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Robert Blodgett
April 25 and May 17, 2020

Interview conducted by Vincent Santucci and Tim Connors
Transcribed by Teresa Bergen
Edited by Molly Williams

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Harpers Ferry Center
P.O. Box 50
Harpers Ferry, WV 25425
HFC_Archivist@nps.gov

Narrator: Robert Blodgett

Interviewers: Vincent Santucci and Tim Connors

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Transcript

[START OF INTERVIEW]

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Santucci: I'm going to go ahead and start recording here. And I'll give a quick introduction—

Blodgett: Before you do that, I'm going to review two more names. I see Edwin McKee. But he to my knowledge never worked in Alaska on your document here. And also, Estella Leopold. Now Estella did some E&Rs for Alaska. But to my knowledge, she never was in the field and she never worked in park units. So, if you want to restrict this to USGS paleontologists or geologists who worked on national park units, as opposed to other Alaskan areas where there are no established park units.

Santucci: We'll see how this goes. We're going to start with the Alaska paleontologists and geologists. The other ones are, well, I'll save those for the end, just in case you ever met them or knew about them or something like that. So let me go ahead and give the introduction. So today is Saturday, April 25, 2020. My name is Vincent Santucci. I'm the senior paleontologist and paleontology program coordinator for the National Park Service Paleontology Program. This interview is with paleontologist Dr. Robert Blodgett from his home in Anchorage, Alaska. This will be the first of several interviews with Robert, with today's interview focused on the history of the USGS Branch of Stratigraphy and Paleontology, and some of the paleontologists who he's worked with in the branch. We are joined today by National Park Service geologist Tim Connors, who's from his home in Denver, Colorado. So, Robert, are you ready?

Blodgett: I'm ready.

Santucci: Okay. So just some background about you. When and where were you born? And just a couple of interesting things about your growing up through high school. And maybe things that got you interested in geology or paleontology. So, when and where were you born?

Blodgett: I was born in Idaho, down on the southeast part on the state of Idaho. And when I was five years old, my family moved to Seattle and I spent two years there. And then because the local economy was really down then, because Boeing was really having problems. My father, who was an engineer, then moved the family to Anchorage in January 1960. And so, I basically went from the last half of second grade all the way to the end of high school in Anchorage, Alaska. And then I went on and got a bachelor's degree at Fairbanks, Alaska, followed by a master's degree. And then I also went and got a PhD at Oregon State University, which was followed up by postdoctoral work funded by the Alexander Von Humboldt Fellowship, a very

nice fellowship to get in Germany, as it's the most prestigious one there. It allowed me a chance to see and work in a lot of European museums.

But my interest in paleontology, gosh, I think really started generating somewhere in the middle of high school. And I would go to rock stores and look at things. But then actively, I think it was just about the time I was graduating from high school when I started going out on my own. And then I wound up at Fairbanks and took some geology classes. And the rest is history.

Santucci: Do you recall the first time that you actually found a fossil in the field?

Blodgett: Yes. I was at Homer, Alaska, on the beach. And I was exciting because I found a nice ammonite. And it turned out that this ammonite had been brought over by a fishing group. And what they do is they used to pick up, I'm going to bet you this thing came from Fossil Point. And they had thrown some of this ballast or stuff overboard. There's no Cretaceous, or Jurassic rocks exposed around there. But it was obvious that most likely it was something derived from across the bay. Because the boats there used to fish all the time all the way up to Tuxedni Bay. The other option is that it came from a glacier. But none of the glaciers up there transect Middle Jurassic rocks. But this is a nice—that was my first fossil and I donated it to the University of Alaska Museum. This is where all my early collections went when I was both an undergraduate and M.S. student. A lot of material I collected when I was a master's student wound up in the University of Alaska Fairbanks Museum of Paleontology.

Santucci: And so, let's continue a little bit. Just prior to your working for the US Geological Survey, let's see. Can you tell me who your major advisors were for your master's and PhD?

Blodgett: My master's thesis advisors, the one in paleontology, was a man named Dr. Richard Case Allison, who taught paleontology at the University of Alaska. His wife who was the curator at the University of Alaska Museum, Carol Wagner Allison, served on my committee. So, they both served on my committee. And then I had two non-paleontologists, the well-known Don Triplehorn, who was a sedimentologist and coal geologist. And there was also Myron ("Mickey") Payne, who was a stratigrapher. Those were my committee members for my master's degree.

My PhD I started at Oregon State. And initially I went to study with a brachiopod specialist named John G. Johnson. He was known as Jess Johnson. World-class brachiopodologist. But I wound up switching over to his former advisor, who was at the same institution, a man named Arthur J. Boucot. Both of them served on my PhD. And then I had another person on my PhD committee, another brachiopod person, whose name is Norman M. Savage (University of Oregon), who spent much of his career working in Southeast Alaska.

My active work with the Alaska Geological Survey started when I was a master's student. I used to go out in a number of their summer field expeditions. I was the only paleontology student up there at the time. So, I started working with the State Geological Survey. And they'd give me plane tickets and helicopter lifts. And I started working with them, also with industry and the U.S. Geological Survey, all the way up until I finished the time of my PhD, which gave me the fantastic opportunity to see almost all of Alaska. And you can't do that

anymore. So, it was an invaluable time to come in. If I'd done it today, I wouldn't have anywhere the amount of regional knowledge that I've been able to accumulate. It sure beats anything to get out and see all of these areas in the field and walk sections and river cuts and landing on mountain tops and all that.

Santucci: Can you briefly just tell us about your master's thesis topic and then your PhD dissertation?

Blodgett: My master's thesis topic was on the Devonian fossils from the McCann Hill Chert and its equivalent, the Ogilvie Formation, in Yukon-Charley River National Park and adjacent area in Yukon Territory. And we did our work right before the park was created. The park was not existing at the time. And by the time I finished up about three years later, they started bringing in people to Eagle, Alaska. So that was when I started meeting people from NPS and meeting with them. As at that time, my field work area was there. And in my PhD work, I concentrated on brachiopods and gastropods from southwest Alaska. Not in national parks. And also, in an area of Eureka County, east central Nevada. So that's where I also spent a lot of time.

And in all those years, I used to work with oil industry people. So, I got to work all over the western interior to the US and Alaska. Visited a lot of sections. Also worked for a lot of major oil companies. Went out to work in the field with a few of my early Park Service friends. But heavily with people in the oil industry. And the USGS.

And then I started coming in with people in Fairbanks in the USGS and getting invitations to come out and join their various ongoing field programs. They hired me as a student intern when I was finishing my PhD. So that's how I got to know a lot of USGS workers in the past. And I got to know basically most people in the USGS Branch of Alaskan Geology, with the exception of two people I'll mention as the conversation goes on.

07:58

Santucci: Excellent. So that's your master's thesis and your PhD dissertation?

Blodgett: Yes. Both of them.

Santucci: Okay. All right. Very good.

Blodgett: But the master's was concentrated, was wholly in Alaska and the Yukon Territory. By the way, my master's thesis project was right on the Alaska/Yukon border. So, we'd set our tent up along the border strip, so half the time your heads would be in either the state of Alaska or in the Yukon Territory, and you'd switch around for variety. My MS thesis was a "dual thesis" as I worked with another man who was doing the carbonate petrology on the same rocks. So, we were just out in the middle of nowhere. Just us, food, and a gun for about three weeks.

Santucci: Great. So how did you come to get employed by the US Geological Survey? And you can provide more detail about your internship and that work. But trying to figure out how you were hired by the USGS.

Blodgett: Initially, I knew a lot of the USGS Alaskan Branch geologists. But initially I got hired by the USGS to help a woman named Florence Weber, who was with the Alaskan Branch of Geology in Fairbanks. So, before we even started that, I used to just make trips with her into the field. So, she'd drag me up to Livengood, which is northwest of Fairbanks on the Elliott Highway. She was happy to have someone on hand who knew what these fossils were. So, we were going out and visiting various stratigraphic section. But then she got a mapping project for the entire Livengood Quadrangle, and she brought me onboard. So, there'd be maybe ten of us geologists working all together on the same project in the Livengood area. And we brought in helicopters, and we worked out of a pipeline camp. So, we did a lot of traipsing all over the countryside via helicopter looking at various sections ranging mostly in Paleozoic age rocks, but also some Cretaceous. Worked on some Cretaceous stratigraphy as well. So that's how I got initially involved with the USGS.

When I was working also at the same time before I finished my PhD, I met Mike Churkin and other people who'd gone to industry. At the same time, I was also going to GSA meetings, I would run into these same people. I'm gregarious and went up to try to meet everybody that we'll be talking about. Although I never did get to meet Buck Detterman, Robert L. Detterman, who had conducted much field work in Katmai and the Lake Clark park units. But everybody else in the USGS Branch of Alaskan Geology, I think I knew very well. I even stay at their houses, when I'd go down to Menlo Park, which is where the Alaska Branch was based.

Santucci: So, when you applied for your first permanent position for the National Park Service, what was that position? Who did you interview and what was your job?

Blodgett: You mean Park Service, I mean, the only time they really ever hired me was for that Fossil Point and Glacier Bay project, I think you meant for the USGS.

Santucci: I'm sorry. Did I say Park Service? I meant US Geological Survey.

Blodgett: That was for Florence Weber's project. Again, it was 1986. Yeah, '86 and '87. And as knew her, they contacted me. They didn't advertise this position. They said, "We'd like you to come out." So, maybe there was an advert, but I was the only one who had any qualifications. So, there was no problem there. and that project went on probably a month and a half each summer. I was good friends with Florence Weber. And she was an old hand in Fairbanks. I used to stay with her and her husband at their house on a hillside north of Fairbanks. So, they gave me a free room and gave me a government truck to drive back and forth if I was doing other things. And even lots of trips up and down the roads to Livengood and other places.

Santucci: So, were you a permanent employee with the USGS at that point?

Blodgett: I was just a summer hire.

Santucci: Summer hire. Okay.

Blodgett: It might have gone on longer because we had to complete reports.

Santucci: Okay. So how did you come to become a permanent employee? When did that happen and what were the positions?

Blodgett: I had been indicated two years before I was finishing up, the USGS wanted to hire staff up there. They realized their staff was getting really grey. Long in the tooth and grey in the hair. So, they were going to go out and get some young, new people. So, they made two positions. But the first one was for a late Mesozoic worker. And that's how Will Elder got hired. So, Will got hired I think two or three years before I did. And he came onboard. And it took them forever to get my position online, but they got it on. And it took about five or six months of government rigamarole. And I was frustrated this wasn't going to happen. And finally, they said, okay, come up to Washington, DC. Actually, Reston, Virginia. And I came in the building, expecting I'd be going from room to room, talking to people. And they just came here and said, "Glad to meet you. Here's a cup of coffee." And they took me on a tour with some of the assistants and I just rode along. And they said, "Don't worry. You've got the job. we don't need to hear anymore from you." (laughs)

Santucci: And do you remember what month and what year that was, approximately?

Blodgett: Oh, probably July of 1988, either July or June. And it still took a little bit longer to get the paperwork in. And then I went to a conference on plate tectonics that the famous Chris Scotese, the plate reconstructionist organized in Oxford, England. He brought me over to give a talk at this big conference. And then I went back over to Germany, where my fiancée was living at the time. And then we flew back to the U.S. And they told me to load up my rental truck, just like the Beverly Hillbillies. So I loaded everything up in Corvallis, Oregon, including all of my rocks, a lot of my books, and collections, and drove it by a Ryder van, I believe, and took it all the way out to Reston, Virginia.

Santucci: So, your first—

Blodgett: And arrived there October fifth. That was my birthday. Maybe it was the first.

Santucci: Nineteen eighty-seven?

Blodgett: Nineteen eighty-eight.

Santucci: Okay. So, your first duty station was in Reston, Virginia.

Blodgett: My entire duty station at the USGS was in Reston. And I frankly didn't want to be there. They hired me as a Cordilleran geology expert. And at the last minute they changed their minds because Will Elder was in California. And so, they were telling me I was going to go to Denver. Well, that didn't happen. They put me out to Reston. Well, it had its pluses and minuses. The good part of it was I got to see all the old USGS collections. But there was nobody there with much expertise for me to talk to except Tom Dutro. And so, I think I would have served the needs of the survey better if they had placed me initially in San Francisco. I meant, sorry, Menlo Park.

Santucci: So, I just want to get some dates here, and then we can get into more details. So, your starting date in Reston, and then what was your last date working for the USGS?

Blodgett: My official final date at the USGS was October 1, 1995. But I asked for an extension because I had so much stuff to gather up. I was taking everything back with me, so I mailed out

thousands of pounds of rock and all my library. And I just loaded it up on a truck and took it off. So, I got a two-week extension. I'm going to guesstimate October 15, 1995 was when I had the last bit of everything loaded and was out of there.

Santucci: So, October 1988 to October 1995.

Blodgett: Right. So that's seven years. But remember I was on a Humboldt fellowship in the interim, so I was gone for half a year to Germany. It could have been a full year, but then the Survey said no, you've got to get to work here. But they let me go for six months when I lived in a city called Göttingen, which is one of the major old university cities in Germany. G-Ö-, with an umlaut, T-T-I-N-G-E-N.

Santucci: So, who was your direct supervisor when you came onboard?

Blodgett: Well, it was a guy named Dick Poore, but he didn't even interface with me. Basically, I was up to my own stuff. They just said, "Here are some projects and assignments." I worked with that. And the people I initially dealt with most out there was Anita Harris, who was a conodont person, and Tom Dutro, who was in the old Branch of Paleontology office downtown at the Smithsonian. But I was basically on my own.

16:21

Santucci: Okay. And did you have your own lab? Or where did you keep all your specimens?

Blodgett: Yes, I did. I did have my own lab and my own office. The only thing I was frustrated with was getting them to get me a PC, they wouldn't give me a PC, and they said they didn't have enough funds.

Santucci: Do you remember what office you were in?

Blodgett: No. I was mostly on fourth floor for a little while, and subsequently was assigned to the third floor. Then they moved me back to fourth floor, just down from where the Branch mail room was, not far from our good friend John Pojeta. Then they sent me down to the main floor and then I came back up to the fourth floor. So, I got bounced around a lot.

Santucci: Okay. During your entire tenure with the USGS, were you part of the Branch of Paleontology and Stratigraphy?

Blodgett: Yes. All totally the P&S branch.

Santucci: Okay. So, can you explain to me what is, or what was, the P&S branch? You can give the historical perspective and the organization of it – if you can.

Blodgett: Well, I will tell you this. Obviously, the name stands for Paleontology and Stratigraphy Branch. We were almost all paleontologists, but most of us also had backgrounds as stratigraphers. And of the people there, I was probably one of the few there who had a lot of mapping experience. So, I was also a field mapper with the state of Alaska and other agencies. So, a lot of the people were just strictly office bound and looked at collections. And I was kind of

a combination of both. I'd get out in the field all over and collect my own samples and bring them back. But for history of the branch, theoretically it started about 1940s under Preston Cloud. But there was a paleontology unit that was really its ancestor. And what I'm going to recommend, Vince, I'm going to send you a pdf. A big pdf by Tom Dutro which gives the whole history of that. Because I can't off the top of my head tell you what the name of the ancestral paleontology unit was. I know it was people like Ulrich. There were some famous USGS paleontologists. But it was a smaller group then. There was no official P&S branch. But they were kind of like the paleontology unit. So, they existed in another form and shape in the past. But I'm going to send you a pdf that has the history of it. It was written by Tom Dutro. About an eight-page article.

Santucci: Does that history sort of originate back under Charles Walcott?

18:51

Blodgett: You're right. Back around then.

Santucci: Okay. All right.

Blodgett: That was in the days of Charles Walcott. And he was, of course, a major supporter of paleontology. But there were even people before him that were already doing paleontology. So even before Walcott's time, there was one or two people doing reports. As far as Alaska work back then, there was Charles Schuchert, who did work for the USGS at some point, or in collaboration. They also had early days before there was a formal P&S Branch, several people who they had on contract who would identify collections for them.

Santucci: So when you came onboard in 1988, then you were based out of Reston. What was the organization like of the Branch of Paleontology & Stratigraphy?

Blodgett: Well, there were three major centers for the USGS. There was Reston, Virginia, which was the national center. It used to be downtown. And during the Nixon times, they moved them out – late Nixon times – they moved them all out to Reston. But the old-timers got permission to stay down there. So, the old P&Sers, about eight or nine of them, people that were really retired by the time I came in, kept their offices in the Smithsonian on the third floor on the east wing. But we came out there and, I'm trying to think. But there were also two other centers. So, there were about fifty staff paleontologists, roughly. And about, oh, I'd say 40% were based in Reston. And there was a bunch in Denver. And then there was a whole bunch of others in Menlo Park. Most of the Paleozoic people were in Washington, DC. But there was a guy named Charles Merriam who was based in Menlo Park. His father, by the way, was the famous student of ichthyosaurs who taught at Berkeley. But I'm trying to think. Oh, there was Rube Ross, who was in Denver. But obviously, Cobban was in Denver. And a lot of people we'll be discussing here later as geologists were based out of Menlo Park. Norm Silberling was based in Menlo Park, and then he moved out to Denver towards the end of his career.

Santucci: Was there any basis for why an employee of the P&S branch to be stationed in Reston versus Denver versus Menlo Park? Was there any organizational strategy to those three locations?

21:19

Blodgett: Because it was based on where you probably were working. But that's what I always wanted people to tell me. Why was I sent to Reston? (laughs) I don't know. I mean, I didn't work, I had no real background in stuff there. But you want to get personal, I'm just going to open up to you. The real reason, I was told, and this is between us girls here, they brought me out there because the branch chief, you know, Dick Poore wanted to fire Tom Dutro because he wouldn't retire. And so, the story I was told was the plan was to bring me to Reston and give me Dutro's unfinished work projects to get him so angry and upset that he'd retire. And it didn't work. We actually became friends. But that was the reason I was told. That was the only reason I was shipped there. And then they said they were going to let me move later on and they never did. They didn't care. And by that time, the survey was basically almost out of money. They were on vapors, or so they claimed. Nobody was moving anywhere. So, I spent the remainder of my career there.

Santucci: So, when you came on, Tom Pojeta was the branch chief?

Blodgett: Well, it was actually Dick Poore, but he was there for about three to four months. I went off on my postdoc fellowship to Germany. I came back and Pojeta was already onboard as the Branch Chief. And he was making a lot of waves, and a lot of people weren't very happy with him, between you and me.

Santucci: And so, so under Pojeta, were there assistants to Pojeta? Did, say, Reston, Menlo Park and Denver each have a lead for the branch?

Blodgett: Yes, each other P&S office they did have a sublead. And the person in Denver was a guy named Mike Taylor, a Cambrian trilobite specialist. And he was the chief of the Reston office before Dick Poore. But they ran him out for, I won't go into reasons, but it was pretty strange. And then Woody Henry was the chief in Denver. And out in Menlo Park, the local branch lead was Bill Sliter. He's no longer with us.

Santucci: Okay. So, you say at its peak, or when you were onboard, there were about fifty paleontologists in the—

Blodgett: Oh, fifty, when I showed up, there were about fifty. But a lot of them were almost in retirement, or close to retirement. So, I'd say there's about oh, 80 percent were still active. A lot of them were emeriti. So, they just showed up, the downtown folks were almost all emeriti. They had, you know, they all liked to come in there. And every Wednesday they'd have a, they'd toddle off up to the Lincoln Restaurant, across from Ford's Theatre where Lincoln was shot—

Santucci: Yes.

Blodgett: This place that had eggplant. So, the old paleontologists would all go there and spend a while. And one of them, a former branch chief who you know, would get tipsy in the early afternoon having eggplant and martinis.

Santucci: And so, and this is just an approximate estimate, but would you be able to determine what percentage of the paleontologists were at Reston versus Denver versus Menlo Park? Was it even?

Blodgett: Oh, I'm going to say 40 percent of them were, I'm guessing. By the way, that form I sent, letters, I'm going to send you all the stuff I have on the breakup of the branch. I've got several reports. That will have all the details on it. And there's one by Woody Henry. And at one time, just before the RIF [Reduction in Force] was announced, they were going to expand the USGS. So, they had them all thinking we're going to be big. I was going to be shipped up to Alaska, I was told, and be running a paleo lab, and our paleontology unit there. And then a few months later, things went south under the leadership of the Dept. of Interior under Bruce Babbitt. and the world turned upside down. But there was talk of a major expansion of the USGS under the then USGS director, Gordy Eaton. And then that all disappeared. Things went south real quick and the Branch of Paleontology and Stratigraphy was formally exterminated.

Santucci: And so again, just approximate, you were saying 40 percent at Reston?

Blodgett: I'm guessing, 35 to 40. It was roughly at 30. I think we had a few more people. And in part, that's because I'm counting the retirees downtown. There was Bill Oliver. There was Tom Dutro, and there was Greg Sohn. Jean Berdan still came in, but she was retired and not on the payroll anymore. So, on the list of people that they had listed as retired, they had a lot more, slightly more people in Reston. If I'm going to guess, Menlo Park had about ten or eleven people. I would go out and visit them. The Denver people I didn't know as well. I knew them, but I never dropped by much to say hi, except to Norm Silberling, the Triassic expert.

Santucci: So, can you explain to me in a little bit more detail what the relationship was between the P&S branch and the Smithsonian for that Reston staff?

Blodgett: Okay. We had emeriti. And they were allowed to stay in the Reston. So, the arrangement was, the older people got to stay there. They did not want to move and move their library and their collections to Reston. And there was a space problem by then. So, they stayed at the Smithsonian. And you rarely, very rarely ever see them come out to the facility in Reston, because that would require them to go over to the Interior building, grab the shuttle and take the shuttle over to Reston. Or drive in their cars there. and I think I saw Dutro out there maybe three times. And some of the other people, Bill Oliver, you never saw him out there. But yeah, I could look at the list again. This document from Woody Henry if I can find it would give you a breakdown, who was where and what the year before the RIF. And that would be good for your statistics.

Santucci: Okay. And so, if you looked broadly at the specialists in paleontology that worked for USGS, just briefly are you able to talk about the specialists and their role in the USGS?

27:36

Blodgett: Yeah. The ones who I got to know. I mean, people like Ralph Imlay, I knew his work well, but he'd already left. In fact, he'd already come down with Alzheimer's. So, he left the year before I showed up, but I used his work all the time. In fact, I wonder if Will Elder even got to know him. He was one of, probably, in my opinion, one of the most dynamic paleontologists

they ever hired. And the same thing I'd have to say for Bill Cobban, who I didn't know well. But Bill Cobban was another dynamo with a tremendous publication record. As well as Ralph Imlay. Ralph worked in Mexico, and the western US. He didn't like the eastern US, but he was a specialist in Jurassic rocks. And there's no Jurassic marine on the east coast to speak of. So, he worked everywhere.

Santucci: So, the selection of the staff that worked as paleontologists at USGS, was it based upon their taxonomic specialty? Or was it based on their geochronological specialty? Or how were they selected?

Blodgett: By their specialty. So, we had a guy there named Matt Gordon and he worked with cephalopods and a little bit with brachiopods and other things. But he was based in the Smithsonian. And I really never talked to him much. He was a very quiet guy who stayed in his office. Whereas I knew Bill Oliver, because he was a Devonian specialist like me. So, I got to know Bill real well. And Tom Dutro was there, too. I got to know Tom. And I got to know Jean Berdan.

Then there was Greg Sohn, who worked primarily on Upper Paleozoic and Triassic ostracods. Interesting fellow. But he wasn't a field type. Actually, most of those people weren't, except for Dutro.

Santucci: So, let's just go through very broadly. So, were there any paleontologists who did work on vertebrate fossils?

Blodgett: Charles Repenning. And he was based in Denver. Now I think further, was Tom Bown, both based in Denver. There was someone who Casey McKinney told me about. But he was not working there by the time I was there. And I'm trying to think. I think Tom Bown did micro – micro vertebrates. You know, jaws and rodents' teeth, that type of stuff. But I can't be specific on that. I'd have to look at the list. But no, we didn't have any dinosaur people. We didn't have any reptilian people. I'm trying to think, there had been people who did things allied with that, but they usually were on contract years and years ago, before my time.

Santucci: Okay. So, that's vertebrate fossils. Okay, what about paleobotany?

Blodgett: Jack Wolfe was the paleobotanist when I came in. I was well aware of his published work, but I knew him only slightly. He worked in Alaska and he worked all up and down the Western U.S. on Cenozoic things. And then we had for the fossil pollen Dave Adam (Menlo Park), Tom Ager (Denver), Doug Nichols (Denver), and Farley Fleming (Denver). Lucy Edwards based in Reston did dinoflagellates. Actually, I think she was more dinoflagellates. Oh, and Norm Frederiksen. This will be on the list I'm going to send you. Very quiet guy. Hardly ever talked to him. Very, very quiet person. Norman Frederiksen. Lucy Edwards. And then there was also a woman named Laurel Bybell who did nannofossils.

Santucci: So, mostly microfossils. You didn't have anybody that looked at plant macrofossils?

Blodgett: Yes. Jack Wolfe.

Santucci: Oh, Wolfe did. Okay.

31:22

Blodgett: Jack would also dabble with the pollen. But his big thing was body plant fossils.

Santucci: Okay. Very good.

Blodgett: And I think the last paleobotanist before his time was Charles Hollick and Roland Brown. Brown, we talked about him on the phone a few days ago. Brownie (his nickname) was a plant man. Roland Brown.

Santucci: I imagine at that time you didn't really have an ichnologist?

Blodgett: No.

Santucci: No.

Blodgett: No ichnologists who formerly employed in the Branch. But there is one vertebrate paleontologist who worked in the Eastern Regional mapping team who has a good publication record on fossil trackways, including dinosaurs.).

Santucci: Okay. So, let's start with invertebrates, then. You had a lot more. The predominant paleontologists were invertebrate paleontologists. Is that correct?

Blodgett: Yeah, that was what they were really trying to get hired back. That was a holdover from Walcott's day. There were hardly any of the other groups represented. But then that changed by the '70s and '60s. They started bringing a lot of micro people and they were getting the bulk of the project monies and stuff like that. But before that, it was all invertebrates.

Santucci: So, let's start with invertebrate macrofossils. Was there anybody that dealt with sponges?

Blodgett: No. No sponge experts. Well actually, I'll take that back. There was a person who dabbled with them part time, but she was way before my time. Helen Duncan. She was the first one to recognize the widespread Silurian sphinctozoan sponge *Aphrosalpinx* in Alaska. She did a lot of other fossil groups, including ostracods and rugose corals – she did a little bit of this, a little bit of that.

Santucci: Okay. How about corals and their allies? Cnidaria?

Blodgett: Okay. Those are basically down to two people that I can remember. The first one would be James Perrin Smith, but he was a contractor back in the 1920's – William Oliver, William A. Oliver, Jr., Devonian, and Silurian corals, even Ordovician now and then. He was based at the Smithsonian.

Next one is Bill Sando. William Sando, who did Permian and Carboniferous corals. Originally, I think he started with brachiopods. But that was what they assigned him to work on. Very unhappy man. Always grumbled. He wound up shooting himself after the RIF. He was very disappointed and took a shotgun and shot his head off. Sorry to be blunt.

Other coral workers, hmm. I'm trying to think now. Menlo Park, nobody. Denver, no. There was never a Mesozoic coral worker. There was Norm Silberling, but he did bivalves and ammonoids.

34:25

Santucci: Okay. How about bryozoans?

Blodgett: Okay. They only had one bryozoan worker I ever heard of and his name was Ollie. O-L-L-I-E Karklins K-A-R-K-L-I-N-S. And (laughs) I should tell you a funny story. This is between you and me. He was not very popular in the branch. I thought he was a nice guy. I personally liked him. But they thought his productivity was low. And he was so angry and POed about the place so when he left, he recorded a song by a guy named Johnny Paycheck, "Take This Job and Shove It." And he put it on his voicemail. (laughs) You want that type of detail?

Santucci: That's good. (laughter) Thank you. Okay, let's get to one of your favorite—

Blodgett: So, everyone who's sitting in the office is listening. "Hey, did you see what Ollie's put on his voicemail?" "Take This Job and Shove It." (laughs)

Santucci: Yeah, you don't find that kind of information in the published literature.

Blodgett: You will not find that in the public domain, no. (laughs) And I could give you some other stuff. Some of it salacious, even. Tell you how people got run out of there who had other issues.

Santucci: Good. So, let's go to your favorite group, the brachiopods.

Blodgett: Brachiopods. Oh, gosh, we've had a history of people there. Way before my time, George Girty. G-I-R-T-Y. World-class worker on late Paleozoic brachiopods. In fact, he died in 1939. But he put out a lot of USGS bulletins. Even described stuff up in the area of the present-day Yukon-Charley National Preserve (notably Calico Bluff), but he never came to Alaska to my knowledge. There have been a lot of brachiopod people there. I'm trying to think. Okay, Kirk. Edwin Kirk worked on brachiopods. He also worked on a lot of things, too. Mollusks, you name it, he did a lot of stuff. And gastropods.

And Woody Henry did brachiopods. Nice guy. Knowledgeable. He was based in Denver. And now I think he's a minister or something working up in Montana. Retired and doing his thing up there. But he had a background in—there was, okay, and his boss and mentor was a guy named Mackenzie Gordon, who did brachiopods part time. He also did nautiloids and ammonites. And there was also J. Thomas Dutro. That was his primary interest, was brachiopods.

Santucci: Anybody else?

Blodgett: Oh, and they hired this guy named Bruce Wardlaw who went off to do conodonts. So he wore two hats. He claimed to be a Permian brachiopod worker. Bruce Wardlaw. And he succeeded everybody when the branch shut down. And he stayed on there and came to a not

quite nice ending. I think he was drunk, and he fell down the steps of his house and wound up in the hospital. And that was it.

Santucci: How about Robert Blodgett?

Blodgett: Yeah, that son of a bitch. (laughs) He's there, too.

Santucci: And what is your area of specialty in terms of brachiopods?

Blodgett: All of them. All brachiopods. Devonian. Okay, an area, age-wise, primarily Devonian. Okay. In area, age-wise, primarily Devonian. But since then, I've moved all over the place. But primarily Devonian. Let's say Late Ordovician to Devonian. And remember, I also do gastropods. In fact, I was probably only one of the two gastropod people associated with the USGS who specialized on them. The other being Ellis Yochelson.

38:19

Santucci: Okay. All right.

Blodgett: I can't think of anyone else doing, if I had the list, I'm sure we'd pick up a few people, oh, they were there for ten years, or whatever. But I can't really honestly think of anybody else. But as this goes along, I'll double check it. Did you get my bibliography I sent you for Alaska? It's going to have a lot of names in there. There's like 800 pages of references.

Santucci: So, this is going to be a big one. But mollusks. Let's start with cephalopods.

Blodgett: Mackenzie Gordon. And he did nautiloids and ammonoids. And he published a big monograph that covered a lot of northern Alaska back in the '50s, including stuff on Calico Bluff in YUCH. That was his big stab into Alaskan paleontology. And then he moved down and worked mostly in Nevada. And I can't think of anybody else doing cephalopods, nautiloids, that type of stuff in the Paleozoic. That was him. Then you get in the Mesozoic, then you pick up David Jones. We called him Davey, but his real name was David. I think David L. Jones. I'll try to get you an obituary for him and a photo of him. He and Silberling really got this accreted terrane story going for the USGS. They'd stand up, not only for paleontology, but getting this terrane concept off the ground. That's where I think of them more than anything else, what they did over there.

And of course, Will Elder came in later. And he was doing ammonites, too. Ammonites and bivalves. And he'll tell you much better what he was doing than I could. But I know inoceramid bivalves, especially Cretaceous. Oh, and for ammonites, too, Norman J. Silberling. Triassic ammonites. He was a world-recognized expert on Triassic ammonites. And also, flat clams and other bivalves. But his big thing was the ammonites and the bivalves of the Triassic age.

Santucci: Did you mention Bill Cobban?

40:40

Blodgett: No, I didn't. And that was because he was in Denver. And I never really dealt with him. I have great respect for him. I've heard nothing but high regards. I only met him twice. But no, I didn't think of him. And he did a paper on Alaska, but it was out on the subsurface of the Arctic coastal plain, not in a park. I'm trying to think, it came out of a bore hole, if I remember right. As I go back, I'll review my notes. And I'll go through that paper of Dutros's and think of anyone else we missed.

Santucci: How about the belemnites?

Blodgett: There never was a belemnite specialist because they had been largely ignored in North America. People do it as an aside. Such as Ralph Imlay 41:24 would put them down. But everything belonged to one genus in his mind. He didn't differentiate them. Will Elder and a guy named Jack Miller who was kind of a low-level technician they hired would try to put names of them, like *Acroteuthis*. But you know the experts on North American belemnites. They've been ignored for a hundred years, until recently when an Anchorage couple named Cindy and David Schraer took them on.

Santucci: Gastropods.

Blodgett: There was Edwin Kirk who did a lot with the Ordovicians and Silurian gastropods, and notably with the Silurian forms from Glacier Bay. He named gastropods from the western US and Glacier Bay in southeast Alaska. And then yours truly, Robert B. Blodgett.

Santucci: Anybody else work on gastropods?

Blodgett: Oh, I forgot. I forgot. Also, Mackenzie Gordon and Ellis Yochelson. Did I get them?

Santucci: Yes.

Blodgett: Ellis Yochelson and Mackenzie Gordon for the Paleozoic, and Norm Sohl for the later Mesozoic and Louie Marinovich for the Cenozoic (primarily Alaska).

Santucci: Okay. How about pelecypods? Bivalves.

Blodgett: Okay, well there stands out, John Pojeta. Paleozoic bivalves – Edwin Kirk described some Paleozoic bivalves and had several papers published on them. Again, coming out of Glacier Bay, he described the giant bivalve *Pycinodesma* from Glacier Bay and nearby localities in SE Alaska. 42:48 And then when you get into the Mesozoic, then you've got—oh! Norman Sohl, S-O-H-L. Norm Sohl. Big name for his time. And he did bivalves, especially the Cretaceous ones like the rudistids and things like that, and the Jurassic stuff. Jurassic Cretaceous bivalves are his specialty. And Norm Silberling was a bivalve specialist. Triassic. David Jones did Cretaceous inoceramids. But the scuttlebutt is, and don't let other people hear this one, they brought Will Elder in because there were complaints that David Jones' IDs were terrible. So, they brought him in to correct some of them. So, I always heard that Will was considered the better person to go to for the inos.

Santucci: Okay.

Blodgett: That's about all. Oh, we forgot, Ralph W. Imlay did a lot of papers on ammonites. Ralph Imlay did ammonites and did bivalves. That's it. He also did bivalves. Ralph Imlay. Jurassic bivalves and Lower Cretaceous ones.

Santucci: Okay. Let's move on to arthropods. We can start off with ostracods.

Blodgett: Jean Berdan. She was one of the old-timers of the survey. She was there during the Depression. Her memory went back into the early '30s. And she talked about the first RIF they had at the USGS where they told everybody, "Here are your pink slips. Half of you are going home on furlough for six months. The other half keep the jobs for the time being. Then we'll rotate it out another six months." Well, six months passed. And the budget at the congressional level was good again. So, they brought everybody else back on. So those who had to sacrifice six months of pay never got anything for it. They lost their money and the other people got to work the whole year. She said there was a lot of gnashing of teeth. That's a Jean Berdan story. So what group are we covering right now? She was doing—

Santucci: Ostracods.

Blodgett: Ostracods.

Santucci: Okay.

Blodgett: And you know what? I can't, Jean Berdan, she was the main person. And they're mostly Paleozoic. I can't think of anybody else.

Santucci: What about other crustaceans?

Blodgett: Okay. Well, you have trilobites. So, we did have several trilobite workers. You had Michael Taylor for the Cambrian and the Lower Ordovician. And we had a man named Peter Palmer. The famous Peter Palmer. Cambrian trilobite expert. And so, we had Taylor, we had Pete Palmer. God, I'm missing somebody in this whole thing here. I'm trying to remember. Who else was a big trilobite worker? They were both Cambrian people. No, there was never an upper Paleozoic specialist. 46:00 it had to be something old. And Rube Ross. And I forgot, I think we overlooked him. He did trilobites, brachiopods, and even graptolites. Despite being formally named Reuben, he was called Rube. He used to run the unit many years ago. His big thing was Ordovician. He was like the chair of the Ordovician subcommittee. A very crusty character. Very. And I could tell you some stories, but I'm not going to get too nasty about people going after each other. At meetings he even when he yell at people, well, I'll tell you. He got mad at Anita Harris the conodont worker. She was objecting to his stuff because she could be that way. And he just finally yelled in front of the whole audience, "Now I see why Hitler killed the Jews." (laughs)

Santucci: Oh my gosh. How about insects? Anybody—

Blodgett: Nobody. Nobody that I know of. I can't think of anybody there that did winged insects or insects of any types.

Santucci: The chelicerates, horseshoe crabs, spiders.

Blodgett: No. I don't think they ever had enough stuff like that in their collections, you obviously got places like universities and academics to handle that. But there was nobody that I know of. But again, you'd have to go through the old lists and see people, there are probably some people I'm missing here,

Santucci: What about echinoderms?

Blodgett: Boy. Okay. Edwin Kirk described some crinoids, he's the only one I know. Edwin Kirk described some Silurian crinoids. Actually, that was his specialty. He loved crinoids more than anything. But he didn't get all that many publications out on the group. 48:03 But that was his favorite group. So, Edwin Kirk was probably more widespread in terms of focus groups than anybody. He described some bivalves, he described some gastropods, he described three or four major Silurian forms. And he also described a few crinoids.

Santucci: Anybody else work with echinoderms? Starfish or—

Blodgett: No one. Nope, I can't think of anybody. We didn't have anyone specialized in that group. You know, they're mostly dealing with stratigraphic field collections. So, you're getting the common thing that most paleontologists and most mapping geologists would see in the field.

Santucci: So, G. Arthur Cooper worked for the Smithsonian. Did he ever work for the USGS?

Blodgett: No, but he did do contract work for him. They used to come to him for a lot of questions regarding brachiopods. So, his name is even on many E&R reports. I don't know what the arrangement was. But he did the work and issued E&R reports. But his home turf was the Smithsonian. That's where he was hired.

Santucci: Okay. What about the hemichordates and graptolites?

Blodgett: Graptolite workers, we had several. Claire Carter (Menlo Park) was hired to do graptolites. She was hired in Menlo Park, against the branch's wishes in Reston. Actually, she was hired by the Branch of Alaskan Geology. This is an interesting story. Hired by the Alaskan Branch at that. They wanted her to do that at the encouragement of Mike Churkin (Alaskan Branch, Menlo Park) who had a tremendous love affair with graptolites. The other person who did graptolites was Reuben Ross because he was an Ordovician person. But there was a lot of gnashing of teeth about them hiring Claire Carter. But Claire was a formal graptolite worker who was very close to Michael Churkin, who will come up, a geologist, who loved graptolites himself. Churkin and Carter did some papers on the group. During the course of their collaboration, he started relying more and more on getting Claire to really do the systematics. However, Churkin was not a member of the P&S branch. He was just an excellent field geologist with a strong, overwhelming love of megafossils, but especially graptolites.

50:08

Santucci: Just a couple of oddball groups. The archaeocyathids?

Blodgett: No one.

Santucci: Hyoliths?

Blodgett: No one.

Santucci: Okay. What about microfossils?

Blodgett: Okay, well, you know, a lot of that's going to be conodonts. There've been a number of conodont people there. There was Anita Harris. Bruce Wardlaw. John Repetski, and even earlier a man named John Huddle. And I think he didn't come to a good end health-wise – I heard rumors of health issues related to toxic chemicals used to separate conodonts. Some people blamed it on breathing those vapors coming off the heavy chemical separators, but I could be wrong on that. That is the main people I can think whoever did conodonts. But that was a big portion, because conodonts really came to utility in the '70s. So, Anita Harris really led the charge. And she was really good at getting stuff, training technicians, but she was a real bear to work with because she was so rude with everybody. Like a bull in the china shop. But she knew what she wanted and where to go. So that's why Rube Ross yelled that at her. Because he couldn't take her pushiness. She was the one who got me hired there. And she was my big buddy until I showed up with my German wife. And Anita was going around telling everybody that I was married to a Nazi. Anita had this big thing about always getting in people's face because she felt like a persecuted Jew.

Santucci: So, I have two more USGS questions for you. And then I'll check in with Tim and see if Tim has any questions for you.

Blodgett: Okay.

Santucci: So, let's see. So, one is collections. USGS paleontology collections. Can you sort of give me a brief summary in terms of what eventually happened with the paleontology collections that were maintained by the USGS?

Blodgett: Okay. Each of the three regional centers, including Washington, DC (later transferred to Reston, VA) had their own collections. And they were, you know, kind of the motherboard for a lot of that stuff was going to be the Smithsonian. But each of the centers had their own stratigraphic collection. So, Reston had their collection, as did Denver and Menlo Park. Much of the Reston collections were formerly downtown at the Smithsonian (where the branch was formerly based). Because many of the people at the time were micropaleontologists, I was one of the few new macropaleontologists. Each regional center had their own locality registers. These catalogs were often broken according to age, and catalogs broken to where you worked. So, if you were doing microfossils in Reston, your catalog was in Reston. If you were in Denver, there was a Denver catalog with a suffix called D attached to the locality numbers. And then there was the M numbers. Actually, on that prefix. M. And that was for Menlo Park. So, the catalogs are broken up that way.

And when everything collapsed, the Reston megafossil collections sat in limbo for about a year or two. And then they started all migrating over to downtown to the Smithsonian. All collections left downtown with the retirees were also transferred after the RIF to the Smithsonian.

The Denver collections, as you know, stayed there for a long time. And they've almost all moved now. K.C. McKinney is transferring the last of them now to the Smithsonian Institution. 53:23 And then the Menlo Park collections, The University of California Museum of Paleontology got those, except for the Paleozoic collections which were transferred to the Smithsonian. So, Berkeley now has all the former USGS collections housed previously in Menlo Park.

Santucci: And is there any logic to the collections that were maintained at those three curatorial centers?

Blodgett: Basically, collections were maintained by the paleontologists based there. I mean, Menlo Park had only one Paleozoic specialist, and that was Charles Merriam. He had his collection there. And like I said, they got transferred. He was another sad case. He also committed suicide long before the RIF. A lot of suicides in the Branch of Paleontology, by the way. Want to hear the gory details on that?

Santucci: Whatever you want to share.

Blodgett: Okay. Merriam had a family, but the family was fractured. I knew his nephew, by the way. So, some of this came from his nephew. Merriam towards the end of his career was very down and depressed. His daughter had become a drug addict. And he was so upset because they couldn't get her off the heroin or whatever. And she started hooking on the side. So, he took a pistol out and shot himself. Others who committed suicide included Bill Sando and Tom Gibson, both of who killed themselves shortly after the RIF.

Santucci: So, with the, we'll talk about this in a little more detail, but with the end of the P&S branch, what was the transition like regarding collections? For example, what happened with your collections?

Blodgett: Well, I was so angry, I just loaded up all my stuff and took everything but a few regional collections I collected on the east coast, I took everything else back with me. Most of materials were collected with the Alaska Geological Survey, and I am and will continue to transfer back over to them in Anchorage.

Santucci: Was there a systematic effort to make sure these were—

Blodgett: They didn't care. Nobody cared because nobody knew what was going on. They just wanted our bodies out of the building. It was pandemonium, sort of like the last half hour on the Titanic. And there was not a lot of talking. The transition was very, very unhappy.

Santucci: So, for example, Norm Silberling's collections.

Blodgett: They stayed in Denver. He had the most beautiful collection. It was well curated. There's a catalog for it. I think I even sent you his catalog. Formerly based in Denver, it is in the process or has been transferred to the Smithsonian.

Santucci: So, the next topic is can you explain to us in some detail what the E&R reports are? How they're organized, how they're generated and produced.

Blodgett: In the old, old days, they used to be just reports. They didn't call them E&R reports. They just called reports. Or report on referred fossils. And they'd be coming out, probably going back to the time of Charles Walcott, or even earlier. I've got some of these early ones for Alaska all the way back about 1880. But they were coming out of Washington, DC, because everybody was based there then. And then Preston Cloud was hired right around the time of the end of World War Two. And he came in and he got lots of money. And he was going to build up a national paleontological arm, strong arm. I mean, he really was responsible for making the branch what it was. And he brought in a lot of people. And he was very iron fisted how to do this, but he was a darn good organizer and got that thing, got that going. But that's when the E&Rs came in. It was called Examination and Report. That's where the name came from, I'm told. Before that, they were just reports. I can give you names of them. But the E&R term, which everybody uses now, didn't happen until about 1948, '49.

Santucci: And are there different types of E&R reports?

Blodgett: No, just reports. They're just like the earlier reports. That's just the name they gave to them. And it had a reporting geologist (listed as "submitter") who provided the collections. The collections were usually sent to a reporting paleontologist and the final reports were sent back to the submitting geologists. Sometimes the submitters were paleontologists working with the field parties. So, you had a responsible paleontologist or several. There could be several authors, even on an E&R report. Each paleontologists weighing in, but usually it's only one.

58:07

Santucci: Can you explain how they're generated in the field, and then what happens to them?

Blodgett: Okay. I know in the case of Alaska, the submitting geologists would have to go through their Branch Chief for units such as the Branch of Western Mineral Resources or the Branch of Alaskan Geology. These Branch Chiefs would then negotiate with P&S Branch Chief, who would then assign them to a corresponding paleontologist best suited for studying the collection(s). Once an agreement was made, the collections were then sent of the Branch of Paleontology. And they'd ship them off once an agreement was made. These collections were assigned "Shipment numbers", so each shipment had a number on it. There could be numerous collections in individual shipments. It was negotiated usually between the Branch chiefs, and then sent off to the P&S branch.

Santucci: And so, if there's an E&R report, you would assume that there's always a collection that's associated with it.

Blodgett: Yes, it E&R report would cite the originating assigned Shipment number. Ultimately, a few things did get lost, lost in the shuffle. Or cases were very rarely dropped, and the collections mixed. In some cases, they would return the collections to the collectors. And they'd have a note at the bottom, "Collection returned at request of collector." But usually it was only allowed when the collection wasn't that good. Like there was just scrappy looking, kind of not too beautiful material. But it was up to the branches, branch paleontologist as to whether or not they wanted to relinquish it. But there were cases where that happened. Usually, though, it stayed with the paleontologist at their center.

Santucci: And so, just a little bit more detail. So, an E&R report could potentially be generated by a non-paleontologist, usually a geologist mapping in the field?

Blodgett: It was always the field geologist. Someone who's leading a field party. And in some cases, they were also paleontologists who were involved in it, too. Let's say Rube Ross collected stuff and he wanted to get somebody else, he would send it off and it would be tracked from him to other paleontologist. But almost always, it was a geologist who submitted the collection. Rarely another paleontologist. But it happens.

Santucci: So, was their interest primarily to try to get a biostratigraphic range on the age of the rocks?

Blodgett: People usually wanted age and environment and any other data that could be ascertained from the study of the said collections.

Santucci: Had any of these particular E&Rs and collections wound up being new material, new taxonomic species?

Blodgett: Oh, all the time. And they'd add in the report, "new species." And if they were important enough and someone wanted to take it on further, they would be involved in a professional paper. But often not. They were just, I'm reentering data right now in my database and it says, "New species here. New species." And "nothing further known". You'll have to go back to the original form, pull them open and look at them.

1:01:27

Santucci: Anything else about E&R reports? So how were they maintained? Were they maintained by each region?

Blodgett: Each center kept their copies of the reports. And a master copy was sent back to Reston. So, Reston had a copy of all reports. But each regional center, Denver and there kept copies of their own reports. So, a Denver report will be found in Denver. But most likely also found in a master collection in Reston in a machine called the Lektriever, which you could push the button and it would bring these things up. By the time I was there, we had the Lektriever, which housed all these records.

Santucci: So, there were the three centers. And how did Alaska fit into that three-center configuration?

Blodgett: Well, they were their own independent, most of Alaska at one time was based in, originally, they were based in Washington, DC. But in the '50s, they started breaking them up, moving a lot of them out to Menlo. And then the branch expanded somewhat in the '50s and '60s and kept adding people at a reduced rate thereafter. And then in the early '80s, the USGS started moving Alaska Branch people up to Anchorage. And frankly, if you ask my honest opinion, I think it was the biggest mistake to give Alaska its independence. Because the quality of field mapping and all that went down, as well as the quality of people they hired. They had much higher quality, it was a lot more high-profile science done in the old days. And Menlo Park, in my opinion, was the most scientifically acute of the regional centers. Maybe it was due to its

proximity to Stanford. I don't know what it was. But for some reason, they had a really topnotch group of people they hired. Had a lot better track records than some of the other places. I mean, there were good people in every place, don't get me wrong. But I would say all in all, I was really impressed with the group out of Menlo Park. Hardcore, really dedicated. And you'd have a bunch of, I'd say half, a third of the people were slouches back in Reston.

Santucci: So, there would be groups of E&R reports for Reston, for Denver, for Menlo Park. And then Alaska had their own set of E&R reports, maybe starting in the '80s?

Blodgett: Yeah. Actually, Alaska was shipped a copy of theirs for their own files. But they didn't have a P&S branch. But they were given copies of their own reports. And I have a photocopy of all the reports in Anchorage. I've made up my own copies which are at my house.

Santucci: And so, when did E&R reports end? Or are they still being produced by anybody?

Blodgett: I don't think there's enough work. And they kind of came to an end in the big RIF. But Anita and a few other people were still turning them out on a small scale. So, there was a trickle of them coming in. But there's nobody. There's no field mapping left in this country. This is one of my big complaints. We don't do what we used to do as our bread and butter, which is field mapping. A little bit's going on. There's going to be a project in Arizona. So theoretically, I might be down in Arizona once it cools down again, working with a guy named Floyd Gray in Arizona and Mexico. But no, there's no E&Rs. You write up your own stuff and send them in as an independent report.

Santucci: There's nobody to send them to anymore.

Blodgett: Yeah. I mean, they've killed mapping. Stratigraphers and mappers are gone. That's not true in Eastern Europe, the former Soviet Union or in China. Believe it or not, in China things are really booming. There are more paleontologists than ever. Russia is maintaining it. And the Czech Republic. I mean, I'm just astounded. So western European, the West won the Cold War, but we lost on the scientific front. (laughs) The Commies won out. The Ex-Commies too. Don't ask me why. It's bizarre.

Santucci: So, another quick question. Did each of the centers have their own curator for collections?

Blodgett: Usually the paleontologists were responsible for their own material.

Santucci: Okay.

Blodgett: Now there was a person down at Washington DC for the old guys. They got a guy to help them, his name was Harold Saunders. But he primarily worked for Tom Dutro. And in the old days, we were assigned technicians. I only got a technician part of my time. But we were just responsible for maintaining your own material. Housing it, whatever way you went. And by the time I came in, Vince, the whole survey was, you could see it was heading towards extinction. There just wasn't the care and concern there used to be. Or the funding to keep it going. But the survey just about the time I came on changed the funding strategy. So, it used to be when the survey got funds, everybody got funded. It was kind of a come one, come all, everybody got a

piece of the pie. Well after that, they started making like free market capitalist. So, some groups would get more money over other groups. And so, you'd have to negotiate and do something. So often they couldn't cover people's pays, salaries and things. So, things got really tight.

Santucci: So, the final and probably most important question is what happened to the Branch of Paleontology & Stratigraphy for the USGS? And provide as much detail as you'd like.

Blodgett: Well, it was destroyed. It was unfortunate. You know my story, I blame this on Al Gore, Bruce Babbitt, and the last Survey director, Gordon Eaton. They were looking for money. And originally the threat came from Newt Gingrich. Newt Gingrich wanted to streamline government. Well, actually Newt liked fossils. But it got stymied and then Bruce Babbitt and Al Gore came in. And they said, "Let's go attack this money. We'll get some money and we'll take a pound of flesh out of the USGS." I don't understand why. The nation was actually in a good economic state at the time. But they felt they didn't have enough money to—okay, it was to fund the emerging Biological Survey. And they didn't have the funds and wherewithal to do it so they looked around and focused on USGS. We don't need those people anymore. So that's what happened. They came over and just grabbed about 38% of the funds. And there went, 38% of the positions were gone. And they picked in particular on paleontology and stratigraphy and mapping. And I think it was kind of an anti, in part fueled by an anti-energy and resource development thinking mentality as they felt this helped oil and mining industries or whatever. So, we got the hell thrashed out of it. You know, that was Manya, stop! I've got to talk to my poodle dog Manya, stop that. She's scratching the carpet. "You don't need to scratch the carpet."

Santucci: Is there any internal aspects of the P&S Branch or within USGS leadership that made P&S Branch vulnerable?

Blodgett: Well, (laughs) one was named John Pojeta, our penultimate Branch Chief.

Santucci: Go ahead.

Blodgett: John Pojeta was a terrible leader. And he crossed a lot of swords with a lot of people in the Branch. They used to call him Pojo. So, his nickname behind his back was Pojo. And people had songs on him. I think he helped destroy the esprit de corps internally with a lot of people there. And they felt he favored macro. But that wasn't true. He didn't favor me. I didn't obey him or kowtow to him like he wanted. And his favorites were his old bosses, like Tom Dutro, people that hired him. So, he was a loyalist to the old guard. But he went out very much hated. And they brought in Bruce Wardlaw to replace him. But Bruce was a megalomaniac. But people didn't hate him. They thought Bruce was just incompetent. But after that, it just didn't exist anymore, the survey that I saw in 1980 was not the survey that existed in the '90s.

Santucci: And did the RIF in 1995 involve everybody in the P&S Branch? Or did anybody survive that?

Blodgett: Oh, lots of people. I'd say about, oh, 50% at least survived. Most of the micropaleontologists survived. One or two macro – one macro person survived in Reston. And they said, the orders were in Reston that people who would fall on their swords, they were not to let any women go. Or minority scientists. But they got rid of a lot of Black technicians. So, they weren't protecting people based on their skin color. But in Reston, you were protected if you

were a woman. Okay, Tom Dutro was let go. I was let go. Will Elder tried to hold on, but they let him go, too. And he was in Menlo Park. He was better situated there, because one little less visible being in Menlo Park. But he was gone. Norm Silberling was let go, Tom Dutro, and Pojeta. But as you know, there are probably other mitigating factors going on. Basically, ever macropaleontologist was gone. No one left.

So afterwards, when there were spurts of action in the USGS like with Floyd Gray in Tucson, I'd get rehired back for projects. So, I've been working in Arizona and Mexico with the survey. And it looks like they might have me doing some stuff on the Caribbean, knock on wood. But part of it is data-based, not field collections anymore. Data collection, archiving, and there might be some field work for me in Arizona and Mexico if this comes up. And I'd welcome it. I still like the work. I still feel I've got some energy in this old mule left.

1:11:10

Santucci: Thanks Robert. Tim, do you have some questions for Robert?

Connors: Yes, I do. So, in your time since the RIF, that's twenty-plus years ago, what has been your main area of focus? And where have you, who have you been working for or with? And what have been some of your fun things that you feel are some of your major accomplishments?

Blodgett: Well, I've actually been fortunate to continue getting funds coming in. Initially I got work back, well partly with the NPS on projects. So, our friend Phil Brease (NPS geologist at Denali) who's dearly departed brought me out. And I had funding from the National Geographic Society/ to work in Denali National Park.

Connors: Phil Brease.

Blodgett: And other people. And they've been having projects for me. And the people up here come to me because who else are they going to talk to in terms of paleontology and stratigraphy? There's no one left. So, there's interest in that. But especially the USGS. And they were having me out on various projects. But the field work has stopped, so that's no longer going. What I have done is I started the Alaska Paleontological Database, which has 17,000 localities on it. In fact, that's what I was doing before I called you guys, entering data on it. So, they're keeping that funded, but at a very low rate now. They would love to keep it going fulltime, but there's just not the monies. So, I'm doing that.

And I used to work a lot with the state geological survey. But they've also stopped mapping pioneer areas, and they're only studying Cretaceous clastic rocks from North Slope wells for industry. So that was one former major source of funding which has now disappeared.

And then I got monies a lot from oil industry people, and they had me come out in the field. So, I was a field geologist again, in a helicopter flying around with them, giving them johnny on the spot age calls or further detailed study.

So those are the four main areas. Oil industry, and that's coming to a screeching halt, because due to the lack of desire to scientifically study the targeted areas. As opposed to the old style, where you had to study the rocks in the area and drill a bore hole and try to get data around

it. It's funny, the Park Service has little piles of money that come in from different people now and then. Once in a while, they really still need some help with the fossil stuff. But it ain't what it used to be. I'm always biting my nails. I'm quite willing to prostitute myself and work for anybody and give them the best work I can. So, those are the four main areas.

Santucci: Anything else, Tim?

Blodgett: And there's nothing, by the way, academics, nothing. The schools don't even teach paleontology on the west coast anymore. So that's been—

Connors: No, nothing else here. Thank you, Robert.

Blodgett: You're welcome.

Connors: I've appreciated working with you over the years as well.

Blodgett: Okay. (laughs)

Santucci: So, Robert. Two other topics. Do you want to pick that up another time? Or are you good to go still right now?

Blodgett: I think let's continue another time. I'm kind of getting tired. I didn't get a lot of sleep last night. That's when I emailed you. I got up early and I said, I'd better let Vince know. Let's postpone till eleven. So, I got out of bed about ten, got coffee, and I got stuff to do here. But it depends how long they are. We could go. How much time do you think's involved?

Santucci: Well, I'd say let's save the people, like Earl Brabb and Michael Churkin and Detterman and Dutro and others, let's save that for another time.

Blodgett: Well, Dutro was P&S. You know Dutro was.

Santucci: Based on Tim's question, though, I did want to have one follow-up. And that is, you've worked in several national parks in Alaska. Can you briefly summarize your work at Glacier Bay?

Blodgett: Well, that was reconnaissance. And that was reconnaissance, E&R, because no one ever put a stratigraphic framework that worked. So, I got on building one, that was the first modern stratigraphic framework where you put it together and showed the various facies and their relationships. So that was very useful.

I always wanted to see these people get more involved and go back and map the areas. Because they're in the park domain. I would love to see the park get down and do the mapping. Because you're not going to get the USGS to have the type of people to do it. It would have to be Park Service inspired, and they could, with a little advice, do their own picking of mapping team members. Where were we going? I lost my train of thought already. Senior moment.

Santucci: That's okay. Just talking about your work in Glacier Bay. You published the report. We did some field work there. Was there anything else, briefly, about Glacier Bay that stands out?

Blodgett: Well, we got about three or four taxonomic papers out of it. So, we added on, all the work before then was done by Kirk, Edwin Kirk. So, we added on. And we revised Kirk's material, by the way. So, we've got his gastropods revised. And I was going to get the bivalves redone. But my bivalve expert had major heart surgery and he dropped out. And he'd already seen Kirk's type specimens. He's a guy from Prague. And he'd come over to DC, had photographed everything. We were going to have him, get him to do it. And he's just backed out. He's just decided he's not going to do anything anymore. Which is a tragic, tragic thing. Because those Pycnoidesmas which make up Kissing Clam Rock in Glacier Bay, are the largest Paleozoic bivalves known in the world. And it's just too bad I couldn't keep him on the ball. But he'd seen all of Kirk's material and photographed it many years ago. and he was buddies with Pojeta, by the way. So that didn't happen. So, I've worked in every single major park in Alaska with the exception of Aniakchak. I've been on the ground even in Gates of the Arctic. I've been in Noatak, but just on the very fringe of it. And that's one I'd like to see more of. And Yukon-Charley River, that's where I cut my teeth. And that was long before Yukon-Charley River. Much work to be done, there, too. And, of course, Wrangell-Saint Elias, worked in there. The only one I haven't really looked at, Katmai, I've done Katmai. We've done, not Bering Glacier, but what was the other, Lake Clark, Denali. Just Aniakchak which is a very small park by comparison to the others.

Santucci: So, can you share with us just a few thoughts about working in Denali, Phil Brease, and Shellabarger Pass?

Blodgett: Well, I worked in Shellabarger. Actually, I was there, I think, before it was part of the park. It was an add-on. And I think I was out there with industry before it was added on. So, we didn't need permits back then. I think it was in the early '80s, and I think they got it after that. Came back. And I worked with Phil out there. Phil, by the way, was probably one of my favorite people in the whole world I've ever worked with. He was so much fun, and so supportive. Just a happy, very happy person to deal with. And so, I owe a lot to Phil. That's why we named that genus for him. We thought, my gosh, this guy's great. So, I have only good things to say about Phil Brease.

Santucci: And what's the genus that you named after Phil Brease?

Blodgett: Oh, okay, well, actually it's a species. It was *Myrospirifer breasei*, *Myrospirifer breasei*. His whole name with an "i" on the end.

Connors: And that was while he was still alive, wasn't it?

Blodgett: Yeah. Oh, God, he never lived that one down. Everywhere he's going. "Hello," he'd call me up, "This is the Breasei speaking here." And his wife did it, too. And so everywhere he went, he was called the Breasei. Even in Park circle realm. (laughs)

Santucci: And that holotype specimen comes from the park?

Blodgett: Yep. Everything came from the park. Came right from the same, they call came from the same little ridge where we're writing up the stuff I'm working on now, which I'd love to get time and money to write that whole fauna up. But we're getting another species or two out now. And there's still a lot of stuff left to be in there. I mean, it's a really good collection. But it takes time to get focused on it.

Santucci: But you're talking about Shellabarger Pass. So, could you just give us a little more summary on the significance of Shellabarger Pass?

Blodgett: Well, it just shows that this part of Alaska, to me, even the age range, we didn't know that. The oldest Devonian rocks in Denali are from there. But not only that, they're part of an accreted terrane called the Farewell terrane. Actually, the Mystic subterrane of the Farewell terrane. But these rocks indicate close affinities with northeast Russia, and the fossil fauna indicate that these rocks broke apart from Siberia in a rifting event probably back in the middle Paleozoic. They are not native to North America.

You go to Yukon-Charley River, those rocks are part of North America. I sent you a pdf of Ordovician brachiopods. That stuff's all coming off of North America. And you just go a few hundred miles to the west and you go across a metamorphic belt or two, and boom, these rocks have nothing to do with North America paleontologically. They're of a different provenance. And quite different looking. The rocks even look different.

Santucci: And what project—

Blodgett: So, it supports the idea of the accreted terrane hypothesis, which Davy Jones and Norm Silberling popularized in North America, along with a guy named Peter Coney.

Santucci: And what are you currently working on for Shellabarger Pass?

Blodgett: I'm working on an article that's involving you, our friend Montana Hodges, and a Russian friend, Yury Baranov, on brachiopods. A new brachiopod species.

Santucci: Very good.

Blodgett: But I've got other ones in reserve. I've got a lot of them partly photographed. But it's just going to take time to, it would be nice to get the whole fauna out. Maybe when I get senile or whatever, hopefully get it out in time. The photos are sitting on my hard drive. Though right now they're at the house. Because they froze, they locked the Geological Materials Center up temporarily. So, I took this species back to my house right now. It's sitting here. One or two species left, stuff that's left to photograph. Then we just put the article together and prepare it.

Santucci: Very good.

Blodgett: But I worked in nearly every NPS park. I've published on fossils from every park I can think of.

Santucci: So just to quickly, Noatak, what do you feel is significant about Noatak?

Blodgett: It's poorly known. That we've only had one brachiopod ever described out of there. That was our species, *Alaskothyris frostei*, that we did with Valery Baranov. There's not a lot of Devonian brachiopods there known yet, except in the Upper Devonian, and then there's tons of them up in the highlands west of the Kugururok River. But if we get out there, they could have hauled away buckets and buckets of fossils according to Gil Mull. We've been talking about that. I would love to still see that done, in our lifetime.

Santucci: Okay. Lake Clark. Fossil Point. What can you tell us about that?

Blodgett: That's a very fascinating picture into the middle Jurassic. We saw a lot of stuff. There's some neat discoveries came out of that. One thing I think we were able, using the rocks in the area, to see a climatic deterioration. Showing that we had local hot metal glaciation in what was probably then the north polar regions of the Jurassic world. and that was centered on northeast Russia and in northern Alaska, southern Alaska and northwestern Canada. And we can see the climatic deterioration in the fossils, but also the sedimentology's now supporting it as well.

And, by the way, we've got all these belemnite collections that have been worked up by Cindy and David Schraer and their Russian colleague Oksana Dzyuba. And that's quite a new thing. That's the first time belemnites have been put on the map in a hundred years in North America.

Santucci: And then, full circle—

Blodgett: There's still lots of work to be done out there.

Santucci: Yeah. So, we're coming back full circle. We're going to go back to Yukon-Charley, where you did your graduate work. What do you want to say about Yukon-Charley Rivers National Preserve?

Blodgett: Well, it's the western edge of North America during Paleozoic time. And it had a reef rim, sort of like going to the Guadalupe. You had a reef complex from Devonian rimming the edge of the platform. And those rocks, I worked on those. I worked on the ones going down slope into the basin. And I worked behind the reef and in the reef. And it was a fascinating picture of what paleo-topography looks like when you have reef structures interfering with it. But again, there was a lot to be done with that stuff. We got a lot of new species in there. But they're North American, for the most part. The ones that have been illustrated in the literature are strictly North American. And a really fascinating area. I'm excited about continuing on out there. I like that area because one, it's relatively easy to work on the outcrops along the river. You can get into that area for virtually nothing. All you do is get the eagle and get down the river, back and forth in a boat.

1:25:03

Santucci: So, final question for me, final question for me is that if you looked at your Alaska paleontology database, which of the national parks show lots of individual fossil localities?

Blodgett: Well, that's because of what we've entered so far. Katmai. Wrangell Saint Elias. Yukon-Charley River. And parts of, oh, even parts of Noatak. I've got a lot of Noatak data from the old E&R reports. But the big ones that stand out is Yukon-Charley River which is pretty well complete. Denali is pretty well complete. Katmai has a, most of it, most everything described, and even Lake Clark. Those are the biggies.

Santucci: Very good.

Blodgett: And some stuff from Wrangell. Oh, Wrangell Saint Elias still has a lot of stuff to be entered. There's a lot of different rock types. There's stuff on the coast that's Tertiary. Then you've got a lot of Mesozoic up there. I'd say it's about 50% complete. Whereas Yukon-Charley River, I would almost dare say, is probably 85, 90% complete.

Santucci: Fantastic.

Blodgett: And I can say the same thing, the same thing for Katmai. We've entered almost everything known except for some older E&Rs. But it's all there. Oh my gosh. Remember, we put those tables together. All that now has been entered onto that. So, we've got a really good handle on Katmai. Really good handle on Lake Clark. Really good handle on Denali. And there's still much more that could be done and added on into Noatak and GAR: Gates of the Arctic.

Santucci: Great.

Blodgett: Aniakchak's not that big. I don't think it will take very long to fill that up.

Santucci: Any final questions from you, Tim?

Blodgett: Oh, and I should say also, I think almost everything known out of Glacier Bay's been entered, too.

Connors: Final question for me. So, if you could pick your dream place—anywhere on the earth to be working, where money is no expense and you could just go there and do a field work, where would that be?

Blodgett: (laughs) A lot of places. I'll throw you out some favorites right now. I'd like to go into Noatak. I'd like to go back to Yukon-Charley River. And also, the Black River Quadrangle to the north, the latter of which is a not park. I've also got an ongoing project in Algeria, where I've been brought in by the Algerian University, that was going to have me. They're not having any money, but at least I'm helping them out with the database and I'm looking at fossils for them. They might take the photographs so we can publish them in color.

But another area I would really like to get involved with is in your guys' turf, and that's called Death Valley. There's lots of fossils down there. And hardly any monographs, except some stuff out on the Cambrian. But the Devonian, Silurian, Ordovician and the upper Paleozoic has been ignored. And there's excellent rock exposures there. So, I think it's really worth an effort to get into Death Valley, and heck, much of it is right along the road, and work with that.

Connors: Good answer. Your friend Vince may be able to help you in Death Valley there. he's done a few projects.

Blodgett: We've already discussed that. And (laughter) I would love to get into—I've never been to Death Valley! I've never been to Scotty's Castle!

Connors: Fantastic place.

Blodgett: Yeah. I hear a lot of good about it. But one of my favorite brachiopods is a genus called *Stringocephalus* and I've described many of them, one of them in Noatak National Preserve of northwestern Alaska. But they are also in Death Valley, or right on the edge of Death Valley. Occurring in the Lost Burro Formation, a formation for which there is little data, but giant brachiopods are there, just waiting for someone to come out and collect them. They are especially common at Lost Burro Gap and just to the southeast of it. And there's old USGS professional papers, they show it. And nobody's been on the ground to go back and recollect any. They just let Tom Dutro do it. And Tom Dutro, he would never have bothered even taking the photographs of them. And they're just waiting. There's quite a story there. And I think the story there, from my point of interest, is there's a big left-lateral fault going through there on the eastern side of the Sierra Nevadas. It's called the Mojave-Sonora Megashear. And the rocks that are on the other side that would project into California, have been moved by a left lateral fault initiated in the Middle Jurassic. And they're probably moved all the way down in central Sonora. That would be fun to actually get on the ground and compare the two groups of rocks. So that's what I'm hoping might happen with Floyd Gray. And I did participate in two papers on that long ago. But it would be fun to compare that stuff from Death Valley and prove up that hypothesis. I think it looks damn good what happened. How did North America get torn like that? This is before the San Andreas, and in the opposite direction of motion. So that suggests a major plate tectonic stress fields. Things are being reorganized. Something's going on, big time.

Santucci: Very good interview, Robert. Exactly what I anticipated. And I look forward to scheduling the next call with you. Because we're capturing a lot of really good information. Thank you so much.

Blodgett: Well, you're very welcome, both of you. I'm going to try to find my P&S files. And they should have several reports in it that will provide you further details on the early history of the USGS and where it was envisioned the P&S branch would have sort of gone had they survived that 1995 incident. In 1994, they thought they were going to become kingpin. And a lot of excitement.

Connors: Hey, this is Tim—one final thing.

Blodgett: Yeah.

Connors: I just wanted to add one final thing. So, several years ago in the early 2000s I had met Robert up at some geological scopings for parks in Alaska, in Anchorage. I could tell right away, just dynamic personality. And I thought, you need to sit down with Vince Santucci, you two would hit it off and then be able to talk forever. And here we are, fifteen plus years later. And I'm really glad that you folks have come together and worked on so many projects. You're both

two of the most passionate paleontologists I've ever met in my life. And it's good to see you doing good things all over the place.

Blodgett: Well, I am flattered, and I'll be honest, I've enjoyed working with both you and Vince very much. And you've been a tremendous asset on some things we needed on some of these papers. In fact, we might need your help here again shortly. It's been a wonderful, I just wish there was bigger funding out for this type of stuff. But it seems we just don't have the monies anymore. I mean, the survey's kind of out of the picture doing this. I would think it would be, in a fair, just world, that it could be the Park Service could be taking a lot of the slack if we had funding gods helping us.

1:32:00

Connors: I hear you.

Blodgett: I mean, my gosh, the survey won't do it now. Their own people, their own upper management. Nobody will do it. And you've got to have younger blood, too. You don't need to be on the Geritol (laughter).

Santucci: Very good. Thanks—

Blodgett: I'm in my mid-sixties, but I feel like I'm still in my forties. I just feel, I need to lose some weight, that's my main problem. But I just feel, gosh, I just want to keep going. This is fun. Love to get all you guys up there in Noatak or Yukon-Charley River, or even Wrangell-Saint Elias. But there's so much fun stuff to see and do up here. And Death Valley, too. Don't forget dear old Death Valley. And also, Grand Canyon appeals to me. But you know, what, I have a fear of heights. Last time I was there, I couldn't even look over the rim edge. (laughs) My head was spinning down the slope. Oh my God, I'm falling! Help me! (laughter)

Santucci: Well, I'm going to bring this to a conclusion now. And thanks to both of you.

Blodgett: Well, thanks to both of you, too.

Santucci: Go get a nice dinner now, Robert.

Blodgett: Okay, I will. We're going to get some beef.

Santucci: Thanks. Have fun. Bye-bye.

Blodgett: Okay. Tim, it's been good talking to you, too!

Connors: Excellent.

Blodgett: Okay.

Santucci: Bye-bye.

Blodgett: I wish all of you a most blessed evening. Relax and enjoy yourselves. It's only 3:19 here. So, it's 5:19 for Tim. And it's 7:19 for Vince. Wow. We've been talking on the phone a long time. At least an hour and a half.

Santucci: We'll be doing it again. Thanks. Bye-bye.

Blodgett: Bye-bye. All right. Thanks.

[END OF TRACK 1]

[APRIL 25, 2020 SESSION]

[START OF TRACK 2]

[MAY 17, 2020 SESSION]

00:00

Blodgett: You're in the driver's seat.

Santucci: All right. Very good. Well, thanks, Robert. Let's get started. So today is Sunday, May 17, 2020. My name is Vincent Santucci. I'm the senior paleontologist for the National Park Service Paleontology Program. We are interviewing Dr. Robert Blodgett for the second time. Our previous interview with Robert took place on April 27, 2020, when we discussed the history of the now-abolished US Geological Survey's Branch of Paleontology and Stratigraphy. Today we will continue the interview with Robert. Today we will continue the interview with Robert to specifically discuss the paleontological significance of some of the National Park Service administered areas in Alaska. So, you ready for this, Robert?

Blodgett: I'm ready. It's Robert Brent Blodgett speaking here, and I'm looking forward to our interview here. Second interview, in fact.

Santucci: Okay. Thanks, Robert. So, the first question is, can you provide me any information on the paleontological significance of the Bering Land Bridge National Preserve?

Blodgett: Well I think as you well understand, Vince, it was created especially in concerns that it represents the development and the history to a central portion of Beringia, a concept that represents the land area that developed in the Pleistocene from the Lena River by the city of Yakutsk, all the way over to the Mackenzie River Delta. It was a very interesting area because sea levels went down. It was a time of significance fluctuations of ice sheets, major ice sheets in North America. And sea level—and I've heard differing figures given for this—was reduced by anywhere from 300 to 400 feet. Think of that. that was quite a, and exposed almost all of the Bering Strait, and much of the Bering Sea area today was actually land surface. And it provided a functional area that land mammals, humans, basically the whole fauna and flora could easily—plants don't have to worry about it, because they've got their spore and pollen—but for mammals and things like, but very important way to provide biotic communication between the

Far East of Russia, and northwestern North America. So, you can track a lot of migrations there. Not only that, but also for, when the first of the humans started going across there. So, you've got mammoths, mastodons. A plethora of animals like the Arctic lion and other things that don't even exist anymore. And then of course, even living things, such as musk ox and other things that were found there. So, this is the best place to model it.

And the Bering Land Bridge came into existence actually even earlier. Back in the Cretaceous. This is what formed Arctic Alaska. Remember, Alaska's composed of big giant accreted terranes came and crushed into the side of North America. And that created a land connection between Northeast Russia and North America, starting way back in the late Cretaceous. But it's been intermittently submerged underwater. But it went down and was fully exposed for much of the last 1.8 million years. So, this is a great area to come in and study this. And of course, there are archeologists involved in it. And lots and lots of people studying this migration thing.

03:30

Blodgett: So, if you want to understand how our Quaternary Beringian fauna, came into being, this is the place to go study it. Much of it's centered out of the area around the Seward Peninsula. 03:44 And there as a man instrumental in developing this. His name was David Hopkins. He taught at the University of Alaska. I knew him personally. He was a very interesting man. He's no longer with us, unfortunately. But quite active. And actually, had joined the USGS back in the 1940's. That's what I'd have to say in regard to this particular park unit.

Santucci: Okay. Thanks, Robert. Let's go onto one of the big parks that I know you have a lot of knowledge about. And that is, can you share any of the paleontological significance of Denali National Park and Preserve, including Shellabarger Pass?

Blodgett: Oh, Denali is quite, again, brings to the story, revolving around the evolution of North America, but also this terrane concept that Alaska has several discrete pieces and blocks of rocks that look like they're originally of Siberian origin. And some had moved south across the Pacific and then came up and accreted. But they came together. And Denali is one of these big pieces coming in as the Farewell terrane came in and was in place with regards to North America and has a tremendous record of fossils and faunas throughout it in Denali. You can find everything in there from the oldest fossils I know of they found so far in Denali are Ordovician graptolites, Silurian corals and sponges. The Devonian is really replete in the western part of Denali with lots of brachiopods which I'm working on with Vince on a paper right now. And again, it demonstrates these rocks were not native to North America, that they'd moved across the Paleo-Arctic or Paleo-Pacific Ocean. And you've got younger rocks there as well. You've got lots of Cretaceous, you've got lots of Permian in places. And during the Cretaceous things come together and coalesce and much of the land area is going up. Even though McKinley or Denali does not exist at this point as a mountain, the landforms are going up. And you even have lots of the area was now represented under non-marine conditions. And we have dinosaur trackways. And very, very good sites there in the eastern part of the park. Right close to the road system, which currently is under repair right now. But it's a site that's brought a lot of vertebrate paleontologists and people studying things associated with other fossil groups, even insects, in to study this area.

So, it's a very, very important area for understanding that part of Alaska. And I'm particularly interested in this accretion part because it demonstrates how things came together and how the biogeographic boundaries between these terranes existed. It's just a great place. And still we need more people working here. We've got to get more workers interested in this subject. And I'm very proud to be working with Vince on this. And we've even got a foreign contributor helping with us right now, a man from Russia, from Yakutsk, which is on the edge of Beringia, by the way, helping with it. So, I think we're getting a lot of attention on this. And we've had several other papers published. But it's part of the bigger picture, how Alaska evolved. But it's got everything in that park. You've even got a Cretaceous dinosaur site. Very, very worth mentioning. It's been getting a lot of attention from several vertebrate paleontologists and fossil trackway people.

Santucci: So, you've been able to do field work in Denali. And you actually have been out to Shellabarger Pass. Can you share some information? Your impression about that area? Both aesthetically and geologically?

Blodgett: Aesthetically, it's a beautiful area. Shellabarger Pass is in the western part of the park, in the part that's called the preserve. It looks like the Alps. You'd think you were not even in the central Alaska range. You actually feel like you're in Switzerland somewhere. Extremely gorgeous scenery, but extremely remote. And the only easy way to get in there is by means of a helicopter. When I first went in there with industry before it was a park, or at the time of the transition, I made several trips by helicopter. But came back with funds from National Geographic. And I went out with the park geologist at the time, Phil Brease, and we spent a week camping out there and made a very good collection. And it's going to provide a lot of stuff. there's going to be a lot of more papers, I hope, in the future coming out. We've already gotten four papers out on the Devonian fauna. A fifth paper's now almost complete. And I can see the makings of four or five more major papers just on the Devonian at Shellabarger. But there's so much more stuff there. And in the park, too, there's also other things around that you can find. Even over in the eastern part with Jurassic and Triassic things.

But I've also been working in that park, even over in the east, for a long time. I did a small paper at University of Alaska; Fairbanks on Devonian fossils near Cantwell. In 1974 we did our geological field camp on the West Fork of the Toklat River in the Park, which is a beautiful campground. So, we were out there and almost drowned our field camp instructor, Wyatt G. Gilbert. He was trying to cross the river on his own. He slipped and fell. He was bouncing down the West Fork and almost bit it. Fortunately, he survived. We got him back and threw blankets all over him. He sat there shivering in the tent for several hours to get his thermal regulatory system back up. But this is a very wild and wooly place to work.

Santucci: And so, what was your undergraduate research tied to?

09:34

Blodgett: Oh, I was just getting a regular degree in geology. A bachelor's degree in geology.

Santucci: You said you had a research project as an undergraduate in Denali?

Blodgett: Well, that was our field camp. A lot of schools required geologic field camps where you spent six weeks. And you performed the functions of learning how to geologically map. And I can't overemphasize, this was the normal procedure for schools in the past. It's still done in some places. Most critical thing to turn out geologists is to have them have a camp like that. It teaches you how to measure stratigraphic sections, how to map geologic units and work with as teams. And it's something I really, really highly support. Unfortunately, some schools have gotten away from it. I'm a firm believer in it. I mean, I didn't like it at the time. Blown off half my summer to go out and do that. But it's a wonderful way to learn, it's like geology boot camp. Real geology. Getting out there. And then you have to write up a final report at the end. So that was a valuable experience.

Santucci: Can you briefly share with me any of your recollections about Phil Brease? And how did you honor him?

Blodgett: Well, I met Phil because I've been interested in Denali. And I approached him at some meetings. And Phil was a very approachable, he was one of the most easygoing types, he didn't have any ego when you met him – a true diplomat. He was just an easygoing person. I was really taken that he was so open and friendly. So, we just started talking. He said, "Let's start talking together about trying to get into places like Shellabarger." But before they even found the Cretaceous vertebrates, he took us out and we looked at some of those beds briefly for a few hours. I brought in a friend who you know, Vince, Robert Weems. We drove around with him in a pickup truck out near Polychrome Pass. Weems told him at the time, "I have a feeling this area's going to have a lot of signs of dinosaurs here." And unfortunately, we didn't have the time. But sure enough, it was proved up in the following years that there indeed lots of good places for looking for trackways.

But I met Phil that way. I had recently got a grant from National Geographic. And I used to come visit him and his wife Barbara. And they had two lovely daughters. And I've spent time at their house. In addition, they had provided me with park housing. Then they went and bought a house in Cantwell near Denali. Over time we grew to be good friends. And they'd come down and stay with me and my wife here in Anchorage. So, I felt very close to the Breases. In fact, I gave a tribute to him at his memorial service. I hate to say it, I cried like a baby there. I couldn't finish my talk. I felt so bad about it at the time.

But no, I was just really taken with Phil. And in honor of him, we decided to name a fossil later on with a Spanish brachiopodologist, Jenaro Garcia-Alcalde, wrote up a brachiopod. He knew this particular brachiopod genus even better than I did. So, we named it *Myriospirifer breasei*. It's a big spiriferid brachiopod. A very handsome specimen. There have been several papers where it's been published. And quite significant.

That's how I got to know Phil. And I really miss him still. He was a wonderful, wonderful person to work with. I wish the Park Service could clone more of him.

Santucci: And just for the record, he was a geologist at Denali National Park and Preserve. And Phil died prematurely, actually while leading a group of students, children, on a field trip in Denali National Park. I had the honor to meet and go out in the field with Phil as well at Denali.

And I echo Robert's sentiments that he was a really wonderful person. And so, Robert, one other question. Does that specimen that you named after Phil, does it come from Denali?

Blodgett: Yes, it comes from Shellabarger Pass. From the same site where our brachiopod we just described came from. The same measured section, which is about fifty-one feet thick. This fauna, by the way, has over twenty-five species of brachiopods. In the interim we've only described six or seven. I've illustrated two others. There's much in the fauna waiting to be done. But it is a key to understanding, again, where these rocks were formed and originated at. Because they are very similar to ones in northeast Russia. In fact, when you get into this whole issue where the biogeographic boundaries are, you get into Yukon-Charley River National Preserve, which has the same age rocks, but different megafauna, different brachiopods. None of them in common. Not one species.

Santucci: And there are a lot of undescribed and unnamed geologic units within Denali today. The brachiopods that you're working, do they come from a particular geologic unit or at least time?

Blodgett: They come from a late Early Devonian age limestone unit. Its the only outcrop of its type and age recognized in the area. The Shellabarger Pass area should require a little more work in the future. One should go back there with a team and spend a week or two out there revisiting the various sections, getting air photos, and going back and doing a detailed job of field mapping. But these could be established as distinct separate formations in the future.

14:55

Santucci: And then currently there is a small collection of fossils at the Alaska Geologic Materials Center in Anchorage that come from Denali. Can you provide some background in terms of how they were collected and how they wound up at the GMC?

Blodgett: Well, they wound up at the GMC because I collected them with Phil Brease. And it's just one formation, we only collected one unit out there. If we had more money and more time, there are other limestone units (of Eifelian, Givetian and Frasnian age) out there in the Devonian that lie above it, which I don't want to go into detail explaining the Middle and Upper Devonian units out there. But these ones were collected by us in 1996. We use the helicopter at Denali Park. Actually, it's right on the very edge of Denali Park. It's a company that has helicopter flight service there. And Phil Brease, myself and Pam Sousanes, who is still with the Park Service, flew out to Shellabarger. We got in there and after the helicopter left, the clouds came in and we got kind of sitting under a lot of rain for a while. But we'd venture out and we'd get out, and we got about two days of decent work done. The other two days, they were hunkered down in the tent. I still forced myself out in a rain jacket. But we got a beautiful, beautiful collection out of there. Ultimately, we got picked up and we came back via the town of Talkeetna. And now these specimens are reposed in the officially recognized Park Service repository at the Geologic Materials Center. Which is easily accessible to visitors from abroad because you come to Anchorage, which is an air hub for the world. we have the largest, in fact, just two days ago we recorded the highest amount of air cargo service of any airport in the world. So, easy place to get to. So, they're here waiting for other people to study.

And by the way, the sponges have been described from there, corals have been described. And there's other parts of the unit that still wait and need done like the trilobites and things like that. But we're making great progress and I think putting this part of the park on the map, geologically speaking.

Santucci: Great. Thank you for that. Moving on from Denali, Gates of the Arctic National Park and Preserve. Same question, paleontological significance.

Blodgett: Yeah. Like Denali, believe it or not, was involved in the mountain building of the Brooks Range. This area includes rocks, again, another large portion of accreted terrane, part of what I believe was originally part of Siberia. But it's called the Arctic Alaska terrane. And these rocks extend across the length of the Brooks Range and include rocks in GAR, which is Gates of the Arctic National Park. But also, Noatak National Preserve. Those are the same basic rocks going west to east across the length of the Brooks Range. But they document the docking and formation of the Brooks Range, which went up in the air probably around the middle of the Cretaceous. So, it divided northern Alaska, the Brooks Range mountain range up there, but the rocks there represent things very old, all the way down to the Neoproterozoic, but also include the Cambrian rocks. We've got some Siberian trilobites in several localities. One right in GAR. And rocks from Devonian, Silurian, the entire geologic column somewhere or other is represented there. And there have been a number of papers published over the years, mostly by USGS paleontologists covering bits of the fauna there. But there's still much to be done there.

And Noatak National Park, I think Noatak is easier to deal with because the rocks are a little less deformed and better preserved. So, there's a lot of work remaining, but it's very critical, understanding how the Brooks Range came up. And it formed the northern bulwark of this mountain range across Alaska, which separated it from the Arctic Coastal Plain to the north which contains the largest oil reserve in North America, Prudhoe Bay area, and is very, very important geologically to understanding how the northwestern margin of North America was affected in the last 100 billion years.

And I've been up there a number of times, driving across the Haul Road that goes to Prudhoe Bay, takes you right across it. But it's a big place and there's a lot of variation. And the rocks you'll see over a hundred miles away might represent a totally different basin within the Arctic Alaska terrane. So, each place has its own flavor. But it's a humungous area. Still waiting out there to be inventoried.

Santucci: Have you ever done field work at Gates of the Arctic? Or have you done any research or published on anything from Gates of the Arctic?

19:52

Blodgett: Yes, I've done bits and pieces. I worked with USGS there on their Trans-Alaska Crustal Transect project. Most of my work, actually, most of my career has been centered in central and southern Alaska. But I have done work in Gates of the Arctic. And it's a very fascinating area. But again, you need a helicopter to get around out there. Very, very difficult area. Unless you get a [unclear] 20:18 camp and then you can go out and bivouac somewhere. On foot, you can do a lot. But you still have to get in somewhere.

Santucci: So, we'll be moving along alphabetically regarding the parks in Alaska. So, before we move on to Glacier Bay, any final comments about Gates of the Arctic?

Blodgett: No. It's an area, I've worked in there, but not in great detail. I'm actually much more well-versed on Noatak, even though I've not been in parks in Noatak. But again, these parks are, these are humongous areas and it's hard to get in there again without support from helicopters or getting flown in. Even to do work in Noatak, you're going to probably want to get a plane to fly you in and put you out. You can float a river or get in somewhere there. I mean, that's how I know Jeff Rasic maybe has done. They've flown up there and took some type of canoe or kayak and floated the rivers. But no, it's an area that still requires a lot of work. And there's much to be done. And the main unit out there is a Mississippian Pennsylvanian unit, upper Paleozoic in age, called the Lisburne Group. And that's the most common rock type you'd see across the Brooks Range are these miles and miles and miles of thick Upper Paleozoic limestones. And that's probably the most widely expressed. But there's other units out there. There's even places where you can collect Triassic ichthyosaurs. There's also another unit called the Otuk Formation, which is extremely rich in Upper Triassic that's full of things, including that ichthyosaur I mentioned and also lots of invertebrates. In terms of dinosaurs, nothing up there that I can think of. But there's certainly been a lot of bones of ichthyosaurs found in that general area. And I've seen them in cores, too, up there. So, they're there.

Santucci: Thanks. Moving down to the southeast area of Alaska, what would be the paleontological significance of Glacier Bay National Park and Preserve?

Blodgett: Well it's primarily noted, of course, because it still has active major tidewater glaciers. But these are coming down the mountains from the west and the Chilkat Mountains to the east. As they're coming down to the ocean, they are cutting across a whole sequence of Paleozoic rocks, primarily early and middle Paleozoic in age, belonging to the so-called Alexander terrane, which is another one of our major accreted terranes. This terrane shares the same fauna as found in the Farewell terrane, up in Denali. It's got the same distinctive Silurian calcareous sponges, the same reef-y type organisms. But there's a beautiful succession there. And it's never really been investigated. It's has been, but only in a cursory way, they mapped some of the units. But not much paleontological collecting was done there except by a paleontologist from the USGS named Edwin Kirk. He did his field work there back about 1917 and collected some fossils up and down the main length of Glacier Bay proper. And so, I went back there with David Rohr and Vince Santucci. And we went in there and relocated some old sites but found a lot of new ones. And it well documents a margin of a giant limestone platform. Very similar to what you would see if you were down in west Texas at, come on, what's the big park down there? Come on.

Santucci: Guadalupe?

Blodgett: Yes, Guadalupe. Very similar to the Guadalupes except much older. Instead of being Permian, they're Silurian. And they've got these big reefs. Same type of things with big avalanche deposits. But they have some nice stuff there. We got several nice papers out on the paleontological inventory. But there's still much more work to be done. And it's a very beautiful area, as Vince will vouchsafe for, too.

Santucci: So, a couple of localities we visited during our fieldwork at Glacier Bay National Park and Preserve, we went to Adam's Inlet. Do you have anything to say about that locality?

Blodgett: Well, as you go east into Adam's Inlet, you go away from the platform I mentioned. The platform was to the west and the basin was to the east. Adam's Inlet is very intriguing, but I haven't been far up there, and there's a place up there, Adam's Inlet proper that I want to get to. But you need to come in at a certain time of year with a permit and you have to go by a canoe or kayak. You always have to have a permit. But you can only go with a nonmotorized launch. And that did not work out at the time. But I'd love to get in there. And there's good Devonian outcrops in there. And in the highlands, there's younger rocks. But again, you've got to get up into the highlands. And that would be easy to do, of course, with a helicopter. But it is doable if you've got a good pathway to get up into the hillsides. Nobody's doing that right now. So, much to do and much to learn.

Santucci: And you stopped at a locality called Pycinodesma Point?

Blodgett: We nicknamed it. It's actually called, I think, Kissing Clam Beach or something like that. Kissing Clam Point. It's because it's so packed with shells of *Pycinodesma*. It's almost like what a geologist calls a coquina. And it's just jam packed with giant bivalves belonging to a genus called *Pycinodesma* which is the largest known bivalve known from the Lower Paleozoic. Edwin Kirk named the genus some time ago. There was nothing to ever rival it in the Paleozoic. No clam. But they're all over the cliff base there. and that was one place we visited. And it was actually, the area was visited by Edwin Kirk. But we went back and did more work on it and illustrated it in a number of places. It's a key index fossil. It's what you call a key index fossil. You see that thing all the way down the rest of the way to the south in the Alexander terrane. And it's very common also down, right as you go across the waters into Chichagof Island and on Prince of Wales Island, the same crazy animal shows up. So again, this key fossil can be found in many other places. And it also has been seen in northern Alaska. And I'm trying to think, there's a report of it, maybe up towards, on the Seward Peninsula. But I'd have to go check that report. But it does get around. But it was strictly a northern hemisphere thing at the time, very restricted. But things were warmer back then. This was a tropical animal, living on sediments that were developed atop a cyanobacterial mud mound. Similar to what you have down in the Guadalupes.

Santucci: Let's see. There was a fossil that you had described from Glacier Bay.

Blodgett: Oh, we named it, that's right, we named a new gypidulid brachiopod genus and species, a very distinctive thing. And we named it, oh my gosh, it was *Sapelnikoviella santuccii*. The genus was named in honor of a famous Russian paleontologist. And it was in a paper named by myself, Valeryi Baranov and Arthur Boucot.

Santucci: Very good. And what was the species designation?

Blodgett: Oh my gosh. It's was *Sapelnikoviella santuccii* n. sp.

Santucci: How about *santuccii*?

Blodgett: I'm sorry?

Santucci: How about the brachiopod *santuccii*?

Blodgett: We wouldn't have done that. Unless, were you an author on that paper now? If it was named for you, your name would have not been on it. I'm trying to remember all the papers.

Santucci: Yeah, I was not, I was not a coauthor.

Blodgett: Okay. Then it was *santuccii* I was – wait a minute, how could you be an author and, okay, it was named for you, of course. Sorry about that. (Santucci laughs) Sorry about that. Oh my gosh. I'm getting lots of senior moments this year. I'm starting to get worried about that. I'm going to have to go out and eat some brain food.

Santucci: So, say the whole genus and species, because it's a complicated one.

Blodgett: Okay. It's *Sapelnikoviella santuccii*. That's a mouthful.

Santucci: (laughs) We had to sneak that one in.

Blodgett: Okay. Well, sorry about that.

Santucci: No. No problem.

Blodgett: You were not an author on that paper. But you were an author on our inventory paper. That's right.

Santucci: Correct.

Blodgett: Remember that?

Santucci: Yes.

29:18

Blodgett: With Sharman.

Santucci: So, is there any future work that's still needed at Glacier Bay, in your opinion?

Blodgett: I would love to go back and do the Devonian there on Adams Inlet, tidal inlet area. But it needs access to a boat. I'm not a great canoeist. Maybe if you get a kayak team out there and go in. It would only need about a day or two there.

Santucci: Great.

Blodgett: It could be done. But like you know, everything here requires money. Time and money to get into these places.

Santucci: Absolutely.

Blodgett: I've got photos of them taken by some of the staff out there. It's very interesting. A guy that worked for the Park Service took some photos for me. He's retired now. And there was an assistant. They talked it up to me, too, and I talked to Sharman, but it just never happened. But no, there's a lot to be done down there. But I hate to say it, there's something to be done in every one of these parks. There's enough to keep a team of paleontologists busy for years and years and years. Centuries, even.

Santucci: So, moving off to another part of Alaska, Katmai National Park and Preserve. Paleontological significance?

Blodgett: Well, it's a very significant park, because it includes a really great section of Mesozoic rocks. Geologically, of course, it stands out because it was the site of the largest volcanic eruption in North America in the last century. The Katmai [Novarupta] blowout of 1912, which was, it was loud. You could hear that thing, I think you'd even hear the sounds, reverberations of course the eruption as far down as Vancouver, Canada. Shook things up all the way down the coastline. But I've spent a lot of time out there. But it's got a real rich representation of rocks along the Alaska Aleutian batholith range. And they are primarily of late Triassic, Jurassic and, in places, locally developed Cretaceous sections. Especially lower Cretaceous. But very richly fossiliferous. And we're getting lots of goodies out of there, belemnites, bivalves, other stuff. I've published papers on the Upper Cretaceous. I'm trying to think what else down there. Upper Cretaceous. Jurassic, of course. we found a pliosaur there that had been buried in old USGS collection. So, it was a great place. There's still so much more work to be done. I think someday we'll get back. We do have dinosaurs further down online. Footprints. We don't have any bone fragments, yet. But they will show up in the Jurassic. There's a lot to be done down there. I've always referred to it as a Jurassic park. And you get that also up to the north, up at Fossil Point in Tuxedni Bay. That's another Jurassic. Same rocks. Same players. And they just track on for hundreds of miles. And it's one of the best places to do studies of Jurassic invertebrates. And hopefully in the future more vertebrate material. But we did find some dinosaur trackways, just south of the parks.

Santucci: The pliosaur that you referenced, that wasn't from the national parklands, is that correct?

Blodgett: Correct. But you could almost hit it with a rock, or high-powered throw. It wasn't that far away. It was probably ten miles from the southern edge of Katmai. They will show up there. Someday they will turn up there. They're coming out of the Late Jurassic. Out of the Naknek Formation. So, there's still lots of stuff to be found.

Santucci: So, shifting to Kenai Fjords National Park.

Blodgett: Not much is known. It's mostly composed of rocks belonging to the accreted terrane composed of Chugach flysch, the Kenai group, whatever. And that's Upper Cretaceous, for the most part. But it does have some large blocks of island arc material that formed on volcanic edifice that came in there. And the only fossils I know of ever described out of there was some bivalves. Large bivalves again of Permian age. And they occurred up along the ridge crest. But I teamed up with a Japanese paleontologist named Yukio Isozaki who knew this group and wrote

them up in several places. But another fascinating area. But again, you need a helicopter to get into that area. And they belong to a group of bivalves called the alatoconchids.

Santucci: Are they part of the McHugh Complex?

Blodgett: Yeah, yeah. They were part, okay, McHugh is next to the Chugach terrane. We really can't be certain, but they are big limestone blocks surrounded by Cretaceous flysch. So, they probably came off the McHugh Complex. But they came crashing down the sides of a volcanic edifice into this, later on this area got incorporated along the tectonic suture zone with the Cretaceous. Needs more study. It's an area up there that has not been mapped in detail. But they're there. And I've seen the specimens. And they were picked up by Russ Kucinski years ago. And I think Russ was at the site, as was Linda Stromquist. I sat down with them and we got them studied. There's so much more to do. I would love to get up there. Never been up there.

Santucci: Moving back north again, Kobuk Valley National Park. You talked about it a little bit previously. Is there anything to add?

35:16

Blodgett: I don't have much to add but it's really well, perhaps from the point of paleontology, or human anthropology, the most famous site there is Onion, oh, what's it called Onion Portage. Do you remember that? It's where the human, it was one of the earliest archeological sites ever found. Very important until recent times. It really stood out. But there are some old rocks there, but they haven't really been investigated. It's not really well known for that. potentially everything can have significance when we know more about them. But I don't know much about the Kobuk. Saw them in a plane heading on my way from Kotzebue up to a place over on the Wulik River. But no, I've never set foot into the Kobuk. But it's a big valley. And it's right next to Noatak.

Santucci: Great. Here's one of your favorites. Lake Clark National Park and Preserve.

Blodgett: Oh, that's the site of the famous Fossil Point locality. And that is a real, we've made a lot of ground with that. That's another one of these so-called Jurassic parks. And it's just crawling with fossils. And it was where the first Jurassic fossils were described from Alaska by a man named Eichwald, a Russian German paleontologist who published a paper in Saint Petersburg in 1871 on the Jurassic fauna of southern Alaska. And he illustrated material collected up there. And it's quite a, it's really rich. We found additional material there. And we've collected a lot of belemnite. And it's a gift that keeps on giving. We've even got, we've documented the belemnites in further detail here with a husband and wife team called the Schraers, in combination with our Russian woman, who's one of the world expert on belemnites. Her name is Oksana Dzyuba from Novosibirsk in Siberia. 37:00 So I'm very proud to say that we're getting people of international reputations involved in this, too. Not denigrating Americas, but I think this is helping to keep Alaska on the forefront of international science. So, we're getting lots of good, good, Jurassic data out of there. And it keeps people to keep going back. It's a gift that will keep on giving. And there's an island right near there called Chisik, right on the edge of the park. And that has not been looked. But that's where some Jurassic type sections for this area are described from and it desperately needs more work.

37:43

Santucci: And can you describe some of the fauna from Fossil Point?

Blodgett: Well, it's mostly bivalves. But there's lots and lots of ammonites as well as belemnites. Those are the three main players out there. There are a few gastropods. I don't know why there shouldn't be more, but they're not really that common there. But it looks to be a shallow shelf, probably moderately deep shelf assemblage. But as you go up and down the stratigraphic column away from Fossil Point, you'll get parts of the column that are deeper water and parts which are shallower water. But we haven't found any fossil plants there. Though right around the bend south of Fossil Point, and we didn't get there, somebody had found a bed full of plants. Oh, probably about a half a mile away. But it was not our objective at the time. But there's also a great potential for flora out there the same approximate age.

Santucci: Anything to say about the inoceramids from Fossil Point?

Blodgett: Well, they were a subject of, and they belong to the genus *Retroceramus*, part of the inoceramids, which was established by a Russian paleontologist and they show up also in northeast Russia. We have this strong connection between this area and northeast Russia. So, the fossil things all connect over there, too. And they represent an establishment of a northeastern Russian fauna. Though interesting, these same rocks were on accreted terrane that had come from the south, to this far north. And we suspect these terranes could even have been as far south as the northern part of South America that moved up. But we're getting back to the really ancient history, the early Jurassic. But this terrane that, it's called the Peninsular terrane. And in the early Jurassic, it was extremely warm water with corals and lots of warm water, thermophilic looking things. And it's cooled down so that by the time Fossil Point comes around in the base of the Middle Jurassic, it's cool. And by the time you get up into the Upper Jurassic, rocks of the Naknek Formation, and they even include glacial dropstones and only one or two genera of bivalves and one common ammonite genus. And the bivalves belong to a genus called *Buchia* which is typically a high-latitude Boreal genus. So, this terrane really moved across the Pacific. South to north across the Pacific at one heck of a speed, galloping across. Suggesting there was a lot of plate motion activity in the Jurassic, within the Paleo-Pacific motion. Which some people call Panthallasa P-A-N-T-H-A-L-L-A-S-A. But lots to learn.

And we had another person working on part of it. The Triassic and Lower Jurassic a long time ago by the name of Joseph Palfy, who's friends with Vince, who I've never met, only corresponded with. So, another one of our international collaborationists.

Santucci: From a park resource management perspective, do you have any knowledge or information related to possible collecting of fossils from Fossil Point by the public?

Blodgett: Well, people used to go there a lot. Years and years ago, there was a society here called the Chugach Gem and Mineral Society. And they would head over there. But they haven't been doing anything for a long time. There are people, I know I've talked to private people who've been over there, people working for Fish & Wildlife. So, everybody who worked over there knows about it. So there has been collecting done along the beach. I know that. And somebody told me they were over there one time, and someone showed up, I think, in a fancy

fixed wing plane. Not a helicopter. On the beach with a family. They'd read about it, and they actually went out and collected there. But in terms of places to collect fossils in Alaska, if you were here in the '60s and '70s—and I was just a young kid—but even I had heard about this place called Fossil Point. So, it and a place called Slide Mountain (composed of the Cretaceous age Matanuska Formation) in the Talkeetna Mountains are the two best-known localities people always talk about going to collect.

But in terms of management, that's a place I would monitor very carefully. Make sure people aren't taking much out. But it's an expensive proposition to get over there. You've got to get across the waterway. You either have to fly or go over and stay at that cannery. And then get a boat, commute back and forth. And I've known people, I knew a man who had a fishing camp over there. Him and his kids have picked up lots of fossils, well, thirty, forty years ago. They were all over the ground. You could pick them up at low tide and collect them by the bucket full at one time. It's still there, as far as I know.

Santucci: And you had the opportunity to visit Fossil Point?

Blodgett: Oh, yeah! I've been there once. But I spent five days there with the Park Service. So, we were commuters. And it's a lovely place. And it's good to have good weather. But we went from a place farther south along the ocean front. There's a lodge that we stayed at. The National Park Service had a cabin close to the lodge, and we commuted back and forth. I wish we would have gotten you out there. You would have enjoyed it. Quite spectacular scenery. No glaciers, but lots of tall mountains. Quite impressive waterfalls and things like that.

Santucci: Another area that you've had interest in Alaska from a research perspective is Noatak National Preserve.

Blodgett: I have. And I've only barely been into the edges of it. But there's lots of old USGS collections. And they're really well-preserved. My research interests are mostly in the Paleozoic. But I also dabble a lot with the early Mesozoic. But the Middle Paleozoic I've seen out of there is very intriguing. And, as you know, we were on another paper. Let me get this one right. You, me, and again, this Russian guy, Yury Baranov, we named it for Alaska and in part for the new chief of Alaska NPS. Called it *Alaskothyris* new genus. And the species name was *frostei*. Hey, my brain worked. Let me think here. But there's lots and lots of more stuff in there. And I've described other fossils from USGS collections there years ago, and they're sitting in the national museum. But if one could get back there, you could get out there. But I think the way to go is to get out there. and I've got some new sites, some Upper Devonian, to die for. But it needs support. Really what it needs is just a helicopter ride, drop people off. And I think even with just one day—two or three days would be better—but just one day of collecting and measuring the section, you could haul away enough material to keep someone busy on a monograph for a few years. Probably some of the best fossils. And I sent them to an NPS guy here in town that does caves. And he is also a geologist. He says those are the loveliest brachiopods he's ever seen in Alaska. And he's right. They are, indeed. They look much like stuff out of Ohio and Michigan, the Michigan Basin. The famous Silica Shale Formation Just absolutely drop dead gorgeous. But it just needs support. A helicopter to get in there. You can potentially fly out there. But you're better off if you can get along the banks of the river there, and then hike up the hillside. But a helicopter would be the way to go. And you could go in and out. Take out your treasure with

you. And spend the rest of your, a good portion of your career, at least a year or maybe half a year, writing that stuff out. Just like I said, Shellabarger's a big quantity. It doesn't all get done overnight. But we've got a good portion of, a lot of the significance I've already described.

But there's another site. There's also another place near the Kugururok River, a great section of the Kugururok Formation which I think desperately, desperately needs work. As well as the Trail Creek section, which I've been talking up to Jeff Rasic.

Santucci: And there's a collection of Noatak specimens that is at the GMC, is that correct?

45:57

Blodgett: They've got some small stuff from Gil Mull, who worked out there. He actually worked out in Noatak. It wasn't Noatak then. Noatak hadn't been created. But he collected stuff there in the '70s. And his collections are now deposited at the GMC.

Santucci: Any other thoughts about Noatak?

Blodgett: I would like to get in there. Love to see something done with it. And it's very critical. Again, it's part of this Arctic Alaska terrane. That does not share a lot of commonality in the older rocks with North America. Which is what you'll see down at Yukon-Charley River. Goes back to western edge of North America. Quite a discrete type of fauna.

Santucci: So, moving over to the largest unit of the National Park Service, Wrangell Saint Elias National Park and Preserve. Your thoughts about this park?

Blodgett: It's a big park. There's lots to see and do. And the most paleontologically significant things out there, and it's the type section for another big, accreted terrane. We're getting a terrane that's called Wrangellia. And the classic Wrangellian stratigraphy is in the middle part of it, which is of Triassic age. So, it has a basal unit called the Nikolai Greenstone, which giant mass outpourings of basaltic lavas overlain by the Chitistone and Nizina limestones, and finally by the McCarthy Shale, which spans the Triassic/Jurassic boundary. And I worked on the Nizina/Chitistone boundary right north of McCarthy up at a place called Green Butte. And we spent oh, about four days camped up there and walking back and forth. We've got a number of papers out describing the rocks and fauna out of there. But there's so much to see and do. There's a lot of stuff there. Lots and lots of fossils waiting to be discovered. And below the classic Wrangellian stratigraphy is a good Permian age section. And the Permian is also very rich in brachiopods and has been very poorly documented. There's been a few species illustrated by workers from the USGS. But it's waiting to be done, too. But it's a classic area for the Wrangellia terrane, which started this whole terrane accretion business going. So much work could be done. There's been another person working out there, though I haven't talked to him in a while, who's been doing some work on the Jurassic section there. But we haven't had any recent correspondence. I thought he was up here this year, but he never contacted me. But he's been working I think with the people down in McCarthy. And I'm trying to remember. Let me see. But he was a student of George Stanley. And so, things are going on, still. But I really enjoyed that area. So, it's a different part of, it's a different type of stratigraphy than you see elsewhere. A lot of tropical rocks there. A lot of tropical Triassic. And that area also moved farther north during the Jurassic times. So, you can see that same cooling down.

And the guy I'm thinking of was Caruthers. Andrew Caruthers, Vince, who's working there now on the McCarthy Formation. But I haven't got an update from him what's going on there. It's kind of moved more from paleo over to geochemistry because they had some funding for that. And there's a lot of funding from NFS now for doing chemostratigraphy, as it's called.

Santucci: Thank you. So, we're going to move to one of your favorite parks, Yukon-Charley Rivers National Preserve, which has a very extensive fossil record and history of work. So, what do you want to share about Yukon-Charley?

49:58

Blodgett: Well, it's the best place to see the western edge of North America as it appeared during the Paleozoic. Everything to the west and north and the south represents rocks that have traveled far and wide across the Pacific and Arctic Ocean basins, and have collided here. But here you're getting typical things you'll find elsewhere to the east and south in North America, especially in the Yukon Territory, in the Canadian Arctic Islands, even Nevada. And it's got a complete stratigraphic column. But you can go out there relatively easy on a low budget. That's where I did my master's thesis. And I did them on the brachiopods on the lower part of the Devonian. Late, early Devonian. The same age as Shellabarger. And that's what stands out. When you go to Shellabarger you go look at these areas. Same age rocks. But the fauna, the corals, and especially the brachiopods as different as night and day. There's nothing in common. Absolutely nothing. They're not that far apart today. So, they must have been separated by an ocean basin. And I'm trying to work out a note right now, I'd like to see the darn basin named. Call it something, like the Mertie or Churkin Sea [Mertie and Churkin were early geologic mappers in the region]. Similar names have been proposed that separated parts of Europe before they collided together during the Paleozoic. We need a name for the feature separating the stable part of North America/Alaska, which is a small, triangular area between the Porcupine and Yukon rivers down here by Eagle from the rest of Alaska, which is accreted. So, I'm trying to think of a name for it as fast as I can. What can we call this? And yet, you can see that boundary in Yukon-Charley River. And when you go across the Kandik River, there's a thing called the Kandik River Basin, which has got a Cretaceous belt of deep-water rocks that represent something that developed, probably a suture zone. And as you go to the west over to Woodchopper Bluff, you're still in the park, but on the other side of that, and you're picking up an exotic fauna that is not like that over in the eastern cratonic part of the park. And we need a short note on that. But I haven't had enough time to work it up into a manuscript. And I've got another good spot for collecting there, where I know there's good fossils. It would help to get a helicopter in there. And you could do it probably in a day's time, after being dropped off there. It's close to Yukon River, but to the north.

So maybe someday I'll throw myself at your people's mercy and say, "Let's go visit this locality." It's a tiny nob. I've been there for about an hour with the USGS staff back in the '80s but didn't get much. And I know if we went back there, we could get significant collections, the potential there is tremendous. But it would be nice to walk into that further. You could show the contrast, the difference between accretionary versus cratonic Alaska. I have a suspicion these accretionary rocks would be very similar to those you see down at Shellabarger Pass, or maybe even in parts of the Arctic Alaska rocks up in the Noatak National Preserve. Because I think they all have a common origin, being derived by rifting out of Siberia.

There's everything out there. You can get every age rock you can imagine, basically, in Yukon-Charley River National Preserve. You can get Cambrian trilobites with a large monograph on it, by the way. Because much of the work done by the USGS, under Earl Brabb and Mike Churkin bought in large collections from for an interval of three to four years. Large collections. They brought up paleontologists like Pete Palmer who released a large monographs of those. Cambrian trilobites. There are papers on the Triassic megafossils, on the Silurian graptolites and radiolarians. Even the Permian brachiopods along the Yukon River have been well described (but still with lots of room for improvement). And the Triassic in bits and pieces, actually. In an old USGS monograph series by James Perrin Smith back in 1927 and more recent work by Norm Silberling. But you've got everything out there. It just needs people and time to get focused on that area.

But the wonders of that area, believe it or some, is some of the units can be reached by boat. You can take an outboard and go down the Yukon River from Eagle and get into great world-class Permian and world-class Triassic. And nobody's been back to do this. And I've got a guy who works on Triassic rocks named Chris McRoberts. He would love to get out there and look at the Triassic. So, Vince, you want to go do some Triassic-ing, there's a place to go. There's more work to be done with the Permian, but I really think the Triassic has not received the attention it really needs. And there has already been work done on the Permian. But we at least have a cursory understanding of that now. But that's also at river level. You just get on the boat and walk up the bluffs. Right there.

And of course, I would like to see work done down by Woodchopper Creek in the Devonian age Woodchopper Volcanics. And as you cross Kandik basin and move west, you go away from the North American cratonic rocks, and get into piles of Middle Paleozoic accretionary rocks of volcanic origin. The Devonian and Mississippian strata consist primarily of volcanic rocks. The greenstones there that have lots of beautiful pillow basalts in them. These are not cratonal, not continental looking at all, resembling more what you would expect in volcanic island arc. It has inner some interbeds of shaly and limey rocks with fossils.

There's been a little bit of recent work there by some students out of Harvard, about ten years ago, looking at some of the Cambrian strata. But it's an area that is, in terms of access, relatively easy to access. Helicopters are always welcome if you can get one. But some of the units can be done without it. And I highly recommend working there. When the weather's good, it is not like the rest of Alaska. It has a continental climate. So just like when you're down in Iowa or Minnesota, you can get these thunderheads blowing through in the middle of the day, with lightning strikes. You usually don't see that type of climate in the rest of Alaska. Here however, you do. So, it was very typical intercontinental type climate.

Santucci: Any comments about the Calico Bluff area?

Blodgett: That's on the Yukon River, too. That's been studied in some degree, even with a M.S. thesis on it and a USGS Professional Paper describing cephalopods from it by Mackenzie Gordon. It's kind of hard to get fossils out of, but it's a good section where you cross the Mississippian/Pennsylvania boundary. There's enough work done on it now that I feel like it is moderately well studied, with exception of some invertebrate fossil groups such brachiopods. But it could always have additional study done. It could use work on conodonts or some other

faunal groups – but no, there's work to be done there. It's a beautiful area. Nice completely exposed outcrops. But I think the exposures downriver from it have much more potential. Like the lower part [Triassic] of the Glenn Shale. Which has vertebrates in it, by the way. We know that there are some ichthyosaur bone fragments material. There is still much work remaining to be studied in the Permian Takhandit Limestone. But it's all good. And there's good Silurian along the Tatonduk River. And we found the oldest Devonian ammonoid in Alaska on the Tatonduk River just above beds bearing Silurian radiolarians which have been published. You just go a few feet above them and bam, you hit a deepwater Early Devonian section filled with some of the youngest monograptid graptolites known in North America, interbedded with the oldest Devonian ammonoid in Alaska and North America.

Santucci: Very good.

Blodgett: In addition, it's a lovely area to work in.

Santucci: Absolutely. So, you're young enough to recall when the National Park Service established all these units in Alaska under Jimmy Carter.

Blodgett: Right.

Santucci: Do you recall that time period? And was there any discussion amongst you and other students or colleagues of the time?

Blodgett: Yeah, I remember such conversations because I was working with Carol Allison. Her husband was Dick Alison. They were both husband and wife paleontologists. So, the questions came up about Yukon-Charley River. Where to designate a boundary for the park? At one time, they were not including the rocks I was telling you about. It was over all on the Charley River side, which was on the metamorphic side. NPS in consultation with her agreed that they should extend the boundaries up to protect these richly fossiliferous Paleozoic blocks representing the then western edge of North America. So, we could have even further discussions on that. And this was '78, '79 and '80. And I was in transition leaving for Alaska to go to Oregon. I was already down there in school, but I was in phone contact with them. Because I came up and kept working on these areas anyway. But things were in flux, so I got to know some of the early directors of Yukon-Charley Rivers N.P. But the boundaries, I think, were still not worked out. They were hammered out sometime in the mid-1980's, probably '83, I think, if I remember, for Yukon-Charley River. And that was one that concerned me because I just did my M.S. thesis work there and I knew the principal investigators and all the geologists who had done the previous mapping there. But they've all moved on to the happy hunting grounds, I hate to say.

Santucci: And in more recent years, you compiled bibliographies for Yukon-Charley and several other national park areas?

Blodgett: Oh, yeah. I've done it for Yukon-Charley River. And I've redone it, revising it for Jeff Rasic. In fact, I'm waiting to hear from him. I want that darn thing published, because it's a valuable dataset and I just sent it off to the Canadians. And we tried to get areas that were within twenty miles of YUCH. So, we tried to include all the Canadian mapping, recent mapping, in there, too. But it's done. We'd just like to get that out. But we did Yukon-Charley River. I've done one for Katmai. I also did one for Noatak National Preserve. We've got a big bibliography

developed. I'm trying to think. And I did a bibliography for Glacier Bay. And I did those in part because I also had USGS and the state of Alaska fund me to build the Alaska Paleontological Database (www.alaskafossil.org). Well, in addition to those records, which populates a lot of our localities, we get them from two other sources. Published literature, or unpublished USGS mapping. And/or less likely, theses, which are not that many. So that's the source of our data. And so it's very useful. I love doing them and it's fun in tracking down and getting a chance to talk to anybody who's still left alive and their memories of it. And I wish I had more time to track down some of these people. Because a lot of the last time of the good old mappers are going away. At a horrendous rate.

1:00:48

Santucci: So last July when I was at the Alaska meeting with you, we went to the Geologic Materials Center. And we talked to the staff there about your Alaska Paleontology Database. And trying to get some Park Service data on the boundary so we can figure out how many localities are in the database for Noatak National Preserve. Is that correct?

Blodgett: We discussed that. You know, most of the work, I think everything for Katmai is on that now. Except there's one report out there, we need to revisit that report, that was done by an oil company. But we've got all the USGS Alaska Paleontological database. The trouble with that oil company report is the copy they had floating down at the office down there had a break along the pages. So, some of the localities, you know, it being a fold map, and where the fold was, the writing gets illegible so you can't see where the locations are. But there were like two hundred localities. The quality of the data is not as precise as what the USGS had. But no, we could do that for every park. I mean, I've done an Excel spreadsheet for Glacier Bay National Park that had like five hundred localities, because they extend all the way up to Lituya Bay and places like that. But no, this is something that needs to be done. So, I enjoy that type of work. I was having a blast doing that one. Just to focus on that and getting to talk to people who've worked down there. But again, the old-timers are going away. I hate to say it. I'm becoming the old-timer now.

Santucci: Well, any last thoughts? This has been a very good interview again, and lots of good information captured. Any final thoughts from you?

Blodgett: No. But my final thought is I'm very thankful that the Park Service has taken such a strong interest in paleontology up here. You're keeping the ballgame going. The USGS does not have a committed unit mapping geology or describing fossils anymore. There's no support for paleontology. And primarily, most of the work is coming from independent sources. But primarily the Park Service now has taken the lead. I encourage the Park Service to take it on. I'm ready to help. Let's get this thing going. Let's build our own paleontological database. Take what we have from the national one, put it over there and get this going so we can continue to research paleontology on Federal lands. There's things that can even be done with capturing photographs so you can even get digital images of these localities. That's one thing that has not yet been done. We had that at one point ready to go on the USGS one. We had some pictures of fossils. But not site-specific ones. But I think that, the one big improvement I can see done is even going through, and even using a handheld digital phone camera. It doesn't have to be fancy because that takes a lot of work. As you know from our Shellabarger time, I'm lucky to get four or five pictures on a day, because that will take up the whole day getting those done. But with a

handheld camera, boom! If you open it right, you can have an image and have it on your website, boom, boom, boom. You go oh, that's those common clams there. It would really help people, researchers in the future. And I'm happy to say with all the people coming internationally now to work on Alaska, we're getting a lot of attention here, too. I get lots of inquiries on our website from email. I just got one a few days ago from someone in Britain. And Belarus in the former Soviet Union. So, that's my comments. I want to say I'm thankful to the Park Service for all the work they keep doing up here. Especially you, Vince.

Santucci: Well, thank you so much, Robert. You know, you've helped us out in so many ways on various projects. And we couldn't have done it without you, that's for sure.

Blodgett: Well, thank you. Thank you for the compliment. It's been mutually beneficial. And for the benefit of science. And ultimately, that's what counts. And you guys have kept the football going. Because my former agency doesn't have the energy or resource anymore to do that, unfortunately.

Santucci: Well, thanks. Thanks again, Robert. I think you need to go get a good dinner. Get some beef and celebrate the rest of the evening.

Blodgett: (laughs) Get some coffee. Things are still in lockdown up here. No beef for me. (laughs)

Santucci: Okay. We'll probably talk to you in the next couple of days. But again, thanks so much. Tim will be excited to listen to this.

Blodgett: Okay. One last question, are we off the record now? You saw the last plate, right?

Santucci: Yes.

Blodgett: We got the other ones.

1:05:38

[END OF TRACK 2]

[END OF INTERVIEW]

Total = 160 minutes