

ORAL HISTORY
Of
Carl Korschgen
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Interviewed by

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USFWS Region 3

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Oral History Program
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Oral History – Carl Korschgen
Location: Agassiz National Wildlife Refuge, Minnesota
Interviewer: Steve Kufrin
Interview Date 06/22/89

SK: Did you initiate the study?

CK: Yes.

SK: Okay. What was the purpose of initiating it?

CK: In 1987 the Fish and Wildlife Service allocated additional monies specifically for canvasback duck research. And that money was allocated to three of the Fish and Wildlife Service Wildlife Research Centers. One of which is Northern Prairie.

SK: Okay.

CK: So, we took a look at what some of the priorities were in terms of canvasback research needs and what we had the capability of doing at the present time. So we decided to look at mortality of canvasback ducklings. And one of the justifications for this was that other researchers had been able to document duckling loss by repetitive counts of broods. But, unless they had the female marked, they weren't sure that they were looking at the same female in the same brood and subsequently there were always questions about what was total brood loss? They would see a female and she would have no ducklings. Well, what did that mean? So, we decided to essentially initiate a high tech study in which we would mark the ducklings so that we could determine not only when they died but also the cause of mortality

SK: So, you've been using miniaturized radio transmitters since you've initiated the study.

CK: That's right. And each of the transmitters is built with a thermister that allows us to know what the body temperature of the duckling is since the transmitter is implanted subcutaneously.

SK: Yeah. So you can remotely determine the location of the duckling but you also can determine if the bird is alive or dead.

CK: That's correct.

SK: So you can track them pretty well any place they go.

CK: That's right. We have the capability of tracking them from vehicles along the dikes, from airboats, and also from aircraft.

SK: What kind of range do those radio transmitters have?

Oral History – Carl Korschgen
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CK: We're getting about a 1,000 meter range.

SK: Okay. I guess the results so far are a little bit alarming according to predation and weather losses.

CK: Right.

SK: Do you think it's too early to draw any conclusions, or have you started to draw some conclusions?

CK: Well, I think it's too early. However we've collected a lot of ducklings that apparently died during what we would consider to be abnormally cool weather this spring. We had a lot of ducklings that died under similar circumstances last year. The dead ducklings that we retrieve are sent to the National Wildlife Health Center for autopsy. And I have not received the reports from last year's birds that we submitted. It would be conjecture at this time to say that mortality is totally caused by exposure because there could be situations in which exposure is compounded by a disease or some other agent.

SK: But you are obviously having some weather problems and then I think mink predation seems to be a big concern.

CK: Mink predation is obvious, and it was worse in previous years than it has been this year. But we still are picking up some mink kills.

SK: Yeah. It's a little discouraging, I guess, to say the least. If you take an area like Agassiz NWR, which is 61,000 acres with 44,000 acres of water, I believe Joe Kotok said.

CK: Right.

SK: And you're having that kind of problem, you can imagine what it's like throughout the Prairie Pothole Region.

CK: And that goes back to one of your original justification for the study. No one has been, up to this time, really been able to track day-old ducklings like we are. Now there's another study at Northern Prairie in which they're attempting to do this with mallards. And, I don't know what the success of their program has been, but as we develop this technology I'm sure it going to spread and we're going to see a lot of other studies doing this kind of thing over different types of habitat. But I think you're perfectly right. It took us quite awhile to realize that the success of the hens in terms of just their nest survival was quite low, and I think now realize that duckling survival can be quite low under some circumstances.

Oral History – Carl Korschgen
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- SK: Which coming from the Prairie Pothole Region, when you get 5% nest success you know there is definitely some problems with predators out there.
- CK: That's right. You do not have a sustaining population when you have 5% of the birds fledging.
- SK: We gotta ask you another question too, and then this was a question posed to me a couple years ago. I was spending quite a bit of time with the Morris Wetland District when they were out doing nest searches. And of course they'd locate a nest, mark the site with a stick, and candle the eggs. I wondered at that time if just the human scent would enable predators to zero in on some of the studied nests. Do you think the handling of the young birds and the activity around the nest might play a little role in maybe increasing predation by mink?
- CK: In 1987 there was no doubt that there was a very high mink population at Agassiz NWR. We were seeing mink on a daily basis out in the marsh, along the dikes. And the nest success reflected that we were losing nests left and right. This year we believe that the mink population is much reduced and we have not lost a canvasback nest yet to mink.
- SK: Well that's encouraging.
- CK: Right. So I think there is no indication that our activity around the nest, handling the eggs, visiting the nests repeatedly has changed during those years. So I think it's really reflective of the density of the predators in that community.
- SK: And you're sort of up against the wall too when you do studies like this. You have to get out to the bird's nest.
- CK: That's right. We just try to minimize our bias whenever it comes to the analysis of the data.
- SK: Is there any reason that Agassiz NWR was selected for the study?
- CK: It was one of the few areas outside of Canada that had a population of nesting canvasbacks. It's about the only one in the U.S. that would provide us with enough birds in a geographical area that we could really study effectively.
- SK: Okay.
- CK: If we could have found another study area we could be working in Montana right now rather than northwestern Minnesota. But, this was obviously convenient, but also very attractive from a biological point of view.

Oral History – Carl Korschgen
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SK: Now the next process, I understand is that you will be going out during the evenings with airboats and using lights to capture some birds as well.

CK: Right.

SK: And then, as I understand it, some of those juvenile birds will be implanted with more radio transmitters.

CK: Right.

SK: Which apparently are a little larger, so they should last longer.

CK: We basically want to be able to track the ducklings to the time that they fledge.

SK: I see.

CK: And, because we do not have sufficient funds at this time to mount the logistical support required to track birds when they're able to fly and migrate.

SK: Will anyone else be doing that?

CK: Not this year. That to me and to most people in the Fish and Wildlife Service is a high priority study for the future. Basically we could capture birds on the breeding grounds prior to fledging and track those birds to the wintering grounds. Patuxent Wildlife Research Center and the National Wetlands Center are conducting canvasback duck studies on the wintering grounds.

SK: I see.

CK: And we know from their studies, and certainly the ones in Chesapeake Bay, that survival during winter is quite high. So the next big question is what's happening to these birds during fall migration? And of course they are flying through a barrage of steel shot.

SK: Right, too.

CK: But there may be other things that are happening also in terms of young birds not being adequately able to exploit the food resource and finding themselves in areas where they may be more susceptible to disease or parasites or... or hunting. So that's what we would like to look at and... and basically it's going to take a very large project and a lot of logistical support to track birds over a thousand mile range.

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SK: Well, with the problems they have to contend with, it's really a wonder that we have any ducks left, especially canvasbacks, which are so habitat specific too.

CK: That's right.

SK: One thing Kevin Kenow wanted to emphasize was the study methods that your team is developing at Agassiz NWR and how they are applicable to many other species. And you mentioned the mallards.

CK: Right.

SK: But he was impressed with the development of the new techniques, like the surgery implantation procedure, the miniaturization of the radio transmitters, and the computer program that you use to do the radio tracking. So, it's really a new area for researchers and waterfowl researchers.

CK: Right. I think we've really been able to integrate a technological approach very nicely. And a lot of that's due to Kevin's capability. That's for sure.

SK: I think you've got a couple of pretty dedicated fellows in Kevin Kenow and Bill Green out there.

CK: Oh, you bet.

SK: I mean, they're real accommodating and informative and knowledgeable, and dedicated as well.

CK: That's right.

SK: When do you think you will be going up to work with them?

CK: I'm going to try to go up to Agassiz when they start night lighting the ducklings.

SK: When do you think that will be?

CK: Kevin and I were talking about that yesterday. It's probably going to be the second week in July. You almost have to time it to the new moon because you just want it dark as the Ace of Spades out there. And so, actually, the new moon is coming up around the first of the month.

SK: Yeah, the 3rd.

CK: But, the birds aren't going to be quite large enough to really go after them at that point, so it's probably going to be around the 15th.

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SK: Well, I would certainly like to get up there at that time. In fact Joe Kotok invited me up. But, my only problem is that the magazine deadline is set for the 15th of July, which is a Saturday, and I don't know when I'm going to be getting stuff in. So that does cause me a little concern right now.

CK: Sure.

SK: But if there's any way that I can make it up there I would like to go up, and I told Kevin I would call him find out for sure when the activity begins

CK: Sure.

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