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Vincent Santucci's NPS Oral History Project, 2016-2024

Jeff Eaton
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Interview conducted by Vincent Santucci
Transcribed by Teresa Bergen
Edited by Molly Williams

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Transcript

[START OF INTERVIEW]

Santucci: Today is Wednesday, July 29, 2020. And my name is Vincent Santucci, I'm the senior paleontologist for the National Park Service Paleontology Program. Today I'm speaking with paleontologist Jeff Eaton who is also a retired professor from Weaver State University in Utah. Jeff has coordinated field paleontological resource inventories at Bryce Canyon National Park in Utah. And has published on fossils from the park. The interview is being conducted by telephone from Jeff's home in Tropic, Utah. And I'm at my home in Gettysburg, Pennsylvania. So, Jeff, thank you and welcome.

Eaton: Thank you.

Santucci: So, the first question is going to be the easiest one. When and where were you born?

Eaton: I was born in Delaware.

Santucci: And so, when you grew up, where did you live? Where did you go to school? And did you have any experiences pre-college with fossils?

Eaton: No.

Santucci: No?

Eaton: I did not. I was born in Wilmington, Delaware. We moved for a couple of years to Pennsylvania, where I went to elementary school for three years. Then we moved to London and lived there two years. Then we lived in Switzerland. I lived there two years. Then we came back to Wilmington, Delaware, where I stayed until I went to high school. Then that takes me through high school.

Santucci: Was your family in the military? Or your moves—

Eaton: No. My father was a businessman.

Santucci: Okay. Excellent. Well, interesting background. Where did you live in Pennsylvania?

Eaton: A place called Media. It was really north across the border from Delaware. My father still worked in Wilmington. It was kind of, this is a suburban commute.

Santucci: Okay. Great. And so where did you go to college?

Eaton: First year was Knox College in Galesburg, Illinois, which drove me nuts. Then, being out in the middle of a cornfield didn't suit me. The next year, I went to Manhattan School of Music in New York City, where I eventually got my bachelor's degree. And that incidentally is, strangely enough, how I got involved in paleontology. The apartment I had there was almost directly across the street from the American Museum of Natural History. And I think in roaming the museum when I was bored practicing, I'd just take a room at a time. And one day I walked into an exhibit that no longer exists, it's called the Hall of Early Mammals. And there were all these little tiny pristine things collected in Wyoming, etcetera. And something in my brain snapped. (laughs)

And when I graduated from music school, Malcolm McKenna gave me some sites to go collect. And I went out west supposedly for a summer. And I never went back. (laughter)

3:28

Santucci: So how did you meet Malcolm McKenna?

Eaton: Actually, after seeing the Hall of Early Mammals and reading papers about it, and he was the curator there, I contacted him and said I wanted to talk to me about work for the museum. He had me in his office. Gave me a list of places where one, he expected me to find nothing, and two, not even be able to get there. But we surprised him. (laughs)

Santucci: Did he give you a map, a dot on a map and just say go? Or did he hire you to do that work? Or what was the relationship?

Eaton: It was just I wanted to do some work for the American Museum because I appreciated the years I had learned there. And he just had some dots on the map and the [ages?]. And one of the places, Corwin Springs, his master's thesis area. And I just, we drove across Canada, came into Scobie, Montana. Worked through Montana, dropped into Wyoming. And then we met up with Mac West and we met up with the Berkeley crews. And we just went from basin to basin learning geology and paleontology. It was the most exciting year of my life.

Santucci: Sounds great!

Eaton: It was. And then at the end of the year, end of the summer, we came into Laramie. And Laramie, I really liked. And I just rented a place. And I got all the fossils and laid them out on the table and called Malcolm, who's down on his ranch in Colorado and told him what we'd got. There's dead silence at the other end of the phone. And he said he'd be up tomorrow.

So he came up the next day and looked at what I'd collected. Said, "What do you like to drink?"

And I said, "I'm partial to scotch."

He says, "Well, here's a hundred dollars. Get all the scotch you want. Get back and get in the back of my truck." And then him and I went off and collected for the next couple of months.

Santucci: Wow.

Eaton: It was an absolute blast.

Santucci: At what point did you run out of scotch?

Eaton: (laughter) With Malcolm it was easy because you never had to worry for supply.

Santucci: So you never had any training in paleontology outside of self-taught at the museum, and you never had field experience, and you went out into Wyoming Badlands to collect fossils.

Eaton: Yeah.

Santucci: And were successful.

Eaton: Yeah. Extremely successful.

Santucci: That's fantastic. So, do you recall the first fossil that you actually saw when you were in the field? Something from the natural state.

6:09

Eaton: The first place we had to stop was Corwin Springs. So I think it was some Miocene mammals. We got some partial skulls. It's hard to forget Bridger Basin and the zillions of *Hyopsodus* and all the other bloody things that are lying out there in such obscene abundance. Only a blind person could miss them.

Santucci: And—go ahead.

Eaton: No, it was just a wild [unclear] it was fine.

Santucci: And so you're obviously camping out in the Badlands.

Eaton: Mm hmm.

Santucci: What did you think of the cultural experience of the field paleontology?

Eaton: Oh, it was part of the whole thing that captivated me after living in urban areas all my life. That summer made it impossible to go back. I mean, here was a career in music. I had all these contracts in New York. And I just couldn't go back. I dumped them all.

Santucci: And so, do you have a fond memory—

Eaton: Classical music wasn't of much use in Laramie, Wyoming.

Santucci: (laughs) Do you have a fond memory of being in the field with Malcolm McKenna? Anything stand out?

Eaton: Oh yeah, definitely. Of course that was only the first summer. We worked together for years and years and years. Up in the Absarokas particularly. And of course I ended up doing my master's work in the Absarokas also. And Malcolm, he's been to my house, he knows my child. He's a part of my life the whole rest of my career.

Santucci: Good person to associate with.

Eaton: Yeah.

Santucci: Yeah.

Eaton: A great teacher.

Santucci: And how about—oh, go ahead.

Eaton: Even though he wasn't really a teacher. (laughs) [unclear] but he was a great teacher. I mean, he had hordes of students.

8:15

Santucci: Yeah. Influenced a whole generation of young paleontologists.

Eaton: Absolutely.

Santucci: And so, you said you did field work with Mac West as well?

Eaton: Yeah. And we, on our sort of tour of paleontology, he told us where Mac would be camped and where the Berkeley crew would be. So as we went through and learned things, we got to talk to a lot, you know, Wyoming was such a high hot spot then that everybody was out there. So, we got to meet a lot of paleontologists my very first summer out.

Santucci: And was this during the 1970s? Or earlier.

Eaton: Yes. This is the summer of 1971.

Santucci: Okay. And so do you remember who was on, anybody on the Berkeley crew?

Eaton: Well, Don Savage, of course. And Don hosted us and was working on the Bridger Creek then. We got to look at some other things than we'd seen with Mac. It was very good.

Santucci: Yeah, it sounds like a great experience.

Eaton: Yeah. Unbelievable.

Santucci: So did you go on with your education after the field experiences?

Eaton: Well, after that first summer, I got offered a TA in the music department. And I pretended, I started in my master's in music. But it was just silly after Manhattan School of Music. And then I switched after I think about a year of graduate studies in music. I switched and

started my very first geology class. And University of Wyoming was an amazing institution. I mean, I walked into my first course, introductory geology taught by Brainard Mears. Walked up afterwards and introduced myself. Said I'd been traveling around Wyoming and doing field work and I was so excited to have a chance to really learn something about it. And he asked where I'd worked. And he said, "Oh, very good. I'm leading my graduate field trip there this weekend. You will lead it." (Santucci laughs) Within a year, I was curator of the geology museum, with a bachelor's in music. I even got NSF grants with only a bachelor's in music degree. It was a different world. (laughs)

Santucci: And then, your PhD, where did you complete that?

11:12

Eaton: I finished the master's at Wyoming in '82 after doing, working in Absarokas, stuff like that. In '82, I went to University of Colorado. But I was not a Peter Robinson student. I was a Erle Kauffman student. I went for understanding more about biostratigraphy, which is what I always saw myself as.

Santucci: And so, Jim Kirkland and Will Elder, they came after you?

Eaton: No, we were all in the same class.

Santucci: Wow. Wow. What a group.

Eaton: And we were all Kauffman students at the same time. Jim was my field assistant in '85 in Utah. Yeah, that's where our contact began.

Santucci: And did you do a master's thesis?

Eaton: Yes.

Santucci: What was the topic?

Eaton: It was on my work in the Absarokas. It was specifically Carter Mountain but I did some of the stuff there. And then it took me, it took after I got my master's, which didn't include, I had a seven years' master's. (laughs) Because I was working at the museum. I was in no particular rush to get through it. And so after I finished that, I published the Carter Mountain stuff, but also got a lot of my Teepee Trail and other things out. So, yeah, I published two major papers.

Santucci: Great.

Eaton: When I finished my master's. But it was really hard to do my first year of a PhD program. But I persisted and got that out.

Santucci: Since you were working in the Absarokas, did you do any work in Yellowstone National Park?

Eaton: No.

Santucci: It was all east of there?

Eaton: Yeah. All east. Yes.

Santucci: Okay. And presumably some of those units extend into the park. Is that correct?

Eaton: Yeah, they do. They're not as well exposed, because they tend to be more buried by younger volcanics towards the park.

Santucci: Mm hmm. And so what units specifically were you finding most productive?

Eaton: Well, the Wiggins Formation on Carter Mountain is extraordinary. And a paper just came out a few months ago describing a skull I found there and a skull with a brain case with the inner ear region attached. And I thought somebody was a really good cranial anatomist to describe it. But it got kicked around for years. So forty years later, it finally got published. But you can see how incredible the specimens were from the Wiggins Formation at Carter Mountain.

Santucci: And so—go ahead.

Eaton: And then we also hit other areas in my years there collecting. [We'd bring out?] skulls and all kinds of things from the Teepee Trail Formation. But it was mostly Teepee Trail and Wiggins.

Santucci: Okay. And just some of the fauna, was it a pretty good diversity of things?

Eaton: Oh, yeah. We had micros, we had macros. We had tiny, interesting, fascinating things. Big things. We did what we could. Because nearly all the work in the Teepee Trail is backpacking. So quarrying out a block with a skull and getting it out (laughs) was often really fun. There's spectacular stuff up there. Two guys working in there, my field assistant and I, to say that we only scratched the surface, to say the least.

Santucci: Very good. Had you ever thought about or discussed, or do you think there's the possibility that there is vertebrate material from those units within Yellowstone National Park?

Eaton: There probably area. Yes. But it's a little vague in my mind now where the map boundaries are and all of that. My thought was then that these units in certain places expand into there. As I say, what tends to happen is a lot of younger units bearing that. So you tend to see them within the park in the ravines and the eroded river areas. And they're so damn steep in Yellowstone (laughs) it makes prospecting difficult.

Santucci: It's certainly a challenging area to access.

Eaton: Yes. Largely I was working in in wilderness during most of my years in the Absarokas. So I was used to coming up to the edge of the wilderness area and parking, setting up a base camp, throwing a backpack in. And we fished for food.

Santucci: And did you, the road between Cody and the east entrance of Yellowstone, was that a primary access? Or did you come from the north more?

Eaton: We worked a lot out of Thermopolis area and up, the one from Cody did go by Carter Mountain. Carter Mountain was one of my focus areas because of the incredible exposures and the locality I call Fantasia, the one that the skulls came from, and the ones that were just described. We found I think four hundred specimens in the first hour we were there.

Santucci: Oh, my goodness.

17:05

Eaton: Sweet spot. (laughs)

Santucci: Oh, absolutely. And so, do you know who published this recent paper that you reference?

Eaton: I didn't publish it. I'm not an author.

Santucci: Yes. Do you know who did?

Eaton: What?

Santucci: Do you know who published it?

Eaton: Yeah. Sure. It's an anthropologist, because they needed somebody who's good enough at primate, at cranial anatomy. I can look up the paper here. My files here. It will take me a minute to find it here. [Mary Silcox, Gregg Gunnell, and Jonathan Block, Journal of Paleontology, 2020].

Santucci: Maybe we can do it at the end.

Eaton: You just keep talking, I'll page through this. I'll look through my files. I'll just page. You go ahead.

Santucci: All right. And was this also your dissertation project as well?

Eaton: No.

Santucci: No?

Eaton: No, not at all. When I went down with Erle then I had, Erle, part of the reason I was an Erle student, he gave a talk at the close of my time at Wyoming. And I had already published some articles on Mesozoic mammals in that Lillegraven volume. And I had become interested in Mesozoic. And Erle gave a talk. And it was also the same year Tom Ryer gave a talk. And he was talking about the near shore deposits. And I said, "Well, what's on the other side of those near shore deposits?"

He said, "Oh, boring flood plain stuff." (Santucci laughs)

And I said, okay. So it was '82 when I finished my master's. I drove down through Utah. Drove down the San Rafael Swell, got in the Henry Mountains and the [unclear] Kaiparowits

Plateau and found stuff everywhere I went, and decided that I had a PhD project. (laughs) So I spent the next five years, I spent the next thirty years about working the Cretaceous in this area.

Santucci: Okay. Very good. And so, your dissertation topic was again?

19:24

Eaton: My dissertation topic was the stratigraphy, paleontology, or paleoenvironments and age of Cretaceous rocks in San Rafael Swell, Henry Mountains, and Kaiparowits Plateau. Something like that.

Santucci: That's a big topic. (laughs)

Eaton: Yeah. Kind of stupid. The typical thing. Nobody should ever let me do that. But we did it. I published papers on each of them. So that began the, you know, I was the first to really publish on Cedar Mountain fauna and San Rafael Swell. The first one to publish on Henrys, the first one to publish on all the units in the Kaiparowits. That eventually began the paleo stampede.

Santucci: Very good.

Eaton: The monument was developed based on my work.

Santucci: Okay. All right. Very good. So you defended your dissertation. And where did you go from there?

Eaton: The next year, in 1987, I went down as scholar in residence at the Museum of Arizona. And I did that for a year. And then I became curator of paleontology there.

Santucci: Okay. And how long were you there?

Eaton: I was only there for a few years. This is one of the times that being a friend with Malcolm had problems. Because I married another curator there, the curator of ethnology, who was friends with some very powerful people on the board. Malcolm was on the board. And the director became very uncomfortable with our power and our connections and worked very hard at driving us out. And we got the message. And my wife and I went on the market and she got the first gig. And that was at Weber State. So in 1991, we moved to Ogden. And she got at Weber State and I was a part time curator of paleontology at the Utah Museum of Natural History. For a few years, until Weber finally picked me up.

Santucci: And so, were you doing any research at this time? Or were you mostly doing—

21:50

Eaton: Oh, yeah. Oh, yeah. No, I did full field seasons every year.

Santucci: Okay. Great.

Eaton: And then it was actually in '91 when we knew we were going to leave the museum, I bought the house in Tropic.

Santucci: I see. Okay.

Eaton: To have a field station. I didn't know where we'd end up. I figured we'd be in New Hampshire or some damn thing. So we bought this house down in Tropic. And it's been my field station ever since. I think it was '91 we bought the house, '92 is when we actually left and went up to Weber.

Santucci: And what year were you offered a faculty position.

Eaton: At Weber? Let's see. Let me see here. My memory's not what it used to be. Let's see here. Weber State, it was 1995 [became full professor in 2004].

Santucci: Did you fall in behind Sid Ash when he was there?

Eaton: Yes, yes, yes. Sid was one of the ones very anxious to get me into the department, very instrumental in doing that.

Santucci: Great. Did you overlap at all? Or you came in behind him?

Eaton: Yeah. We overlapped.

Santucci: Okay. And what was it like to work with Sid?

Eaton: Oh, I had known Sid for a long time. And so, as a teacher you don't really work with anybody. (laughs) It was always fun to have him around and talk to him. He was only there for a year or two after I got there. But we stayed in touch for the rest of his life. So I always sort of knew what he was up to, and it was fun. He always treated me very well.

Santucci: Good. And your teaching responsibilities at Weber?

Eaton: Was everything. I taught the introductory geology. I taught paleontology. I taught sedimentology and stratigraphy. On and on. The fossil record. It's an undergraduate institution where the teaching loads were enormous.

Santucci: Okay. Very good. So how did you first get involved with work at Bryce Canyon National Park?

24:28

Eaton: Well, I had the house down here and of course I was working laterally into areas and saw very nice exposures in the park. And I started really in the Kaiparowits Plateau. But then I started working the Paunsaugunt Plateau where Bryce is on, the Markagunt Plateau, the next plateau to the west, and even into the Pine Valley Mountains. And I started to work cross sections of the Cretaceous. As you come up to the east edge of the park, it was just very nice Cretaceous exposures there. And on the top of the plateau, there were some very intriguing beds that looked quite different. As a matter of fact, I was quite confused about the stratigraphy. Beautifully variegated units, unlike the drab stuff in the Kaiparowits Plateau. And I began working actually in the Forest Service lands. But I wanted to look at Bryce. And very quickly, I got a permit to go

in there and start looking at that. Bryce is a very fossiliferous place. Particularly the Cretaceous. I did spend part of two summers in the Claron and what I finally referred to back then as the pink crud. And found stuff, but no, well, there's eggshell. There were clearly animals that live there. (laughs) The preservation bias is terrible. It took me till a few years ago in the outside of the park to find mammals in the Claron, but I finally did. And I published on those.

Now the Cretaceous there is well-exposed. My job there was not to collect and do research during the inventory, those number of years. We found probably the richest Santonian site. And I did ask to be allowed to develop that one. And I published on that one. But there's of course much more that could be done at the park.

Santucci: And what was the first year that you worked at the park?

Eaton: Oh, boy. Back when I was at MNA. So it was probably around 1988.

Santucci: Nineteen eighty-eight. Okay. And then did you work in the park continuously for a number of years? Or what was the range of years that you worked in Bryce?

Eaton: Probably every year I was working in a couple of places. So I probably did some work in Bryce from about '88 to a few years ago. Yeah. So I have parts in the field season, and I'd go in whatever part I was working on that was related to, I'd go and see what I could find. I worked Bryce a very long time.

Santucci: Okay. And then, are you still working in Bryce at all? Or have you completed—

Eaton: No. Other than I was interested in seeing, you know, I was trying to look into this road construction thing. But other than that, I had no. The stuff I'm working, I was trying to finish up some obscure units in the area that aren't present in Bryce. Canaan Peak Formation, Pine Hollow Formation and all these things around that K-P boundary dating them. 27:53 None of those survived on the park. And I started really in the Kaiparowits Plateau. But then I started working the Paunsaugunt Plateau. So I've been working elsewhere trying to resolve those problems. So I didn't have any, I'm trying to stick to very specific research problems because I don't spend really that much time in the field now.

Santucci: And through your work, you were able to publish some of these findings?

Eaton: Well, any of the stuff that was part of my, that was research, I published. The survey was not intended to be published. The survey work in there established sensitivities and where localities were in the park. Well, that's for the park to properly manage resources. The research stuff, like the Santonian locality, 28:49 I published, and I published several of the other localities. The stuff that was purely inventory, I did not.

Santucci: Okay. And can you go over maybe in stratigraphic order from oldest to youngest which units within Bryce were fossiliferous that you worked in?

Eaton: Well, very rarely do you get any Dakota in Bryce. There's a little within, that's which called now Naturita. The name has changed. Certainly the Tropic Shale, it does, it's marine but it does contain vertebrates. The Straight Cliffs formations on top of that. And it contains marine to

terrestrial, and it's got, the Pasture Wash locality, 424, I published in journal, *JVP*. And it's got Wahweap Formation, it's the youngest Cretaceous unit in there. And it's quite fossiliferous in the park.

And then the Wahweap is uncomformably overlain by the Claron. Which does have fossils. We got unionid bivalves, there's gastropods galore. I did find hackberry seeds, eggshell, plant leaf impressions from the Claron in the park. I had not found mammals in the park. I had to do that outside of the park. And those are published on.

Then there's a big conglomerate that sits on top of the Claron that's informally called the Conglomerate at Boat Mesa. That's the highest unit at the park.

Santucci: And the collections that you made from within the park, did they go back to the park collection at Bryce? Or did they go elsewhere?

Eaton: There isn't a park collection at Bryce.

Santucci: Okay.

Eaton: Collection, the central collection area here is at Zion. And this stuff ultimately went there. There is no collection facility at Bryce. And that's been a, I mean, I don't usually look very forward to working a national park. Because for a long time, God, they've had anybody working there. They finally several years ago got somebody who actually knows something about curation, Mary Watson. And she's been a great help. It was often quite chaotic and difficult. So all my stuff collected in Bryce is at Zion in their repository there. Mary Watson is the curator.

32:06

Santucci: Okay. Excellent. Do you know roughly how large the collection is? In terms of numbers, not size. Are there hundreds of specimens? More?

Eaton: Yeah, I'd probably say since most of these, most of these localities we found, we'd take a sample and we'd say, it's fossiliferous and this is what it has. And only a few localities did we really develop within the park. And I would say it's hundreds. It may approach a thousand or something like that.

Santucci: Okay. Great. And can you highlight a couple of the rarer or more significant specimens that were recovered from Bryce?

Eaton: The collection of mammals from the locality of Pasture Wash, which is Santonian from the John Henry Member of the Straight Cliffs Formation is certainly the best mammal collection from that unit. It's better than anyone you get in the Kaiparowits Plateau. It had a very nice diverse fauna of marsupials and placental mammals. Nothing radically new in it. It's a very important fauna, the best in southern Utah from that age. Which is why I asked to be allowed to develop that one locality.

Santucci: And so when you say it's important, is it important biostratigraphically? Is it important paleo-environmentally?

Eaton: I'd say it's important for the mammalian diversity in there.

Santucci: Okay.

Eaton: And the herptiles and the frogs and all of this has been described from it. When I get these things done and I've had international crew working, Jim Gardner's published on the herps and frogs and actually Zbynek Rocek from the Czech Republic has published on the frogs. And when I knew a locality like that, I tried to get the fauna described. They called me a mammalian paleontologist, but that's only because that's the group I did the systematics for. But I like to see everything done.

As a matter of fact, my most recent paper is published in *Aquatic Botany.* It is on charophytes. (laughs) I show up anywhere.

34:49

Santucci: Very good. So, in terms of future work that could be done at Bryce, do you think there's additional work that would be worth undertaking?

Eaton: Oh, absolutely. I mean, if somebody looks at my files and locality reports, there were lots of interesting localities. Of course, being at Bryce, these localities are down at the bottom of a cliff or down off the side. There's no way to come in from the bottom. So you have to hike in, hike stuff up and hike out. So take Pasture Wash with one bag a day per person. So to work in Bryce is labor-intensive because of the lack of access at the Cretaceous rock. So yeah, I think there's lots of interesting localities there. It's just does somebody want to do the work or not. I think I'm unusual for my willingness to haul bags of dirt and backpacks long distances. But Malcolm taught me that, so.

Santucci: When you were doing fieldwork, were you camping in the park?

Eaton: We never camped in the park. We always camped outside of the park. Much easier. We'd just go over to the Paunsaugunt Forest Service land adjacent. We only did that for those few years where I worked the park for Museum of Northern Arizona. As I said, I purchased a house here in '91, which meant I had a field station right in the middle of everything. Even with that, during the inventory, every once in a while at the south end we did camp. Again, it was outside of the boundary, right at the beginning of the trails there that was, I think, Forest Service land, also. There's a camping area right there. And we camped down there just because it was a tough drive in. So when we were working the south tip of the park and the Rainbow Point and all of that, I think we did camp some there. I think that's the only time during the inventory that we camped there. During those times in '88 to '91, probably '88 and '89 and '90, during those times, we camped on Forest Service land adjacent.

37:37

Santucci: And when you were working localities in the park, I'm sure each one's slightly different, were you taking sediments for screen washing? And did you do screen washing?

Eaton: Yeah. At nearly all of the sites that we saw were screen wash type sites, microsites.

Santucci: Okay. And I assume that you did the actual screen washing later, outside of the field season?

Eaton: Yeah. Yeah. We did. During MNA, we'd truck it back to the museum. It certainly became better when I had the house at Tropic. We just had to run it down the hill and I have a huge screen washing facility here at my house.

Santucci: Are there any collections from Bryce at MNA?

Eaton: Not at MNA. Because again, the Park Service insisted that they keep the material.

Santucci: Okay. All right. Very good. Any other aspects of your work at Bryce--

Eaton: Let me think about that again. They always insisted they have a BRCA number on it. But I actually, now that you mention it, yeah. There are collections at MNA. There are collections at the Utah Museum of Natural History.

Santucci: Okay. All right.

Eaton: And they all have the damned dual numbering system. They have BRCA numbers, they have MNA or they have UMNH. Those are the two institutions. So I misspoke that. I thought about the collections at Zion. The lady at Zion, or whoever was at Zion at the time, was in charge of my contact with the NPS on curation and cataloging and assigning numbers. But I misspoke in saying that the specimens are there. The specimens are at MNA or Utah Museum of Natural History, depending on, yeah, which of these two facilities I was affiliated at the time.

Santucci: Okay. Great. Thanks. Did you work at all during your time with Gayle Pollock?

Eaton: We know each other. He lives two houses down from me. Gayle was helpful, and for the Bryce Canyon Natural History Association, funded some of my field assistants. His daughter was actually a field assistant for me one of the summers in Bryce. But in terms of discussing paleo, he's always been fairly unresponsive. (laughs) I always send him my publications and everything, but he never acknowledges it or anything. But the Bryce Canyon Natural History Association did help fund field assistance for that project.

40:39

Santucci: Okay. Was there anybody else who worked at Bryce for the National Park Service that you may have been involved with?

Eaton: Not really. Very, you know, I heard very little from Bryce during it. I always get my annual reports and everything. And then most recently somebody called up and said, you never submitted your reports. You've got it, they'd lost them all, I guess. So I sent them all to them

again. I was really not terribly involved, there was never much expressed interest, say, from resource management or anything like that.

Santucci: Okay. You had sent me an email outlining a little bit of information and concern about a road collapse issue two years ago.

Eaton: Yeah. As I said, I was writing you that mostly from the side of, I think we've got that under control. My only problem was, I had written the park. I wrote the superintendent of the park, resource manager of the park when their report first came out. And there was not a word about paleontological resources in the area where the road collapse on Highway 12 was. So I was flabbergasted that the whole point of doing an inventory and a survey is to identify areas where you would be impacted by activities. And I never got a reply from anybody at Bryce. Ever. They had a hearing about the road in Tropic. And I went and talked to the people from Utah Department of Transportation who were in charge actually of doing the construction there. And gave them the same files and the same things I'd sent Bryce. And then I heard nothing back from them forever. Then I saw a report that said there were no anticipated environmental impacts to the construction.

So just recently I wrote them and they said oh, no, now we sort of have figured out who you are, and I think Jim Kirkland, at least, Jim's very wary about pushing very hard because he's so nervous about not having a job, and he didn't push real hard, but at least let them know that they should listen to me. And they wrote me back and said that they are bidding out paleontology for that section of the highway. So I think everything's fine.

Santucci: So they're going to have a monitor or something like that?

Eaton: Well, I think, I mean, the two things, I don't know what they intend to do. I had recommended initial collection of paleo sites with mammals in there. And I had suggested first since those localities were found as part of the inventory, they weren't heavily sampled. So my suggestion is they get a representative sample from those, and then have somebody monitor in construction. Because this is in the base of the Wahweap, and there could be dinosaurs sitting in there. None at the outcrop, but there certainly could be stuff right inside this area. It's a mixture of nice flood plain muds and fluvial sandstones. And if they're going to do much, if they're going to cut away that face, I think it should be monitored. And I think sampling of the most important localities should be done, because that will be lost forever. They're also talking about putting barriers up against there, so that section will no longer be accessible. So, by putting up stuff on the roadcuts it keeps it from eroding. So you know, it's not a huge deal, but it is resources within Bryce. I thought it would be nice for somebody to pay some attention. (laughs)

45:00

Santucci: So just so I have a chronology, we're talking about State Road 12.

Eaton: Right.

Santucci: And there was a road collapse around two years ago. Would that be in 2018?

Eaton: Right.

Santucci: And then this public hearing, when did that occur?

Eaton: That was actually, that was in Tropic last year. But I had already written the folks at Bryce before that. It was last summer.

Santucci: Summer of 2019, there was a public hearing in Tropic. Okay.

Eaton: Right.

Santucci: And you said you heard back recently—

Eaton: Well, I didn't hear back. Nobody ever volunteers anything. I contacted the people I'd been in touch with from UDOT and they said yeah that they had included paleo in the biddings in the project.

Santucci: Okay, great.

Eaton: So as long as somebody was going to be involved, I don't care. It doesn't have to be me, but I think it should be looked at for paleo. And you know, I'm satisfied that things are going forward the right way. Just sorry that I had to put so much effort into what should have come from the park initially, it seems to me.

Santucci: Yes. And do you know, has that road construction project begun yet?

Eaton: No, it's not going to happen until next year.

Santucci: Okay. So there's time. I could reach out to the park staff and just offer any assistance to make sure that they're recognizing the importance of the paleontological resources there.

Eaton: Yeah. Would you like me to send you the file?

Santucci: Do you mind? That would be very helpful.

Eaton: Yeah. I got an SR12 file with the localities in it. It would be nothing to just attach it to an email.

Santucci: Oh, super. That would make it very, very helpful. Thank you for that. And what part of the road is that? Do you know where it is in the park?

Eaton: Well, it's just as you're coming out of the park. It's right, not quite at the east margin, but as you come down Highway 12, there's a turnoff to the park. And if you keep going east in the park, it descends into Tropic Canyon. And right at the top of where it descends into Tropic Canyon is where the road collapse happened.

Santucci: Okay.

Eaton: And so it's not when you really turn into the park. It's that odd part that crosses the road outside of the park, goes down Tropic Canyon and Mossy Cave. And it's just, it's a small stretch. But the other odd thing, it's Wahweap Formation. It's Wahweap caught in the thrust and sort of,

it's a completely unique section. There's no way else to see that section. I mean, it sits high and it sits above Claron. (laughs) So it's quite interesting.

48:00

Santucci: Yeah. It sounds like it.

Eaton: There's no way else you'd ever see it. So when I send it to you, the map plots will be there and the photos will be there and everything, all the field report.

Santucci: Thank you very much for that. And you said you had done a little bit of work at Cedar Breaks, but did not turn out to be productive paleontologically?

Eaton: Right. I was looking at the Brian Head Formation there.

Santucci: Okay. And nothing surfaced in that project.

Eaton: I never found it. I started working with Bob Biek, who was mapping out there. He was mapping for the Utah Geological Survey. And I've published extensively on the Brian Head elsewhere. And we were, of course, curious if we could tighten up dates. He's been able to do that with radiometrics, doing radiometric dates. But I was not much of a help. We took a few samples to see if we'd find anything and we couldn't.

Santucci: Very good. And it doesn't sound like you actually did any work or research or collecting in any other national park area?

Eaton: No.

Santucci: No. Okay. Anything that, anything else we should discuss that I haven't brought up as a question?

Eaton: I don't think so. I think you have some sense of my history and my involvement with Bryce.

Santucci: Well, excellent. Well, I sure appreciate your time and the interview. I'll get a transcript put together and I'll send you a copy. If you have time to look at it and make sure we spelled everything correctly and quoted you correctly, that would be great.

Eaton: Okay.

Santucci: I'll look forward to your email regarding the road construction project.

Eaton: I'll send the catalog; I'll also send a nice paper with the skulls from Carter Mountain.

Santucci: Oh. Perfect. Thank you. I really appreciate it. Well, thanks for your help to the National Park Service to better understand the fossil record at Bryce Canyon National Park.

Eaton: No problem. And if you have any questions, don't hesitate to let me know.

Santucci: Thanks so much. Enjoyed talking with you.

Eaton: Okay. Take care, Vince.

Santucci: You, too. Thanks.

Eaton: Bye-bye.

Santucci: Bye.

50:23

[END OF INTERVIEW]