Oral History Cover Sheet

Name: Nelius Nelson
Date of Interview: March 8, 1988
Interviewer: Kevin Kilcullen

Approximate years worked for Fish and Wildlife Service: 30 + years

Offices and Field Stations Worked, Positions Held: Bismarck, North Dakota; Labor Patrolman at Lake Ardoch National Wildlife Refuge, North Dakota; Refuge Manager at Arrowwood National Wildlife Refuge, North Dakota; Valentine National Wildlife Refuge, Nebraska; Tamarac National Wildlife Refuge, Minnesota.

Most Important Projects: Opening up non-use lands for waterfowl; trying to get Canada Geese to pair up and nest at Arrowwood.

Colleagues and Mentors: Fran Gillett

Most Important Issues: Lack of funds for certain programs.

Brief Summary of Interview: Mr. Nelson had been teaching for ten years before he got a phone call from his high school science teacher asking him to go to Bismarck, North Dakota to do some biological work. Knowing that it would only be temporary, he decided to go. After that, Mr. Nelson would work at several different refuges before retiring with over 30 years working for the Fish and Wildlife Service. He shares a few stories about his time with the Service and how he thinks it has changed. Biographical sketch follows the transcript.

Kevin: Talk about your background, your career, when you started with the Service, and when you retired and some more information. That would be a good start.

Nelius: I started teaching in 1928 and for ten years I taught in rural schools. Then one day I got a letter from my former high school science instructor. He wanted to know if I would come and work with him doing biological work on the new easement refuges being established by the Bureau of Biological Survey using WPA funds. The reason he asked me was because during my high school years we used to work together on many projects, building radios, going on field trips, and numerous other projects. I was right in the middle of a school term and I had to get a release before I could take on this job. I was interested in the job because teaching salaries were going down due to the Depression. My background was only two years at a teachers college, but my high school instructor told me that he would like to have me come down. He knew I could handle a lot of the biology problems they had, and go out to these refuges that they were establishing in the Bureau of Biological Survey at that time at Bismarck, North Dakota. They were establishing new refuges; they were constructing dams and so forth and acquiring easements. During the month of December, I finally decided I'd take it on, although he said it may last 6 months or it may last a year. In December of 1936, I received a release and reported to work with the Bureau of Biological Survey on January 1, 1937, and I worked a lot with young people that were on relief work. These boys were living near a lot of these projects and they would earn a little money doing bird counts and collecting data. We sent them a form sheet every so often to fill out. I was on the road quite a bit during the spring and summer months contacting these boys to instruct them in bird identification, aquatics that provided cover and food, and showed them how to build bird shelters for upland game birds. While in the field I gathered biological data needed to prepare land use plans for each refuge. I stayed with the program for three years until it folded up.

Three years had given me a wide range of experience, from supervising WPA crews on work projects to working with NYA youths that were assigned to the various refuges throughout North Dakota. On one of the refuges, there was a problem with botulism every summer. I supervised the clean-up job of removing all the dead birds; all

sick birds were treated until they recovered. Under the direction of my supervisor many experiments were carried out, which were not related to the botulism outbreaks, finding out the food value of various marsh plants to waterfowl. During the winter months we carried out numerous botulism experiments using mice from the field sent to us by our NYA boys living near some of the easement refuges. Summaries of the experiments were submitted to the Washington Bureau. I was very much involved with taking pictures, both still and 16 mm movies. We had set up a dark room in our office so that we could develop our own film, both still and movies. One winter I put together a 25 minute, 16 mm, black and white film which showed the accomplishments of the WPA programs on the newly established easement refuges. This film was shown to the WPA administration and at the International Wildlife Conference at Baltimore, Maryland. Shortly after the film had been reviewed by the WPA people in Washington, our Bismarck office was allocated an additional half million dollars to carry out the refuge easement program. The second film that we put together was a story on the Chase Lake Refuge; this 15 minute, 16 mm film did not have any captions like the first film. The captions on the first film were prepared by my supervisor and our Chief Mr. Steen; I would photograph the captions and develop the film on homemade drums. The film strips would be negatives which would give us a caption in white letters; occasionally we needed some captions on the film positive so a reversal process was used in processing the film. This film production took a lot of time which meant midnight week after week as there was a deadline. We tried to locate the films several years later but the Washington Office was never able to find them. Plans had been made to put the captions on a soundtrack and to reproduce several copies of the first film. The bureaucracy bogged down someplace.

After they had closed the Bismarck office, I had already filled out an examination blank for labor patrolman at a refuge because I knew that perhaps I could get started at the bottom and work my way up since I didn't have four years of college. I only waited about a month and I received a notice from the Minneapolis office that there was an opening at Lake Ardoch, north of Grand Forks, North Dakota. They would assign me there temporarily until all the paperwork had been cleared.

So, in 1939 in October, I started with the refuge system as a labor patrolman. I worked on the Ardoch Refuge and 15 other refuges in the northeast area of North Dakota. I was familiar with all the areas as a result of my three years in Bismarck working as a biologist; I had been to all these places before.

I was out on the road quite a bit checking dams, collecting wildlife data for future plans, doing minor repair work on dams and spillways, and there was always a lot of reports to make out. That is when I made out my first narrative report which everybody had to do. My immediate supervisor was the Refuge Manager at the Sullys Hill Game Preserve located at Ft. Totten, N.D. When possible I assisted with the buffalo, elk and deer harvesting at Sullys Hill. After three years at Lake Ardoch, the war came along and there was a vacancy at the Arrowwood National Wildlife Refuge. The manger there had been called to duty so the Regional Office asked me to move with my family to Arrowwood in July of 1942. It so happened that I went for a physical and I didn't pass so I just stayed on at Arrowwood.

I spent fifteen years at Arrowwood as the refuge manager, probably longer than a lot of fellows stayed on one refuge. I was offered other refuges including a transfer to California to work with depredation problems. I had a good working relationship with the local people and whenever they heard rumors of transferring, they would circulate a petition and submit it to the Regional Office. I personally feel that the refuge manager should become involved in many of the community activities such as working with Scouting, community plays, fire departments, centennials, and other community doings. It does take a lot of your free time but it is a big asset to the Service as well as to oneself. I knew the day was coming when I would have to go to another refuge, and the Minneapolis office offered me Valentine National Wildlife Refuge in Nebraska. I accepted and moved there the last part of December in 1957.

I stayed at the Valentine Refuge for almost ten years and really enjoyed working in the Sandhills. We had a beautiful area, one with 32 lakes. It was all grasslands, not a furrow plowed on the entire 62,000 acres. There was an abundance of native flowers and a fair population of prairie chickens besides an increasing sharp-tailed grouse population. Since I had worked on waterfowl refuges before, I really enjoyed working at Valentine. There was a good working relationship with the local ranchers.

An outstanding land use plan had been set up by my predecessor; it involved rotating all grazing and haying units. The program had been set up with much help from the local Soil Conservation Service.

I was beginning to get close to where I could retire, so the wife and I, kind of looking forward, thought maybe we should accept a transfer to another refuge if it was offered. A vacancy opened up at the Tamarac National Wildlife Refuge near Detroit Lakes, Minnesota. The Regional Office offered it to me and I accepted. It was the first forested area that I had had any experience with, so I enjoyed being able to work on an area that was entirely different from where I had been at the Valentine Refuge and at Arrowwood. I did miss working with the new wetlands program in Nebraska that had been started only a couple years before leaving. I stayed at the Tamarac Refuge until I retired in 1969. We moved back to Jamestown where the wife originally came from and settled down.

Kevin: If you think back in your mind, are there two events or milestones during your career that were the most important as far as the Service and the development of the refuge system in the Service?

Nelius: One of the things that come to my mind are the CCC days. The program had already started when I joined the Service, but it was very instrumental in the development of many of our refuges. The Arrowwood Refuge had a camp on it shortly before I arrived there. They spent, I believe, almost three years there putting up fences and so forth, and signs, and dikes. I feel that the CCC boys played a big part in getting a lot of our refuges started where it was possible to have a camp; without all this labor, many of the jobs would not have been completed for many years.

Another program that came along was the wetland acquisition program, acquiring areas that had a good potential of becoming valuable for wildlife use before they would be lost forever. Some of the new programs were short term, like the Department of Agriculture had different farm programs, like the soil bank program. They all played a part in helping wildlife. As a result of all these new areas, the Service has added many wetland acres to the refuge system.

As I drive around the country in North Dakota, I see a lot of wetland acres. Frequently, I stop to see how much duck use there is. Most of them are in "non-use" and as a result the area is infested with predators and shorelines are closed with rushes and cattails. The only problem that I can see now with this program is that the Service lacks funds to manage so many areas. Many of the acquired glacial ponds are gradually filling in with cattails and other rushes. They've become so closed in that a lot of the waterfowl do not use them like they should. What they need to do is to be able to open them up, by some grazing, haying, burning, as a last resort or ditching. Even draining the area for a year or two may help improve some areas. Ducks like to leave the pond by just walking out into the surround area to nest. Since most of the wetlands are in "non-use" they have become havens for predators such as foxes and skunks.

An example of this is as follows: When I was at the Valentine Refuge, we had three natural areas. There had been no grazing or haying or any other land use since 1935. Every spring we ran breeding pair counts; later on we ran brood counts on most of the refuge, and we did all this on horseback, riding the shorelines. We also used horses to drag rope with tin cans to flush birds to find their nests. Whenever we work the natural "non-use" areas, we found a lot of fewer birds using the shorelines because they were so dense; they weren't broken up. As soon as we reached an area where livestock had a chance to break down some of the cover we would find birds. Our grazing program was always very controlled so livestock were not damaging the range land, and as a result the shorelines still had a lot of cover; this is where we would find the birds.

I know there have been a lot of biologists that want to go into a complete "non-use" for a lot of areas. So many of the wetlands have become loaded with cattails and other rushes and receive very little use. I know of one wetland area that the Service owns about a third of the area, the balance is privately owned and is used by livestock mainly in the fall of the year. In the spring of the year, you'll find the breeding pairs here and the broods during the summer months. I've noticed now within the last couple of years that the Service has become aware of this poor utilization by waterfowl on many of the non-use wetlands and are now beginning to go in with heavy equipment to open the shorelines and even ditching in the badly loaded cattail areas. I understand that Ducks Unlimited has provided some of the funds to help the Service carry out this work. I've noticed it up

in North Dakota and I think that it is going to be a big help, but more funds are needed by the Service to be able to carry out the improvements on many of the wetlands.

In summarizing some of my notes, I'll add the following: The wildlife refuge program has made many changes from the CCC days to what it is in 1988. With the human population increase, the need for more land for producing food and fiber and for personal gain, many acres of sub-marginal land has been farmed or grazed. This resulted in the drainage of thousands of acres. Wetlands began disappearing at alarming rates. Many programs initiated by wildlife services of various agencies sprung up. Some were merely short-term programs but all helped. Today, we will have a long way to go to save not only the sport of hunting we used to enjoy in the early days, but to preserve many species of wildlife now destined to become only pictures in our books for future generations.

I recall vividly as a lad six to 12 years old, the abundance of ducks, geese, grouse and other birds. My cousins on a farm in North Dakota, every fall used to take off in their Model T Ford for the Lake Alice area, which originally started out as an easement refuge that was established in 1934 and 1935, to hunt geese and ducks. I was amazed at the abundance of birds they always brought back. In those days many of the birds were cleaned and either salted down or canned.

I also have a little on the Chase Lake Refuge that sticks out in my mind. I recall my first trip to Chase Lake in 1937 while stationed at the Bismarck office. Water levels were low in the main lake but the freshwater pond created by the WPA in 1935-36 on the creek draining into the main lake had a good supply of water. To my knowledge this freshwater pond has never been dry. Many ducks and other birds have made use of this area as a result of this small development.

Several times each year I visited the Chase Lake area from 1937 to 1958 banding pelicans, gulls, cormorants and in 1937 less than 50 young pelicans reached maturity. By 1957, the production was well over a 1,000. My supervisor and I spent many days camping overnight to study the wildlife using the area in the late thirties.

We almost lost Chase Lake as a wildlife refuge one year; I received a notice from the regional office to take down all the boundary signs. A local car dealer had acquired some land bordering the main lake and had questioned the easement on his deed.

Fortunately, after deeper investigation by the Service, the verdict was changed and we replaced the signs.

Today Chase Lake refuge has grown with the purchase of additional acres. Now this applies to the many other refuges that were established during the WPA days. There were 76 easement refuges started during those WPA days while I worked in the Bismarck office. I've been to every one of them. Some of them have been abandoned, but most of them have survived; some dams have had to be rebuilt. I think it was a very good program, in addition to the CCC Program that they carried on.

Kevin: I wonder if you could talk about employees that you hired on refuges. What kind of qualities or qualifications did you look for in an employee when you were hiring for a position?

Nelius: When I was at the Valentine Refuge, we always, every summer, had summer students from schools interested in wildlife careers, and I always kept records of their ability to do the various jobs they were assigned and their attitudes. Most of the students did everything to the best of their ability. We had them working with the biologist that came to the refuge from the federal and state offices. There was only one student that didn't meet our standards; I found that he did not always tell the truth. I always looked for students that had a lot of enthusiasm to learn more about wildlife conservation. We had one student, Jerry Kobriger, whom we hired two years in a row because he became very deeply interested in our grouse program. We had prairie chickens and sharp-tailed grouse at the Valentine Refuge. He worked up a project to learn more about the grouse behavior by attaching radios to the birds. He, later on after he left the Fish and wildlife Service that summer, was hired by the State Game Department in North Dakota as the Upland game biologist. He is still with the State today as their chief biologist working on Upland game birds, especially grouse.

Kevin: If you could pick one trait for someone to become a successful manager, what would it have been?

Nelius: Mainly interest and honesty. I'd say his interest in wildlife. You can usually tell if they're really interested if they put any extra effort into their work and keep good records generally is what I look for.

Kevin: What do you see as the major differences between the refuge system in the 40s and 50s and the way it is today, other than the size of it?

Nelius: The refuge system as I worked through the years, I put in 30 some years, was more relaxing. I don't think we were under as much pressure. We had supervisors that really worked with us. Of course, one of my first field supervisors was Fran Gillett that I met back in 1939 when he came to Lake Ardoch. That was the first time I met him. I believe their office was, at that time, at St. Louis, as I recall, but I'm not sure about that. We had good supervisors. After Fran left we had Forest Carpenter.

Attending the conferences in Minneapolis, we didn't meet every year, they gave us a lot of encouragement. We got together in groups and discussed various problems. I think we were able to do that because we were small enough so that it could be done that way. Since many of the Washington personnel attended to speak, we got to know these people.

Today, I stop at quite a few refuges and I never feel that they are close to the refuges themselves as we were in those days. We had to live on the refuges most of the time. By living on the refuge you became part of it, you became part of the community, you worked with the local people and the various programs that we had on the refuge, like grazing and haying or farming and fishing programs. I remember for a number of years we didn't have any fishing because we didn't have a good water supply at Arrowwood. Today, in going to some of the refuges I find that the managers don't even live on the refuge anymore. They're not part of the refuge. They're distant, and when you talk to local people they say, "Well, we hardly ever see the refuge manager because he does not attend any of our functions, fire department meetings or any special programs that go on at the local towns." I feel that this is one thing that is missing today in our refuge system. You don't have the good neighbor effect that you should, and that is the one part that I've noticed as I've visited refuges.

Kevin: Is there a particular period of time where you can recall that the Service in the refuge system started to place more emphasis on visitors and public use, or did that grow gradually or was there a certain period when that became really important?

Nelius: It grew gradually. We didn't put a lot of emphasis on visitor use when I was at Arrowwood. Since I left the Arrowwood Refuge they now have a visitor's center, and probably more people stop there to visit. By building a visitor center they have new offices too. The visitor program, I think, has become more prevalent after I left the Service in 1969. Before I left the Tamarac Refuge, we had already prepared many plans for a visitor's center; several locations had already been selected. We had that youth program working there, but it didn't get started until after I left. They now have a visitor's center there too.

Kevin: Are there any other issues or things that come to mind that you would like to talk about? We didn't address all the questions, but if there is anything else you'd like to discuss or say, this a perfect opportunity for it.

Nelius: I would like to tell about this one incident even though it is not refuge-oriented. Fran Gillett came to visit the Arrowwood Refuge one time on a weekend and since we were a ways from town, he stayed over with us. One Sunday afternoon it was a very cold, sunny day in the winter and I took Fran out to a coulee to hunt cottontails; I knew there were a lot of cottontails in there. Fran finished off a dozen or more with his pistol and enroute to the car I noticed that his ears were frostbitten. He had his stocking cap in his pocket, as usual, instead of wearing it. He thawed his ears with some snow and put the cap on.

Fran complained once while staying overnight at the refuge headquarters with us when his feet, being moist in the morning when he got out of bed, he stepped on the floor and his feet stuck to the concrete floor because the floor was so cold. After that he always laid some clothes out to step on because he knew the floors were always so cold on the refuge.

A lot of these house built on the refuges were made from cinderblocks and an architect from down in the southern states apparently deigned them, and they were very porous and the wind almost blew through them. It took a lot of coal to keep them warm, but we made the best of it. This type of housing was used on quite a few refuges that were the major refuges that were built, like Lower Souris, Upper Souris, Arrowwood Refuge, Valentine, and so if we moved from one place to another, you'd have a similar house.

At one time I was stationed temporarily at the Upper Souris Refuge during the war to help out. I'd drive from Arrowwood and spend three days at Upper Souris and then back down to the home base and work a couple of days. The following Monday, it was back up to the Upper Souris Refuge again. This continued all summer long and it was quite a chore but hey, we were unable to get anyone to look after the refuge. All we had at Upper Souris Refuge was one maintenance man to take care of the whole area. We had a lot of water problems, so we had to watch it pretty close.

Kevin: Any other thoughts or events or…

Nelius: I was involved in the goose program when they started capturing the Canada geese in the fall of the year with cannon nets that Herb Dill developed. At Arrowwood we had a flock of 100 birds that we started out with. We were never able to get any to pair up and nest after we released them.

I did have the opportunity to get some of the big honkers from a friend, Carl Strutz, who was raising Canada geese in Jamestown very successfully. His father had raised them; his grandfather had raised them. Apparently they started out just gathering some eggs originally, but he had a permit and everything. He could see that our program wasn't working by just picking up these wild birds. He offered to trade a couple pair of his big giant Canada geese that he knew would nest for some of our younger birds that we had picked up. But the Service didn't go for that and it wasn't until a couple years later when the Service finally became aware that his geese were the giant Canadas, 18 to 20 pounders, and they began buying what he was producing from his little farm next to the city of Jamestown. We could have gotten started a little sooner if they had okayed it,

but they didn't like to mix the domesticated geese in with wild geese. They later on did that, as well as the State of Minnesota did quite a bit of that, too.

I really enjoyed my work as a refuge manager for the Fish and Wildlife Service. My family was raised on the game refuges and they still look back to the days when they grew up on the refuge where they enjoyed walking the shorelines with me and identifying birds, and in the winter time, we would walk the ice and look for animals like mink, muskrat houses, and things like that. They always enjoyed that.

As a result, one of my youngest sons always thought he would get in on working with wildlife programs, but he finally had a chance getting in working with the State of Michigan on water pollution and checking lakes during the summer months. After a couple of years, he got in with the Bureau of Outdoor Recreation and he never did get in with the Fish and Wildlife Service, although he always had that in mind because he enjoyed it so much. Later on he transferred and got in with EPA in Denver.

Biographical sketch of Nelius B. Nelson, written June 6, 1988
Fish and Wildlife Service employee from 1937 to 1969.

I was born February 13, 1910 on a farm near Maddock, N.D. I was the first son of Norwegian parents that emigrated, my father in 1898 and my mother in 1907. My father was an apprenticed wagon maker from Bergen. My mother's great, great uncle was instrumental in writing the Constitution of Norway when they separated from Denmark. His son, a student in theology, became a writer of history and poetry. His works are still used in the schools in Scandinavian countries.

I completed seven years of rural school education, three years of high school, and two years of college. Taught rural schools nine and one-half years in North Dakota, and put in 30 years with the Service as a laborer patrolman, biologist, and refuge manager.

Hobbies: The wife (Alma) and I are ceramists with a house full of our best pieces. We have been spending the past 14 years in the Rio Grande Valley of Texas to get out of the cold and snow.

I've spent winter months doing some teaching in macramé and attending artist painting classes. As a result, our home has some paintings on every wall plus providing paintings for all of our kinfolk. Other hobbies are wood carving, restoration of old furniture, lathe work in both wood and metals, reading history and writing anecdotes of the past for the grandchildren and great grandchildren. When things get boring, I get some of the string instruments out to entertain the great grandchildren when they come over. Fishing trips to Canada and Minnesota was a must every summer, but we've slowed up.

I was married the first time in 1932; we had three children. Was divorced in 1937 and remarried in 1958. My wife Alma had three sons; all the children are married except my youngest son with EPA in Denver. We go up to Alma's farm place, which is now owned by one of her sons, to look at the fields and livestock and help with the garden.