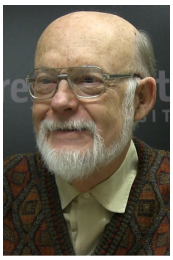

Jon Shepard Oral History Interview, January 23, 2015

Title
“A Life Spent in Pursuit of Butterflies”

Date
January 23, 2015

Location
Valley Library, Oregon State University.

Summary
In the interview, Shepard describes his colorful upbringing, including his father's pursuits in show business and the many different locations in which he lived while growing up. He then discusses the family's settlement in Kennewick, Washington, the roots of his life-long interest in butterflies, and his move to Yakima, Washington to complete high school.

A primary focus of the session is Shepard's undergraduate experience as a student at Oregon State College/Oregon State University. In this, he comments on his decision to attend OSC, his contacts with the school's entomologists, his memories of OSC's transition to OSU, and his living arrangements while in Corvallis. He likewise notes the different jobs that he held while a student, his social life, and his participation in the Honors Program, including the honors thesis that he wrote on a genus of blue butterflies and its eventual publication in a scientific journal.

From there, Shepard outlines his years as graduate student at Washington State University, his use of early computers, his strong mathematical capabilities, and his stints as a doctoral candidate at Stanford and UC-Berkeley.

The final portion of the interview is largely devoted to the Shepards' lives in Canada, where they lived from the early 1970s to 2014. In looking back on this time, Shepard recalls his and his wife's move to Nelson, British Columbia, and reflects on the city's status as a haven for American expatriates. He then shares some of the highlights of his professional career in lepidoptery, including his collaboration on a book, *The Butterflies of British Columbia*, and the strong tradition of entomological research in British Columbia.

Shepard likewise provides his thoughts on the lepidoptera community in North America, his own change in interests toward moths, the specifics of butterfly migration patterns, the strength of the Oregon State Arthropod Collection, and the Shepards' return to Corvallis. The interview concludes with a discussion of collecting and preserving insect specimens, the important role that insect collections play in documenting biogeography, the activities of Shepard's wife Sigrid, and changes that Shepard has observed in Corvallis and at OSU.

Interviewee
Jon Shepard

Interviewer
Mike Dicianna

Website
http://scarc.library.oregonstate.edu/oh150/shepard/

Transcript

Mike Dicianna: Well, today is Friday, January 23rd, 2015, and the OSU Sesquicentennial Project is capturing the life history of Jon H. Shepard, class of 1963 in the Department of Entomology. We're in the Valley Library on the OSU campus here in Corvallis, Oregon. My name is Mike Dicianna, I'm an oral historian for the OSU Special Collections and Archive Research Center.

And basically Jon, what we like to do is start out with a brief biographical sketch. Give us a little history of your early life, like where you were born, where did you go to elementary school, that kind of thing.

Jon Shepard: OK, that's quite colorful too. But I think my actual degree was the honors school in Biology, rather than in Entomology. It wasn't in Entomology or Zoology.

MD: Yeah, that department has morphed.

JS: No the department was there, but I didn't want to take the prerequisites of either Physiology or Zoology or Applied Entomology courses, so I took the honors Biology because all that was required was x number of upper-division courses. The prerequisites were just whatever was agreed to between you and your faculty member to get the degree, your faculty advisor.

MD: The different days of the Honors College which is today an actual Honors College. Anyway, let's go back to where were you born and early days.

JS: Well, I was born in Weiser, Idaho in the February before Pearl Harbor. My parents had spent the previous ten years, the first ten years of their marriage, in the L.A. Basin, where my father was the foreman of a Shell Oil seismograph crew and on the weekends sang in the nightclub where Jack Benny was comedian, and tried to have a Hollywood career. He decided just before the war that maybe that wasn't a good idea. [laughs] Then we went back to my maternal grandparents' dairy farm and ice plant and dairy business in Weiser, Idaho.

MD: Childhood memories about growing up during that time? Elementary days and high school days and that type of thing?

JS: My father was always trying to earn a million dollars, so I lived everywhere as a child. After the war we went briefly to Portland, where he worked for a company that made bar mix supplies, and we had the California distributorship, so we lived – from when I was four years old until I started grade school – we lived in an Airstream trailer and I had dinner with the showgirls every night at the nightclubs. [laughs] I had a very unorthodox upbringing.

And then when I had to start school we moved back to my paternal family home in Kennewick, and actually my mother's family originally had been there too. So I was mostly there through junior high school, and had a very rough time period in the Tri-Cities, when there was huge construction gangs and sixty to seventy percent of the people, if not more, living in trailers. Very rough situation. And then I moved to Yakima for high school and hit the ground with both feet, and was in college prep courses when I had been getting C-minuses to that point.

MD: So what did you want to be when you grew up? Did you have a direction?

JS: Well, I always knew I was going to go to university, that was just a prerequisite of expectation in the family. I did not want to do what my father wanted me to do. And in junior high school, I was encouraged in General Biology to study insects and that hit. By high school I was focused on butterflies, and I'd been helped very much by the librarians in Kennewick in my eighth and ninth grade. They got, on inter-library loan, every single book every published on North American butterflies, and I had read them all by the time I was through the ninth grade. I think that really fixated me. It turned out – I didn't realize why they were so nice – but they were both women of English extraction. One had had an invitation to Queen Elizabeth's coronation and she gave me the outside envelope for my stamp collection. It turned out my great aunt had started the library and they knew her. And as a child I was oblivious to all that, but I think that's why they helped me so much; it was just that family connection.

[0:04:50]

MD: So that was early mentoring that kind of directed your life.

JS: Yeah, and when I got to high school – as I said, I hadn't done well in school, because it was a very rough school situation with teachers who shouldn't ever have been hired, and all kinds of difficulties. But my father's high school French teacher was the women's consular in what was then Yakima High School, and she immediately helped me get into college prep courses even with my poor grades. Because my father had gotten nothing but straight A's, she figured I must be smart too. Turned out she was reasonably accurate. [laughs] But I didn't get straight A's and never have because if I didn't see how a subject could apply completely to butterflies, I'd only get a B and not an A.

MD: What influenced your decision to go to Oregon State College at the time? Did you apply in a lot of schools?

JS: Well, I had already, even in high school, I had gone to Washington State University and University of Washington and down here, asking for help. And I realized that the academic program here was better than any others. At UW all they wanted to train in zoology was physiologists, and Dr. Hatch, the famous beetle man, he was about to retire and only wanted students studying beetles. And the same at Pullman; Dr. James at Pullman was an extremely good friend, I went there after my bachelor's degree to get a master's degree. But he only wanted people to study on flies. And I was so determined I was going to study butterflies – and stubborn, probably most people would say – that I chose Oregon State because there was a lot more academic freedom, so to speak, as an undergraduate. And there was also enough diversity of faculty members that you could find somebody to mentor you in just about anything. The other schools were much narrower in their approaches.

MD: Well and our king of the butterflies was Professor Ernst Dornfeld.

JS: Yeah, Dornfeld was here at the time. I didn't know about him until I actually got here, but I knew the people in Entomology. At that time, the Entomology Department, even most of the applied entomologists, really knew the importance of systematic entomology or classification, and they were world specialists in their area of taxonomy. So there were at least half a dozen faculty members. I worked for one who studied robber flies and part of earning my undergraduate money was bibliographic work in the library. But there was two beetle specialists – Dr. Oman on the leafhoppers, Jerry Krantz on the mites, Dr. Lattin on true bugs and, of course, Dr. Dornfeld in the Zoology Department. So there was an immense strength in systematic entomology at the time I came here.

MD: So that was one of the bigger influences then, of you coming to Oregon State? Because it fit your academic goals?

JS: Right, and I didn't want to go to the University of Washington because it was in a big city and I never have liked living in really large cities either. And this also, I knew, had the best library outside of the University of Washington in the entire Northwest, so I knew I'd have to access to library issues.

MD: Yeah our library has been renowned for many years. And when you were here, actually, was when the Kerr Library was built and opened on this site right here. So you date back to our original library building here.

JS: Yeah and I spent many an hour in the library, both working for Dr. Martin on these asilid flies and working on my own stuff.

MD: You have one of the distinctions of entering Oregon State College and graduating from Oregon State University, because of the change in 1961. What are your memories of that changeover, when we became a university – was that a big deal?

JS: Oh it was a very big deal. And really the most important thing – the big deal – about it was there were finally degrees that weren't in the sciences; there were arts degrees and humanities degrees as well. And I took Shakespeare courses, sculpture courses. My sweetheart was an artist and a history major, so I tried to take courses so I'd understand what she was doing. [laughs] So I really liked the fact that it was a very balanced academic program again. Of course, from the Depression on, it hadn't been, because Oregon made the right choice then to make sure that each school could keep its strengths, which had not happened in Washington. And that was particularly detrimental to Pullman more than UW because UW had so much more endowment and wealth that they didn't suffer as much during the Depression era. But Pullman tried to have an academic humanities program all through that era, and except for philosophy it wasn't that good.

[0:10:29]

MD: When you were talking about taking Shakespeare in the Theatre Department, those type of classes, who were some of your professors? Do you remember?

JS: I don't remember the names; it was Shakespeare in the English Department, not theatrical – I would have been terrified to get up on a stage. And then the sculpture class was an evening class and it was with all faculty members; there wasn't any undergraduates, it was all faculty members taking this extra sculpture course in the evening. And it fit in with my extremely odd schedule that I could squeeze it in. And I took two courses in the Philosophy Department – logic and I forget the other one, but I remember the logic one in particular. And those sort of things wouldn't have been available – that particular range of courses – in any other school.

MD: So you ended up with a more well-rounded education from Oregon State than you would have from some of those just science-oriented-

JS: And I think that's been the strength of Oregon State ever since that change, is that they've offered well-rounded programming.

MD: What were your living arrangements while you were here? You entered college in '58 or '59?

JS: No, I entered in '61. I was there only my third and fourth years, because I went to community college mostly before that. And I stayed the first term in a dorm and utterly did not like it, because I put down I had no prejudice about roommates and wound up with two foreign students who, it was difficult because they just were not used to living the way we live. Like grinding out cigarette butts on the floor until it was covered in cigarette butts and stuff like that. [laughs] So after that I just lived in different either rooms or small shared accommodations where we could cook our own meals. And I did as much of my own cooking as possible.

MD: Boarding houses?

JS: Well no, just like a basement apartment with three other guys and a little kitchen area; that kind of thing.

MD: You didn't pledge a fraternity or anything like that?

JS: No, I did not. I figured I didn't have enough time for a social life.

MD: Well let's get into that, because there's different experiences that people have while they're undergraduates. So other than classes, did you have any other activities?

JS: Well I worked twenty hours a week. As I said, I mentioned earlier I did the bibliographic work for Dr. Martin on his asilids. I was a Monday night extra house boy at a sorority house, because that was the night they'd have outside guests and have their special meal, and so they needed an extra server. And of course, you were sort of expected to be an extra boy if somebody needed an escort. But because I was already courting my wife, I was too busy with that to be an escort. [laughs]

One term I cleaned the steps of the student union all term, every morning. And various other – I had to work constantly, twenty hours a week, and took slightly more than an average load because I didn't quite have a full two-years' credits when I came here, so I had to make that up as well.

MD: Were you one of those students who went to sporting events and dances and things like that?

JS: Well, I went to the football games, because Terry Baker was here and everyone was excited about that. But other than that, my only social activity – other than living with two other students who were lepidopterists as well – was I went to the international students' thing, and went to all their meetings and social events and dances and that. During debate in high school, I argued pro-United Nations at a time when that wasn't popular, and I was very interested in international things. Plus entomology is a very international subject in terms of the agricultural and applied area of it. So I knew I needed to know what the world was all about.

[0:14:56]

MD: And the world was changing.

JS: Yes, it was changing drastically at that point.

MD: Yeah, because it's the early days of student unrest and student activism. Did you run into any of that at all?

JS: There was none of that at Corvallis during that time; in fact I'm not sure there was that much outside of, perhaps, Berkeley and New York City. Even when I graduated in 1963, I think the most active thing was what my future wife did at Western in Bellingham, she was head of the model United Nations at her school, and sponsored Gus Hall speaking on campus. And you can imagine, in the late '50s early '60s, what that brought on. Including she debated someone from the Veterans Association, and when she quoted Jefferson as supporting free speech and he called her a communist, she said, "well are you calling President Jefferson a communist? I just quoted him," which that shut up the debate. [laughs] All of the women in my mother's family were very strong women like that and that was one of the reasons why I was attracted to my wife.

MD: You were in the Honors Program at the time, now it's an Honors College, and I understand it was in Biology. Let's talk more specifically about your studies here at OSU, like your actual major and your primary interest in research.

JS: Well, my primary interest period was in learning everything I needed to learn to apply it to butterfly research. And the reason I took the Honors College – it hadn't really occurred to me until I got here, I had just sufficient grades to do it – but it allowed me to choose a set of courses that I wanted to take, rather than meeting prerequisites for a degree. So I took mostly graduate-level courses – 400 and 500 courses, and the 400 ones were, if you were a grad student, you could take them for 500 credit. So most of my classes in the Entomology Department were all 400- and 500-level courses. And even in Zoology, well I took the third- and fourth-year courses in Zoology and Botany.

MD: So you were basically functioning at a higher level than a lot of your peers.

JS: Yeah. My community college in Pasco, Washington, it had just been established as anything other than a trade school at that time, and many of the faculty there had Ph.D's or went on to get them. So it was a very unusual situation; most rural community colleges now are not that way, even the academic – in quotes – courses are not taught by people as academically oriented. And luckily the entomology course was taught by one of Dr. Hatch's students, it was Dr. Boney [?], and he went on to be dean of sciences at Portland State University. So I was extremely fortunate where I fell in the courses that I took.

MD: This is early in the history of junior college, community colleges, and the movement was just coming across the United States.

JS: Right and having an undergraduate entomology course in a community college, it was probably the only one in the west at the time. And maybe not any now because they just don't teach that level of course normally; it would normally be a third year course. And I was given credit for having taken the course, but not given upper division credit for it, because I had taken it as a 200-level course. But all those things, I was almost prepared to be a graduate school by the time I got here as a third year student.

MD: You said that you did an honors thesis – which is still practiced today – and it was published, which is kind of novel for that time period. Tell us about that process and your research for your honors thesis.

JS: What I chose for my thesis was to follow up a Nabokov publication on a genus of blue butterflies. And he had reviewed it for all of North America, but he had very little material for the Pacific Northwest, and at that time there wasn't much material, even in collections here. And because of my interests – and I'd been on forestry lookouts two summers before coming here, and I'd collected in the right habitat – I had a lot of material to get a good picture of what was in the Pacific Northwest. So that was my thesis to do that. And then, when I decided to publish it, there was a brand new journal starting called the *Journal of Lepidoptera Research* which, the other journal, *Journal of Lepidoptera Society*, was more a journal for collectors and not – now it's a better journal, but at that point it was mostly very collector/amateur-

oriented papers. So I decided to publish it in this new journal, it got accepted, and I was happy. And went on to grad school. [laughs]

[0:20:21]

MD: During that period, that's probably a pretty big deal, having an undergraduate have a-

JS: Yes, I would assume that none of the other students did get their, quotes, research papers published, but I don't know that. It wouldn't have been too many of them. Probably more in the humanities than in the sciences; in the sciences it would have been difficult.

MD: You had mentioned that your paper was kind of controversial with Dr. Dornfeld?

JS: Well, it was in the sense that he did not do a lot of genitalia dissections, which in some of these difficult groups, both male and female reproductive anatomy is skeletized and not soft tissue, so you can study the structure of it. And that's a traditional thing that's done across insects in general, but not butterfly people, for the most part, other than a group called skippers. And so I was doing these dissections and I was able to sort out, see and show that things below 3,000 feet were one species essentially, and above 3,000 feet they were another species. And they were quite phenotypically different between the two species in western Oregon and Washington, but not in eastern Oregon and Washington. And Dr. Dornfeld assumed it was all one species in eastern Oregon at the time. But he very graciously lent me material and I dissected it out and I brought it back and said, "I think there's two species, Dr. Dornfeld." He was a little bit upset at first, just because he was so sure he had everything right, as we all are. But by the time his book was published he'd accepted the results. [laughs]

MD: So you had an influence on one of the greatest entomologists that we've ever produced, I guess.

JS: One of the best-known ones. But he was probably better known for his cell biology work; that was his true research. But he just loved butterflies, so he kept that up as his extracurricular activity for his whole life.

MD: Would you consider him one of your mentors while you were here?

JS: Oh definitely. I had much more interaction with Jack Lattin, this person who taught insect classification in the Entomology Department, but definitely I spent time with Dr. Dornfeld out in the field with him, and at his home looking at his collection and things. But he was an extremely busy man, he was the head of the department at the time, so he did not have as much time to spend with students.

MD: We have his collection here and he passed away in 1983, I believe.

JS: I think that's about right.

MD: Because he came here in the late 1940s.

JS: And he was near retirement when I was here and wrapping up his career as department chairman and all that; as I said, he was very busy at that period. And as soon as he retired, he spent full-time on his book until he got it published.

MD: You alluded a little bit to this, but how do you think this program – the Honors Program at OSU – prepared you for grad school and your later career?

JS: It definitely prepared me well for grad school in that, before coming here, I was somewhat unsure of myself because I'd done so poorly in school until high school, and I had a lot to make up for. Taking those grad student courses, mostly with graduate students, certainly made me feel like I could hold my own in the world. And academically, by the time I actually got to graduate school, there weren't too many courses left to take in entomology, because I'd taken them all as an undergraduate. So I was very well prepared that way, and I was able to take more supportive courses in botany and zoology, and geology courses to understand the butterflies and moths better. Because I'd gotten all that out of my system of taking entomology courses as an undergraduate.

MD: We kind of joked about being a nerd when you were in college here, did you have peers that were just as nerdy as you? Were you guys a different group in 1963?

[0:25:01]

JS: Well, as I said earlier, two other students that were keen about lepidoptera, one was an undergraduate – David Mays – and then a graduate student getting a master's degree, Noel McFarland. And particularly Noel McFarland and I were just buddies the whole time. We practically ate dinner every night in the student union – in those days they served a real dinner every night. And on Sundays we'd go out and have chicken dinner at this restaurant that three retired ladies ran where they made really good chicken dinners. [laughs] And his study was moths in McDonald Forest, and he actually lived at one of the cabins at the Oak Creek gate where the nature center is now, and monitored and surveyed all of what are called macro moths, the larger ones, which is about half the total species. He taught me more about lepidoptera than anybody else, because none of the faculty's specialty, other than Dr. Dornfeld, was lepidoptera, and his was only butterflies. So I was exposed to moths with Noel McFarland, and kept that up ever since too.

MD: Are there any other reflections about your time here at Oregon State University and your graduation and things like that, that you'd like to add before we move on?

JS: Yeah, I think so. I don't think I was considered a nerd, because I was fairly sociable, though I didn't have the time to spend a lot of time. But like in genetics class, and I think that was in the Zoology Department, at the time, I tutored everybody who was having a hard time with their genetic problems. I probably tutored maybe fifty people. We'd have these work sessions on how to understand genetics problems and to me it was just math, and I'm a whiz at math, so I had no trouble with it. I don't think I ever missed a point in genetics just because to me it was a math problem. In high school, both my junior and senior year, I had the highest score on the national math test in the school. So that's how good I was at math.

MD: So you graduated with an actual degree in biology?

JS: Yeah, it was a B.S. in biology, honors.

MD: OK. And so when you went on to your graduate work, did you apply to a number of schools? Or was there a certain place where you would be expected to go in your field?

JS: Well I was asked to apply and go back to Pullman, I'd been there my very first semester of college and I knew Dr. James and his family. And he wanted me to come back there, so I only applied there, at the time. And that was a degree on numerical, or research on numerical taxonomy, which at the time was a somewhat controversial subject. It was mathematical analysis of morphology and everyone promoting it were in Kansas and they were saying this was better than traditional systematics and it was going to replace it. And Dr. James wanted to apply that to one of the two families he was the world specialist on, which was the blowflies. So I worked my master's degree on that. And he was extremely a gentleman and not a typical faculty person. He let me publish that on my own, without his name on the paper, and I published it in *Systematic Zoology*. And that normally would have been a Ph.D., but it was a master's degree, considering the work I did on it.

MD: Now you were there from '64 or '65?

JS: From the fall of '63 for two years. And the only entomology course I took, I took two of his courses and an anatomy course. That was the only entomology courses I took, but I took botany and zoology courses there.

MD: So you were working as a grad student and you're a working entomologist, basically?

JS: Yes. It was an NSF grant, so I had a full scholarship and just worked on the research.

MD: And this was cutting edge research; early days of being able to do statistical work because of the developments in – that's something in a lot of fields that you start seeing is the early computers changing the paradigms.

[0:29:48]

JS: It was punch-card days. I didn't actually publish the paper until I got up to grad school at Berkeley three years later. Because I couldn't, at the time I did my thesis, there was only one way to cluster - what they call cluster analysis to group the correlation coefficients between each species based on the morphology. By the time, three years later, there were six different clustering techniques and it was all canned computer programs so you could do it. So I did the punch card entry of all of it, and put it in, and when I published the paper it was published simultaneously with a paper, if I remember correctly, by a women working with a group of vertebrates. And we both debunked numerical taxonomy, saying it made mistakes. In my particular case, it was trying to say the Galapagos Island species were most closely related to South Pacific species, when it was clear they were derived from South America. There were special characters shared only by South American and Galapagos Islands, and one was Cocos Island, I think it's pronounced – C-O-C-O-S. And I stood up in triple-AE meetings and confronted the people from Kansas who were promoting numerical taxonomy and said so.

MD: So that was the old technology versus this new wave that was aided by computers.

JS: And it's happening again now with DNA analysis. The people pushing the DNA analysis are saying – some of them, not the faculty member here, Dr. Maddison is very good at this – but a lot of people are trying to say, "forget about morphology, DNA is the answer. And if DNA separates them, they've got to be two species, etcetera. Or a higher classification as well." But again, groups that are extremely well-known taxonomically, where we know they share these unique morphological characters, often the DNA analysis – or not often, but sometimes at least; maybe ten percent of the time – it's different. And so I think the DNA analysis is better than numerical taxonomy, per se, by far. The same mathematical techniques are being used to analyze the DNA data as the previous morphological data.

MD: Well that brings up something for later, but how has the science changed over your career, from the mid-1960s when we're just starting with computers to today when we're dealing with DNA? You've seen a lot of these changes within your specific specialty, but science in general, the advancements that you've seen?

JS: Well an awful lot. It doesn't affect traditional insect classification as much, mainly because so much of it is large groups, or there are so many undescribed species still, you need to do the traditional taxonomy because you don't have enough time and money to do as much molecular DNA analysis. Though that is, more and more, that's becoming the trend and probably will become completely the trend very quickly. But I think to me, the most revolutionary thing about the computer age is I can type a paper and make all my own corrections, and it tells me if I've misspelled a word. [laughs] Instead of writing fifteen copies of it with carbons and swearing that I hit a wrong key.

MD: Or having a typist do the typing for you.

JS: But as far as analysis of things – and I guess it's partly my mathematical abilities – I can roll through numbers and add them up so easily that I can almost do the numerical analysis in my head. And I'm not trying to brag about this, and I know not everyone can do that, but I inherited it from my father; he was the same way. So to me sometimes things seem obvious – it's almost autism. [laughs]

MD: Yeah, mathematical savant.

JS: Yeah right. And that's the only way I can explain it.

MD: Let's change gears again. I'd like to find a bit more about your career in entomology over these decades. So you're out of school basically. Now I understand you didn't do an actual dissertation as a Ph.D.

[0:34:51]

JS: No. After the master's degree I went to Stanford for one year and did not like it, because they were the very first school to push nothing but cell biology and DNA analysis, and I was not prepared for that. So then I taught for two years and went back to school at Berkeley and finished everything but my thesis on a Ph.D. I had a choice of either working for the State of California Department of Agriculture identifying insect pests or going back to British Columbia, where we taught for two years, and reestablishing ourselves. And because of my wife's health issues, I chose that.

It was death to have been a student at Berkeley in those days; that was a period, '68 to '72, when I went into the student job center to look, they said, "don't even bother to apply to a community college in California, because if you've gone

one term at Berkeley, they'll never hire you as a teacher." So the world was set in those days; it was more polarized than it is now. Now it's a stupid circus act polarization; then it was real polarization. And literally you couldn't get a job in a rural area if you had any taint of being liberal. And to work with a Ph.D. in classic systematics, there were very few jobs, and most of them were in eastern cities in the [unintelligible] of museums, which my wife could not have lived in those situations. So I just decided not to finish the Ph.D., go back and teach community college, and do what I could on lepidoptera.

MD: And so basically your career as an entomologist involved teaching but also working with your specialty in various capacities.

JS: Yeah. I just did my own independent research for that whole time. The first two years when I lived in Canada, when it was still a liberal arts college, you could get a research grant in Canada, but only people who were faculty members could get the equivalent of National Science Foundation grants in Canada; they call them the National Research Council. You cannot get independent research funding if you're at a community college or an independent researcher in Canada, it's always been only the university faculty. So most of my teaching was in community college situations where you couldn't do that. So I just continued to amass my collection and study it as much as I could.

MD: And this was where exactly?

JS: Nelson, British Columbia, which was one of the centers of the anti-war movement. It turned out when we went down to Berkeley in the summer of 1968, that was the beginning of the real protest of the war. And that winter there were courses of what was called the Free University on what to do about fighting the war. And the three solutions were either move to Bellingham and help draft dodgers get across the border; move to Vancouver and house them; or move to the Nelson area – which is called the Kootenais – and be a hippie farmer and hide from the world. So we went back that summer of '69 to visit our friends in Nelson, and here were 3,000 American immigrants totally changing the social structure of where we lived a few years before that. And we didn't even know it until we got there.

MD: That's an interesting time for Canada as well as the United States then. A different type of protest, I'm sure, with Canada.

JS: Well Canada – Pierre Elliott Trudeau was the prime minister at the time, he was not in favor of the way, did not get along with Nixon, they would hardly speak to each other. And at that point, immigration officers at the border could approve people's status as an allowed immigrant; that was all it took. And as it turned out, the person at the local border crossing near Nelson, he was very much against the Vietnam War himself, so if anyone was coming to the border he'd just virtually carte blanche allow people to immigrate.

MD: I wonder if this was something that was all along the border?

JS: I don't think so. It depended on the border crossing. And there was as much diversity of opinion in Canada about the Vietnam War as there was in the United State. Lots of Canadians joined the American Army during the Vietnam War.

I didn't go to Canada because of that. I assumed I was 4-F and I was practically past draft age by then, I'd been in graduate school. But I was born deaf in one ear so I couldn't take officer's training in university and, in fact, was denied that because I was deaf. So I hadn't even thought about being in military until I moved up there. When I moved up there, my local draft board went berserk. And I said, "I'll volunteer for a physical, I won't pass it." I did pass it. But my wife had been malpracticed on at the Stanford Medical Hospital, and the doctor wrote the letter that got me out on her physical problems, because she was just virtually an invalid that first year we lived in Nelson in 1966. And after that I was past draft age.

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But it was very interesting, I was trained in Pullman by Dr. James. He was the best-known medical entomologist in the country at the time and he headed up the American effort of pest disease control during World War II. I said, "well, if you want me, I'll come in as a medical officer." They refused me, said "you're not physically qualified to be an officer." So I was not happy about that. And it turns out that, in the last five years with documents becoming unclassified, they were

drafting a lot of people as enlisted men who should not have passed their physicals because there were so many people avoiding the draft.

MD: And they needed the bodies.

JS: And they needed the bodies, and they obviously passed me thinking I was a draft dodger. Between that and some physical things that I won't mention, I should never have been in the officers. But if they had put me there, you can't tell the direction of sound if you're deaf in one ear. If I was on the outside of a platoon, we'd have all been dead because the enemy would have come in and I wouldn't have even known they were coming. It was absurd, the situation. But that's what all the anti-war movement produced was not a very rational draft board decisions; or not the draft board but the physical exams.

MD: So Nelson was kind of an expatriate community?

JS: Yes, very much so. It turned out that two of the people that were doing all of the bombings – I can't remember the name of them – they were there hiding for a short period of time. I don't think they were ever caught there, but the RCMP were looking for them. In fact, at one time, we were pulled over by the side of the road and questioned for an entire hour, and they didn't say why. But it was during the period that they were looking for those – I forget what the group...

MD: The Weathermen?

JS: Yes, the Weathermen. It wasn't the Patty Hearst group, it was the Weathermen group. But of those people that came up there, at least all the men were definitely, almost all of them were draft dodgers. And sometimes their younger brothers came before that came up. The women came there because of their partnerships with men, but they were obviously politically liberal. But I wouldn't say they were as emphatically against the war. Many of these people today won't come back or cross the border even though it's amnesty and everything else. I've never felt that way about the United States.

MD: So basically you spent most of your professional career in Canada?

JS: Yes, almost all of it. Because of the timing of the situations there wasn't as much employment because, the trouble with 1972 when I left Berkeley, is it was the end of the Baby Boom enrollment, and enrollment was stagnant or dropping at universities. So it was a time period of not very many university jobs, or teaching jobs as much. So I did lots of sabbatical replacements for friends when they went away for a year, or various things like that. And contract work for the Ministry of Environment and Forestry, and whatever one could do.

MD: Now I did some research on you and one of the things that comes up is publications and books. You had a co-author for your book about the northwest butterflies.

JS: Yeah, *The Butterflies of British Columbia* was co-authored by Chris Guppy, and he's related to Guppy of guppy fish, an old English naturalist family.

MD: Oh, wow!

JS: He was starting to be interested in butterflies and moths just about the time I moved to British Columbia, and we worked for all those years together.

[0:44:58]

MD: So that was a collaboration for those books?

JS: Yeah. And I was always very interested in British Columbia because it was much better known than anywhere in the United States part of the Pacific Northwest. Many of the early immigrants were English second sons of lords and whatever, and they were well-educated, and it was a gentleman's hobby to be a naturalist of one sort or another. And so many of them collected butterflies and moths. And to give a good idea of how well-known it was, a lepidopterist based in Los Angeles, Gene Gunder, did a series of papers in 1929 of the most important lepidoptera collections in North America, which he did ten papers in ten issues of a journal. And one of them was the museum in Victoria. And only other

ones in the entirety of the west of the Appalachian Mountains – I guess maybe Carnegie is west – would be the L.A. County Museum and the California Academy of Sciences, at the time in 1929. So it was the early study of the area, would have been 100 miles to the U.S. border, British Columbia was better known than any place outside of New England and Ontario previous to World War II.

MD: So it was a hotbed of entomology.

JS: [laughs] Yes, for that period. In fact, Washington State University's best-known graduate student entomology was originally in high school in Bellingham, a Victorian, and they moved to Bellingham and he went to school at Pullman and got both pharmacy and zoology degrees. Pharmacy first and he actually taught in the Pharmacy School and then got a master's degree in entomology. He was trained by a person who was the head of the lepidoptera collection, of his own collection, and curating a provincial museum collection, who started studying microlepidoptera, the very small moths. Things like spruce budworms and various other small moths. Anyway that gentleman, Dr. Clark, became, at the end of his career, the head of the whole Smithsonian Institute's insect collection area. And so he learned that from that British expertise that was at its peak before the Depression.

MD: I also found a lot of publications, and then you're also involved with many of the societies all over the Northwest it appears, because I run into a lot of their newsletters that you're quoted in or contributed to for entomology societies.

JS: Right. I mean, I've always been outgoing to contact everybody else and help everybody else that's interested in lepidoptera. So over the years, whatever grad students in lepidoptera that knew me, if they contacted me I would send them specimens to study for their research projects. I've been what's called a regional coordinator for the Season Summary Lepidoptera Society for, I think, over forty years now – 1974, whatever that is. And that, every year, brings in all the new records that are county records, state records, provincial records, and range extensions within a county. So I've corresponded with people all of those years because of having coordinated that and verified identifications when they might be questionable, and all kinds of things.

MD: So you've probably got colleagues and contacts in the field all over, but do any of them tie back to Oregon State?

JS: Only Noel McFarland, who now lives in Arizona. Well, there are two lepidopterists – one who was a faculty member here for a while and his graduate student is now at the University of Florida. I contact them when necessary. But my interests have changed much from butterflies to moths. As I got older I realized I could not do the physically demanding field work of, not chasing the butterflies, but you still have to hike to where you can catch them when they're pollinating, sitting on flowers and that. To moths, where you can just set up a light trap and collect the specimens and process them and study them. [laughs] And so I'm beginning to develop a set of contacts with the moths, but before it was all butterfly work. And still people contact me and vice-versa.

[0:50:13]

MD: I imagine it's a close-knit community.

JS: Very. Everybody knows everybody. There's probably, maximum, three-hundred people in all of North America that seriously work on lepidoptera. And really seriously, probably not more than a hundred.

MD: This gets back to the actual research itself, when you look at these species are you looking at their entire life cycle, what they feed on? The entire life of this one moth or butterfly?

JS: Not always. Another reason that British Columbia was important to me, I've always been very interested in how the glaciation affected the distribution of the butterflies. And it's obvious that British Columbia was almost completely glaciated during the last glacial period, so where did they come from when they came in? So a lot of my work has just been trying to map the distribution of those almost two-hundred species in the Northwest – maybe over two-hundred when you count the ones that only occur in southern Oregon and southern Idaho, that aren't in British Columbia. And so I was trying to develop this overall picture of where they came from. So I emphasized that rather than studying the life histories because other people were keen about that. I incorporated that information, but I didn't contribute original contributions to that.

A lot of my real contribution is getting out in the field and sometimes extending the known distribution by over a thousand miles, that kind of thing, and getting a clearer picture of the distribution of the butterflies in the Northwest. And I was doing this along with Chris Guppy in British Columbia. The people down here were doing it – Dornfeld, of course, in Oregon and John Pelham, who works as an associate at the Burke Museum in Seattle. And then, later, John Hinchcliffe, who used all of our data and made atlases of both Oregon and Washington butterflies, and mapped out the know distribution of everything. And Idaho, the material is now at the University of Idaho but it hasn't been databased and incorporated as well as Oregon and Washington and British Columbia. But my aim was that overall picture of the glaciation. And of course, you had to know what the larva food plant was to see how that correlated to the glacial refugia and moving in British Columbia as well.

MD: A lot of butterflies are migratory, right?

JS: No, actually that's a misconception, because they make all the news, particularly the Monarch. But the Monarch is the only truly migratory thing that we know goes back and forth every year. There are some other species that are definitely immigrants in that they move north every year. No one has ever studied, in detail, and no one thinks that they move south. And all of what are called painted ladies and the red admiral, they all definitely have to overwinter in at least the milder climate of southwestern Oregon, and in winters where it isn't a really bad winter, they can winter as far north as southern Vancouver Island. But it's clear that on the east side of the Cascades at least, all of these painted ladies and red admiral die out every winter.

Because you see them in early April but – the year I was going to school at Stanford I went, during Spring Break, down to Baja, and the painted ladies and what are called the white lion sphinx, they were out in huge numbers there. I followed that year as we moved to teach in Nelson up at the Catholic liberal arts college, we essentially followed that movement as they would migrate north, have another generation, and then migrate. And you could see that they were moving north, and they're known to do that in Europe as well – I didn't know it at the time. But now that there are better books describing these things in Europe, not just in academic journals where it was hard for us to access, they've documented for these same groups of butterflies and moths that same northern movement every summer.

[0:54:59]

MD: This is all fascinating.

JS: Yep. But that's only another five or six species out of the two-hundred-plus in the Northwest, and the rest are all non-migratory.

MD: They do – they get depressed.

JS: Yeah.

MD: I know that you're now back here at Oregon State working with the Oregon State Arthropod Collection. I did some research on it, which sounds fascinating – the website talks about how the collection was begun in the 1870s as a reference tool for the early entomology classes here at Oregon Agricultural College at the time. And it's now one of the larger university insect collections in the country. What's your involvement with the collection here?

JS: Well, this last summer I decided – I've wanted to for a long time – we decided finally to move to Corvallis, partly because of our age and it being hard to live in an area where there was frequently snow on the ground at the end of every winter. But also I wanted to volunteer curate in the collection and donate my own collection, and I made up my mind to do that donation as soon as there was the Rice Endowment for a faculty member to teach systematic entomology. And that was a turning around point for the collection. It was still, even then, the best collection in the Northwest, but the fact that it has an endowed chair, meaning there's a faculty member who will look after that collection, has encouraged a lot of people to donate their collections here rather than other depositories in the Northwest.

And I also did it because, well the other alternatives were either Pullman or Moscow, the universities there, for Northwest, or the University of British Columbia. And I felt the academic program here was the best and none of the others have endowed chairs or were likely to have endowed chairs. And the library here, of all those alternative Northwest collections, has the strongest journal holdings in entomology of any of the three. The Moscow and Pullman ones together – and the

universities are close to each other – is about equal, but for one institution, the library here is stronger. And I'm donating my own personal library, which will help with that. And I just want to curate and todder along until I can't. [laughs]

MD: This is you basically coming and playing with the stuff that is your passion.

JS: Yeah and I'm still doing research. I work now closely all the time with Paul Hammond, who also volunteers in the collection. And we have about a half a dozen species of inchworm moths, that are new to science, to describe, and every year we're finding something that is at least new to the Pacific Northwest. He and Dana Ross in Oregon, and I in Washington, working with Forestry and Bureau of Land Management, we're doing surveys all the time. And so like this year, three state records for the state of Washington, that were known for British Columbia but not recorded in northeast Washington for the first time.

So it's an on-going and active thing. And all of three of us are the types that are not likely to stop until we can't do this; that's true of almost everyone who's really keen for insect collecting and systematics, they stay at it until they can't. It's not like your normal physiologists or whatever, at sixty-five they retire, they don't get any more research grants, and they're not as active in their area. But for some reason – and this has been historic for decades, if not a century – taxonomists just are so keen and nerdy about their subject that they always keep up with it.

MD: I've heard of your personal collection and I've collected, it seems like that's a theme I've heard from a number of entomologists I've come into contact with, they all have their own personal collection. When did that start with you and how extensive is it?

[0:59:40]

JS: Well, it started in eighth grade, and I learned more and more about how to preserve things properly. But you're right, almost all entomologists – a lot of them are amateurs, it's been historic. Now with the DNA stuff, you can't be an amateur if you're going to do that. But there are a lot of private collectors either just as hobbyists or people with training like me, but not associated with a university collection, who have made fairly significant collections. My own is the largest ever made in the Northwest, but there are other equally significant collections because of where they were collected; the only data from those areas too. The thing is putting it all together so you can get an overview. That was another reason why I decided on Oregon State University – I had virtually no material from Oregon, most of theirs is Oregon or California, so the two didn't geographically overlap in their coverage. Combining them, in lepidoptera we'll have – about half of all the museum specimens that are in the Northwest are at Oregon State University. And that means that it's as many as the combined collections of the two major collections British Columbia and Washington and the Idaho collections.

MD: So when we're looking at a collection that, like I say, began in the 1870s, are there turn-of-the-century insect specimens that we hold in our collection?

JS: Yes. Both the Pullman and Corvallis collections have a fair amount of material from the mid-1890s through the 1930s, more through the 1930s in the Corvallis than Pullman collections, but the 1890s are when the collections became something more than just a teaching tool. And the early collections emphasized insects of economic importance almost entirely, and that trend was probably still there until about the time that I first came to Oregon State University. But Dr. Jack Lattin, or Mr. Lattin, came from Berkeley, and he really established the collection to the stature that it has now. There were several other faculty members working with different groups, but like you said, they kept their collections in their office or they collected them at home, like Dr. Dornfeld. Jack Lattin brought it all together.

And at the point that he was hired here actually, the Oregon State collections was not as good as any of the other Northwest collections. The lepidoptera collection was incredibly small; it couldn't have been more than 200 drawers of specimens, now it's almost 3,000. And he set the stage for making it a scientific thing rather than just an applied entomology thing. In the old days, faculty members would come in and just take specimens out of the collection and use them in the teaching labs where the students didn't treat them well. Well, that does not happen now. We have separate material to use in classrooms, but stuff that is properly labeled and of scientific importance is now collected and kept in the collection.

MD: And it's not so much – well, the actual specimen itself is important – but the data that is collected around it and that type of thing.

JS: Probably the most significant thing about the older material is pre- and post-beginning of the use of pesticides and how they affected the distribution. And now with global warming, everyone is trying to get on the bandwagon. It will still take another twenty years of data to see really how much change there's been, but the distribution of insects is definitely changing and things are moving north because it's warmer. So if you don't have that good historic background of material previous to the warming, then you have no scientific proof that things changed. My emphasis has always been the environmental as well as my biogeographic interests, and I've always wanted to keep all this data and make sure it's kept, because of that.

When I first started out collecting, my great uncle was collecting Indian artifacts, and he was very concerned about all the petrographs being submerged when all the Columbia River dams were being built. So he photographed all the petrographs before they were buried under water, and those photographs are now famous. And he influenced me – I was going around collecting the butterflies before the riparian situation along the rivers was being wiped out by the dams. I collected the last specimen seen in the Tri-Cities of a butterfly named *pascoenses* from Pasco in my cousin's backyard. His parents owned twenty acres, it was down in the riparian right along the river, and we were collecting there just as those dikes were being built.

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There had been a huge flood in 1950 – I think McNary Dam was already built then, it might not have been – anyway, they diked the entire Tri-Cities downstream from Pasco and Kennewick up past Richland because of flooding. Half the town of Kennewick, in that flood, had to move to higher elevation to move in with friends and relatives until the water receded. There hasn't been such a heavy flow of water since then, but that freaked everybody out. And what the dams didn't change on the riparian, those dikes almost completely eliminated the riparian habitat.

MD: So you're looking at a specific area, but it also affected all the wildlife and all the ecology, and your specifics fit into this bigger picture?

JS: Right. And besides my general collecting for the biogeography – like when I was a grad student at Pullman, I collected down at Walawi, on the Snake River there, it was a famous collecting spot for students and faculty at Washington State University from the 1890s on. And I knew it was going to be dammed, so I spent all my spare time, when I was a grad student at Pullman, down there collecting. And I deliberately collected places I knew were going to be impacted.

MD: I always like to learn a little bit about our alumni's family and personal experiences: what was life like after college and how about family?

JS: Well as I alluded to earlier, I was courting my wife at the time I was an undergraduate here, so every other weekend I would spend a long weekend in Bellingham, Washington. As I said, I always did want to marry a strong woman, and I did, and we've been very mutually supportive of each other – fifty-two years this summer. She comes from a background where the women in her family have been teachers for four generations, and every single radical thing in United States history, from harboring Quakers who were disrupting the Plymouth Brother meetings, to abolitionists, the women's right to vote, Prohibition. In Nelson I supported her a lot when she was organizing the staff into a labor union, and in the mid-1970s she got a union contract – which was, I think, the first ever – for pay equity for women, true pay equity based on how much skill it took to do the job. It also gave spousal rights, and this was before 1980.

MD: Pioneering at that time.

JS: Yeah, very pioneering. I knew she was a strong woman – we mentioned Gus Hall and that already. I've always supported her in that.

MD: Any kids?

JS: No, she was not able to have children. And I think neither one of us could have done as much as we've done if we had a family situation. But that then allowed me to teach where I wanted to teach. And some of the jobs I chose because I'd then collect there, which is a typically nerdy lepidopterist's attitude towards work. [laughs] And it allowed us to be politically active and biologically active. And my wife's a well-known cook; she's written one cookbook and is about to do another, and for years did teaching cooking classes and newspaper and magazine articles and things like that. And I would do the political things she couldn't do, like go to all the meetings where everybody smoked, and then I'd have to come home, strip at the porch, and take a shower before I went to bed at night, because she couldn't tolerate the cigarette smoke. But we've been a strong team.

MD: And so you settled here in Corvallis and you're making full circle.

JS: Yeah. We've always liked Corvallis. There's been this annual meeting of what's called the Pacific Northwest Lepidopterists every October for twenty-five years now, so we've been coming back every fall for most of those years. And the other thing that drew us here was the fact that the Corvallis Chamber Music Society still has real chamber music every year, which is not happening at most universities now. And culturally, it's just an incredible community – the co-op, the library, everything. We miss our friends in British Columbia, but I don't miss anything else about being in such a rural restrictive area.

[1:10:28]

MD: Is it still rural?

JS: Basically liberal. The equivalent of the county would be at least as large as Linn County, if not more like Douglas County. There's only 55,000 people, and it actually has better internet than here because there's not as many people using it, it's not so slow. But in this day and age of electronic journals and everything else, if you're not connected to a university, you are totally lost anymore. And you have to have some ability to access electronic resources, and they've become ridiculously expensive so that only the universities can afford them anymore. And I regret that, because at least traditionally with lepidopterists, there's been so many people that have done a lot of good work by working in their local area. And that was true of British Columbia, all these gentleman naturalists, English immigrants, they were well-educated whether they were the local minister or whatever; often the Anglican minister. Or if they weren't the minister, they were bank managers and then deacons of an Anglican church kind of thing. They made a lot of good contributions then, plus everything was hard copy and fewer journals, so they would have access. But now, living in a rural area, it isn't possible. And so it means that anyone who wants to do anything significant needs to be near a big university.

MD: And have connections with it. Well, you've made a full circle, that's interesting in itself, coming from a background in the class of 1963, during that period of time, and seeing the changes in your career field and changes in the college here. Are there any other reflections, any other memories that we haven't touched on, that would be apropos here?

JS: Well, I think mostly my memories about the Memorial Union. It certainly changed in certain ways. When I was an undergraduate here, they had what they called the Music Room, where you would go in, study quietly, never make a noise, and it was all classical music. And you would go in and choose the records you wanted, and if somebody else had chosen ahead of you they were played in order.

They actually cooked real food in the student union in those days; it wasn't franchised out. And so there was a small eatery opposite the ballroom, on that floor near the ballroom entrance, where you got a good lunch and breakfast. And in the main part, they had the hamburgers in that, but also in the evening they had a buffet-type meal that was better than any restaurant you could get even then, let alone now. The food was better, definitely better. I only ever ate in the dorms one term, and I even remember that food being reasonably good, and I'm picky about food; that's one of the reasons I love my wife, because she's such a cook. [laughs] So that is a real change.

MD: It's always been the living room of the campus basically. People from the early '60s, they have a different sense of what the Memorial Union was and it's morphed over the years.

JS: Yeah, it has. It's definitely morphed, but it's still the same building, the same heart of the campus. But in those days, nobody had a computer, of course, nobody had an iPod or anything else, and you either listened to each other or enjoyed

the birds as you walked across campus, or you went to the Music Room. [laughs] I mean, literally, because I was in a fraternity that one term I spent my first year at university in Pullman, even at the fraternity in those days, maybe one or two of the seniors would have a stereo system – and there was one for the fraternity itself – but personal ones. Nobody had a phone; there was one phone for the entire fraternity house, one t.v. set.

[1:14:49]

In that sense – I mean, I use all these things, but I think they're overused, and I regret the fact that there doesn't seem to be as much human contact, or if there is it's only within your age group. And I suppose even forty years ago it was that way, but I wasn't that way. I always liked people of all age groups, even when I was ten years old, and I think that was because I was brought up around adults to begin with. I never saw a person of my own age until I started first grade. And because my parents moved around so much, I wasn't in the same school, so I didn't have the friendships with people my own age, ever, until high school. And I always associated with people my parents' age or older. That's the big change to me about activities on campus.

MD: Yeah, it's all these perspectives that different people have that are so interesting to this project. We really really appreciate getting to know more about the entomology and the Honors College and biology at Oregon State during the early '60s, and your lifetime of work in butterflies and moths.

JS: Well, I appreciate being interviewed too, it was an honor to have been interviewed.

MD: We really appreciate your time and on behalf of the OSU Sesquicentennial Oral History Project, we'd like to thank you for your service and being an alumni.

JS: Thank you, you too.

[1:16:37]