

Oral History Cover Sheet

Name: Dr. David Trauger

Date of Interview: July 27, 2006

Location of Interview: Northern Virginia Center, Virginia Polytechnic Institute and State University, Burruss Hall, VA

Interviewer: John Cornely

Approximate years worked for Fish and Wildlife Service: 1972-1996

Offices and Field Stations Worked: Union Slough National Wildlife Refuge; Great Plains Waterfowl Research Station; Mt. Moriah Wetland Production Area; Crystal Springs Study Area; Squaw Creek National Wildlife Refuge; Northern Prairie Wildlife Research Center; Patuxent Wildlife Research Center; National Biological Survey/Service; U.S. Geological Survey

Positions Held: field biologist; assistant director; Chief of Wildlife Research; Director of Patuxent Wildlife Research Center

Most Important Projects: Land use Blue-winged teal breeding study; deer reproductive study; Woodworth Study Area; known-age Scaup population study; White geese intermediate between Lesser Snow Geese and Ross' Geese study; Canvasback project; Davis Field Station [California] wintering waterfowl studies; Research Grade Evaluation Panel; Research Grade Evaluation Guide update

Colleagues and Mentors: Harold Burgess; Milton Weller; Paul Errington; Dale Hein; Harvey K. Nelson; Forrest Carpenter; Ray St. Ores; Arnold Haugen; I.G. Beu; Keith Bayha; Paul Vohs; Al Hopebaum; Peter Ward; Robert E. Stewart, Sr.; Hal Kantrud; John Lynch; Alex Dzubin; Dr. James Bartonek; Peter Bromley; Bernie Gollop; John Pemberton Ryder; Jerry Stoudt; J.D. Smith; Jerry Serie; Dave Sharp; Matthew Perry; Bob Munro; Ronald Englund; W. Reid Goforth; Carl Korschgen; Joe Piehuta; Charles Dane; Duncan MacDonald; Glen Smart; John Rogers; Lucille Stickell; Doug Buffington; Dick Smith; Dr. H. Ronald Pulliam; Dr. Lucyan David Mech;

National Heritage Team of the U.S. Fish and Wildlife Service Oral History Program

Narrator/USFWS Retiree: David Trauger

Date: July 27, 2006

Interviewed by: John Cornely

John Cornely: This is John Cornely, it is the 27th day of July in 2006, and I am with Dr. David Trauger at the Northern Virginia Center of Virginia Tech University, doing an oral history interview as part of the Fish and Wildlife Service Heritage Committee Project.

David Trauger: Hello, I am David L. Trauger. I was born June 16, 1942 in Fort Dodge, Iowa. My hometown was Lu Verne, Iowa, which is in southern Kossuth County in the north central part of the state. My parents were Harold Guy Trauger and Thelma Harriet Hof Trauger. My father and mother were involved in running a small grocery market in this small farming community. From my earliest recollection, I was involved as a part of the family enterprise, helping in the store. My parents had both grown up on farms in that area. My dad grew up near the town of Livermore in Humboldt County, which is the next county over. My mother grew up in the Lu Verne community on a farm that was north of town.

Another aspect of my early experience was spending time with the grandparents on the farm. When my dad was in World War II, I actually spent a great deal of time with my maternal grandparents, Ed and Lela Hof, on their farm. I say that because that connection with the land and the opportunity that I had on those farms. Particularly with my grandparents I had all sorts of adventures in the grove, where I went out and I made little brush piles for the rabbits and had close encounters with pheasants and wonderful things like that as a young boy.

My dad was an avid hunter and fisherman, I guess you could call him an outdoorsman because he worked very hard, long hours in the grocery store, but he really enjoyed hunting and fishing and camping. So those were activities that we engaged in as a family.

Another aspect of my family, which I think was quite unique and had a tremendous impact on me was the fact that after World War II my dad came back, and he was a real strong family man, and he made a commitment that every summer we were going to take a family trip. So by the time I graduated from high school, I had been in 42 of the 48 lower states.

I didn't realize until I got to college what a tremendous education that was to have experienced landscapes. When I got into ecology and when they were talking about deserts, well I knew what a desert was because I'd been there, I knew what mountains were because I'd been there, I knew what the eastern forests were because I'd been there.

I had been pretty much all over the country, plus we had taken trips to the Prairie Provinces of Canada. I believe in my junior year of high school we went to Lac LaRonge in northern Saskatchewan, to the end of the road, and that was a real thrill. Even in the

early '50s when we did that, I guess, and maybe I was even younger than a junior, it was in the early '50s. But anyway, the experience that I had then was we went through Saskatchewan during the big wet years of the mid-50s, and there were ducks everywhere, it was just unbelievable. And of course my dad was an avid waterfowl hunter, so that really made a big impression on me.

So that gets me around to talking a little bit about the reason why I went into my profession and how my career got started. My dad, as I said, worked very hard, long hours in the grocery store and he was very active as a businessman in supporting things in the local community. So after working long days in the store, then he would come home and we would eat an hurried dinner [we called it supper] and he would run off to the council meeting. He was on the town council, he would go to a chamber of commerce meeting, he would go to a school board meeting, or he would go to a church board meeting. He was active in everything and felt it was important as a businessman to support those things.

So, the upshot was that we didn't get a lot of time with dad. So, when he would come up at 4 o'clock in the morning and wake me up in the fall to go duck hunting with him when I was 5-years-old, I couldn't sleep all night because I was ready to go!

I didn't actually carry a gun or do any shooting until I was probably a freshman in high school, until I was about 15- or 16-years old. But I went hunting with my dad from the time earliest that I could remember and I just really got hooked on the smell of marshes, the beauty of marshes in the fall. I guess I fell in love with the waterfowl and the beautiful plumage and the sunrises and the wedges of ducks flying. It just was aesthetically a very appealing kind of thing.

I was fascinated with waterfowl and pondered the mystery of migration and wondered about those kinds of things. I think the very first book that I ever bought was the Musgrove's [Jack W. and Mary R. Musgrove] Waterfowl in Iowa. I read that book cover to cover and I identified and knew every duck and really studied that very carefully.

Part of the hunting experiences that I had lead me to, I guess, one of my first ventures in the Fish and Wildlife Service. We lived about 25 miles from Union Slough National Wildlife Refuge in Kossuth County, and that was a focal point for migrating geese.

When my dad would go goose hunting we would go up to the refuge. The strategy there was to follow the geese out when they went to feed from the refuge. So, in the course of that, I had an opportunity to meet the refuge manager, Harold Burgess.

Harold and I struck up a friendship and Harold really went out his way to engage me as a high school student in the refuge. He knew of my intense interest in waterfowl and so he would ask me to come up for the Christmas bird counts at the refuge and participate in activities where he had the public outreach.

That opportunity led me to make associations with a number of the graduate students from Iowa State who came up to the refuge for the Christmas bird count, and they also

did a line drive count of the deer in the refuge and the pheasants and so forth. By the time I was a senior in high school, I already knew the graduate students down at Iowa State. One time I had a long talk with Harold in his refuge office about where I should go to college. I told him I was thinking of Colorado State or Iowa State, that I really wanted to go west because of the mountains and the change of scenery. He said, "Well, with your interest in waterfowl and wetlands," he said, "you just can't do better than going to Iowa State because Milton Weller is there Paul Errington is there." I said, "Okay." So, that's what I did.

Now I guess I would like to just back up a little bit and talk about the other aspect of career choice. My dad worked very hard, as I said, in his business, he had a very successful business. His hero from when he was growing up was the football coach at the high school, he was the math teacher, and my dad thought that really, there is no nobler profession than being a high school teacher. Because, after all, you only have to work nine months of the year and then you have the summer off and that really sounded pretty good to my dad. He thought that I should go to college and become a teacher. I said, "Dad, I really want to go into wildlife conservation, that's where my heart is and my interest." He said, "Well, you'll never make a living as a game warden," and it was in a pejorative way. I mean that's all he knew, anybody in wildlife, they were just a game warden. I said, "Well, I think there are other opportunities." My mother told me, "David, you can do whatever you want to do."

I took Harold Burgess' advice and I went to Iowa State and it was a wonderful opportunity and a wonderful time. I already knew the graduate students and I'm sure I made a real pest of myself. They were over in the Cooperative Research Unit offices and I would come down there and sit down and talk to Dale Hein late in the evening and see Paul Vohs and I would talk to him and so forth and so on. Talk to them about courses and experiences and where they'd gone to school and so forth and so on.

When I arrived at Iowa State University in 1960, in the fall of 1960, I didn't realize that I was going to be in the first class of Principles of Wildlife Conservation that Paul Errington ever taught. Paul Errington had done 30 years of research on muskrats and predation. He taught his first class during the spring of I guess it was 1961, and, of course, everybody wanted to be in his class. So there were the doctoral graduate students, the masters graduate students, and all of the undergraduate students, including freshman like me. Errington came into the class the first day and he acknowledged that fact, that there was this great range of experience and background in the class. He said, "I don't expect the undergraduates as going to do as well the graduate students and the freshman here are going to really be at a disadvantage." But he just sort of set me up, because when he said that I said, "I'm going to show you."

To make a long story short, the first assignment was to write an essay about why one man's opinion isn't as good as another person's opinion, something along that line. It was an essay Errington wanted us to write and express our views, take a position and defend it. I worked on that essay and handed it in and it came back with an "A" on it. From that point on, I had a special bond with Paul Errington. Not to belabor that too much, but I did have, as long as he lived, which was a couple of years before he'd passed away, I had

a very close, personal relationship with Paul Errington and it was, again, one of the things that really shaped my perspective.

I never will forget, it was in my sophomore year in the fall, I was in the chemistry laboratory trying to do a chemistry experiment and I heard Errington's characteristic walk. He had polio as a youngster and he had a limp, or a very unique walk, and you could tell distinctively that he was in the building. He walked into that chemistry laboratory and said, "David, I want to go up and do a waterfowl survey up at Big Wall Lake this afternoon and I was wondering if you would like to go with me." He said, "I can use some help with the canoe." Errington had looked up my course schedule, found out where I was, found out that I had time in the afternoon, came over to the chemistry laboratory and hauled me out.

What a wonderful day that was. He was scouting out the wetland to see about the status of the bird migration because, as he told me on the drive up there, he had been selected as one of America's great naturalist. They were going to have a Life Magazine photographer out to take pictures and so he was sort of doing some advance work for that. I was really just humbled by this opportunity.

My first summer job Harold Burgess asked me to come out to Union Slough Refuge and help on the refuge. I went up to Titonka, where the refuge headquarters was, and I worked that first summer with Harold.

I had the good fortune of finishing up a land use blue-winged teal breeding study that Harold had started with a couple of the Iowa State students a couple of years prior to that. Elwood Martin did the first summer work on that and then Harold Prince had done the second summer, and then I finished the study with Harold in the summer I was there. That resulted in my first publication in the Journal of Wildlife Management.

I actually took all of data from that study and summarized it and wrote the paper and Harold did the editing on it. We sent it up to the refuge supervisor, who just happened to be Harvey K. Nelson, in Minneapolis and they cleared it and then we submitted for publication in the Journal of Wildlife Management. So I guess my wildlife research career started right there.

The other thing that Harold did at the end of the summer was, which I really give him a lot of credit for, is that he took me up to Minneapolis to meet the refuge people. I met Harvey Nelson for the first time, and I met the regional supervisor, Forrest Carpenter, and I met a lot of other people, Ray St. Ores. A lot of the really key people in the Minneapolis Regional Office at that time.

I was just really impressed with how these professional Fish and Wildlife Service biologists and administrators, how they opened up and wanted to talk to me. It was really a great opportunity to do that.

Anyway, I went back to Iowa State. I didn't have a lot of money for college and so I needed to work. I went over to the university bookstore to see if they had a job and the

manager of the bookstore, he said, "You're name is Trauger?" I said, "Yeah." He said, "Well, do you know Paul Trauger?" I said, "I sure do." He said, "Well, he was a great Iowa State football player." I said, "I'd heard a little about his career as a football player." He hired me for the job in the bookstore. Well, when Errington and Weller got wind that I was working over at the bookstore, I found that I had an offer with a National Science Foundation Undergraduate Research Project over at the Cooperative Research Unit. So my career at the bookstore was very short-lived!

It was great being back over in the department. But there again, as a sophomore, I was deeply embedded in the graduate programs and the research and doing research myself and so it was a real good opportunity, working with Arnold Haugen on his deer reproductive study. I did that for that academic year.

Then Dr. Milton Weller asked me if I would want to, he had a National Science grant, I think it was another undergraduate summer grant, but he said he wanted me to go up to the Ruthven Marshes in northwest Iowa and work with the graduate students up there. He had a project he wanted me to do for my own and then I was going to have a chance to work with the biologists that were doing duck studies up there. I would also get a chance to spend some time in the field with Paul Errington. So I couldn't pass that up.

I went up to northwest Iowa and had a wonderful summer working with all of the graduate students, doing their PhD studies. We did everything from the duck studies; Leigh Frederickson working on [American] coots and Bud Harris working on blue-winged teal. Some of the other graduate students were doing some pre- and post-impoundment studies up at the Elk Creek Marsh by Lake Mills, Iowa.

I did get to spend a number of days in the field with Paul Errington, following him around. He was reading the sign of what was going on in the marsh. Just seeing how he interpreted what he was seeing based on his long, life-long experience with mink and muskrats and other things. It was a great summer.

Then I went back to school and I was involved, again, with Arnold Haugen with the deer reproductive study. We had a winter deer check station over at De Soto Bend National Wildlife Refuge for their first deer hunting season and we necropsied about 100 deer that were killed that day at the check station.

Again, not to belabor that experience, but out of the research I was able to write a paper that went to the Iowa Academy of Science and another one that went to the Journal of Wildlife Management. So, here I am, just a junior, and I've got a number of publications in the Journal of Wildlife Management already. Just tremendous opportunities for personal development.

In that year Harvey Nelson came down to the Iowa State to recruit, and I had a chance to meet with Harvey. He told me that they were going to, this was now in the I guess the winter of '62 or '63, he told me that they were going to be developing a new waterfowl research station up in North Dakota. He said they also were consolidating some of the waterfowl work from Denver Wildlife Research Center to the Northern Prairie. Well,

actually it was called the Great Plains Research Station at that time. He said that there was going to be an opportunity to work with Jerry Stoudt up in Manitoba and Ray Murdy on a project up at Yellowknife [Canada]. He encouraged me to apply for all of those jobs.

The upshot was, you know, I really wanted to go to Yellowknife but I didn't get that job. I had thought that well, it would be really neat to go to Manitoba and work with Jerry Stoudt on the projects in the Prairie Parklands. But the job I got was working with I.G. Bue, who was the director at that time of the Great Plains Waterfowl Research Station.

I dropped out of class in the spring of 1963, bought a car and drove myself to Jamestown, North Dakota on April 1, to start working with Dr. Bue and Keith Bayha, who was the other student, from Michigan State, that they had brought in to work.

Our assignment for the job in North Dakota was to do a land use history of the Woodworth Study Area, which was about 2,500 acres of wetlands in the Missouri Coteau [ecoregion], about 45 miles from Jamestown, that the Service had purchased as a block as a waterfowl production area, that they were going to use as one of the prime study areas.

Keith and I spent that summer, or we started out going to the courthouse and looking at the ownership patterns. We went out and we looked at the landscape, we got aerial photographs, and we delineated all of the wetlands on the area; we numbered them, we classified them. We did the breeding pair counts and the brood counts and really started laying the foundation, that first year of data, on the Woodworth Study Area.

People who know a lot about the waterfowl research legacy of the Northern Prairie Wildlife Research Center, know the role that the Woodworth Study Area played in a lot of that work in subsequent years.

As a result of that, I had a chance to meet a lot of the waterfowl people who were working in North Dakota on various wetland acquisition projects and refuge projects. I got a chance to go to the North Dakota Wildlife Chapter meeting and meet a lot of the people working in North Dakota. I just made a lot of acquaintances and friends.

We took off one weekend and went up to the Delta Waterfowl Research Station up in Manitoba to meet the waterfowl people up there. I got a chance to meet Al Hochbaum, Peter Ward, and a number of other people at that time.

So that was another really interesting summer for me, to have that experience.

I went back to school and I guess I can't recall specifically now how it came to be, but I remember that I had a chance to see Harvey Nelson, perhaps at the Midwest Wildlife Conference, or it might have been at the Regional Service Conference, because I know I went up to meet some of the people at that Fish and Wildlife Service Regional Conference they had in January. I know it was cold as hell in Minneapolis when they had that in January, and that made quite an impression on me, how cold Minnesota was in the wintertime.

Anyway, I can't remember whether it was one place the other, but probably it was at the wildlife conference. Harvey asked me if I would be interested in doing my master's with Northern Prairie. I think that I.G. Bue had had a heart attack and died that fall hunting and Harvey was then the director of the station, or he was acting director at that time. He asked me if I wanted to come up and work with Bob Stewart, Robert E. Stewart Sr., on a master's project. I didn't even have to think about it, I said, "Yes."

The next two summers, 1964 and 1965, I was actually living then at the quarters at Woodworth, doing my study.

The project that I was working on at that time was; a biologist had noticed that some ponds were very productive for rearing broods and there were other ponds that looked just like the ponds over the hill that were loaded with ducks broods, and there were some ponds that didn't have anything on them. So they were curious as to what some of the factors were that characterized these productive brood rearing areas. So that was the project that I worked on.

I guess I studied 64 wetlands throughout that. I had a route that I went and I selected these ponds of various types and various sizes. I studied the wetlands just about every way you could characterize them; I looked at the vegetation, I looked at the water quality and I looked at sizes and shoreline development and all sorts of factors.

It was a very interesting project. I came to the conclusion that probably certainly the size of the wetland was important, there was a real strong correlation with the size of the wetland and the number of broods. But the really key thing was the fact that a lot of those wetlands that were attracting lots of broods had some nutrient enrichment from the farm lots, and they just were loaded with invertebrates. The ducks just piled into those places because they were so rich and productive. Anyway, I completed my project there.

I guess some of the highlights of those two summers was working with Bob Stewart and Hal Kantrud. I learned so much about wetland ecology from Bob Stewart in terms of the wetland species of plants and the wetland classification process that he was working on. I had a chance to work on all of the study areas that Bob was working on in addition to my own studies. I did pair counts and brood counts on Mt. Moriah Wetland Production Area, which has now got a nice memorial to Bob Stewart and his legacy out on the Prairie. The Crystal Springs Study Area and all of the areas that Bob worked in.

It was the diversity of wetlands that were in the Missouri Coteau in North Dakota was just phenomenal. To have a chance to look at that broad range in the seasoned eyes of a naturalist like Bob Stewart was really quite an education. Of course Bob was a real avid birder, and in addition to the work during the week about the wetlands, on the weekends we piled in the government car and took off to all parts of North Dakota on bird trips. So I got a chance to see lots of the area of North Dakota in that way on these bird trips. Of course that led to Bob's Breeding Birds of North Dakota book, which I had a role in gathering some of the observations for that.

I guess just one thing that I'd like to share related to that, that really made a big impression on me. Bob just poured over all of these old books of the early, early... The Bureau of Biological Survey biologists that did the early surveys up in North Dakota, and he would see areas that he thought were interesting, that might have some unique birds in there. So one Saturday we took off up by Devil's Lake and we went to this little coulee that they had recorded. Bob was doing research on this particular area and he said, "You know, I want to go up there because they reported yellow rails in this bog." I think the name of the place was Cranberry Bog or something like that, up by Devil's Lake.

So we took off on this trip up there and we parked the car and walked out into this hummocky, boggy area that was just like it was described in 1876. We got out there, I was thrashing around in this high Carex grass, and all of the sudden Bob threw up his hand! I didn't know what he'd seen or what was going on but he said, "Listen!" And I heard, "Tap-tap-tap-tap-tap." That was the call of the yellow rail and it was just, what a moment! After all of this time and all that's gone on, and Bob reads this old publication and we go out there and, you know, bang --- we find it!

I didn't know what a yellow rail was from an Anhinga, but Bob knew what the call was and he knew what we were looking for. We never did see one, but we heard lots of them in that little bog. That was just one of, one of the kinds of special experiences that I had. It was really a special moment.

Anyway, I guess moving right along here...

John Cornely: Were you still going for your masters at Iowa State?

David Trauger: Oh yes, that's right, because I had dropped out of school that spring to go to North Dakota. I was one quarter behind and so I didn't graduate with my bachelor's until the fall of 1964 because they had asked, the Service wanted me to do this study for my master's up at Jamestown. They just funded the project through the Cooperative Research Unit, and Arnold Haugen was my major professor for my masters because he was the unit leader and Milton Weller was on my committee. I did my masters at Iowa State and I finished that up and graduated in 1967.

I guess just parenthetically, or going back maybe is a better way to say this, in addition to the main course of my academic background and research experiences that I've just described, I also, as an undergraduate, was invited by Harold Burgess to work Christmas vacations and other breaks to help. He was really giving me opportunities, but by that time he had transferred from Union Slough Refuge to Squaw Creek National Wildlife Refuge in northwest Missouri, and so he invited me to come down to help with the winter banding program.

We did duck trapping and we did goose banding, and I had a chance there to meet a number of waterfowl biologists that went through there doing those spectacular migration of snow geese through that area. I was working there Christmas vacations and quarter breaks. I met Johnny Lynch there and a lot of people who came through that area, people who went on to be in the refuge system as managers or biologists.

So, again, Harold Burgess was a real strong mentor in shaping my experience in terms of waterfowl biology and management and refuge experience. I didn't want to overlook that because that was great. I am leading into this because one of the experiences that I had while I was working with Harold, and this was probably in 1963, in the winter, we captured a bunch of snow geese with a cannon net [cannon-projected net trap]. As we were taking them out from that, I picked up this one and I looked at it and it was different. I said, "Harold, I think this is a highbred between a Ross's goose and a Snow Goose." Harold looked at it and he said, "Yeah."

So we were comparing these and so we took that bird and put it as a scientific collecting permit, we sacrificed it for science and we sent that Bird and Mammal Laboratories in Washington, D.C. It wasn't very long after that we got a letter from George Watson, who was the director at that time of the Bird and Mammal Laboratory, he confirmed our hunch that was very likely a hybrid between a Ross Goose and a Snow Goose.

That got me off on a couple of tangents; number one tangent was I was going to write a description of this hybrid for *The Auk* [Quarterly Journal of Ornithology] as a note because this had never been reported before. The other thing I got interested in was the fact that Ross' geese were being seen in the Audubon bird counts in the Midwest and the east just started seeing these birds at that time.

In addition to my masters study, which I was doing in North Dakota, I got off on the tangent of going through Audubon field notes and getting the occurrences of Ross' geese, I got a huge compilation of that data. I guess about that time Milton Weller was getting a little bit concerned about the fact that I was off on all of these tangents and he wanted me focusing on my masters thesis and not doing these other things. But I'd gotten acquainted with Alex Dzubin at one of the wildlife meetings and I had talked to him about my hybrid goose and he said, "Well I've got measurements on a bunch of them that we've trapped in western Saskatchewan.

So a long story short, Alex and I put the data together and we wrote a paper for *The Auk*. We called it, 'White geese intermediate between Lesser Snow Geese and Ross' Geese.' Our conclusion was that there was really a broad range of hybridization going on between Ross' geese and Lesser Snow Geese. We could talk a lot about the biology of that or how that happened with the hybridization, but I guess that's not the purpose of this. But it was a fascinating little byway in the process. Anyway, I did complete the master science thesis.

I hadn't even completed that and Harvey Nelson again called me into his office before I went back to school and he said, "You know, Ray Murdy is finishing up his five years of research up at Yellowknife and there is a real problem with the fact that Ray doesn't think the Lesser Scaup are breeding as yearlings. We would like to have you do a study on Scaup, where you work with a known-age population to see whether or not the yearlings are breeding." And of course I'd wanted to go to Yellowknife four years before, so here I had the opportunity to go to Yellowknife and not to work with Ray Murdy, but to actually be on my own project for a PhD. I mean, how lucky can you be!

So I went up to Yellowknife in the summer of 1966, to get my PhD project started. I had the good fortune to go up on that trip with Dr. James Bartonek and Hal Kantrud, who was a close friend and we had worked together I guess from the very first summer I was in North Dakota, and he was on the staff as a biologist at Northern Prairie.

Hal and Jim and I went up to Yellowknife and we banded Scaup and marked them with nasal saddles and that was going to be my study population the next spring.

I went back to Iowa State and finished my masters. On April 1, 1967, I was headed north with my wife and my young son, Brent, to Yellowknife. We had to go in April, even though it was the middle of winter up in Yellowknife, because we had to get across the Mackenzie River on the ice bridge before breakup. Because if we didn't get across there in April, then we wouldn't get in there until the middle of June because during that breakup period the ferry didn't run.

So we went up to Yellowknife, drove the 2,500 miles from Ames, Iowa to Yellowknife, with a stop in Jamestown to pick up the government vehicle and the trailer and all of the equipment. Spent about a week there talking with everybody and then made the trip across, with stops at Saskatoon to meet with Alex Dzubin and Bernie Gollop and the biologists up there. Then up to Edmonton, where I stopped to see the Canadian Wildlife Service biologists there, and then on up to Yellowknife. Stopping at such exciting places as Peace River and Hay River and going through all of these towns that you just read as little places, dots on maps. Here these places came to life with their colorful histories and the diverse people and the native people and the colorful individuals that you'd encounter in places in the far north.

So I got to Yellowknife, I got set up there, went to visit and made the courtesy calls of meeting the RCMP [Royal Canadian Mounted Police] and talking to them about what I was doing, getting acquainted in the community. One of the people that I was recommended to visit when I got up there, Ray told me, "You really have to go to meet Peter Bromley." Peter Bromley ran the hardware store and so I went there and met Peter.

Again, I guess a very long story short here, making a few contacts there and having time before the ducks came in, in about the middle of May, I arranged a warehouse where we could keep our gear and met the game warden there, Larry Skov, and rented the little warehouse from Ted Hartley, and met a number of other people, the Bartesko's were people that sort of befriended us. I just had a wonderful warm reception in Yellowknife with many, many people who were interested in what we were doing and supported what we were doing, and made us feel welcome as a family up there in that northern frontier town.

This was in the years too before Yellowknife became the capital of the Northwest Territories, it was just a district at that time. It had its territorial government, or it had its representative, I guess, in the parliament, but it really didn't have its own government at that time. So I was there and watched the Northwest Territories become a political unit, I guess, in Canada.

I started my study and had success immediately as soon as the ducks arrived. It never gets dark up there starting about the first of June, it's just twilight, and I was out in my study area there making daily surveys and by golly, some of our marked ducks came back to the same ponds that we had banded them on, and I knew we had a real shot at doing that study. So that was pretty exciting.

I think that was one of the first studies of waterfowl using a known-age population. So we really pioneered that.

I guess I'm not going to go into the details of that, but I had five wonderful summers at Yellowknife and just some of the highlights there in addition to the Scaup study that I did, Lesser Scaup study on the Yellowknife study area, I went out on the 1st of July, which is Canada Day, I went out to the West Mirage Islands, which is a little Archipelago of islands about 15 miles out in the middle of Great Slave Lake. I heard from William McDonald, who was a local amateur ornithologist that there were Greater Scaup nesting out there, and so I went out to investigate that and did a little study of the nesting locations there of the Greater Scaup.

The other thing I was able to do, which I was very proud of, was I was able to get permission from the Fish and Wildlife Service to hire some local people to work with me. I heard from the Bromley's that their son Bob, Robert Bromley, was real interested in wildlife and would he have a chance to go with me into the field. Well, I took him out with me and Bob and I got along great. So I made an appeal to Harvey and I said, "I really would like to rather than bring these people up and pay per diem from the United States," I said, "can we hire these Canadian nationals, the local people, to work on the project?" And Harvey got it done. So I had Bob Bromley as my field assistant then for a couple of years. David Bartesko was a high school, and he was interested in wildlife too and the out-of-doors, and so I hire him to help during the banding period.

I guess I got a chance to do one of the things that I've tried to do throughout my whole career, I realized that you never can repay those people like Harold Burgess or Bob Stewart or I.G. Bue or Harvey Nelson. You never can really do anything there except make the most of the opportunities you have, but what you do as a professional is you pass it on. So Bob Bromley was one of my first chances to pass it on.

Bob worked for me for three or four summers on the Scaup project. He went off to college at University of Alberta and then he went onto the University of Alaska and later to Oregon State and he got a PhD. He came back to be the waterfowl biologist for the Government of Northwest Territories. David Bartesko went off to college and he ended up working for the Alberta Forestry Service.

Anyway, that's just a little personal philosophy I'd like to share in this oral history. That was a very rewarding aspect for me, to work with the local people and, of course, that just really raised our esteem as an agency with the local people. By the time I left Yellowknife, some of the best friends I'd had in my whole life were people that were in

that community. That has got to rank as a real highlight in my career, those five years were very special.

In addition, I had a chance to make some side trips. From Yellowknife I got a chance to go with Bernie Gollop up to Karrak Lake to go out on the Ross' Goose Study Area with John Ryder. I had a chance to go up to Inuvik and go out with Tom Berry, I had a chance to go out with Tom Berry on a Whistling Swan survey and go to Old Crow Flats and visit a lot of those northern area. I'd go out on the Tuktoyaktuk Peninsula and see those landscapes.

I really tried to maximize my opportunity while I was up in the north, to learn about waterfowl and waterfowl breeding areas.

Anyway, there are lots of other stories I could go into about those five years, but they were very special. I really, really enjoyed that opportunity greatly and I appreciate the Fish and Wildlife Service giving me that opportunity.

So I guess having said all of that, my career goal was when I got into the... I guess I should talk a little about where I went for my PhD, because that's an interesting story too. I knew I was going to be working on the Lesser Scaup with the Fish and Wildlife Service and so I made an application to the University of Missouri because John P. Rogers was the only guy around that had studied Lesser Scaup. He'd worked on the study area up in Manitoba and published on that, so he was sort of the guy on Scaup. I thought that that would be the place I should be, to work with John Rogers. He was the director of the Gaylord Laboratory with University of Missouri at that time.

I got accepted into the University of Missouri for my PhD and the week before I was supposed to go up to Yellowknife with Bartonek and Kantrud to do the first banding in 1966, I got this letter from John Rogers. He said, "David, you are welcome to come to the University of Missouri, but I've just accepted a job with the Migratory Bird Population Station at Patuxent and I'm going to be going to work for the Fish and Wildlife Service."

So here I am, 'What am I going to be now?' I had calls from Tom Baskett, the unit leader, and he reassured me that I was going to be welcome at Missouri [State] and that I could probably work with some of the professors there. I took that letter and went to Dr. Weller at Iowa State and I said, "You know, I just got this letter and here's where I'm at." Of course Dr. Weller had gotten his PhD at the University of Missouri and knew all of the people down there. I said, "I really want to stay at Iowa State." I said, "I know I got my bachelors and I got my masters here, but in terms of waterfowl biologists in academia, I want to work with you Dr. Weller." He was sympathetic and he said, "Well, you know, you've been working with people up in North Dakota and you've gotten acquainted with people in the waterfowl business all over North America," and he said, "I think we can make an exception for you because you've had other exposures to other philosophies and other backgrounds."

The upshot was he accepted me. So that's where I stayed, at Iowa State, for my PhD and Milton Weller, who had not been my major professor for my masters degree was my major professor for my PhD. It all worked out pretty well.

But I did want to mention that little aspect because that was another little interesting twist along the way.

At that time, it was not encouraged that you go to the same school. I think there is a lot more of that now, but it still isn't probably the best. But the opportunity to work with Northern Prairie and all of the biologists there that had come from universities all across North America, and then the further opportunity to work at Yellowknife and to interact with the Canadian Wildlife Service biologists at Saskatoon and Edmonton, you know, I think that was further evidence of that. That's why I really took advantage of going out in the field with Tom Berry and others.

So that's where I got to, and I completed my PhD.

I always had wanted to work for the Fish and Wildlife Service. From the first time I met Harold Burgess, I wanted to work for the Fish and Wildlife Service, that's where I wanted my career; I wanted to be a waterfowl research biologist. And so far so good.

When I got my PhD, this was in the Nixon Administration, there was a hiring freeze, they were not hiring people in government at that point. I basically had a PhD and all of this experience with the Fish and Wildlife Service and I couldn't get a job. As a result of that...

I guess I could just briefly back up, I don't want to dwell on this, but when Dr. Weller went on a sabbatical to study Stiff-tailed ducks down in Argentina, he asked me to teach, as an instructor, to teach some of the courses when he was on sabbatical. So I got on the faculty as an instructor in 1968, and I taught a number of courses at Iowa State then, including, after Errington passed away, I got to teach the Principles of Wildlife Conservation course, which was kind of a humbling experience. Five years after I took it from the master, I'm standing up in front of those kids teaching the course. Pretty heavy stuff. But anyway, Weller entrusted me into teaching the mammalogy course, the ornithology course, and then I had a senior seminar.

Again, a long story short, I was asked to stay on, after I got my PhD, on the faculty at Iowa State. Everybody knew that as soon as a Fish and Wildlife Service job came along, I was going to be out of there.

Eventually the phone rang and it was Harvey again and he said, "Rogers C.B. Morton, who was the Secretary of the Interior at that time, Secretary Morton is really concerned about the plight of the Canvasback on Chesapeake Bay and he's come up with a special Canvasback initiative and they've got \$200,000.00 they're going to put into Canvasback research." He said, "We've got funding for a project up in Manitoba on Canvasback's and I would like to have you come and do an age-related productivity study like you did on Scaup for the Canvasback."

So, another of these things that comes around, even though I'd hadn't had a chance to go up to work with Jerry Stoudt in 1963, in the Minnedosa Study Area. Hmm, here I am in the summer of 1972, working on Canvasbacks up with Jerry Stoudt on the Minnedosa Study Area. That again opened up all kinds of opportunities.

I took over the projects that Jerry had going with the study areas, Louisiana Study Areas in Alberta and the Redvers Study Area in Saskatchewan and the Minnedosa Study Area. I had a chance to do air grounds count with J.D. Smith when he was doing the helicopter fixed-wing comparisons. I had a chance to work with a lot of the flyaway biologists. I have to say I've skipped over a lot of names, and maybe I can insert later in the transcript of people and experiences that I had. That really launched my field career, working in the Prairie Parklands on Canvasback.

One of the people that I asked to help me on that project was Jerry Serie. In addition to the study that we were doing on the breeding grounds, we also felt that it was important that we understand migration ecology. There was this big buildup of Canvasbacks on the Upper Mississippi River near La Crosse and at Keokuk, and so one of the things the Mississippi Flyaway Council wanted to know was where were these birds coming from and what's the relationship between the big concentrations. We're talking 150,000 to 200,000 Canvasbacks at La Crosse [that's almost half the continental population] and what was the relationship of those birds to Chesapeake Bay? At that same, there was about 100,000 Canvasback showing up on Keokuk.

We developed a study to look at the migration ecology of the Canvasback and those migrations. That's where I met Dave Sharp, he was one of the people that came to work for us there. Later he got involved with our work up in Canada as well.

I had a job where, after I got on with the staff at the Northern Prairie Wildlife Research Center, I would sit there at my desk sometimes and I just couldn't believe, you know, I would have to pinch myself. Here I was, doing what I'd always wanted to do, and I had a couple of the greatest projects that you could imagine, and I was able to be in the field about six months out of the year. Up in Canada from April to September and then down on the Mississippi River from mid-October to the middle of December when we had freeze-up.

There are a lot of experiences that we could talk about; the narrow escapes and wilderness adventures along the way! It was just really a great time. We had a chance then to interact with the migratory bird and habitat research laboratory folks; Matt Perry, Bob Munro, Ron Anglin, and many others that were working on Canvasbacks on the Chesapeake Bay. We had coordination meetings and we got together and talked about our research and we had little workshops. We really had quite a crew of people that were really focused on Canvasbacks as a result of that special Canvasback project. So that was a great experience. I had the chance to do that for three or four years.

Harvey went off to Washington to a higher duty in the Fish and Wildlife Service and they appointed the acting director there, Reid Goforth, who had been the assisting director after Paul Springer went out to California to start work out there.

Reid one day asked me to come into his office and he said, "I'd like to have you be my assistant director." I said, "Reid, I didn't come into this to be an administrator, I wanted to be a field biologist." He said, "Well, there's lots of good field biologists but I think you would make a good assistant director." So, my career started to go downhill about that point. He seduced me and spent I guess four years as assistant director at Northern Prairie.

The concession that I extracted from Reid was that he would let me continue to do some of my field work up in Canada, and he really was very generous in that. I had a chance to supervise all of the biologists at Northern Prairie which, again, 1972, I came in there as a GS12, freshly minted PhD, and four years later and I am supervising all of the biologists there. I think that was kind of awkward for some of them and it certainly was a challenge for me. But I enjoyed developing the budgets and working with the biologists on their projects and trying to facilitate that. As an administrator, I had a chance to have an impact far broader than I would have as a field biologist, working on my own project.

A couple of things I was really proud of; I established the wintering waterfowl studies at the Davis Field Station out in California. I had meetings with the refuge biologists and the river basins people or the ecological services peoples to talk about research priorities in California, and really launched a research program on wintering ecology of waterfowl. The other opportunity I had was to establish the migration ecology field station at La Crosse with Carl Korschgen and others at that station. Which really broadened Northern Prairie's mission in looking at more of the annual cycle of waterfowl and pioneering work in migration ecology as well as wintering ecology.

Those are some highlights and some of the people I was able to bring into the program. It was a good experience.

At that point, or some point along the way, I got the attention of some of the people in Washington. Of course Dick Smith said, "You know, you can't be a center director unless you have Washington office experience."

I would go down for the coffee breaks at Northern Prairie and at lunch breaks, I sometimes would go down there and I'd hear all of this bad-mouthing about all of the dumb decisions they were making in Washington and I thought one day, 'You know, it really isn't fair for me to sit here and criticize Washington. I don't know what that's all about. I guess if I get an opportunity to go to Washington, I'd better put myself where my mouth is.'

I was invited to apply for Chief of Wildlife Research for the Fish and Wildlife Service when it became open and I ended up getting it. I went in to interview with Dr. Hester and Dick Smith and they selected me as the Chief of Wildlife Research.

This is in 1979, this is seven years after I got this PhD from Iowa State University. I'm Chief of Wildlife Research, supervising all of the wildlife research in the United States and the supervisor for Lucille Stickell and Clyde Jones and, you know, all of the research directors. Again, 'Where did this guy come from!'

I had a great staff in the wildlife division, Wildlife Research Division and I really, I guess, used the participative management skills that I had developed in my training with Joe Piehuta as the assistant director when I got my supervisory training. I adopted that participative management style, and that served me well with the research biologists. When I went to Washington, that really served me well in working with the staff as their chief because we really had a team effort there.

I had four great years, working with Charlie Dane, John Rogers, Duncan MacDonald, and Glen Smart. We had a real good close-knit working relationship.

That was another highlight, very rewarding from that standpoint.

After four years of doing that, I went out to have my annual performance appraisal with Lucille Stickell, to talk about her plans. She said she was going to retire and she said, "How would you like to be Director of Patuxent [Wildlife Research Center]?" I mean I was just humbled by that invitation because she was the director of the flagship research center for the whole Fish and Wildlife Service. It had an international reputation in environmental contaminants, they had their endangered species program, the migratory bird program, and they had field stations from Maine to Hawaii and Alaska to Puerto Rico and lots of place in-between. Big staff and big budget and programs, a great diversity of programs.

My next assignment was when I left in June of 1983, after four years as Chief of Wildlife Research. In June of 1983, I went out to Patuxent as the director and I spent 13 years at Patuxent.

Then the Secretary [of the Interior] Bruce Babbitt reorganized the research in the Fish and Wildlife Service and moved us over to the National Biological Survey, which later became the National Biological Service. I had a chance to do some details in Washington and helped with that transition, which was very difficult and very awkward.

The big disappointment was the fact that it didn't look like I was going to be able to achieve my goal of retiring as a Fish and Wildlife Service employee. On a personal note, that was a disappointment, but I tried to be a good soldier and tried to contribute where I could in that process.

I had some good opportunities. One of the best opportunities I had, because I'd been involved with this while I was at Patuxent. Doug Buffington had asked me and Dick Smith had asked me to chair the Research Grade Evaluation Panels, which evaluated the credentials of the research scientists. Depending on the outcome of that, these scientists were given promotions, and so I had a chance to start having an impact on research scientists across the country in the Fish and Wildlife Service.

When I went to National Biological Survey, Director Pulliam asked me to continue that. One of the things we were able to do there that we hadn't been able to do at the Fish and Wildlife Service was we were able to establish the senior scientists. To acknowledge the contributions, the international contributions of some of our leading scientists so that they were getting paid as senior research scientists, at the same rate as the senior executive service people were getting paid. That was a barrier, we'd only been able to get researchers up to a GS15 in the Fish and Wildlife Service.

So that was a real positive thing and I had a chance to develop the guidelines for how we evaluate the senior scientists, and I got to put the first ones in. I think the first one we did was Dr. David Mech, who was our world renowned wolf biologist.

That experience in NBS [National Biological Service] was very, very difficult. We went through the contract with America, abolishing the agency, and of course the Washington shell game of transferring it all over to the USGS [United States Geological Survey].

I have to say that I really felt welcomed at the USGS. They had people at the door, including the director, welcoming us when we walked in the door with our boxes and files and setting up things. I really felt welcome there. It was great, after all of the instability of NBS, to be back again with a large stable organization, and one that had a real tradition of science and research and so forth.

I had a chance at USGS then to be a senior staff biologist. I was asked to continue the Research Grade Evaluation and, again, help build the careers of about 500 research biologists that were working in all kinds of aspects of wildlife research across the country. So that was very rewarding.

That guide that we had, the Research Grade Evaluation Guide for evaluating the scientists, had been developed during the early 1960s and, of course, science had changed a lot in the 30 years since that had been written. So I had a chance to take the lead in an inner-agency effort to update the Research Grade Evaluation Guide, to bring it up to contemporary science. Again, a very rewarding experience, sort of a capstone on my career with the U.S. Government.

June 31, 2001, I retired after 32 years of service with the U.S. Government in the Department of the Interior, Fish and Wildlife Service, NBS, and U.S. Geological Survey.

On July 1st I started my next career, which was as the director of the Natural Resources Programs with the College of Natural Resources at Virginia Tech, and I have been in that position now for five years.

I had sort of paved the way for this career opportunity while I was actually at Patuxent. I started teaching a course at George Mason University. I wanted to make sure that I was publishing regularly and teaching, because I thought that the next thing I would like to do is return to teaching. It was something that I really enjoyed during my PhD program, and

I thought that this would be another way to help train the next generation of natural resources professionals.

Also while I was at Patuxent, I was asked to serve on the Advisory of Committee for the College of Natural Resources at Virginia Tech. When they started the program here at the Northern Virginia Center in 1998, I was able to teach a course as an adjunct professor, a volunteer. I didn't get paid for it, I just volunteered. I wanted to have that on my resume.

The upshot of that was that when Dr. Jerry Cross retired as the director here at the Northern Virginia Center, they had a nationwide search for a replacement and I applied for that and interviewed and ended up getting that job. I guess I was a known entity to them because I had served on their advisory committee and everybody knew me and they were comfortable with me and I'd taught in the classroom.

I took a program that was basically had no degree program, had no students, and we developed a proposal for a Master of Natural Resources for a professional degree program, to meet the needs of mid-career professionals.

We started offering courses, the first year we had 50 students and last year we had 260 students in this program, and we offer a Master of Natural Resources and a Graduate Certificate in Natural Resources Management.

This has been another very rewarding experiences, involved with passing on the knowledge and experience that I gained through working with the Fish and Wildlife Service and in the field and in administration. Passing this on to the next generation of natural resources professionals.

Thank you John for this opportunity.

END

KEYWORDS: refuges, surveys, director, river basins, hunting, flyways, research, habitat, birding, waterfowl, Patuxent, personnel, wilderness, aviation, migration