

Oral History Cover Sheet

Name: Walt Crissey

Date of Interview: April 18, 2006

Location of Interview: NCTC

Interviewer: Mark Madison

Approximate years worked for Fish and Wildlife Service: 30+

Offices and Field Stations Worked, Positions Held:

Most Important Projects: bird banding and breeding population counts

Colleagues and Mentors: Art Hawkins; Johnny Lynch

Most Important Issues:

Brief Summary of Interview: start of using aircraft for bird counts; developing systems to count birds in Canada; working with Johnny Lynch on development of counting systems using aircraft; working/for the committee headed by Minnesota Senator Dingle on setting hunting limits; developing kill surveys; bird banding – especially scaup; changes in distribution of scaup, and especially canvasbacks, as waterways were cleaned of pollution and the problems that caused in setting hunting limits along the east coast, especially Maryland.

?? – that's [indecipherable]. Correct?

WC -- Okay.

?? – And it's April 18, 2006. And we also have Jim King and Mark Madison here, and we're just going to do a little oral history. So, why don't you tell us how you came to work for the Service?

WC -- Well, after World War II, there was a lot of surplus airplanes available. I worked for the New York State Conservation Department and I persuaded them that I should be sent to... where was it... someplace in Utah or other... to pick up... there was a lot of them over there... and so I brought a.... Okay, what airplane was it?

[General laughter – Overlapping Voices]

MM – ... close the door. You can keep on going.

WC -- Okay. It was a... I can't remember. My memory's getting faulty these days. Well, anyway, so, I flew it back to New York. I remember being told that military paint had done bad things to the stitching on the fabric over the top of the wing. So, I flew at 65 mile an hour all the way back to Albany, New York.

[General Laughter]

WC -- Really... we overhauled it really nice and... new covering on the wing, and new paint, and everything else. And then I spent... oh - a couple of years - developing ways and means of using an aircraft for measuring all kinds of things. I remember, for example, with snow on the ground, you could identify predators, and prey, and everything else -- if the snow was right and fresh, and stuff like that. And... but, it also included determining distribution and numbers of waterfowl in North America... in the state of New York, which.... So, it got me a job in Washington. 'Cept at that time it was restricted to... waterfowl. And, so, the... I think it was 1950 (it must have been - I got the job in '49), that I went north, with an old Republic Seabee -- craziest airplane I ever flew -- to see what could be done to develop an aerial system for measuring size of the breeding population. So, that's what I did for the summer. And... well, of course, most of it had to be done in the early part of the summer. The latter part was spent locating and banding birds -- in a ridiculous way, but that's beside the point. Anyway, I ended up the summer with the notion that counting a birds an eighth of a mile, either side of the road we were flying down... flying roads... and you... up in the prairies, you could tell township lines. And so, the... ended... the deal ended up with counting the birds within an eighth mile - on either side of the road. And every four miles was a square mile. So, then the whole works ended up 'so many birds per square mile times the area' sample. So, that was the basic start of

aerial surveys, far as I know. There were two or three other planes working. I don't know who they were. I think they were simply examining, or estimating, the numbers of birds in certain collection areas. But mine was... well, my system said 'no sense in counting birds in collection areas -- don't mean anything.'

?? – Right. Well, why was it important to go to more of a survey than...?

WC -- Well, we needed to measure the size of the breeding population. And so we ended up this summer suggesting that the air crews establish these... and so, really, it was 19... what did I say -- 50, that the principle was established. And I think it's usually considered that '55 was the first time it became, sort of, 'the practice' for working the works. But, really, it started in 1950. That was where the idea came from. Well, it was about that stage that... well, I was hired as an assistant to... now who... my memory is terrible... on the tip of my tongue but I can't say it. So, I was his assistant, and... things just sort of went from there. The... the... I remember that was within shortly after I got the job, in 1950, that the next thing, I think, was the kill survey. And discovered that, in the beginning, this was being put together for a newspaper article, by having the game agents contact hunters in the bars and stuff, and ask them how many....

[General laughter – Overlapping Voices]

WC -- Well, it was meaningless in terms of you getting anything of value. And so, it fell to me to organize with the post office, some means of running a kill survey -- at least the names and addresses were picked up in a scattering of post offices across the country. But, I don't know...

[Ceese ?] Williams took a job as a... went to Denver -- the Central Flyway -- and, so, I ended up with all the responsibilities that he had, plus the ones that I developed for myself -- which was sort of dumb.

[General Laughter]

WC -- But, I ended up, over the years, with gathering the survey results from all the aerial surveys, and putting them together into a forecast, which then, in turn, was used for setting the hunting regulations. And also, I was the poor son-of-a-gun that, when the... it was dry, and populations were down, and we had to reduce the hunting regulations, then I was the one who always went over, as we said, on the Hill...

?? – Bring the good news.

WC -- ... to Congress. And it was only when things were not good that... and then there was a guy from Michigan who was... what was his name? Geez, I've forgotten that too. Anyway, fortunately, he was in favor of what we were doing -- against what DU -- Ducks Unlimited -- were usually proposing.

?? – Was this a congressman or something?

WC -- Yeah, it was.

?? – Was it Dingle?

WC – Dingle! Dingle!

?? – Dingle. He's been out here. Yeah.

[General Laughter]

?? – Well, I don't know. Actually, that might have been Dingle senior. Dingle junior is....

WC – This would have been Dingle senior. Must be, 'cause he was....

?? – Yeah, that's his son.

WC -- Is it? Really? Well, that's interesting, because I thought he was still alive by the basis I see "Dingle" every once in a while...

[General laughter – Overlapping Voices]

WC -- Well, anyway, usually, as I said, and fortunately, Dingle was the Chairman of the committee, and he favored Ducks Unlimited more than... he favored us more than he did Ducks Unlimited, [laughter] which made it much, much easier. And, well, I knew some of the representatives from Ducks Unlimited, and I felt sorry for them, you know. I mean, he really could... he... those guys on the Hill, they had a way of discrediting anyone that came in to give records on some problem. He'd ask a question. And then based on the answer, he'd ask one behind that one. And at about the fourth level, a guy would have to say "I don't know."

[General Laughter]

WC -- And then he'd say "well, you think you're here as a special [indecipherable - overlapping voices]"

[General Laughter]

WC -- It was a system. I was exposed to it several times. Fortunately, not toward me.

[General Laughter]

WC – But, it was always a problem. When things got serious enough that there'd be a... Dingle would call a meeting and.... I can remember one, now let's see if I can remember the details. Who was our Director? Maybe I'd better not use his name, even if I can remember it. Because,

the guy that was giving testimony, was on a chair, out in front, and then the House of Representatives representatives were in sort of a half circle above - and somewhat up - so you sat there looking up at these guys. And, anyway, Gottschalk... well, Dingle, had wrote something in the paper about geese. And Gottschalk had not. So, he asked John about something. We're all sitting back. John could have, you know, admit he hadn't run into it, and refer to one of us, who was all prepared to answer. But he didn't. He tried to explain it himself. And pretty quick, Dingle said "John I don't think... [Laughter] I don't think your staff agrees with you", because, we were sitting there going this way [laughter]. Oh, never forgotten that.

[General Laughter]

WC -- I've forgotten altogether what the problem was, but...

[General Laughter; Overlapping Voices]

WC -- Well, it was interesting. I mean, giving testimony on the Hill, the next day or the day after, you would get a summary. They were taking... you know, you were... they were recording questions and the answers. You'd get a copy of what you had said. And you were allowed to change words, to simply change the tense or whatever. But you were not to modify, in any respect, the information that you had presented. But... it did give you a chance to correct the bad grammar and stuff....

MM -- That makes a lot of sense, because, shortly before John Gottschalk died, we did an oral history with him. And we'd sent him the transcript....

WC -- Yeah.

MM -- Usually, we send them out to people so they can correct proper names and that.

WC -- Yeah. Yeah.

MM -- And John... he was in a hospital at the time, had marked the heck out of it. Changed all the tenses and corrected....

[General Laughter]

MM -- Like, what is this? This is an oral history. You don't just change all this. And it was just all red.

WC -- Yeah. Yeah.

MM -- All these changes. I think he thought it was going back to the Congressional testimony days.

WC -- Well, I sort of got used to being up on the hot seat, you know, when things, you know, the population was down, and questions were being raised. And I... by the same token, it was usually Ducks Unlimited that were complaining. And I found out that those guys sitting up there could make anybody feel like a dunce. In... to ask a question. And then that would prompt another one, and another one. Sometimes they'd say 'I don't know' and then he'd say 'you mean to say you're here...'

MM -- Hey, I've got to go get my intern. Let me... Jim, do you have any questions for Walt? I'm just going to run next door for a minute....

Jim King -- No.

MM -- Go on with your career. I'll be right back. I don't want to stop the tape. But, tell us about some of the other things you did, and I'll be back in one second. I'm just going to....

[Overlapping Voices]

WC -- Well, I don't know. I was there, in sort of a key position, starting from 1951. And [Ceese ?] Williams decided that he didn't like the Washington rat race anymore, and so, they were establishing the Flyway guys. And so, he took he asked for it, and was given the job in – Denver, I guess - Central Flyway. And, so, that left me alone, all by my lone.. get to answer all these questions hard to answer, and... 'cause it was interesting.

MM -- What changed over the years you were with the Service? I mean, did the equipment change? Or the personnel?

WC -- Well, yeah. I mean, the first year I was in Canada, we only had two or three airplanes. And they were primarily going to areas where there was big concentrations of birds -- like Delta Marsh, for example. That was one of the places they hit, and one of the places like that, 'cause they knew about it. I mean, the idea of sampling with airplanes flying in a prescribed way, had not yet.... But, that first year, I ended up counting birds along the highway, with suggestions as to how the wide the strip should be. You flowed... flew at a hundred feet. And, you ended up with birds per square mile. And then, it was birds per square mile times the num... size of the area sampled. And, as far as I know, basically, that's exactly the way the whole system has worked ever since. And whether I should take credit for it, I have no idea.

[General Laughter]

MM -- The Crissey Method.

[General Laughter]

WC -- Crissey...

[General Laughter]

WC – Oh, I don't know....

MM -- Do you have any memories of some folks you worked with?

WC – Well, Art Hawkins.

MM -- Well, tell us about Art Hawkins

WC – Well, Art... he was the best observer I ever had. And.... But, he had other duties that... in 1950, and so, I didn't get to use him very much. And Delta supplied with three grad students. All three of which had this tendency to get airsick.

[General Laughter]

MM -- They were essentially chosen for [indecipherable]

WC – Yeah. Yeah. I guess you're right. And Johnny... no, not Johnny Lynch... a grad student... now, what was his name...? Anyway, he was right over in the west, and again... what was the name of the area he was working in? Was it... high... what was... high density of waterfowl populations. I'll think of it, maybe. He was running his transects about every 10 days. And so I flew them repeatedly -- to get some kind of a notion of the difference between air observations and more intensive ground surveys.

MM -- Uh hum.

WC – Which, seemed to work out. I mean, was always a reasonable constant portion of the number that were determined on the ground. So that was really the start of the justification for the transect surveys, as far as I know. And then, of course, everything built from there. And then, we got more pilots, and then began to cover the Prairie Provinces. I don't know much of who did it in the Dakotas, tell you the truth. I just remember we had the three Prairie Provinces pretty well sampled. And it got to be a, sort of problem, as to how to put it all together. And, as I remember, Johnny Lynch was the one who came closer to developing a system, that I thought was the way it was, and together, we sort of got together, and decided that Johnny's was the one that we would emphasize, and develop the survey system around it.

MM -- What was Johnny's system?

WC – Johnny's [indecipherable]? Well, I don't know. [Laughter] I don't remember the difference between... I really don't. I just know that it was a -- same width that we had come up with -- one-quarter mile, so that every four miles it was a square mile. Now, what the variations were in his interpretation of the data that prompted selection of his method against

the others, I can't remember. It was a long time ago. [Laughter] But, that was the one around which the system was based... was developed, as far as I know.

MM -- Any other recollections you want to share

WC -- Well, that's just the start. [Laughter]

MM -- That you dare?

[General Laughter]

WC -- Well, I was sort of in the middle of the whole damn works. And, another aspect of the need for information, was a kill survey. And, at the time I sort of became involved, it was game agents simply contacting hunters, in bars and stuff. And that was where the... some kind of a base came from. And, well, that wasn't satisfactory -- obviously. And so, I worked with the... what am I trying to say... the mail system, to try and, through the mail, develop some kind of a system. But, they wouldn't allow us to use mail addresses to do it. We were allowed, at the time when you bought something, they were asked to give then a card, with a request that he put his name and address on, which he dumped in the slot. And the distribution of the questions were based on that method of obtaining a - sort of a - random...

MM -- Yeah.

WC -- ... distribution of where they came from. And of course, these were just started. And, of course, they grew with age, and.... Until we finally worked out methods we thought were pretty good in determining annual kill rates. And... I was always the guy, for years and years, that put the data all together and presented them for consideration of the committee that was establishing hunting seasons. And, when things were rosy and the birds were abundant, there was no problems. But, every time... every time that you had to cut regulations, there was all kinds of objections. And it was sometimes hard; and sometimes you didn't win. But, mostly we did. And, so that was... that sort of filled out the information we needed -- both supply and demand, and rate at which the birds were being killed, and so forth. And of course, the other big program was banding. And, at first, it was... I'll never forget, I think it was 1950... yeah, it was 1950... the practice had developed for banding - just banding birds.

MM -- Yeah.

WC -- Well, okay. Well, White Water Lake was the place, and what we were banding was a bunch of molters -- mostly males, but scattering of females... were... and they had come from Lord knows where. I mean, it didn't take long to figure out that they flew... long distances to collect in these little areas. So, what did they represent - in terms of birds where? And, so, from... it was... well, I was "gee, this was great" the first year. And then it began to wonder,

well, what do you do with the data after you have it. And, in theory, it was supposed to measure distribution. But, having come Lord knows how far away and... [laughter] what do they.... You couldn't use the data - not really. It was just birds banded. So, that got me, sort of, involved in banding systems. And, so, I was... well, selective banding, pre-season, so forth and so forth. And, I think the kill system, probably has been providing the information necessary, all along. I mean, it was kill rate that was the major.... Wasn't so much... well, it was distribution. But, we were interested in kill rate related to differences in hunting regulations -- all related to the size of the population, of course.

Jim King – Right. That's very interesting.

WC – And so, that got off the ground, along the way. And then, I've forgotten, it was... can't remember the year... it was 1960...?

Jim King -- One of my memories was the starting to work with Hank Hanson, and he was always getting orders from Walt to band scaup.

[General Laughter]

MM – Really?

[General Laughter; Overlapping Voices]

WC – Oh, yeah. I did some banding, 'cause, I know, banding was accomplished in such a way that it represented something we knew about.

[General Laughter]

WC – Got measured some way or another. To randomly band -- what the heck good was that?

[General Laughter]

Jim King – We wound up banding about 20,000 lesser scaup, I think. Something like that.

MM -- Because of Walt?

Jim King – Because of Walt. Yeah.

WC – Guilty!

Jim King – The interesting thing was that nobody really worked that data up until here, the last, oh, I think, the last, maybe, it's not out yet... student at the University of Alaska has used all this...

WC – Really?

Jim King – ... statistics.

WC -- Good.

Jim King – All this scaup banding. So what they... scaup stuff goes [indecipherable]

[Overlapping Voices; General Laughter]

WC – Well, scaup, of course, put up... made up a pretty high fraction of the breeding population, but, in terms of kill, it was relatively unimportant. 'Cause, I remember, first -- not many people hunted it; and second -- the darn birds, as I remember, they went way, way south, in the winter... in the.... And fairly early in the season. So they just weren't exposed to much in the way of harvest in the United States and Canada. Am I right about that?

Jim King – Well, Minnesota they're important. And then, down the Mississippi. But, there's a certain percentage of them go to the Atlantic Flyway. Some of them to New York state.

WC – Yeah. Yeah. Well, you know, canvasback head that... to New York state. Well, the east coast, as a destination for a long time. And there's a strange... I think I can tell this story pretty straight. I'm not quite sure. But, there was some... across northern Michigan, there were a couple of lakes that were quite highly polluted. And, somehow or other, they'd go that far, after coming from an area west. And... and then... well, anyway, they ended up in Chesapeake Bay. And... so, they provided a lot of recreation. Well, they decided to clean up the pollution in that lake, and then... oh, was the... the channel between two of the Great Lakes, in Detroit, was highly polluted -- with things good for the birds to eat. And so, that was the next stopping point. And having started off in a southeasterly direction, they ended up in places like Cayuga Lake, in New York state, and then down the coast, and Chesapeake Bay. So hunters had become accustom to hunting these birds -- primarily around Chesapeake Bay. Well, they cleaned it up. They cleaned up the pollution. [Laughter] And the birds ended up going down the Mississippi River -- disappearing off the map.

[General Laughter]

WC -- And there was hell to pay, as far as the hunters -- particularly in Maryland, were concerned. And there was a... oh, my memory... there was an influential guy, in the... a family... what was the name of a famous family that.... Anyway, they decided they'd take on this deal about... complaining about the loss of hunting for canvasback. And... so, there was hell to pay for a while. But, anyway, the change in distribution was related to a... was in the Mississippi River, south of where the... my memory... anyway, they... this... they had changed their route south, from southeast to primarily south. And so, all the hunters in -- particularly in

Chesapeake Bay -- all of the... what position did he hold... can't remember the name. He was head of Fish and Wildlife in Interior, so he had a lot of influence. Anyway, by reason of the fact they didn't show up there, they closed the season -- for about two or three years. There was no reason to cut the season whatsoever! I mean, the population was still up there, if they just closed down the Mississippi River.

[General Laughter]

WC -- It was closed! I mean, it's been some of the damndest things that....

[General Laughter]

WC -- It didn't make sense, that's there's no way to, you know, no way to correct. I mean, it's just....

MM -- Well, Walt, we just touched on your career, but I got to stop so I can get Jim in.

WC -- Alright.

[General Laughter]

MM -- I expect to hear a lot more tonight, over beer.

WC -- Really?

[General Laughter]

MM -- But I want to squeeze Jim in before... so we don't....

WC -- Want to take the place here

End of tape