

**Name:** David Klein  
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**Location of Interview:** Home of David Klein in Fairbanks, Alaska  
**Interviewer:** Karen Brewster

**Brief Summary of Interview:** Mr. Klein talks a little about the Pittman-Robertson Act, why he left the Fish and Wildlife Service to go to work for the Department of Fish and Game, and then coming back to the Fish and Wildlife Service for the Cooperative Wildlife Research Unit at the University of Alaska, Fairbanks. He talks about some of the graduate students and the work they were doing, especially with the oil companies and having to deal with threatening lawsuits over the publication of their findings. He also mentions how the diversity of the students has changed from mostly males in the earlier days, to having a lot of females apply in more recent years and how the presence of women tended to raise eyebrows.

KAREN BREWSTER: Today is June 6, 2014, and it's Karen Brewster and Dave Klein continuing on the journey through Dave's life, here at his home in Fairbanks, Alaska. And let's start up again with when you were the research coordinator for the Alaska Department of Fish and Game in Juneau.

DAVID KLEIN: Yeah.

KAREN BREWSTER: And remind me what years that was.

DAVID KLEIN: Well that -- this was coordination of the research. And most of the research was funded through a national program based on excise taxes on arms and ammunition for hunting. And that was through an Act of Congress called the -- the Congressmen who were involved were Pittman and Robertson, Pittman-Robertson. So that was the term we often used in house, was the PR. Pittman-Robertson funding for wildlife research. But it was a federal program for wildlife research that took -- gave money to each of the states based on the farthest state and the number of hunting licenses sold in each state.

KAREN BREWSTER: It's kind of like the Land and Water Conservation Fund thing? Yeah.

DAVID KLEIN: Yeah. So because of Alaska's size -- and then size, and we had enough hunters, that we got the maximum amount along with Texas and New York. New York because of numbers, and Texas because it was big like Alaska. So that was good funding for wildlife research. That went to Fish and Game and there was certain ways you could use that and certain ways you couldn't. You couldn't use it for enforcement, law enforcement, wildlife law enforcement. You could use it for habitat improvement, for research on the species like moose or caribou. You could do research on them and their habitat and that was the way it was used primarily. And the job -- my job there was to be

sure that the biologists within the organizations working with these species, mainly the big charismatic species like moose, caribou, bears, etc., were spending this money according to the federal regulations. And we had to submit reports. I think annual reports. Maybe less than annual, maybe it was bi-annual, and on what was being done. And my job was in putting those reports together, but also I did visit a lot of the projects. And that was a positive side of things. I mean, I got to go to Afognak [Island] and spend a couple of days with the fellow that was working with the elk there. And so I learned a lot about elk habitat that I didn't know previously. I knew a hell of a lot about deer ecology because that was what I was working with. But these others -- I knew quite a bit about caribou because I had worked as a graduate student up there with people that were working with caribou and did field work myself with mountain sheep and others. But yeah, I got around and that was a positive thing. But it wasn't my research, and so my research was hanging over my shoulders and had to write up -- do the final analysis of data and write up of the thesis. Well, in that one year I got -- and that was all done at home because I was full-time in the office. And even though if I wasn't busy, I could have worked on it, but I was busy. It was a full-time job.

KAREN BREWSTER: And what year was this that you started that job?

DAVID KLEIN: That was in 1961. And we moved up, drove up over the highway in our VW Bug that we bought when we first went down there in Seattle and that was an ideal car for us as a small family. We learned to live with little kids. And I remember going through Customs in Canada, Vancouver, from Seattle to go to the semester -- beginning of the academic year. And I had this mountain goat meat that was frozen, and we got it down there and I think a friend who was a step-relative from my wife that we stayed with. And so we were able to put the -- keep the meat in the freezer. And we were operating on a minimal budget and this was a young mountain goat that I'd hunted just before I went down and it was top quality meat and it was all bundled up and frozen. And so we realized that there might be a problem in going into Canada with this wild meat. So we figured -- I was not good at lying, so we put it in a little place behind the back seat. There was virtually no trunk space in the VW Bug. There was this little place and one or two niches under the seats, and so we put stuff in there, and then we put some insulating blankets over it so to keep it from thawing. And then we had two children and the youngest one we put up there because she would go to sleep when we were driving. So we went -- came to the checkpoint and at the border going into Canada, and so I remember my wife had a nice giant -- giant shell. I think it was a giant --

KAREN BREWSTER: Like a clam shell?

DAVID KLEIN: No, it was a giant -- what are the things that'll grow on the rocks? They're not mussels, but --

KAREN BREWSTER: Mussels?

DAVID KLEIN: The ones that you don't eat normally. Barnacles.

KAREN BREWSTER: Barnacles.

DAVID KLEIN: A giant barnacle. Occasionally, one would wash up on the beach and I'd saved this one and it made a nice planter. And we had this nice little plant in there, a small plant. My wife had that one and so when we got to the station and said, "Well, do you have any plants or fruit?" We said, "No, well, but we've got this one plant." And take that. "You have to leave that here." And my wife, Arlayne, said, "No, that was out - - this is important." And so he said, "Well, you can't take that plant in there." "And it's the planter we want to take in, and this is important to us." And so he let us dump the plant in the trash and take this planter back. And then Peggy Ellen was asleep in the back and so he did a quick view, and didn't investigate what was underneath Peggy Ellen, which was the meat that we -- so he didn't ask any questions I had to lie about in that regard. So any rate, we got the meat, and yeah, we ate a lot of meat when we got to -- were living in campus housing. And that was good because there were a lot of other married families with kids and there was a good play area, and Arlayne could make friends there. That was a good place for all of us.

KAREN BREWSTER: And that was at UBC?

DAVID KLEIN: UBC, yeah.

KAREN BREWSTER: Okay.

DAVID KLEIN: So then when I finished up the two years of residency, academic years of residency at UBC, and then I would come back in the summer to Petersburg and continue with the deer research that I was doing, the deer habitat research on comparing two islands, which was part of my dissertation research. And then go back in the end of summer, before the beginning of the semester, and meet up in Walla Walla with my wife and step-grandparents and then drive to --

KAREN BREWSTER: Because when you were doing that summer field research, your wife and children stayed with her relatives in Walla Walla?

DAVID KLEIN: With her parents. With her parents in Walla Walla, so that the grandparents -- And they were happy with that arrangement and they had plenty of room because their children had mostly been fledged.

KAREN BREWSTER: Fledged. Well so your job with Fish and Game then in '61, Fish and Game was a fairly new organization right after statehood?

DAVID KLEIN: Yeah, because I -- when statehood came, then I was working for Fish and Wildlife [Service] and then Fish and Wildlife's responsibility for management of fish and wildlife throughout Alaska except on national parks and wildlife refuges transferred to the state. So the state had to create within the department -- create a department of Fish and Game that actually had a Department of Fisheries for about two years before statehood, gearing up for the statehood, and so then it became the Department of Fish and

Game. And so I had my choice of -- there were no positions with the Fish and Wildlife Service in Alaska because they were scaling back then.

KAREN BREWSTER: And you did -- before you went to British Columbia you'd been a Fish and Wildlife Service employee and you were guaranteed -- you continued to have a job when you finished, or -- ?

DAVID KLEIN: No.

KAREN BREWSTER: -- the summers were -- ?

DAVID KLEIN: I was because I -- in 1959, Alaska became a state. At that point, I had to make a decision as to whether to stay with Fish and Wildlife, and the only positions available would be in the Lower 48. And you would be on a list and they would -- if there was a position on a refuge somewhere, they would announce and you could ask to be considered for that transfer in that position. So you could stay with Fish and Wildlife, but you couldn't stay in Alaska.

KAREN BREWSTER: Right.

DAVID KLEIN: Or at least I could not, in that I was -- had only been there for five years. So then the options were -- and neither my wife or I wanted to leave Alaska. So, we would have, of course, if nothing else. It wasn't as if we didn't have a job, but we wanted to stay in Alaska. And so then the other option was to quit Fish and Wildlife Service and go to work for the Department of Fish and Game. Because I -- yeah, they were eager to hire me if I was to do that. And because they were gearing up and the people that were at the top, well some of them were students that I had been a student with at UAF doing a master's degree. And so I knew these people. And, you know, one was a more senior guy who had started a graduate degree later in life and he turned out, Jim Brooks, to be the head. He'd then worked for this new fisheries organization first working with marine mammals. And then he became head of the -- what was called then instead of the Division of Wildlife Conservation, the Division of Game. The Game Division. So they would hire me and -- but I had discussed it with him and I said I want to take educational leave and do this PhD degree. So this was in anticipation of statehood, when it was pretty sure that it was coming. And so then I was able to finish up the -- I transferred to Fish and Game after statehood. And I continued to finish up my fieldwork on the PhD dissertation work on deer ecology in southeast Alaska during the summertime. And then I'd go back to UBC for the two years. Then they wouldn't save my job, but they would save a job -- have a job for me. In effect, they would have a job for me.

KAREN BREWSTER: And so that was that 1961 Research Coordinator was the job they had for you when you were done with your two years?

DAVID KLEIN: Yeah, that was what was available, because, you know, they were a growing organization. They didn't know for sure which job, but I was confident that a job

at my salary level, original salary level, would be more than I could expect and they sort of guaranteed that. But then they -- by the time I had gotten the PhD, or almost got it, then they realized that I could take on more of an administrative leadership position, which I was happy to do because I needed the time to finish up and needed the income to recover from -- 'cause they didn't pay me when I was on educational leave. Only in the summer while I was doing research.

KAREN BREWSTER: Right.

DAVID KLEIN: So it was a close margin in terms of financing the PhD.

KAREN BREWSTER: And so '61 you started that job in Juneau and when did you get the PhD?

DAVID KLEIN: Then while I was -- shortly after I got there, within several months, this position opened up on campus heading up the Wildlife Research Unit.

KAREN BREWSTER: At UAF?

DAVID KLEIN: At UAF. And they offered -- they asked me if I was interested in the position. They were trying -- they had some temporary people who were from other states that came up on an interim basis to fill the job -- position, but most of them didn't -- they wanted to stay where they were but they were helping out. And part of it was their wives didn't want to come to -- and it was a different era then, too. So at any rate, I turned it down initially because I said I'd just taken this job and I felt a commitment to stick with it, and which I did. And then just before the end of the fiscal year, that was in the end of June, the state fiscal year. It was about April maybe, or May, they approached me again and said would I be interested in taking the position. And it was actually the ideal position for me that I thought I might achieve sometime in the more distant future, but I said, "Well, I don't -- haven't quite finished my PhD yet." And that was a requirement. And I felt a commitment to stay with Fish and Game through the budgeting year at least. But I felt a commitment to Jim Brooks, who had hired me. And there had been an educational leave and so I hadn't been doing much except my own PhD. And so the second time I went and talked to my -- to Jim Brooks, and he said he really appreciated my loyalty, but personally he said, "I'd rather have you stay, but if I was in your position, I'd go. And so I recommend you do that. It'll be in your best interest and you'll be working closely with us anyway." Because of the Cooperative Wildlife Research Unit was -- one of the cooperatives was the State Department of Fish and Game. And so that made that position more important for me from the standpoint of both the Department of Fish and Game, but also my employees who would be the Fish and Wildlife Service again, although the position, I would be technically a member of the University faculty and I would be getting my salary from the Fish and Wildlife Service. I'd have two bosses. I'd have the boss in Washington heading up the Cooperative Wildlife Unit Program throughout the states at land grant colleges where there was like some thirty-some of these units. But also I was technically considered a faculty member without salary from the University. So I had to go through evaluations for promotion from Assistant Professor

to Associate, then full Professor, etc., to be considered and to function as a faculty member, as well. And I had teaching and research responsibilities through the University.

KAREN BREWSTER: So you got reviewed and went through the whole university professorial tenure process, but you also were a Fish and Wildlife Service employee who got -- ?

DAVID KLEIN: Well, we didn't call it tenure because the University didn't give me -- they didn't even have tenure at that time. But they didn't -- I wouldn't qualify for tenure or sabbatical because that's paid for by the University. If I was going to do anything like that, it had to be through the Fish and Wildlife Service in Washington, and the budget that they had that paid for salary of these people.

KAREN BREWSTER: It's confusing that you were paid by Fish and Wildlife Service, but you worked for the University?

DAVID KLEIN: That's right. But, remember this is a Cooperative Wildlife Research Unit, so State and Federal Governments were working together and supporting of it as well as the University. So according to -- there was a Memorandum of Understanding that said the University would provide an office and lab space and a secretary and they would pay for telephones and operating the office. And the Fish and Wildlife Service would pay for the salary and all the benefits that go through it through the Fish and Wildlife Service, so you're an employee technically. And then the Department of Fish and Game contributed a token amount, specifically designed to support graduate student stipends. And then there was a fourth organization called the Wildlife Management Institute, which is largely a lobbying organization based in Washington [D.C.]. They contributed a token amount of a few thousand dollars because they were lobbying for the whole program nationwide. And that was important. They were able to keep Congress supporting their share of the program. So some of the challenges, of course, were at each Wildlife Unit, was you had to keep on good relations with the University and with the State Department of Fish and Game, whatever it is, and as well as meeting your federal requirements. And there were real standards for merit advancement in the federal, which were like the University that you had to go up for review and then you moved up in position and salary. But in the university, as a faculty member, you had a contract and they -- technically they paid you a dollar a year because of some legal aspect of how this was drawn up. And you had to go through review for advancement to a higher faculty position from Assistant Professor to Associate, but there was no salary for the university involved and you didn't receive salary from the university. And part of the job of the Unit Leader was to both advise graduate students through the program, but it was also to seek additional funding to support their research. Well, in addition to some money from Fish and Game for stipends, it was only for stipends, and if there was research we had to negotiate. Sometimes we could get in-kind support with flights from Fish and Wildlife, or Fish and Game. So we had the advantage of being able to work with state and federal organizations and do projects that they could -- It was more economical to have a student do a master's degree on it whereas they didn't have the -- their staff wouldn't have the expertise necessarily or the time to focus on this one project without hiring additional

people. So it was often was a better deal for them. Plus we had an agreement too with the university that overhead would be 10% on income coming in from agencies and support organizations. And often they waived overhead on stipend money coming in, but this was important on research money. Whereas for the rest, if you were going through a federal agency for research like the National Science Foundation, the university had to take overhead of might be, nowadays, it's over 50%.

KAREN BREWSTER: Yeah, it's like 50%.

DAVID KLEIN: And it used to be maybe 20%, or it was considerably higher than the 10% we had.

KAREN BREWSTER: And you said part of it was to seek money for support for graduate student research. What about support for any of your own research?

DAVID KLEIN: Well, I did have a salary and a small budget that covered mostly travel expenses to do my job, but then I was free to do research if I could fund it. And sometimes the research I would do would be in association with a student and getting a student started on a project. And I would be doing -- like if I was working on -- Mostly at that early stage I was looking at plant/animal interactions between large herbivores, that was caribou, moose, muskoxen, mountain sheep, etc. And mainly caribou at first and then later others like muskoxen, and then some with moose and some with mountain sheep, and a little bit with mountain goats. So a lot of it was associated work that I would be in an area where I could do some incidental to working with the students. Another was, I was able to apply through organizations, state, federal agencies, and National Science Foundation or others. Like the St. Matthew Island work, I usually had to get some additional funding and sometimes the university would chip in some travel money, and we'd arrange for transportation from the Coast Guard, and they wouldn't charge us. But getting field assistant and other things, we would get money. Sometimes I'd have to get a special grant from the Fish and Wildlife for that, or from the National Science Foundation. So some of the work I did in Greenland was through the National Science Foundation, or was from other organizations, both in the U.S. and outside who wanted me to be involved in a bigger project. And so they would have funding to pay for my expenses to be involved and come, but my salary was covered by the Fish and Wildlife Service. So it was an advantage. I didn't have to go for my salary when I was working on these other projects. It was a good arrangement in many ways. It was challenging because I had some administration responsibility associated with the support for the students in the program, and not just my students but others were being advised whose major professors might be faculty in the Biology and Wildlife Program. But I still had to be responsible for their funding of the students' research. You know, worked it out in advance, but then monitored it and then I had to count on secretarial support to help me with the accounting and stuff. And at the same time, teaching only one course a year at the graduate level was a required minimum, sometimes you did two but mostly it was one at the graduate level, which was good for me and good for the program. And then I was free to be -- and I'd advise students that I was advising, but I served on committees of other students in biology and wildlife. So I had these commitments as part of -- as a

faculty member, as well. And attend faculty meetings, as well as university administration meetings. It was like -- the Wildlife Unit was like a mini research institute, so I sat on panels that were institute directors and what, which was time consuming and sometimes seemingly not too productive, but it was important to maintain a presence and recognition of the Cooperative Program within the university system.

KAREN BREWSTER: Yeah, it's an unusual collaboration, cooperation. And potentially very confusing administratively.

DAVID KLEIN: It could be, but fortunately we -- we quickly melded into the departments, the university departments. And then the Institute Arctic Biology when the biology and wildlife program moved into -- Well, faculty did research through the Institute of Arctic Biology and then we were technically part of that, so that we could help them bring in research funding but they could help us at times in developing proposals and working out the details. So we had additional support, administrative support, from other people, and we finally just turned over our budget to the IAB and they have a business office that relieved a lot of tension between my secretary who was handling it at the time. But gradually the program grew and so then we had, first, another professional Assistant Unit Leader that could share the responsibilities. And -- and we eventually merged with the Cooperative Fishery Unit, which came into existence much later. The Cooperative Wildlife Unit came into existence at UAF in 1950, whereas the Fishery Unit was in the 1980's, I think, that they first started operating independently and eventually we were merged with them.

KAREN BREWSTER: And when did you merge?

DAVID KLEIN: It's a good question. I'd have to check the dates on that. When we merged it was about in the '80's or mid-'80's, I think. And then they offered me the -- 'cause I had seniority and they were happy with me as an administrator of the whole system, and I said I would not be happy with the whole system because I didn't want to take on additional administrative responsibility. So they -- a special position was created through the Fish and Wildlife Service of Senior Scientist with the joint Fish and Wildlife Research Unit. So then the Fisheries Unit, Jim Reynolds, became the Unit Leader and I was the Senior Scientist, and continued advising students doing their own research, but I had less administrative responsibility. And there was more responsibility for research and especially there were more controversial things that I was experienced with, like oil development, pipeline constructions, and effects on wildlife habitat, etc.

KAREN BREWSTER: So what year did you start at UAF?

DAVID KLEIN: 1962. And I retired officially from the Cooperative Unit Program in 1997. I think that's 35 years.

KAREN BREWSTER: Yeah.

DAVID KLEIN: So I was not all that eager to retire because I was enjoying the work, but by that time I was pulling down a big salary within the Cooperative Program because I had moved up at the top level in the Fish and Wildlife Service. And so I -- during tough budget years it was hard for me to be drawing that big salary and there were Assistant Unit positions agreed, additional Assistant Unit positions agreed, but not filled because of budget constraints. And other units had perhaps greater problems because they -- through a retirement of a Unit Leader, they weren't even able to fill the Unit Leader position. So I said I would not retire unless it was agreed that my salary money would stay with the Alaska Unit, because the Alaska Unit by this time was considered perhaps the most important in all of the United States because of the size and importance of wildlife research and management in Alaska and with all of these federal reserves in Alaska, as well. And we had a good record, built a good record of turning out good students, etc., etc. And doing good science. And frequently a good record of doing research on controversial issues where the state and federal government were at odds with one another but the Cooperative Unit, we worked together. So that was one of the benefits of the Cooperative Unit as statehood -- As states started to mature, they tended to resent federal jurisdiction. But within the unit we were able to work together on things where they're jointly funded by state and federal government. And then sometimes oil industry and others were kicking in money, but we had the advantage of serving state and federal interests at the same time, at least working for compromise. And it worked out well. And so we had respect from both federal and state, 'cause we were part federal and part state technically, and part university. So it was a good program. When we once -- when we'd be challenged, the university budget was being cut, we had to go through and re-educate the Chancellor or whatever as to how complex this arrangement was. And the university was getting so much out of it at a very low amount and we could then justify maintaining our state budget through the university. And sometimes we had to do that with the Department of Fish and Game, as well. But pretty successful in the long run.

KAREN BREWSTER: Well, getting the state and the federal governments to agree on wildlife management issues was potentially challenging.

DAVID KLEIN: It was challenging, but we had this -- we had in the early days, which I was familiar with of statehood, there was a lot more collaboration between the federal and state because the federal government attitude was, you know, "Let's help the state get going and take over because they don't have much experience at this." And the state felt, "Yeah, we appreciate this kind of help." And it was like everybody was working together for the wellbeing of the resource. And then later on it started changing partly for political, economic reasons like oil development. The state administration's attitude was don't hold up construction of the pipeline or oil field development with all of these rules and regulations regarding wildlife. Whereas the Fish and Wildlife Service attitude was, of course, different. And our attitude was we were working, really, for the wellbeing of the resource for the present and the future, and therefore that's what we're training students to do rather than to work -- be loyal to the state or being loyal to the federal government. And I got -- I mean, I was frequently on the firing line and so I did some publishing on the philosophy and ethics of wildlife management and where this loyalty of a wildlife biologist or wildlife manager lies. Does it lie with the agency you work for, whether state,

or federal, or a private consulting firm? Or does it lie with being responsible in managing, doing research and treating your research to manage for the well-being of the resource and its sustainability and production and management in the future rather than to work for the oil industry? And some of the consulting firms, you know were actual -- for the oil industry were hired to, and were assigned to, do research to discredit sometimes state and sometimes federal, and sometimes -- It was hard to do it for the Wildlife Unit. When oil industry hired us to do something, at first they wanted a contract that said they had control over publication and they owned the data. And I said, "We can't operate that way." I said, "We have to -- the data and information has to be out in the public." And what we did in one case where we had a study of a simulated pipeline that we had been critical of the oil industry, that they didn't know how to build a pipeline to accommodate movements of caribou. And we would -- Nor did we. But we needed to do some research to find out. And so they agreed to support a PhD level study simulating building a pipeline up in Prudhoe Bay and using different kinds of crossings on the pipeline. Well, they were willing to kick in all this money because we had criticized them and now they said, "Okay, you can do the research and we'll fund this and we'll build a pipeline." And it was two miles long, I think, and with observation towers and what. But they said, in the contract, that they had control of the data. And I said, "Well, we can't do it." And they said they had to have -- they had to review the data first, otherwise the money wasn't coming. So then I contacted Fish and Wildlife Service, my supervisor, and I said -- this was, I don't know, it was about 80,000 -- it was money, which was pretty good funding from the oil industry. I said, "Can you kick in five or ten thousand? And then they'd have to agree that since there was some federal funding, it'd have to be open for public scrutiny." So they did that and the oil industry, they didn't want the publicity to get out that they were rejecting it on that basis, and so they approved it and things worked okay, but it didn't last very long before they were up there. And they weren't supposed to release preliminary information while we were doing the research.

KAREN BREWSTER: Right.

DAVID KLEIN: On either side. And so they had some press and photographers up there and their biologists, so called, took them around and showed them what we were doing. And the caribou were moving and they said, "Yeah, we're already seeing that most of the caribou are going over the pipeline fine." Well, he didn't have any basis for saying that. We had all the data. Nobody -- We were doing the observations. And so we complained about that and they said, "We shouldn't have done that, maybe." But they didn't -- And then they went ahead and tried to block publication for the student. He had been invited to a congress, and he was presenting the data that was analyzed and what, showing that yeah, 25% of the animals were using crossings and the other 75% were deflected by the pipeline. And they were using some crossings better than others. They weren't going under overhead pipelines very well. They were most -- they would -- if they were using crossings they'd use these gravel ramps over the pipeline. So they threatened to take us to court and we got contacted -- Well, the federal government lawyers looked at it and said, "No, no, this was the wording of the contract and he should be able to do this." We had similar problems later on when one of our students, not my advisee but another one, was doing a study of insects and how that affected the movement of animals up in the oil field

as it was developing. And he published some information -- they published some information, which was unsoundly based, and contradicting to what he was finding. So he wrote a letter to the editor, I think, of the local newspaper saying, "This is unethical behavior." And the oil industry sent a subpoena to him saying he was being charged with illegally releasing this information, when they'd already released it themselves. And they released it not in Alaska. They released it in Seattle. So it came out in the Seattle newspaper, that they released the information. And so they, of course, the university in that case came to the -- their lawyers came to the defense of the student and they pointed out that the oil industry was probably willing to spend mega bucks just to save face. And that, you know, this was going to come out in the open because we'd go to court over this, so they backed off. And he was able to criticize, openly, what they were doing and thought they could just quiet him by threatening him with legal action. Any rate, I mean that's not unusual, I guess, when you're working with industry.

KAREN BREWSTER: Right, but as the Cooperative Unit Leader, you had to sort of negotiate all this and mediate and be in the middle of it all?

DAVID KLEIN: We had to try to maintain our credibility, as well as not polarize arguments over issues. And so we had to stick to our basic science and the fact that we were doing things scientifically and it was subject to review and criticism, but we didn't - - and where we clearly distrusted what they were trying to do. And it was an error when there were some of these consulting firms, which would take the money from the oil industry and do what the oil industry asked them to do. And they were asking them to say -- to do counter science. And especially Exxon was terrible about that and trying to discredit the work of others. And not just us. The Department of Fish and Game was doing good research up there and flying regularly and they tried to discredit his objective of the -- so he happened to be a PhD student that did his degree work here and was well trained, but -- And he was a good pilot and had his own plane up there, a Super Cub, which the oil industry didn't use those little planes. And so he could do this good survey work, whereas when they did a fast Cessna's, they couldn't do the -- as good an observation as he was doing. At any rate, we had problems. And yeah, we frequently would come to the support of Fish and Game because they were doing good science, we were collaborating with them frequently and they were providing support to us, too. And the Fish and Wildlife Service, it was -- But, I mean, that was sort of the trend of things at the time. And we had, you know, some oil industries were really good. Some oil companies were really good. And some were, you know, they'd have us do studies to help them know where to put -- where the caribou were moving in the summertime. And where their major movement rates frequently depended upon the lakes and they would be moving between lakes to get to insect relief areas close to the coast. So once we did the mapping of all these movement patterns, they could see that where they originally planned to put a construction camp right in the pass for the caribou, they said, "Well, we can move that pretty easily, it's not a question of drilling for oil or anything like that. It's a question of where's convenient for us. But out there it would be significantly different to move it, maybe a little longer road or something like that." And companies that were pretty good -- At that time, there were different companies because -- There was BP at

that time was pretty good, and Exxon and Exxon Phillips, or whatever they were at the time.

KAREN BREWSTER: Exxon Mobil?

DAVID KLEIN: Exxon Mobil were not particularly good. And then Conoco was not ConocoPhillips then, it was a smaller -- And they were super good, because they provided logistics support and housing for the student that was doing the work. And then when he wrote it up, that Conoco component, I mean, they were worldwide at the time, but it was a small unit up on the North Slope then that Conoco was developing. And they got an award for doing the conservation work and gave it to the Wildlife Unit and to the student for doing good studies on insect harrassment and how road construction would relate to that and that area. And it was, in a way, we felt quite honored to have oil industry provide this honor. And this particular student went on to be -- He's still based in Kotzebue for Fish and Game and he's one of their best biologists. It was great to have that happen. And some of the oil people I worked with one-on-one, some of them were really good. And some of them, they were sincere and were trying to minimize the impact on caribou or other wildlife. And others were just sort of polarized, like, you know, "We don't need any more restrictions on this. You should be lucky that we're doing all this for you and for the state of Alaska, etc., etc." Boloney! And during that era, although it wasn't directly through the unit, but it was a similar time when we were sending people up there. The professor, botanist Dave Murray, he was asked to do some botanical studies that required systemic studies, which was his -- of the plant species, and included work with mosses. Well, his wife was an expert on mosses, and so he put together this proposal and the oil industry, initially went out for review at the top level and they didn't look to see that his wife was female. And they were not allowed in the oil field, females.

KAREN BREWSTER: Right.

DAVID KLEIN: And so from the standpoint of the oil field -- And so, they said well, they couldn't support it because we couldn't have women up there. And so Dave Murray said they would camp out in the field. And they finally -- and not use the bunkhouses that the workers -- And that was the problem, you know, the staying in with only men. And so it was approved, but then when it came down to -- they came up and said, "No, we can't have that happen because we're responsible and they wouldn't have any potty place."

KAREN BREWSTER: Or what if a bear comes or something, yeah.

DAVID KLEIN: And so they said, "No." So then the university got involved in all this, and finally they said, "Okay, we'll make an exception, and you can stay in the work place." And that they would have to close one of these toilet/shower deals where they had two in one camp and make it "women only."

KAREN BREWSTER: It should be "woman only."

DAVID KLEIN: No, well that was the point. So Dave said, “We don’t have to close the whole thing, can’t you just have a portion of it?” “Ah well, you know, it wasn’t constructed that way,” etc., etc. “And we don’t want them in close --” and have hours, you know.

KAREN BREWSTER: Yeah, just put up a sign --

DAVID KLEIN: And that was the solution of hours that seemed realistic and they said, “No, there’s men there. And they can’t be trusted when women are around. We don’t want any women up there.” It was like -- When I was up there, you’d fly into Deadhorse, and Alaska Airlines would come in there a couple times a day. And even initially there couldn’t be women at Deadhorse. Well, that was state, they’d get over that in short order. But in the early days, before Deadhorse, it was Exxon Phillips Airfield. And we’d fly in there and Alaska Airlines would come in and the stewardesses were not allowed to get off the plane. And there’d be a bunch of guys off duty and they would have their binoculars just so they could look at a woman when they opened the door and see these stewardesses in the plane. I mean talk about strange.

KAREN BREWSTER: Well, you know the women not being allowed out in the field and on projects is the Naval Arctic Research Laboratory in Barrow had that same policy. Women weren’t allowed to -- you know, Florence Weber and Florence Collins who were early geologists, couldn’t go do research up there, ‘cause they weren’t allowed.

DAVID KLEIN: Right. But coming back to the early days of the co-op unit, we had only men that were applying for graduate work in wildlife and biology. So we didn’t – this – that was the -- the graduate program there was the first graduate program at the university at the organize -- there were a couple that through the Geophysical Institute, PhD’s, but they were, you know, just -- they weren’t using course work and stuff. They were doing research over many years and then finally, officially, examined, etc., and had to do thesis, but independent of any graduate program. So there was no one -- none of the faculty were expected to do any graduate teaching. So the Cooperative Unit changed things a bit. And so they gradually, in addition to the unit people, the Unit Leader and Assistant Unit Leader, some faculty were taking on students if they got research funding that would allow them through buy out of some of their teaching, then they would be able to maybe teach on graduate programs through the research money they were bringing in. So the Co-op Unit really initiated the graduate programs in the life sciences.

KAREN BREWSTER: Here at UAF?

DAVID KLEIN: Here at UAF, right.

KAREN BREWSTER: So that would have been biology, wildlife management --?

DAVID KLEIN: Those two first. And later, natural resource management.

KAREN BREWSTER: And what about fisheries, that was a separate --?

DAVID KLEIN: Fisheries was part, in the early days, was part of the biology program.

KAREN BREWSTER: Oh, okay.

DAVID KLEIN: Biology and wildlife. So we had a faculty of a fishery guy, and then later more, yeah. And before the Institute of Marine Science. So they were faculty, and good ones, too. And when I was doing my master's degree, there was one student doing a study through the same Co-op Wildlife Unit then. A study of grayling ecology.

KAREN BREWSTER: But he was under the wildlife department?

DAVID KLEIN: Yeah. And one of the advisors was a state fishery biologist. One of the members of the committee. Who had played a big role and it was a good deal. Yeah.

KAREN BREWSTER: So you said there were no women graduate students when you first started?

DAVID KLEIN: None applying initially. And then finally, the first one applied. And I forget her name, but she, yeah, she had the qualifications and – and -- But there was no women faculty, as well.

KAREN BREWSTER: That was my other question.

DAVID KLEIN: Yeah, so there was no women faculty. But I shouldn't say no, because there were a few like Brina Kessel. And Druska Schaible was before the wildlife unit was established. She taught biology, and she was a tremendous teacher but she had been around for quite a while. And there were some women students, of course, in the university, at undergraduate level. But –

KAREN BREWSTER: But, so Brina and -- what did you say her name --?

DAVID KLEIN: Druska Schaible.

KAREN BREWSTER: Druska Schaible. They taught in the biology, just the plain old biology department, not the wildlife -- Cooperative Wildlife Unit?

DAVID KLEIN: Yeah. I don't know what it was called when Druska Schaible was there. They obviously didn't have a department.

KAREN BREWSTER: But she taught biology classes somehow?

DAVID KLEIN: Yeah, she taught only biology, yeah. And --

KAREN BREWSTER: And same with Brina? They weren't in the Wildlife Unit, they just taught biology classes, 'cause the unit didn't exist?

DAVID KLEIN: Well, Brina was hired after the -- She came there in 1951 or '52, so it was a year -- She was there one year before I, as a faculty member, before I came to start the wildlife --

KAREN BREWSTER: Your master's program.

DAVID KLEIN: -- track for the master's degree. So I took a course from her.

KAREN BREWSTER: Well, that's pretty early on, though, to have a woman science professor. 1951.

DAVID KLEIN: Well, but it wasn't true in liberal arts universities. In top universities in the Lower 48. There weren't that many, but they were there if they had a good training and good background and good scientists, they definitely -- Some of them were top notch.

KAREN BREWSTER: But, so who was the first woman faculty in the Cooperative Unit?

DAVID KLEIN: Here at UAF?

KAREN BREWSTER: Right. Do you remember?

DAVID KLEIN: I think it was the Assistant -- Unit for the Fisheries Unit, and that was - - I'll think of her name. She was Assistant Unit Leader for quite a while and did good research and then after the Fisheries, after the Marine Science started up, she collaborated a lot with them. But --

KAREN BREWSTER: So she was --

DAVID KLEIN: Jackie, something or other. She was good.

KAREN BREWSTER: So she was the Assistant Unit Leader for the Fisheries Unit.

DAVID KLEIN: Yeah.

KAREN BREWSTER: Okay.

DAVID KLEIN: But I mean, for the --then later on others came in, but, of course, there wasn't that much replacement. No positions for a long time.

KAREN BREWSTER: And do you remember the first female graduate student?

DAVID KLEIN: Well, that was this woman that -- And I think Fred Dean was her advisor. And she worked for the Park Service after that. And she was a dog handler down

at the Park (Denali National Park) for a while, but she was a park naturalist. And she died just recently. She'd been retired for quite a number of years. I could check it easily by talking to Fred.

KAREN BREWSTER: I'm sure I can find out, too. Do you have a sense of what time period that was? That was the '60's, the '70's?

DAVID KLEIN: It was probably either the late '60's or early '70's, yeah.

KAREN BREWSTER: Well, it sounds like the work of being Unit Leader took a lot of people skills and negotiating to get the feds and the state and the university and everybody to get along.

DAVID KLEIN: Yes and no, but I mean, it was mainly – I mean it -- part of the problem we frequently had, I didn't have very much, but other Unit Leaders in Colorado and other places, was to meld the Unit into the academic components. You weren't required to do that, so, I mean, it was -- Colorado, I think, was one that they had -- They remained separate. And so on campus it was like the feds for the Wildlife Unit, which was bad because they were polarized then if you called them the feds. Whereas here, I mean, I made a great effort to be a faculty member, but partly because that's what you were doing. You were on campus and the fed part of it was mainly bringing in money. And they were paying my salary, but my job was to advise graduates -- my primary job was to advise graduate students and be a leader for students and the whole program. I was frequently called on to be on committees, which my expertise wasn't there, but I was a professor, and so I was -- There was one student in botany, Steve. Any rate, he turned out to be a leader. He eventually started a program at a small university in Vermont and continued to do Arctic research in Alaska and elsewhere. And he's done -- some of the best publications are from him.

KAREN BREWSTER: It's not MacLean? Not Steve MacLean? No.

DAVID KLEIN: No, long before him.

KAREN BREWSTER: Oh.

DAVID KLEIN: But he did his master's on blueberries.

KAREN BREWSTER: Oh.

DAVID KLEIN: And I would kid him that he was -- he loved blueberry pie and that's why he chose it.

KAREN BREWSTER: Well, I've thought about that, that I like blueberries so much maybe I should go do a PhD on blueberries.

DAVID KLEIN: But he's a terrific guy and a good sense of humor. And he did classic work on the vegetation of St. Lawrence Island. And then of the Arctic in general, and all of the Circum-Arctic, as well.

KAREN BREWSTER: You mentioned how you primarily advised graduate students, and was a leader for the students. Was that typical for Unit Leaders around the country or that was something unique to you or unique to UAF?

DAVID KLEIN: It was -- I'd say it was about typical. More than 50% were that way. I started some programs that was to try to bring the Co-op Units closer together. We'd have our annual meetings and one of the programs I told to -- I said it would be valuable for us to do exchanges, the Unit Leaders with other units.

KAREN BREWSTER: Yeah, I remember you mentioned that before, yeah.

DAVID KLEIN: Yeah. And my supervisor in Washington thought it was a good idea, but it didn't fit into the budgetary system because to pay for people to travel to be an Assistant Leader and to pay all of the living expenses and everything if you're visiting a unit. Well, I discussed this with a few of the Unit Leaders who thought it was a good idea, and when we had an annual meeting. And then I said we can work out a deal where if we're exchange, you just live with the family and home, so there's no cost except a little bit of cost. But then it's an exchange and they do the reverse when they come to Alaska. Yeah, the travel was an issue, but once they realized we'd kind of work it out ourselves so it wouldn't be a high cost thing. High budgetary thing. So then they approved it, and so the -- But I was -- I and a few others were the only ones who did it and it was mostly the others were the ones that exchanged. I did it with the Ohio Unit, the first one. And he was the guy that we got along very well and he was a younger guy. And the guy that had been the Unit Leader was top-notch and he moved into a faculty position and stayed with the University for a number of years. And so he was very supportive of the Unit Program and he supported the idea of the exchange. So we had that exchange. And, I mean, some of the other units would say, "Why would the Unit Leader in Alaska want to go and do an exchange with Ohio?" I said, "I was one that did. Yeah." Because I knew it would be good if I went with him and I'd give some lectures and he'd get me out in the field. And, yeah, they did a lot of waterfowl work and it's fascinating. And we went and visited different field areas. Yeah, I mean so -- If you come to Alaska on an exchange, you're not going to see all of Alaska in a week or ten days' time. And so, we usually did a terrific thing. We'd tie them in with a field course when we'd go down to Southeast or -- And then they were with the students with me and it was beneficial to have somebody else just from another university. And they got to know the students and had a wonderful time.

KAREN BREWSTER: And so did that exchange that -- so the guy from Ohio came here and then you went to Ohio? It was always a double --?

DAVID KLEIN: I went first there and then he came here. And so, we could plan it to be the best to get out in the field.

KAREN BREWSTER: So it always went both directions?

DAVID KLEIN: Pardon? No, not at the same time.

KAREN BREWSTER: No, but, okay. But if somebody -- Where else did you go besides Ohio?

DAVID KLEIN: Arizona and Virginia. VPI in Virginia. I think those were the three.

KAREN BREWSTER: What's VPI?

DAVID KLEIN: Virginia Polytechnic Institute.

KAREN BREWSTER: Oh, okay. So their guys came here and then you went down there.

DAVID KLEIN: Or vice versa.

KAREN BREWSTER: Vice versa, but it was always --

DAVID KLEIN: So, and those, the -- Arizona was, and also the Arizona one was from -- the Assistant Unit Leader and I went -- I went down and then the Assistant Unit Leader came up. The Unit Leader wasn't all that interested in doing it, but he supported the Assistant Unit Leader doing it. And then the Ohio one was Assistant Unit Leader, too, but he was doing some work with bears and drugging bears. And Fish and Game was right into that at this time and so it was good for him to come up. He was a good guy, and it was good to have him come and talk about what he was doing and then we worked with Fish and Game and they got him out in the field and he worked with them. And that resulted in continuing exchanges between Fish and Game, which Fish and Game, you know, it's hard for them do those kind of things but this way he was an expert and they had experts here and they could benefit by working together.

KAREN BREWSTER: But yeah, you mentioned that part of the job was to work with students, so did the Cooperative Units in the other states also focus so much on students?

DAVID KLEIN: Yeah, you would expect to take on a heavy student advisement role, but you're also expected to bring money in to help pay for that, and you're expected to do some of your own research. And it, you know, some of the Unit Leaders put more focus on administration, some put more focus on something else. And one of the differences between the units was some of the units were, like here, they were through a biology program or wildlife program. And here the biology and wildlife were together, which I always lobbied for that rather than separate them; have a separate wildlife program. So, because I felt like basic biology was important and if you separate them, then you tend to -- the wildlife program tends to be sort of a cookbook that you have program courses in wildlife that you don't give enough of basic sciences to be a good grounding to do this

kind of work at the undergraduate level. And that's an important thing, because the undergraduate level there's a certain minimum core courses you have to take, but they're different for the biology and wildlife in many places, but they were the same here. And so, I was pretty biased towards those kinds of arrangement that we had here from my experience and some of the other ones I visited, especially I visited on other occasions when I was invited to give talks or something at our conference when I was down in those other – in the south, in Texas. Good universities, but often they were separate wildlife program, which you took all these multiple courses which – on wildlife – on managing big game, managing furbearers, managing what have you. I mean, it's different in any place and if you get employed, you've got to learn these things after employment. You don't have to learn it all – And so some of the state agencies they wanted courses in how to pack a horse for western states for fieldwork. I mean, it's sort of like, you know, do you know how to drive a vehicle.

KAREN BREWSTER: Well, it's a field methodology -- kind of like a field methodology course, but --

DAVID KLEIN: Yeah, I mean like should everybody take a course in bear safety?

KAREN BREWSTER: Well, they make them do it now.

DAVID KLEIN: Maybe they do it now? Because that's because they are going out in the field. But they used to do it only if you had – if you're going out. Then everybody had to do it.

KAREN BREWSTER: Well, now I think they do it if you're going out in the field, you probably have to take a bear safety and a gun safety because they're all about safety now.

DAVID KLEIN: It doesn't hurt to do that.

KAREN BREWSTER: But that's different than, and --

DAVID KLEIN: But, you do get credit --

KAREN BREWSTER: It would be like taking a course in how to cook a camp meal.

DAVID KLEIN: Yeah. Well, when I was first here, we took -- there was a course, but it wasn't -- you didn't get graduate credit for it, in outdoor cooking. And the one -- what's the name of the woman that one of the older mess halls down on campus is --

KAREN BREWSTER: Oh, Lola Tilly.

DAVID KLEIN: Lola Tilly was -- She taught home economics and she was a charming woman. And we -- she -- here we had all these grad students in wildlife and we were going out in the field and she -- she -- she asked us, I think, one time when she was

interacting -- 'cause she'd invite us sometimes to come when the home Ec's would do some cooking and they had some food. And so they'd invite us to come in and then --

KAREN BREWSTER: She knew she'd feed a bunch of male graduate students.

DAVID KLEIN: And she was just like a mom, you know. She said, "Well, if I was to offer --" We might have influenced her, because we said, you know, we get by. We can -- you know, we can -- We've learned how to do these things the hard way, but frankly, they're just pretty basic. And so she said -- She'd offered a course in outdoor cooking that was like, we met once a week for an hour. And I think it was one credit, but we couldn't use that in our degree program. But we took it. And she was such a nice person, and she loved us grad students. So she'd invite us when they'd have tea or something and with cookies that the gals had made. And I said, "Yeah, we'll go." And that was nice.

KAREN BREWSTER: Nice.

DAVID KLEIN: But she was used to interacting with the experimental farm people. And she knew all about the work that they were doing with the caribou and muskoxen in the early days. And her husband was a -- he was a high school teacher, I think, and coach. But she was just a really nice person.

KAREN BREWSTER: Well, it was smaller campus then. You probably all knew each other a little bit better.

DAVID KLEIN: Yeah. And then there was another woman teacher that we went to her, us grad students. I had a typewriter that -- one of these old portable typewriters in those days, which was in a little case that my father had. And it was this ribbon and all that stuff. And you had to have strong fingers to push that carriage, especially to make capitals, you know. But I didn't know how to use it. And there were typewriters in the office, the Wildlife Unit office, and we -- us grad students finally asked this woman who taught typing if she would do a course for us. And she did. So we -- it was just basic typing, you know, touch system. And virtually -- I don't know, probably not all of the students took it, but probably 80% did. And we all felt good about it. For me, then I went ahead and I was able to type out rough drafts and things with mine. And it was a pain in the butt because you had to -- you know, you couldn't erase very well and you had to keep replacing tape and stuff, but, yeah, I still used a yellow pad. But that -- I got to be moderately good at typing. And then when I got a secretary, I resorted to --

KAREN BREWSTER: Yellow pads.

DAVID KLEIN: -- yellow pad and gave it to her and she'd type stuff up. Are you holding out okay?

KAREN BREWSTER: Yeah, I'm just thinking that we'll wrap it up a little bit --

DAVID KLEIN: Sure.

KAREN BREWSTER: -- I think for tonight. I'm trying to think if we're at a kind of a stopping point. I don't want to end in the middle of something.

DAVID KLEIN: I think you could then move onto what I did for master's project and fieldwork associated in gaining experience. Did we do that?

KAREN BREWSTER: We've done all that.

DAVID KLEIN: Oh, we've done all that? That's right, we have.

KAREN BREWSTER: I was thinking maybe we'd move on to all the students you advised while you were Unit Leader. And that's a whole new topic and I don't think we want --

DAVID KLEIN: Yeah, that'll be good because then --

KAREN BREWSTER: Because I know that's really important to you.

DAVID KLEIN: It is important. And I can touch on some of the diversity. But I only had 66 students that I was the major professor of.

KAREN BREWSTER: Only! Okay, well, that's why we have to start --

DAVID KLEIN: And I can't remember the names of all of them.

KAREN BREWSTER: No, no, you don't have to.

DAVID KLEIN: I have a list somewhere in the office.

KAREN BREWSTER: It seems like, because you've talked about how part of your job was advising students and getting money, and so I think talking about all that would be a good --

DAVID KLEIN: Right.

KAREN BREWSTER: I also have sort of questions about some of the day-to-day administrative bits of history of the unit. And again I think we'll just start that the next time. If that's okay with you.

DAVID KLEIN: Yeah. I'll try to think about that a little bit. And, yeah. And how the students change over time in terms of gender. So I ended up having more female students than other faculty as advisees. And, you know, I said, I just took the best applicants and it turned out to be frequently females later on. And they had better academic record and experience, etc. And I didn't factor in gender, whereas many of the others were factoring

in gender, and guys, and saying, “Well, I don’t know how you work in the field with a female.”

KAREN BREWSTER: Shouldn’t be any different.

DAVID KLEIN: Well, it isn’t if you’ve never done it before.

KAREN BREWSTER: Yeah.

DAVID KLEIN: And you’re – And you’re culturally attuned to the fact that -- I remember Dale Guthrie telling me about they -- having a bunch of students and going out on a field trip. And they were -- it was a senior, upper division class. It wasn’t graduate students. And it had to do with paleoecology. And they went and looked at some digs and stuff like that, and out to where they were exposing the loess up here. And, you know, it - - Dale said there was this one very good-looking young student that most of the guys were tuned in on, and Dale said he didn’t blame them. She was such a nice person, but she was a knowledgeable person. And so, you know, he says, “Now when she has to take a piss, what’s she going to do?” Well, she just said, “I’m going to go over in the bushes.” And she did. No big deal. And some of the male students were all “oh, oh.” Got all excited. But, you know, a simple thing that male mentality is so orientated to sex that -- and --

KAREN BREWSTER: I thought maybe you were going to say that all the men were distracted watching her and they weren’t looking at all the paleo things they were supposed to be looking at.

DAVID KLEIN: They were probably preforming for her. Yeah. Displaying for her.

KAREN BREWSTER: Oh yeah. I was thinking they were more watching her than looking at specimens.

DAVID KLEIN: No, that definitely can happen, of course, in modern --

KAREN BREWSTER: Yeah. Okay, well, I think we will end for tonight.

End of interview