cohorts to recruited populations, larval retention, dispersal, and transport mechanisms from offshore continental shelf spawning sites into recruitment – to recruitment into estuaries, onshore transport routes and rates, age, size, and distribution and abundance of larvae of the fall and winter spawning complex offshore and at estuarine, recruitment and movement of larvae into estuaries, transformation of juveniles, and occupation of new habitats. Those were my main interests that I pursued during my time.

DH: Any of you want to break in with a question? Do you want to ask a specific question?

JS: About – well, there is one thing that I think was a vicious – you probably published – I know you published the only paper at the lab with – on pesticides, I think.

SW: There were a couple, but I didn't do much because –

JS: Well, you had one paper with – where you used Anomura, did some deep-sea stuff. That always intrigued me as to, did you find contamination at two-, three thousand years?

SW: I don't remember that.

JS: You don't remember. Okay.

DH: That reminds me of a more interesting one, you roll on gigging flounder, I think.

SW: Yes, I did, night stalking flounder.

JS: Stalking fish in the surf, right, night stalking.

SW: I brought that one too.

JS: [inaudible] gigged a few.

DH: We had a real rash of flounder being gone here for a while. I don't know if anybody still does it or not.

SW: This is in the ocean surf. You wear your waders. You have a nightlight. You wade right on the coast. Nelson Johnson, I believe, got me introduced to doing that.

DH: Yes. I never did. I always stayed inside. I was afraid I'd fall over and drown.

JS: The big old car battery was where? On your back?

SW: Yes, back.

JS: Yes, lead acid battery.

SW: One night, I had – I went out one evening, fished, and caught 50 pounds, 80 pounds. I said, well, it's still, you know, 7:00 p.m. or 8:00 p.m.. I got all I could handle. So, I went home, recharged my battery, and went out the next morning at 5:00 and caught another 100 pounds. I sold the fish back here. You could sell them.

JS: That was mostly along Atlantic Beach and over toward Fort Macon, in that area?

SW: Yes, mostly –

JS: That's where we did it too. It really changed after they took that sand off of Brown Island and rebuilt the beach along there.

SW: It's all Atlantic Beach area, from Fort Macon, west.

JS: Boy, it messed it up. We just quit after that.

SW: I finally gave it up. I don't know whether the rules changed. I couldn't sell fish anymore at that time. Maybe I got older and didn't want to do it anymore.

Jeff Govoni: Stan, back to research. In my mind, at least, I first showed up at the Beaufort Lab in [19]75 as a student. But at any rate –

DH: That's Jeff Govoni speaking.

JG: Yes. Back to your research, feel, in my mind, you did the pioneering work on age determination, you using otoliths for fish larvae at the Beaufort Laboratory.

SW: Yes.

JG: I mean, that was – you're the one that got that –

SW: Mostly menhaden, but we did some other species.

JG: Yes. You did spot as well.

SW: Yes.

JG: It was mostly menhaden and spot. That's right.

SW: That's where I really felt my importance as a fishery research biologist and doing something [inaudible], getting new information that's not – hadn't been there available.

JG: That spun off into going to early life history section, annual level fish conferences.

SW: Yes.

JG: You get up with Perce Powles and then invited Perce Powles down here for his years of visitation at the Beaufort Laboratory. My recollection, at least, you instigated that.

SW: They became friends at these larval fish meetings. For some reason, the conversation got to a point where, well, maybe you can come down and visit with us, spend a little bit of time, and do some work. We did some cooperative work.

JG: That was followed by Cesar Flores-Cotes [sic].

SW: Yes, from Mexico. He was here for a while.

JG: He came for a year, didn't he?

SW: I think so. Because we rented a house for him down in Morehead City.

DH: Has anybody heard from him?

SW: I have not. Peter Hansen is – and him were pretty good friends and Cesar Flores. I think he's still – for some reason they were [inaudible].

JG: His English was accented, but not heavily accented.

JS: I'll ask another question. Or about that time when you were working here, when the bridge network started, were you involved?

SW: Yes. That's how we got – we measured the fish as we caught here and determined what their ages were. So, we could determine from what group of fish they came from. We measured the contribution of different age groups to the total recruitment to the estuary. We sampled every week at the bridge down here, nighttime sampling.

DH: The bridge net got started though by menhaden people before [19]58. Because I sampled with them in [19]58. Not like it was later, you know, very precise and all kinds of stuff. But we collected fish from the wooden bridge in the railroad trestle.

Doug Vaughan: Yes, I was going to just bring up – Doug Vaughan – about the bridge net that,

Stan, you and I have worked a little bit just somewhere in the [19]90s, to relate the bridge net index to menhaden recruitment that I was doing for the Atlantic Menhaden Advisory Committee back at that time.

SW: Yes. We did all our sampling, as you said, at the bridge here, weekly nighttime sampling, of course. Just menhaden was the only species that we were [inaudible].

DH: Did you do any of the sampling down 24 on – what's the first creek you come to?

DV: Gills Creek?

JS: White Oak.

DH: White Oak.

SW: West of Morehead, you mean?

DH: Yes, down south on 24, we did sampling down there.

SW: I don't think I did any down there.

DH: Okay. Menhaden probably did that.

SW: Yes.

DH: The menhaden people.

SW: We were pretty much stuck with menhaden in terms of aging. That was a big enough project in itself.

JS: Yes. But there was all that work with spot, Stan. Don't shortchange yourself.

SW: Yes. Spot was number two. Let me see here. Here's one with Cesar Flores and me, "Spawning time, growth, and improvement of larval spot into a North Carolina estuary," published in *Fishery Bulletin*.

JS: Stan, late in your career, I think you worked with Ken Able up at Rutgers on menhaden recruitment in the mid-Atlantic, I think. But I forget exactly. What I recall is there was a change from the traditional recruitment time up there, from spring to maybe summer.

SW: Well, a lot of work done by Hettler and maybe Allyn Powell. They determined that menhaden only spawned at a certain water temperature. If it's too cold, no spawning. A lot of these fish that came into Rutgers area were fish that came in during the wintertime. We said, well, that water's too cold up there for any menhaden spawning. So, we estimated and determined that the fish entering that estuary probably were spawned south, down in the North Carolina area, and the currents took those larvae up there. They ended up in the estuary up there.

So, that was a cooperative thing, where he did the sampling up there. I don't know whether we did the aging down here or not. I forget who all did – Mary Boyd was very active in all that, and some other folks.

DH: Well, Ken got really interested in comparing our inlet with his inlet with the one down at Baruch. I don't know. Something happened with that, but I forget what. I think they probably did something.

JS: Well, there was a [inaudible] paper that came up, and you were on it.

DH: I remember that. I think I was on it as a courtesy [laughter]. If you live long enough, someone will do a paper with you. Okay. Where are we now?

SW: That was kind of my history, mostly. The part I probably did the best contribution was with early life history.

DH: Do you have any particular highlights of your career at the lab?

DH: Highlights. I can't think of anything. I was very grateful that the lab allowed me to go back to school for my PhD work.

DH: Yes. A lot of us benefited through that.

SW: Yes. Thank you, and Chuck Manooch, and I don't know how many others.

DH: I don't know. There's probably about ten, more maybe. I don't know.

SW: I was able to do that, and you all paid – gave me the time off. My salary continued during that time.

DH: I did it twice. They paid me one time and made me be a student the next time. But I did have a place to come back to.

SW: Yes.

DH: I knew I wasn't going to be a starving graduate student forever.

SW: Yes. You all provided time, space, funding, help.

DH: Any particularly bad things? I mean, you don't have to name names.

SW: I wish I could think of them. There must not have been very many.

DH: Most of us had a pretty good time.

SW: Yeah, I would say I did. I can't think of any. I'll try to remember that as time goes on

maybe.

JS: Well, Stan, you also were treasurer of the early life history section for, I don't know, a long time.

SW: A long time.

JS: About fifteen years probably [laughter]. I don't know if it was that long.

DH: He could take credit, when he got that job, the Treasury was in absolute, absolute disorder. Stan, those of us who know him well, know he knows how to count pennies, and he got it straightened out before – well, in your first term, you got it straightened out.

SW: Yes, I was a member of the larval fish section. In fact, we had an annual meeting down here.

JS: Twice.

SW: Twice. One big meeting, I was sort of the, I guess, the chairman of that. Welcome the people here. We take a big photograph of people out in the yard. Were you all here for that?

DH: I was.

SW: Yes.

JS: I was.

SW: Yes. Forget what year that was.

Ford Cross: When was that?

DH: I don't know.

FC: I don't remember.

DH: John (Blackster?) came. By the way, John is still alive. He's 100. But my last conversation with him, he was in the hospital. That's not good for anybody that's that (old?). I think he got out. I haven't confirmed it.

DV: Did you say he was 100?

DH: Yes.

DV: I'm impressed. Well, that's years over the formaldehyde, and he still made it [laughter].

DH: Yes.

JS: Well-preserved.

DV: Yes [laughter]. He's well-preserved.

DH: He was like a couple of people here. They were in the last part of World War Two. But he didn't see combat. He could have. But anyway, that's how I age people.

JS: World War Two.

DH: Yes.

SW: I was fortunate that you all – I was able to go to a lot of those larval fish meetings. Most of them weren't here, of course, and in other places.

DH: Well, that was by far, in a way, my favorite meeting.

SW: I tried to make a list of all the people I worked with. There was about fifteen people there, and I'm sure I left out some [laughter]. Bud, Doug Wolfe, Bill Heller, Allyn Powell, Curtis Lewis, Dave Colby, Jeff Govoni, Pat Tester, Don Hoss, Dave Peters, Alex Chester, Peter Hanson, Mary Boyd, and probably others. If I really searched, I could probably increase that list, a lot of folks, which is, you know, you've got to have a team effort sometimes to do these things.

JS: More and more.

SW: Yes.

DH: You ever had an urge to go back to Missouri?

SW: My brother still lives there. No, not to live.

DH: So does mine [laughter]. I don't have an urge.

SW: No.

DH: Stan and I pronounce it right, Missoura, not Missouri.

SW: Yes. My sister passed away a couple of years ago. That was one less reason now to go. In fact, I went back about a year or so ago but no, not to live. I'm here. My daughter now lives up in Hendersonville, which is just outside of Asheville, North Carolina. They bought a place down – a condo on the beach. So, they come down quite often.

DV: Have you ever heard of Mexico, Missouri?

SW: Yes.

DV: You have?

SW: I can't remember where it is in the state, but –

DV: I was talking to some young lady at the Hardee's drive-through – not Hardee's, but Burger King drive-through the other day. I said, "I don't know your accent, where you're from." She says, "Missouri." I said, "You ever hear of Mexico?" She says, "No." That's where Don's from [laughter].

DH: Yes. Well, it was a real center of firebrick clay. Because everything was steamed. You had to line the boilers with – even railroad engines lined their boilers with firebrick clay. But it led the nation in production of that. It also was saddlehorses and gaited horses, show horses, and things like that. There was a tax advantage at the time, and everybody trained their horses there. Because the town was never more than 12, 13,000.

DV: Is that all?

DH: Yes. It was called the capital of [inaudible], which is completely [inaudible]. You don't say it anymore. Let's see, what haven't we done? Anything else you want to –

SW: Yes. I wish I could right now.

JS: We occasionally ask about funny stories or strange predicaments folks got into at the lab.

SW: Yes.

JS: I have one funny story that Stan may or may not remember this.

SW: Please, come out with it.

[laughter]

JS: You mentioned Cesar Flores. I knew him a little bit while he was here. That was about the time when there was a big push to catch cobia at the lab, sport fishing. I, in particular, like to sit up in the Newport River at a certain tide up there. Well, Allyn Powell would do that. You came up there with Cesar one time. I was above you. You were down river, I don't know, 50 yards from me. I didn't catch anything that day. But at one point, I see Cesar going around the boat with a bent-over rod. I said to whoever I had with me, I said, "He must have a cobia." You netted the fish. It wasn't a cobia. It was big enough to be a cobia, but it had a forked tail. Cesar's whooping and hollering. I decided to leave. I came up next to you. I said, "What was that fish?" It was a seven-pound Spanish mackerel on the bottom – fishing on the bottom, up in the Newport River. I talked to Cesar after that – a day after that, and he thought we did that regularly. I said, "No, no, no, Cesar. That's pretty rare to catch a Spanish mackerel up there and one that big, doing what you were doing, what we were doing."

SW: I don't remember that.

DV: That is something.

SW: I don't remember that at all.

DH: Sometimes, we have little blank spots that we don't remember what the other guy does, even though we were the one doing it.

JG: You know, when people retire from the lab, they do all kinds of things. I mean, some raise goats, and others leave the area. A few leave the area. Some stay in research. Since you've retired, you've been involved in quite a bit of research, continuing on, with Perce, you, and some others.

SW: Yes, a little bit. You know, he was down here several times.

JS: Okay. Well, if we're done, I guess there's no sense in wasting tape. Thank you, Stan. It took a couple of times to get you here.

SW: That's okay. I didn't realize there's a group like this that's in function.

DH: Yes. I have scheduling disease or something. I have trouble getting things scheduled.

JS: Thank you, Stan.

[end of transcript]