Oral History

Of

Steve Lewis

Interviewed by John Cornely

Name: Steve Lewis
Date of Interview: March 20, 2016
Location of Interview: Eagan, Minnesota
Interviewer: John Cornely

Years worked for Fish and Wildlife Service: 31 years.

Offices and Field Stations Worked, Positions Held: GS 4 Clerk/typist to GS 9 Wildlife Biologist with the Division of Refuge Management, Washington, DC; GS 11/12 Wildlife Biologist with the Migratory Bird Management Office, Washington, DC; GS 11/12 Assistant Migratory Bird Coordinator, Region 3 Regional Office, Fort Snelling, Minnesota; GS 11/12 Assistant Manager (part-time), Minnesota Valley National Wildlife Refuge, Bloomington, Minnesota; GS 13 Nongame Bird Coordinator, Region 3 Regional Office, Bloomington, Minnesota.

Most Important Projects: Nongame bird conservation initiatives, Upper Mississippi Valley and Great Lakes Waterbird and Shorebird Plans, Double-crested Cormorant management, Urban Bird Treaty Program, small grant program for bird conservation, technical assistance to field stations and partners on bird monitoring and management.

Colleagues and Mentors: George Allen, Brad Andres, Phil Arnold, John Christian, Dom Ciccone, Noreen Clough, Dick Coon, Tom Cooper, Ed Crozier, Liz Cummings, Bob Dahlgren, Dean Demarest, Randy Dettmers, Rob Doster, Terry Doyle, Tom Dwyer, John Eadie, John Ellis, Greg Esslinger, Andy Forbes, Gary Frazer, Rick Frietsche, Dave Fronczak, Nita Fuller, Ken Gamble, Jim Gillette, Mike Green, Shauna Hanisch, Sue Haseltine, Bill Howe, Chuck Hunter, Scott Johnston, Barb Pardo Jones, Stephanie Jones, Jim Kelley, Sean Kelly, Eric Kerschner, Alicia King, Ron Kirby, Katie Koch, Dave Krueper, Tom Larson, Jim Leach, Lynn Lewis, Rich Malecki, Al Manville, Jim Mattsson, Keith Morehouse, Charisa Morris, Harvey Nelson, Bob Oetting, Diane Pence, Cyndi Perry, Dan Petit, Marcia Pradines, Terry Rich, Jim Ruos, Bob Russell, Jerry Schotzko, Paul Schmidt, Dave Scott, Mort Smith, Greg Soulliere, Rollie Sparrowe, Marie Strassburger, John Tauton, John Trapp, Jennifer Wheeler, Jane West, Steve Wilds, Tom Will, Kent Wohl, Tara Zimmerman.

Most Important Issues: Migratory bird management; nongame bird conservation, monitoring, and research; urban bird conservation; cormorant management; non-toxic shot.

Brief Summary of Interview: Mr. Lewis talks about his early life, what his parents did, where he grew up, getting his undergrad degree, master's, and Ph.D. He talks about his wife, Lynn, who also has a career with the Fish and Wildlife Service and will be retiring June of 2016, and his

daughter, Robin, who has followed in her parents' footsteps in conservation. He talks about the various jobs he held, what his duties were, and all the various people he worked with. He feels very lucky to have worked with migratory birds and with the advancement of their conservation.

JOHN: This is John Cornely with the U.S. Fish and Wildlife Service Heritage Committee in continuation of our oral history project. And today I'm with Steve Lewis, who I worked with for a lot of years in Migratory Birds, in his home in Eagan, Minnesota. It's March 20, 2016, and we're going to just let Steve get started and tell us about his life and his career with Fish and Wildlife Service.

STEVE: Thanks, John. My full name is Stephen James Lewis, and I go by Steve. I was born in Doylestown, Pennsylvania, on November 16, 1951. My father was John Lewis. He was born in Wales but he came to this country as an infant and his family settled in Pennsylvania. My dad quit high school to enter the Army Air Corps and he served with the Occupation Forces in Germany following World War II. He later got his GED, and he did a number of things, probably the most interesting of which was being a mink farmer. He was also an auto mechanic, and I have to say none of his expertise with cars rubbed off on me. I don't do anything to my car; I pay somebody else to do it. Dad was also a prison guard for a while, and finally he got a job with the U.S. Postal Service where he worked most of his working life. My dad did not hunt or fish, so that meant that I never grew up doing those things. He did have a gun though, and he used it to shoot woodchucks that were damaging our garden. My mother's maiden name was Fanelli. Lucy Fanelli was born in Pennsylvania, worked as a homemaker, bookkeeper, and an Avon lady to put me through college, and that was in the days when what she made being an Avon lady could actually put you through college! She had a high school diploma. In 2009, my wife and I moved my parents from Pennsylvania to Minnesota, where they lived in a senior living facility near us. They both developed Alzheimer's disease, unfortunately. My dad passed away in 2010, and mom in 2011. I have one sister, Susan Miles. She's five years younger than me and lives in Charleston, South Carolina.

I really had a good life as a kid. We had an eight-acre property in rural Bucks County, Pennsylvania. It wasn't really a farm but, as I said, we raised mink and we had a large garden. However, the mink tied us down and

they weren't very profitable. My parents would take the pelts to New York City every year and it just got to the point where there was no profit in it, so they got rid of the mink and dad moved on to other endeavors. But our property was surrounded by woods and fields, and my friends and I spent many hours exploring those areas on foot and by bicycle. Also, my family had a pop-up camper - a little Starcraft with canvas sides - and we did a lot of camping. We drove from Pennsylvania to California one year because we had relatives out there and dad put a sign on the back of the camper that said, "California or Bust." And that was a great trip. One year we went up to Montreal to see Expo '67. The camping was another thing that got me out into the natural world and I really enjoyed that.

My outdoor interests are birding, bicycling, hiking and gardening. I'd like to say a little about my spouse and my daughter. I went to Penn State for my Master's degree and one of the worst classes I had there was Ecosystem Dynamics, but I'm very glad I took it because that's where I met my future wife, Lynn Motts, who was a fellow grad student. We got married in 1977 at the Chapel at Penn State. Lynn finished her Master's degree a few months before I did and, in the interim, she got a job as a biological technician with the U.S.D.A. Pasture Research Lab at Penn State. Later, when I went to Cornell University for my Ph.D. work, Lynn was looking for a job and she thumbed through the phone book and noticed there was a U.S, Fish and Wildlife Service Ecological Services Field Office in Cortland, New York, and because of her biotech job she had federal status and was hired by the ES office. She spent four very enjoyable and productive years there, so that worked out really well for her. When I got a job, which I'll talk about in a minute, in Washington, DC, with the Fish and Wildlife Service, Lynn transferred to the Ecological Service's program office in DC in 1983 and we settled in Cheverly, Maryland, just outside of DC

In 1987, Frank Dunkle was the Fish and Wildlife Service Director and he decided that the Washington Office was too large and that some of the staff should go to regional or field offices. Lynn and I were interested in a change from the DC scene, so she lateralled to the Environmental Coordinator position in Region 3, the Regional Office in Fort Snelling, Minnesota. (Region 3 includes the states of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin - basically the Upper Midwest.) Harvey Nelson was the Regional Director at the time and he was generous enough to find me a trailing spouse position as assistant to Bob Oetting, Region 3's Migratory Bird

Coordinator. I'll go into that more in a minute, but my point is that Lynn's career and my career have been intertwined and we've been very fortunate to get the deals we did with the Fish and Wildlife Service.

JOHN: Let me stop you just for a second there, at that point; it seems to me that getting that kind of accommodation was pretty rare in the Fish and Wildlife Service. And it's become, they've become much more accommodating and, of course, we both know what a good guy Harvey Nelson was; he did a lot of that sort of thing. But not many, I don't think many other opportunities like that were—

STEVE: Yeah, there were couple of things that helped me out and I'll talk about this later. John Eadie, who I worked with when I got my first job with the Fish and Wildlife Service in Washington DC, had gone to Region 3 to become the Assistant Regional Director for Refuges and Wildlife, and he was also one who helped me be accommodated when I followed Lynn to Region 3. Also, Bob Oetting had really bugged Harvey for years that he needed an assistant and because of the things that I did in Washington with the bird program, there was a niche there that I could fill. To say a little more about Lynn, she's going to be retiring in June of this year, 2016, after 39 years of federal service, all but one with the Fish and Wildlife Service. She's currently the Assistant Regional Director for Ecological Services and rose through the ranks. I hope that you can do an oral history with her at some point because she's had a interesting career.

JOHN: Will be more than happy to do that.

STEVE: So on the evening of May 10, 1989, I was working at Minnesota Valley National Wildlife Refuge, which I will talk about more in a minute. And I was closing the refuge after a meeting of the Deer Management Task Force when Lynn called me to say that she was in labor. Our daughter, Robin, was born early on the next day, May 11, 1989. Robin, I think, was influenced by our jobs with the Fish and Wildlife Service and our work with conservation. She became an environmental studies major at Whitman College in Walla Walla, Washington, and is very interested in agricultural issues, including organic farming. She worked on a number of Community-Supported Agriculture (CSA) farms around the country, also a job in Colorado with the Southwest Conservation Corps. Last year, in 2015, she was hired by the Bureau of Land Management in Colorado as a volunteer coordinator and we're very proud of her accomplishments and her environmental ethic. That was, I think, certainly a by-

product of our work with the Fish and Wildlife Service.

I alluded to my education a little bit. I would say that I was a straight C student at Central Bucks High School in Doylestown, Pennsylvania, where I graduated in 1969. My class rank was 254 out of about 500, so I was slightly below the midpoint. But despite those mediocre academic accomplishments, I managed to get accepted to Florida Institute of Technology in Melbourne, Florida, for my undergrad education. The reason I chose Florida Tech is that I became fascinated by the Jacques Cousteau TV specials of the '60s and '70s and decided I wanted to be an oceanographer, and Florida Tech was one of the few undergrad programs in that field. But I discovered when I got there that the emphasis was on physical oceanography and I was not cut out for physics or any of the other hard science courses in the program. Luckily, they established a biology program in my second year at Florida Tech and I transitioned to that. I found biology to be really interesting and my grade point average improved. I especially was affected when I took my first ecology course; we used Eugene Odum's classic text, *Fundamentals of Ecology*, and I just loved that. I had a work-study job at Florida Tech as a biology lab assistant and I also worked with a grad student there on a research project that involved mist-netting birds and I decided I really wanted to learn more about and work more with birds. I did a senior thesis project looking at niche separation in sympatric birds. In 1974, I got a Bachelor of Science degree from Florida Tech in Biological Sciences.

I returned to my home state to attend graduate school at Pennsylvania State University. I was in an interdisciplinary ecology program at Penn State, and I minored in wildlife management. Drs. John George and Fred Samson were my advisors. My Master's thesis involved the study of avian responses to habitat changes caused by spray-irrigation of forests with municipal wastewater. I got experience in censusing birds, monitoring nests, and assessing bird habitat. That work was published in the journal *Environmental Pollution* in 1981. Part of my assistantship included teaching Mammalogy Lab and Wildlife Field Techniques. I also worked on a literature review on urban wildlife, a subject that I returned to in recent years with the Fish and Wildlife Service in our Urban Bird Treaty Program, so that was kind of a full circle thing for me. Steve Williams, who was to become a Director of the Fish and Wildlife Service in the 2000s, was an undergrad at Penn State when I was in grad school there, and I'm not sure, but I think I might have had him in my mammalogy lab. So I got my

Master of Science degree in Wildlife Ecology in 1978 from Penn State.

From there, I got a research assistantship at Cornell University in Ithaca, New York, and my major professor was Rich Malecki. He was Assistant Leader of the New York Cooperative Wildlife Research Unit, which was then part of the Fish and Wildlife Service, and I was Rich's first student. My doctoral research was funded by the Fish and Wildlife Service's Patuxent Wildlife Research Center. It involved a study of the effects of oil contamination on avian productivity and population dynamics. I did field work at the Isles of Shoals off the Maine coast, where Cornell was part of the university consortium that operated the Shoals Marine Lab, and I spent three glorious summers there monitoring the reproductive success of Herring and Great Black-backed Gulls following stimulated sub-lethal oil contamination. Two publications resulted from that, including one in *The Auk*. While I was at Cornell I took classes and seminars that prepared me really well to become a wildlife researcher, which most people in our field wanted to do back then. I had little interest in and took no classes in wildlife policy or the human dimensions of natural resource management even though those were very popular courses at Cornell. In retrospect, these courses would have been very valuable to me in my Fish and Wildlife Service career but I was not thinking along those lines at that point. So I received a Ph.D. in Natural Resource Management from Cornell in 1982. For several months thereafter, I had a number of short-term jobs assisting with various research projects, including a brief stint trying to attract Atlantic Puffins to nest on Wooden Ball Island off the coast of Maine. That's about it for my education. If you'd like, I can give you a rundown of my career?

JOHN: Yes, that'd be great. I know Rich Malecki but I guess I didn't know that you had been his first student; that's very, very interesting.

STEVE: Yeah, and he was a great guy to work with; he gave me a lot of independence but when I needed his oversight and his help getting things like field assistants out to this island off the coast of Maine in two days' notice, he was there for me and, of course, he found the funding for the project.

JOHN: I may have been around that island in a boat a couple of different times.

STEVE: Yeah, it's right off of Portsmouth, New Hampshire, so it's on the Maine/New Hampshire border.

JOHN: As you know, they were ultimately successful in getting puffins

to come back in there and start to nest and they're still—

STEVE: Yeah, Steve Kress with Audubon oversaw that project. I was on Wooden Ball Island with a guy named Tom French, who would later become the husband of Diane Pence who was my counterpart (and later your counterpart) in FWS Region 5 - small world! The other thing I'll say is I had to go to Patuxent Wildlife Research Center every year to report on my progress and that was great because it got me to see what people in the Fish and Wildlife Service do. I worked mostly with the contaminants biologists, Pete Albers, Nancy Coon (I later worked with her husband, Dick Coon), and folks like that, so that was a good experience.

My whole career after the University was spent with the Fish and Wildlife Service, so that's, I guess, the simplicity. It was thirty-one years, and within that time I did a lot of things. I wanted to work for the Fish and Wildlife Service because I liked the landscape scale at which the agency operates, and liked the broad legal authorities that it's responsible for, and, of course, working for the federal government gives you some mobility, geographically, which Lynn and I took advantage of. I think the Fish and Wildlife Service's mission - working with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people - is noble and I think our efforts make the world a better place. So I was very happy and proud to get hired by the Fish and Wildlife Service.

My first job was a back door to the Fish and Wildlife Service. I was hired coming out of Cornell by the Institute of Ecology, which no longer exists, but it was a non-governmental organization in Washington, DC. that basically provided people with internships to work with the Fish and Wildlife Service, and I was embedded with the Service for a year, although not technically a federal employee. Gary Frazer, who's now Assistant Director for Ecological Services, was a fellow intern. My position, which I thought was great, was with the Division of Refuge Management in Washington DC and, of course, never did I dream my first job in the wildlife profession would be in Washington DC but it turned out to be a pretty interesting place to work. My office was in the Main Interior Building and my supervisor was Ron Kirby. Ron was a great mentor, he was a young guy, full of enthusiasm. I think you know Ron - he talks about a mile a minute and is incredibly productive - writing publications all the time and always thinking big. That's one reason he left in the middle of my internship - to help start the then-new Office of Biological Services in Fort Collins, Colorado. Jim

Gillette was the Refuge Division Chief and John Eadie was his Deputy. My office partner was Don Ciccone, who would later become the Refuges Chief in the southwest region in Albuquerque. I also worked with Rick Frietsche, who later became the Deputy Project Leader at Upper Mississippi River Wildlife and Fish Refuge in Winona, Minnesota, and I still see Rick occasionally; we go on bike rides together. Paul Schmidt, who would later become our Assistant Director for Migratory Birds, came to the Refuge Division from, I believe, Blackwater National Wildlife Refuge, in Maryland, just as a staff person. And Noreen Clough, who later became Regional Director in the Southeast Region, was in the DC office handling oil and gas development on the Arctic National Wildlife Refuge, which was an incredibly controversial and complex issue. She obviously impressed people; she was a pretty amazing person. So my internship was just a fantastic experience; I learned a lot about the Fish and Wildlife Service and especially about the National Wildlife Refuge System and I did come to really enjoy living in the DC area. Some of the things I worked on in the Refuge Management Division included coordination and funding of research on refuges. John, when you were with refuges, you may remember that Jim Gillette had a little pot of money, and it was up to Ron Kirby and me to kind of figure out who could use that to do good things on refuges across the country. We also tried to do a little dissemination of scientific information to refuges on population and habitat management. One of the things we did there was an innovative bibliography on fire and wildlife in wetland ecosystems.

JOHN: Which I still have a copy of.

STEVE: I also coordinated work related to a national study of lead poisoning in waterfowl on refuges. And I reviewed Regional Resource Plans, which you might remember.

JOHN: Yes.

STEVE: I reviewed many other technical documents. When my year was up, I was lucky enough to remain in the Refuge Division. On paper, I became a GS 4 Clerk/Typist so I could get federal status, and that allowed me to eventually gain a GS 9 Wildlife Biologist position with the Refuge Division in 1984. In that position I did a number of things. I wrote regulations to open refuges to hunting, fishing, and other public uses. The most interesting one was Buenos Aires National Wildlife Refuge which was established for the Masked Bobwhite Quail.

JOHN: Yeah, masked bobwhite.

STEVE: But I was assigned to write regulations that opened it, among other

things, to quail hunting and so that was interesting. I also reviewed pending legislation that could impact the National Wildlife Refuge System; I drafted congressional testimony on refuge-related issues. And I assessed contaminant problems on refuges; this was when the whole issue with selenium contamination at Kesterson National Wildlife Refuge hit the fan. That was also a time when potential for oil and gas exploration on refuges was being talked about and I worked on that issue too. At the time I started with the Refuge Division, there were about 440 refuges in the system and I think now there are about 560.

In 1985, because of my strong interest in bird conservation and management, I applied for a position with the Migratory Bird Management Office, then called MBMO, in Washington DC and I was hired by Rollie Sparrowe and Tom Dwyer as a GS 11/12 Wildlife Biologist. These two guys were incredible and I really enjoyed working for them. I handled a variety of issues, including developing the EIS on non-toxic shot used for waterfowl hunting. I mean, I was a staff person on that, so I did a lot of the grunt labor but I worked with a decision maker on it. I also worked with John Tautin on the development of the first EIS on issuing regulations on migratory bird hunting and I helped refine the migratory bird portion of the Refuge Land Acquisition Priority System. I worked on a number of waterfowl habitat issues too. John Trapp was hired, coming from Alaska at the same time I was, to work in MBMO to develop a national program for nongame bird conservation. He compiled the first document on nongame birds with declining and unstable populations and I assisted a little with several aspects of the nongame program. Historically, MBMO had focused mostly on waterfowl and other migratory game birds, like woodcock and doves, but the Fish and Wildlife Conservation Act of 1980 gave the Service responsibility to do more for nongame birds. Other people I worked with in MBMO, Mort Smith and Greg Esslinger, handled hunting regulations. Greg later moved to the Southwest Region and he actually retired the same day I did last year.

JOHN: Is that right?

STEVE: In June. I also worked with Keith Morehouse, who ended up doing a lot of the work with the non-toxic shot issue, Jim Ruos, who handled Bald Eagle issues when the species was first listed as endangered, and Fant Martin, who did a lot of work with woodcock.

One of the great things I got the opportunity to do while I was at MBMO was a waterfowl banding assignment in the summer 1986. The Service sends

people all around the U.S. and up into Canada to band waterfowl each year to get information on survival rates for use in setting hunting regulations. I got to drive a truck from Patuxent Wildlife Research Center in Maryland to Medicine Hat, Alberta, and I spent a month there. My partner and I banded about 4,500 ducks of 13 species. On my way up there, I was told to stop in Fergus Falls, Minnesota, to meet Carl Madsen, who was doing very innovative things that eventually led to the development of the waterfowl Habitat and Population Evaluation Team (HAPET). I really enjoyed talking to Carl and when I passed through Minnesota, I remembered thinking, "boy, this would be a nice place to live someday".

JOHN: And Carl was, probably at that time, he was leading what we called the Mid-Continent Project, which was a mallard-based, besides refuges projects like the first one I worked at were very large so you could call it landscape management. But the Mid-Continent Project was maybe, at least the first I know of, of a landscape level operation that included private lands and Service lands.

STEVE: It also led to the creation of the Service's Private Lands Program.

JOHN: Yes, I'm sure it did.

STEVE: I also learned about the Wetland Management Districts from Carl, and how they integrate with National Wildlife Refuges in the Prairie Pothole Region.

JOHN: And even today, if you haven't worked in Region 6 or Region 3, you may not have a clue what a Wetland Management District is all about.

STEVE: So by 1987, I had advanced to the GS 12 level at MBMO, but when Lynn and I moved to Region 3, I took a voluntary downgrade to a GS 11 to work in the Regional Migratory Bird Program because that's the way that new position graded out.

JOHN: And Bob Oetting was the Migratory Bird Coordinator at the time?

STEVE: Yes. The Migratory Bird Program in Region 3 was under the Refuges and Wildlife Program then and John Eadie, who I had worked with in DC, was the Assistant Regional Director. As I said earlier, he was one of the people who helped me make the transition to Region 3. So I assisted Bob Oetting in the Region 3 Regional Office in Fort Snelling. I worked on a number of issues there, including implementation of non-toxic shot for waterfowl hunting and helping Bob cover Mississippi Flyway Technical Section meetings (I was particularly involved with the Trumpeter Swan

Committee and the Eastern Prairie Population Canada Goose Committee). I also did coordination of Woodcock and Mourning Dove surveys in the region and I participated in the ground census portion of Minnesota Breeding Waterfowl Survey. Bob moved on to Northern Prairie Wildlife Research Center in Jamestown, North Dakota, and I then worked briefly for Jerry Schotzko, who was involved with the then-new North American Waterfowl Management Plan. One of the things I did there was to pull together information for Region 3's contribution to the Prairie Pothole Region Waterfowl Habitat Acquisition Concept Plan, which I'm sure you're familiar with. I think Skip Ladd, who worked in Region 6 was the lead on that. JOHN: He had a lot to do with that.

STEVE: Yeah.

JOHN: And Jerry Schotzko was, in the U.S., deeply involved with the Prairie Pothole Joint Venture, which includes parts of Region 3 and Region 6. Each region had a Prairie Pothole Joint Venture Coordinator and Jerry Schotzko was the first Region 3 Coordinator and Paul Hartmann was it for Region 6. That was about the time I came to Denver and got involved on the ground. So I worked with both of those gentlemen and they were starting to write the first plans for the Joint Venture.

STEVE: Right. Paul Hartmann had been with Realty right?

JOHN: He had been, yes.

STEVE: I interacted with Paul when I was on a team working on the Land Acquisition Priority System.

JOHN: He had been involved in the Small Wetlands Acquisition Program up in the Dakotas. He was the Prairie Pothole Joint Venture Coordinator when I got to Denver in 1988 and I'm not exactly sure, I probably have it because I've interviewed him twice; once about Small Wetland Acquisition Program and once about Prairie Pothole Joint Venture. But then he became the Realty Chief in Denver and transferred from the Coordinator job.

STEVE: So let's see here.

JOHN: So, one other quick question/comment. So when you came here you were truly the Assistant Migratory Bird Coordinator because you were involved mostly in game birds, which was the focus of all the regional migratory bird programs at the time?

STEVE: Yeah, so in thinking about this interview today, I realized that, in the early days of my career with the bird program, I pretty much just did game bird stuff, which was fine; I mean it was interesting. When I characterize my career I think of it in terms of the

nongame bird program, but that came along later. So speaking of that, in 1988, the Fish and Wildlife Conservation Act was amended and it gave the Service specific responsibilities for nongame bird conservation and that provided an impetus for me to get involved in that arena because I was interested in nongame species. With the help of the Office of Biological Services, I organized a regional nongame bird conservation workshop in 1988 and we invited biologists from refuges as well as state agencies in the region that had nongame programs. It was really kind of a landmark event and it established relationships that we carried on into the future in terms of working with partners to do nongame bird conservation in the Upper Midwest. We also contracted, at that time, the development of status assessments for 14 species of nongame birds of concern in Region 3.

So the next thing that happened in my career is that John Eadie said, "You need to get some field experience because you've worked in the Washington Office, you've worked in the Regional Office, but you haven't worked at a field station." And he said, "The good news is we're not going to send you to Outer Podunk to do that. We have this relatively new National Wildlife Refuge, Minnesota Valley NWR, and it's just across the highway here from us. And there's a great manager there, Ed Crozier, he's a legend among refuge managers, and I think you ought to spend a little time over there." Of course, Minnesota Valley was one of the first urban refuges. So from 1988 to 1990, I worked half-time at the refuge as an Assistant Refuge Manager and half-time for the Migratory Bird Program in the Regional Office. That was a very unique arrangement and my work life was very full then. At the refuge I worked on a variety of issues that really expanded my horizons. One was urban deer management; I never knew a thing about deer, but boy did I learn a lot there – it was a huge issue on the refuge and a great introduction to the human dimensions of wildlife management. I also wrote prescribed burning plans and did field work fighting wildfires and managing controlled burns. Trains would go through one unit of the refuge and regularly spark fires. I also handled the refuge trapping program, which was new stuff for me, and I did a number of biological surveys. Back then, we had issues that were called "threats and conflicts" and one that I worked on was a landfill adjacent to the refuge contaminating refuge wetlands; I wrote testimony for Ed Crozier to give to the Minnesota Pollution Control Agency and they ended up not expanding the landfill as planned. I also served as the refuge's safety officer, which is another discipline that was new to me.

JOHN: So basically did you get formally transferred to the refuge?

STEVE: Yeah, I mean I had a job description, it was a 485, was that the Refuge Manager series?

JOHN: Yes.

STEVE: I think I became 485 [Refuge Manager Series] for a couple years.

JOHN: So this part of your career I did not know about.

STEVE: It was interesting because if you have two bosses that you're each working half time for, they tend to forget that the other half needs time.

JOHN: Right, exactly.

STEVE: So I'm sure I worked more than 40 hours a week, but it was a labor of love. I really enjoyed it.

JOHN: So, I guess that was really where I was going with this. So you were still working in Migratory Birds part-time, but getting time being a refuge manager part-time basically.

STEVE: Yes, I mean, I'm trying to remember now; I might have sat at the refuge all the time but worked on certain things that I could do at the refuge with the bird program.

JOHN: Yeah, it's a really good thing to do in my experience.

STEVE: Yeah, and I was at the refuge at a great time because we transitioned to this new, huge, state-of-the-art visitor's center because the refuge had a major mandate for environmental education. I had the best office I ever had, it was a real office with a door and a huge window overlooking a wetland, so that was really nice. Tom Larson replaced Ed Crozier as Refuge Manager as Ed moved on to become a Refuge Zone Supervisor, so I worked with both of them and they were just great to work for.

In 1990, I returned to full-time employment as a GS 12 with the Region 3 Migratory Bird Program and, by then, Steve Wilds was the Migratory Bird Coordinator and my title became Nongame Bird Coordinator. And that was a little confusing to people because migratory birds include nongame but in reality, as you indicated before, the Migratory Bird Coordinators dealt mostly with game bird issues.

JOHN: Well, we had, I remember when we got the first little pots of money for nongame work; up till that point we had no funding at all that was specifically for nongame. Some of us pushed the envelope a little bit, and I pushed the envelope again because my first allotment for Region 6 went to Trumpeter Swans, which are really game birds. I talked to John Trapp, I said, "This is one of our biggest issues." And,

of course, that was before there were many thousands of Trumpeter Swans in Minnesota, for example. We were still very, very concerned about their future.

STEVE: Yeah, we had a Swan Committee in the Mississippi Flyway Technical Section, but back then the Tech Section had only game bird stuff, so that was a little different because, you know, the hunted and non-hunted swans look alike.

JOHN: Pacific Flyway, the same thing, they had two Trumpeter Swan committees, and still do, long before there was a limited allowable take of Trumpeters out west; that's very interesting. But I think it's also suggestive of what Fish and Wildlife Service people do, they do what needs to be done regardless of what the constraints are - stay within the constraints as best you can but if there's issues that need attention, why most of us tried to do something about it.

STEVE: I felt very lucky because John Eadie, Steve Wilds, and others were very supportive of getting into the nongame arena. For a while I thought we were the first region to do that, but Brian Sharp was actually the first nongame bird biologist - in Region 1 (Pacific Northwest). I interacted with him on something when I was in Washington in the mid-1980s And then, of course, there's Alaska, which we always say is different - I mean for years they had been doing seabird and shorebird work.

JOHN: They actually had several staff people working on them, but that's like another country.

STEVE: But you know, of the lower 48 regions, I think we were a little ahead of the other ones just chronologically, not to say we were doing things better or anything. And I'd just say that Steve Wilds was a great supervisor and mentor; I mean he gave me guidance and support when I needed it, but he gave me a lot of freedom to run with the nongame program and I really think he was probably the most influential person in my career.

I also worked a lot with Jim Mattsson, who was our Regional Refuge Biologist, because Migratory Birds at that time was under the Refuges and Wildlife Program. I think you maybe knew Jim.

JOHN: Yes, I knew Jim.

STEVE: Jim was a great guy - he passed away a few years ago unfortunately. Part of my job was to provide technical assistance on bird monitoring and management to refuges and wetland management districts as well as private lands offices and ecological services offices. But I worked a lot with Jim. We did refuge biological evaluations and reviewed a lot of refuge

planning documents, so that was a great relationship.

JOHN: Yeah, when I was at Western Oregon Refuges, I actually had in my job description, I assisted the Regional Refuge Biologist in Portland on certain refuge-related things and that's how I met Jim. We had some meetings where, not every region had a Regional Refuge Biologist, but each region would send somebody or a couple people in our case for Region 1. And we got to meet a whole bunch of neat people. Historically, refuge biologists didn't get invited to project leaders' meetings and different things and you didn't even know face to face the other refuge biologists in a region or other regions. And in Region 1 we started biological workshops that changed that; that and you mentioned the first nongame workshop and we did a nongame workshop early on before—

STEVE: I remember the proceedings from that.

JOHN: Diane Pence (Region 5 Nongame Bird Coordinator) came all the way from Massachusetts to that one and it was before Stephanie came on board in Region 6.

STEVE: Stephanie Jones – one of my closest colleagues over the years.

JOHN: Yeah, but meant a lot of [unintelligible@44:10] and we went, actually our non-game workshop, we decided to make it a; we talked about hertz and non-game birds, it was a pretty neat workshop. I was really, felt really serious about offering training opportunities to field staffs and anybody else that was interested. And the side benefit was almost worth more than the workshops themselves in meeting all these people

STEVE: Absolutely.

JOHN: And finding out what their background was, and in Region 1 we had a refuge biologist that had done shorebird research, we had one that was a deer expert, I had done work with coyotes and when we put this all together, we suddenly had consultants on all kinds of issues that we didn't even know were close callings.

STEVE: It's amazing, my observation was sometimes refuge biologists were so busy, they never talked to each other and these workshops were a great forum to get together. John Ellis preceded Jim Mattsson, and then Bob Dahlgren, and Phil Arnold at the Habitat and Population Evaluation Team Office - they were either actual or *de facto* zone biologists. One of the coolest things that I ever got to do with Jim Mattsson, Stephanie Jones in your region, and Tara Zimmerman, the Nongame Bird Coordinator in Region 1, was to attend a two-week course in bird monitoring

techniques at Point Reyes Bird Observatory in beautiful Point Reyes, California. It was timely because that's when we were just getting into things like point counts and all these various ways to count nongame birds and it was very challenging. At PRBO, Geoff Geupel and others had been doing this for years and it was a fantastic course.

JOHN: I just saw Geoff, I see him at the North American Wildlife and Natural Resources Conference just about every year.

STEVE: We had the weekend free between the two weeks of the course so we all went into San Francisco for some R & R. At the bird observatory, we just kind of looked at each other and said, "Can you believe we're getting paid to be here?!" But it was a life-changing event in terms of the knowledge we gained and were able to share with our field stations and partners.

JOHN: Those kinds of things are really important and traditionally you can get permission to go to those kinds of things and they expected you to stay in the regional office or stay on the field stations, which was ridiculous and this was long before we had a wonderful training center and support from the top to the bottom to actually get continued training throughout their career. So I was always kind of; it's like my major professor at Northern Arizona, when Joe Mazzoni from Malheur NWR called and said that he was considering me for refuge biologist position, he told my advisor, who was Terry Vaughan, who taught Mammalogy.

STEVE: Joe was a legend among Refuge Managers.

JOHN: Terry Vaughan was a great man, tremendous artist, his lectures were illustrated lectures. But anyway, Terry called me in, he said, "I just got a call from this gentleman at Malheur National Wildlife Refuge asking about you, and he's a little concerned that you really wanted to be a research biologist and that you were just trying to get your foot in the door in Federal service and then you're going to go off to a Co-op Unit or something." And I said, "Well, what did you tell him, Dr. Vaughan?" He said, "I told him you were pretty weird and you really wanted to be a management biologist." Which was true. And I got selected for the job, but it was unusual, highly unusual, for someone to hire somebody working on their doctorate for a refuge biologist position. In fact, there was discrimination against Ph.D.'s, at least in the thought process.

STEVE: I will say that I never really advertised the fact that I had a Ph.D.

JOHN: I didn't either.

STEVE: --because I quickly found that that rubbed some people the wrong way.

JOHN: Right, well I found, as I'm sure you did, that there were times when it was very useful and there were other times that you really didn't want people to know.

STEVE: I think going to grad school is very important for a biologist on a refuge or whatever - don't have to go all the way to the Ph.D., but just to understand things like study design and statistical considerations

JOHN: And I, in fact, never intended to go on but there was a Federal hiring freeze when I got my master's and I had had professors twisting my arm trying to get me to go on and all a sudden, well, what else am I going to do? And it worked out perfectly well in the long run; there were many people through the years that never found out.

STEVE: So I'll just interject here, because it's as good a place as any, when I looked at the list of questions for the oral history there was something about "what didn't you like about your job" or something on the negative side. For me, and everybody I know, a huge frustration over the years was, our ever-changing, ever more complicated, and ever more restrictive policy of scientific meeting attendance.

JOHN: Conferences, yes.

STEVE: You know, there was a time when we could go to the Midwest Fish and Wildlife Conference every year, no hassle; we'd go to national meetings like the American Ornithologists' Union or some of those. But then it got so restrictive and we're told on the one hand to work with partners and do things on a landscape scale, but to do that you kind of have to go to meetings. And many of us have the word 'coordinator' in our titles so when you coordinate it helps to be able to attend professional meetings!

JOHN: That's the definition.

STEVE: So that continues to be a frustration, you find work-arounds, but anyway.

JOHN: No, I agree.

STEVE: Well, so to talk a little about the people that were maybe a couple levels above me in Region 3. John Eadie moved on and was replaced by Sue Haseltine and later Nita Fuller as Assistant Regional Director for the Refuges and Wildlife Program. And then once we split from Refuges and Wildlife, Migratory Birds was its own program. My interactions with refuges lessened a little, but John Christian became our Assistant Regional Director and he's another person who was a really supportive guy. His background was fisheries but he really came up to speed on bird issues and was a good advocate for our program, both game

and nongame. He retired in 2011 and was replaced by Dave Scott, who just left our region last year to take a job as the Service's Scientific Integrity Coordinator.

JOHN: I didn't know that until I saw him last week.

STEVE: He's in Atlanta now.

JOHN: I didn't know where he was. In the conversation I found out that he had changed positions.

STEVE: I liked working with Dave too, he came from State of Ohio and had a great background in bird management and continues, I think, to keep his finger in some of the bird committees. So that was it for the Assistant Regional Directors. Steve Wilds retired in 2007 and as far as people after him, Jane West became our Migratory Bird Chief and was in that position from 2008 to 2013, when she retired. And Barb Pardo (later became Barb Jones), was our chief from 2013 to 2014, when she retired, and then Tom Cooper became our chief in 2015 and he's, of course, still in the job. And again, all of these people were easy to work with and very supportive of the nongame bird program. I'll just say something about one more person, and that's Sean Kelly; Sean came to Region 3's Migratory Bird Program as a waterfowl specialist not too long after I got to the region, and I worked with him over 25 years and he's a great guy; that's been a good friendship and good working relationship.

I'll say a little thing about partners; as you know, birds are wide-ranging critters and we have to work with a lot of partners to conserve them throughout their annual life cycle in breeding, migration, and wintering areas. I very much enjoyed interactions with colleagues at state agencies and other federal agencies as well as tribes, non-governmental organizations and academia. And I think we've really done some great things with bird monitoring, research, and management in the Upper Midwest. We made an important decision early on in our program to allocate as much funding as we could for a small grants program, and that was distributed to our partners and to our field stations. It grew over the years and it was very successful, not only in supporting critical work that increased our knowledge of nongame birds, but also in fostering good relationships with a variety of agencies and organizations that came to see us as value-added coordinators and leaders in regional nongame bird conservation efforts. When you have a little money, people invite you to the table, and I think we were able to leverage our funds well.

JOHN: To me, that's of partnerships we've been involved with, even internal ones like once Migratory Birds was no

longer part of Refuges and Wildlife, we became partners. I felt like the leveraging that was done by us and by the North American Waterfowl Management Plan Joint Ventures—

STEVE: We also got a lot of bird projects done through funding from the Service's Challenge Cost-share Program, but that, unfortunately, went by the wayside.

In the 1990s, the Service's national nongame bird program really flourished, guided by a publication entitled, *Conservation of Avian Diversity in North America.* I stepped this document down to the regional level in 1991 and developed a plan for the conservation of birds in the Northcentral U.S. Its goals were to monitor nongame bird populations, identify species of concern, foster research to identify limiting factors, facilitate population and habitat management, increase the public's awareness and appreciation of nongame birds, and enhance communication on nongame bird issues within and outside of the Service.

The Fish and Wildlife Conservation Act did result, as you mentioned earlier, in some funds being earmarked for our agency, specifically for nongame birds. And that's when staff was added to both the Washington Office, which later moved to Arlington, VA, and then to the regions, who hired biologists to focus on nongame bird conservation. For awhile, when the Service had seven regions, we had a group that we called the "Nongame 7". It was a very close knit group that included Tara Zimmerman and later Mike Green from Region 1 in the Pacific Northwest, Bill Howe from Region 2 in the Southwest, myself from Region 3 in the Upper Midwest, Chuck Hunter and later Dick Coon, and then Dean Demarest from Region 4 in the Southeast, Diane Pence and later Scott Johnston from Region 5 in the Northeast, Stephanie Jones from Region 6 in the Intermountain West, and Kent Wohl from Region 7 in Alaska. We really enjoyed getting together and had some great meetings and interactions. Other people who I've interacted with in the regions in the nongame arena to a significant degree were Dave Krueper in Region 2, Randy Dettmers, Region 5, Suzanne Fellows in your old region, Region 6, and Rob Doster more recently in what we're now calling Region 8, which is the California/Nevada office.

In the Washington Office, I interacted with the following people: John Trapp, who I mentioned already, was a staff person with me. And then after Tom Dwyer, there were a number of people who supervised the Office of Migratory Bird Management's Branch of Bird Conservation. First was Liz Cummings. Liz was an interesting person who had

worked with refuges all over the country and she really helped us get funding and just was very supportive in the early days of the program. She was followed by Cyndi Perry, who was great and I think you've done an oral history of Cyndi; she went on to become Chief of the Division of Bird Habitat Conservation - great person. Marie Strassburger followed Cyndi, then Marcia Pradines, and most recently Charisa Morris was head of that Branch I worked with George Allen, mostly in conjunction with cormorant management and other regulatory issues that we dealt with through the Mississippi Flyway Nongame Bird Technical Section, which I'll talk about in a minute. Al Manville was in the Washington office, and great guy, really, really productive; he produced many guidelines that were very useful in addressing the impacts of bird collisions with buildings, cell towers, wind turbines, and just a variety of things like that, made a big impact on the program. And then we had the bird conservation initiatives, which I'll talk about in a minute, but Dan Petit was originally the Partners in Flight Landbird Conservation Initiative coordinator, followed by Terry Rich. Brad Andres oversaw the Shorebird Initiative and Jennifer Wheeler coordinated the Waterbird Initiative, and they were great people to work with.

I'm going to tell you in a minute that cormorants are a big part of my job here in the region and Shauna Hanisch and, after her, Terry Doyle were the cormorant management coordinators at Headquarters, as they're now calling the Washington Office, and I worked very closely with them. In more recent years, Alicia King, who's now gone on to the Forest Service, was an Outreach and Education Specialist in Washington and I worked with her International Migratory Bird Day and the Urban Bird Treaty Program. Eric Kerschner is the main biologist at Headquarters that I worked with at the end of my career. So these are all really, really great people.

The success of the 1986 North American Waterfowl Management Plan spurred the creation of the Partners in Flight Land Bird Conservation Initiative in 1990. And that brought attention to declines that were being experienced by many neotropical migrant land birds. I was sent to a very landmark meeting that Amos Eno with the National Fish and Wildlife Foundation convened in Atlanta to establish Partners in Flight. Frank Thompson with the Forest Service and I were asked to head up the Midwest Partners in Flight efforts and other people in other parts of the country served similarly. Several years later, the U.S. Shorebird Conservation Plan and the North American Waterbird

Conservation Plan were established. And then the North American Bird Conservation Initiative was formed to foster integration of those three non-game initiatives with each other and with the North American Waterfowl Management Plan. The national and international bird plans were stepped down to plans that were done at the Bird Conservation Region level, and I co-authored several regional waterbird, shorebird, and landbird plans. Plans are important. A lot of people complain that they end up on a book shelf and are never used, but I think our plans were very useful in identifying priorities for bird monitoring, research and management, and in bringing people together in working groups and fostering good relationships for working together. We also developed conservation plans for a number of nongame bird focal species and they led to the formation of working groups that have been very successful in addressing the declining species in a coordinated and cooperative way.

By the early 2000s, most of the Habitat Joint Ventures that were established under the North American Waterfowl Management Plan were all- bird in scope and they took on more responsibility for addressing habitat needs of nongame birds. I helped develop the Upper Mississippi River and Great Lakes Joint Ventures Waterbird Habitat Conservation Strategy in 2007, and I served for a number of years on the Joint Venture's Science Team. In that capacity I had the pleasure to work with Jim Leach, the Joint Venture Coordinator, Barb Pardo Jones, his successor, Andy Forbes, who succeed Barb, and Greg Soulliere, who heads up the Joint Venture's Science Office in East Lansing, Michigan.

In 2001, I was promoted to GS 13 and I hired and supervised two new nongame bird biologists, Bob Russell and Tom Will. They greatly enhanced our region's ability to do the coordination work and other things needed to conserve birds in Upper Midwest. Tom focused on landbirds, Bob on shorebirds, and I handled waterbirds. Katie Koch joined our team in 2008, bringing much-needed coordination to regional bird monitoring and data management activities. And it was my **great** privilege and pleasure to work with these three outstanding colleagues over the years; we made a great team. In the case of the bird initiatives, Tom, in particular, not only addressed things at the regional level, he also played a very important role in steering the Partners in Flight initiative at the national and international levels.In fact, he received an award from Partners in Flight a couple years ago for all he's done for that group.

With the growth of the Fish and Wildlife Service's nongame bird

program and the addition of the permits function to the Migratory Bird Program, regular coordination meetings of Washington Office and regional migratory bird staff were held, and greater unity came to our program. In 2004, a national strategic plan entitled, *A Blueprint for the Future of Migratory Birds*, was developed to articulate a vision, operating principles, goals, and priorities for the Fish and Wildlife Service's Migratory Bird Program.

In 2003, something happened that really affected my job: an Environmental Impact Statement was produced on Double-crested Cormorant management in the U.S. and it established a new direction for addressing growing conflicts with this species. Cormorants recovered from near decimation in the 1970s due to DDT and lack of legal protection under the Migratory Bird Treaty Act to exponentially-increasing population levels in some areas, especially their breeding grounds in the Great Lakes and their wintering areas in the Mississippi Delta. There were growing concerns about the birds' impacts on aquaculture operations, free-swimming fish populations, vegetation and habitat for other colonial waterbirds. So I got tagged with this issue and it grew into a major workload. It was challenging to address the conflicts, but very interesting not only from a biological perspective but from a human dimensions perspective. It's certainly a species where the biological and social carrying capacities are sometimes very far apart!

In 2006, the Flyway Councils expanded their scope from waterfowl to all migratory birds and I became the Service's liaison to the Mississippi Flyway Nongame Bird Technical Section. The Technical Section provided a good forum for working with the states on issues of mutual concern, especially regulatory matters like cormorant management. Mississippi Flyway staff who I worked with closely in our region included: Ken Gamble, the now- retired Service Flyway Representative, Jim Kelley, his successor, and Dave Fronczak, Jim's assistant.

In 2008, Katie Koch took the lead in establishing the Midwest Bird Monitoring Partnership, which has flourished. It has advanced bird conservation in Region 3 in a big way through enhancing coordination and exchange of bird monitoring information. The Midwest Avian and Data Center was created to provide a state-of-the-art system for data management and decision support. And nearly a dozen working groups have formed under the Coordinator Bird Monitoring Bird Partnership. While I cannot take credit for this, it's a noteworthy accomplishment for the

Region 3 Migratory Bird Program that I'm very proud of.

Tom Will worked on three ground-breaking projects with the Smithsonian Migratory Bird Center that, again, I take no credit for, but I think show where the Fish and Wildlife Service Migratory Bird Program is headed in the future. The first was an assessment of the magnitude of direct mortality of birds from anthropogenic causes, including cats, powerline electrocutions, and collisions with buildings, windows, communication towers, wind turbines, powerlines, and vehicles. This is leading into the issue of incidental take and allowing us to better understand which mortality sources are most important for us to focus on. Cats have the most impact, but we can't do much about cats right now for a variety of reasons. Building collisions have a huge impact, and we can do a little there but, again, we don't regulate buildings. However, we can make some inroads, for instance, working with other federal agencies to make sure federal buildings are as bird-friendly as possible.

JOHN: And even with cats, one of the things we can do and are doing, I don't know how impacting it is, but educating people.

STEVE: Right, supporting the American Bird Conservancy's "Cats Indoors" program and things like that. The second project that Tom worked on was a modeling effort that is helping us better understand the needs of migratory birds in the non-breeding season so that full life cycle bird conservation can be achieved. We understood for years that many of "our birds" really spend as much, if not more, of their annual cycle outside of our areas, and we have to think about that when we look at their limiting factors and how to bring back declining populations. And then the third thing he worked on was a climate change vulnerability assessment for birds in the Great Lakes and, of course, climate change is probably the issue of our time and we're not alone in dealing with that.

One of the last things I got to work on before I retired was urban bird conservation, which kind of brought me back to what I did at Penn State decades earlier. We have an Urban Bird Treaty Program that has kind of had ups and downs in terms of funding, but I think this is a really important thing for the future; if we don't educate urbanites, they won't understand and support the need for bird conservation, or conservation in a larger context.

JOHN: There are and will be even more so, a majority of the voters that will determine what funds are available for conservation programs of all kinds.

STEVE: So that's kind of a rundown of my career. I retired in June of 2015 with 31 years of federal service all with the Fish and Wildlife Service, but I like to say I had 32 years with the Service because of that one-year internship. Since then, I have volunteered at my old office - I'm officially signed up as a volunteer - to handle some lingering issues like cormorant management, updating an old shorebird plan with Bob Russell, and working on urban bird treaty issues until my old position is backfilled. That recently happened, and my replacement started work about a week ago, so I will soon be fading into the sunset with Lynn, who has announced her retirement this June, after 39 years of federal service.

I just wanted to close here with a few thoughts that kind of give me some perspective on my career.

JOHN: Okay, before you do that, and I think this is relevant to your thoughts, I wanted to mention that we will soon be celebrating the centennial of the Migratory Bird Treaty, which is a landmark event.

STEVE: Yeah, we've got a lot of stuff planned to celebrate the Migratory Bird Treaty centennial in our region.

JOHN: Yeah. And as I thought about it a little bit, there were a lot of attempts; there were laws passed and other things that really didn't work very well because the states and federal government were arguing over who had jurisdiction for all wildlife basically, and that treaty started to sell that. But I never stopped to think about this, you probably haven't either, but it's possible we would never have had the jobs that we had if 100 years ago that hadn't occurred, and actually an entomologist for the Canadian Wildlife Service wrote most of that treaty.

STEVE: Is that right?

JOHN: Yeah.

STEVE: Interesting.

JOHN: Mr. Hewitt. So the more I think about it and the more things that you and I and other migratory bird folks and all refuges folks, there's ES people that have worked on migratory birds; it's just kind of an amazing thing that they did and it set the groundwork for almost everything that we did in our careers.

STEVE: Yeah, good point. So final reflections here -- like anybody my age, I have to say one of the amazing things in my career was the technological advances. In the office, I can remember the first very crude word processor, and then we had desktop and laptop computers, and then we had email. When I worked with Ron Kirby, we'd have to snail-mail out to 440 refuges anything that we wanted to send them. And so email just changed our lives; the

internet, search engines, Wikipedia, cell phones, software like Excel. I don't know what they had before, maybe dBase or something. But even dBase, I mean, that was a big factor.

JOHN: A big deal.

STEVE: Yeah, we still had to get personal computers first. So when you and I went to grad school, I had punch cards to direct a main-frame computer at Penn State and they used SAS (Statistical Applications Systems) to analyze my data.

JOHN: Yeah, and you had to carry a deck of cards to a computer center and hopefully when you came back hours or days later, there wasn't an error on the second card.

STEVE: Exactly. Those misplaced semicolons would cause your program to bomb! And then in the world of bird conservation, GPS, GIS, modeling, genetics analyses, , telemetry, geolocators; we are doing some amazing work with putting geolocaters on song birds and finding out where they spend the winter and where they migrate.

JOHN: We would have both killed for that stuff when we first started out.

STEVE: I know. What we're finding out about birds, I mean, is more amazing than we ever dreamed. I read something in the paper the other day about hummingbirds flying 1,200 miles non-stop across the Gulf of Mexico.

JOHN: Unbelievable.

STEVE: So we have about 500 bird species that occur in Region 3 at some point in their annual cycle, and they face many challenges and I would just like to say that it was my good fortune to spend most of my career working to conserve these species. I felt that I was lucky to have been a participant in what I think was an awesome three decades of advancement in migratory bird conservation and management, and I had a very rewarding career. I will just leave you with this little clip from a document that never got finished but it was one of the last things I worked on. It was kind of a new strategic plan for the Migratory Bird Program called *A World Where Birds Thrive*. And here's what it said: "As prominent and cherished features of our rich natural heritage, migratory birds are fundamental to and symbolic of American well-being. They're interwoven in our history, traditions, and evolution as a nation and continue to enrich our lives ecologically, economically, culturally, and recreationally every day. The spectacle of their beauty, grace, and wanderings, and their coveted mastery of the skies inspire ambition, inventiveness, creativity, wonder, and awe. Migratory birds nurture the human intellect and

remind us that even seemingly disparate nations share common bonds."

JOHN: Well, Steve, I want to thank you for your time, the time that you've taken to visit with me today, because I feel that this project is really important to capture the experience in things that those that went before us and ourselves have learned and make it available to future generations of biologists and people that are writing conservation history and that sort of thing, so I appreciate it very much.

STEVE: Okay, thank you, John.