

An Interview with

**Joe Dillard**

at The State Historical Society of Missouri in  
Columbia, Missouri

**3 August 2011**

interviewed by Jeff D. Corrigan



**Oral History Program**

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*For further information, contact:*

The State Historical Society of Missouri  
University of Missouri  
1020 Lowry Street  
Columbia, MO 65201-5149



## PREFACE

Joe Dillard was born in 1937 in Chillicothe, Missouri. He grew up in nearby Blue Mound, Missouri, where his family lived on a small farm on which they raised various animals and small crops. Dillard attended the Blue Mound School, a one-room schoolhouse adjacent to his family's property, before eventually graduating from Chillicothe High School. Dillard describes early life in Blue Mound and Chillicothe, including school programs, civic life, and other activities. After graduating from Chillicothe High School, he worked with the Missouri Highway Department surveying roadway routes, particularly a portion of what would eventually become Interstate 70. Later, Dillard attended the University of Missouri in Columbia, first studying civil engineering, and then wildlife conservation. Mr. Dillard received his bachelor's degree in 1963, followed by a master's degree in zoology in 1965, after which he began working for the Missouri Department of Conservation. Mr. Dillard details his career with the Department of Conservation, including several of his prominent projects and publications. He also discusses his semi-retired life with wife, Betty, and his extended family.

The interview was taped on a CompactFlash card, using a Marantz PMD-660 digital recorder and an audio-technica AT825 microphone placed on a tripod. There are periodic background sounds but the recording is of generally high quality.

The following transcript represents a rendering of the oral history interview. Stylistic alterations have been made as part of a general transcription policy. The interviewee offered clarifications and suggestions, which the following transcript reflects. Any use of brackets [ ] indicates editorial insertions not found on the original audio recordings. Physical gestures, certain vocal inflections such as imitation, and/or pauses are designated by a combination of italics and brackets [ / ]. Any use of parentheses ( ) indicates a spoken aside evident from the speaker's intonation, or laughter. Quotation marks [“”] identify speech depicting dialogue, speech patterns, or the initial use of nicknames. Em dashes [—] are used as a stylistic method to show a meaningful pause or an attempt to capture nuances of dialogue or speech patterns. Words are *italicized* when emphasized in speech or when indicating a court case title. Particularly animated speech is identified with **bold** lettering. Underlining [     ] indicates a proper title of a publication. The use of underlining and double question marks in parentheses [           (??) ] denotes unintelligible phrases. Although substantial care has been taken to render this transcript as accurately as possible, any remaining errors are the responsibility of the editor, Sean Rost.



Narrator: Joe Dillard  
Interviewer: Jeff Corrigan  
Date: August 3, 2011  
Transcribed by: Teresa Bergen

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**[Begin Track One. Begin Interview Two.]**

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Corrigan: This is Jeff Corrigan, oral historian for the State Historical Society of Missouri. Today's date is August 3, 2011. I'm here today with Joe Dillard. This is the second time that I'm interviewing Mr. Dillard. Today we're going to start off by talking about your career after grad school. Last time we finished after your time here at Mizzou. Your first job out of grad school was in 1965 for the Missouri Department of Conservation and your title was fisheries research biologist. Can you tell me a little bit about, tell me what you did, your job? You were young, you were new to the field. Can you tell me your impression of—you were out there now and no longer in a classroom. Can you tell me a little about that?

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Dillard: I was really, really excited for several reasons. None the least of which my wife, Betty, was pregnant with our third child. And I was still in school (laughs) and needed a job really bad, because we had two other children. And I had a job offer in [the state of] Washington and a job offer in Alabama. And I walked down from Stephens Hall down to 903 Elm Street. Which at that time was a three-story brick building to talk to the fisheries research person, the fisheries research chief. And basically he hired me on the spot. And that's where I started to work on February 1, 1965. At 903 Elm Street., which is, was a three-story brick building. Not air-conditioned. The top story was condemned and is now the, part of the Missouri United Methodist Church. It was torn down and later it was Jack in the Box and then it was Wendy's and then the church bought it. And it no longer exists. But that's where I started to work. And I was in charge of pond research. And I was in charge of the twenty-two experimental ponds at Little Dixie, east of Columbia. And my first job then was to determine what was the best method to stock ponds. And we had two methods that we tried. One was where we stocked all three species, the bass, blue gill and channel catfish at the same time. And the other, we stocked the bass earlier in the year and then stocked the blue gill and channel cat later. And what we found out was stocking them all three at the same time was the best, because if we didn't, a lot of times the pond owner would not come back and get the other two species. And of course that threw the whole pond population out of balance.

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Corrigan: Now was that the primary reason? It was actually the farmer, and not necessarily the species?

Dillard: It wasn't a species combination. It was just, yeah. (laughs)

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Corrigan: It was just that more often than not, there wasn't the follow-up to follow through with finishing stocking it.

Dillard: Yeah.

Corrigan: And was it always those three species?

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Dillard: Yes. That had long since been determined that those were the best three species for farm ponds in the state was blue gill, channel catfish and large-mouth bass.

Corrigan: So there was twenty-two ponds, you said?

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Dillard: Yes.

Corrigan: Where at, you said Little Dixie. Where was it at?

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Dillard: The twenty-two ponds were drainable and refillable and they were right below Little Dixie Lake. And the water in the lake served as a water supply.

Corrigan: Okay. And now how long, now eventually a publication came out of that several years later.

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Dillard: Right.

Corrigan: So was this a multi-year research project?

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Dillard: Right. And, but I was also doing a couple other projects at the same time. We went out in-state and seined ponds to see how the populations were doing. And primarily, well, it was not only in north Missouri, it was pretty much all over the state. And the other project that I had was the natural reproduction of channel catfish in ponds. Because people didn't know whether the catfish would reproduce in ponds or not, because they're, you know, primarily a stream fish. And what we found out, yes, they will reproduce in—now that research was done over at the August Busch area, near Saint Louis. And what we found out was yup, they will reproduce in ponds, but most of them won't survive, because the blue gill and the bass eat up all the little ones.

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Corrigan: Okay. So your research wasn't defined just to the Little Dixie area. So you would go out into the field and see—

Dillard: Right.

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Corrigan: You would take this, what you were learning or what you were observing and actually trying to see okay, will this work in northwest Missouri? Will this work in, you know, the Lake of the Ozarks area, will this work, okay.

Dillard: Yes.

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Corrigan: So you were traveling, then, too.

Dillard: Oh, yes. (laughs) Quite extensively. And that was the other thing. I'll never forget the first time, in doing the catfish research we needed some—

5 **[End Track 1. Begin Track 2.]**

Dillard: —cages. Like the commercial fishermen use. And so one of the conservation agents over at High Hill, Missouri, said, "I've got a bunch of those I've confiscated. Why don't you come over here and get them?" And so here I was in this brand new pickup truck. And I said, 10 "They're trusting me to drive this truck clear to High Hill?" (laughs) Of course, as a graduate student here at Fish and Wildlife, they really didn't have very much equipment. And you had to sign your life away to use any of it. (laughs)

Corrigan: And was, for, it was probably old equipment, too.

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Dillard: Yes. Yeah.

Corrigan: It had probably been a pickup truck that had been around a good ten, twenty years, too.

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Dillard: Yeah. I tell everybody now when I talk about the good old days was the highlight of the year when I was going to school was getting brand new tubs for the nets. Not computers and GIS equipment and GPS and all that.

25 Corrigan: Just new tubs for the nets?

Dillard: Yeah. (laughs)

Corrigan: So did you enjoy this work? Did you enjoy being outside every day?

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Dillard: Yes I did. Yeah. I'm an outdoors person. And I really did enjoy it.

Corrigan: Now what did you do in the winter?

35 Dillard: In the winter primarily was writing reports and answering general inquiries. And doing the background research in terms of reviewing the literature.

Corrigan: Now what happened to the fish during this time period? Were these shallow or deep pools that you had?

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Dillard: They were deep enough that they could over winter. But we did go out once a week and take readings of oxygen in the ponds, just to see if they were doing okay.

45 Corrigan: Okay. Was that also something you were, you were looking at the stocking methods. But there's other things that play into stocking. There's got to be the size of the pond, there's got to be the depth of it. There's got to be—

Dillard: The time of the year.

Corrigan: Okay. So—

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Dillard: Well, actually, the thing that guided it most, though, was the ability of our hatcheries to produce the fish to give to the farmers. Or to the pond owners. They weren't all farmers. Yeah. You know that program no longer exists?

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Corrigan: The—no, I didn't.

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Dillard: Yeah. They just, they stopped it a couple of years ago. Now I still don't know why they did that. Well, one of the reasons they did is that the aquaculture industry had grown to the point that they felt like they could handle it. And so now they just give some kind of vouchers to the pond owner. And they get their fish from the aquaculturist.

Corrigan: Now did the farmer have to pay for the fish?

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Dillard: No. No, they were free.

Corrigan: They were.

25

Dillard: Yeah. The only thing that they agreed to was allow other people to fish in their ponds.

Corrigan: Okay. So they did have to—

Dillard: Yeah.

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Corrigan: Because these were privately owned ponds, correct?

Dillard: Yes. Yes, they were. Now you have to realize, too, the fish were really quite small when we give them to the pond owners.

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Corrigan: Approximately what size? A couple inches?

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Dillard: Oh, yeah, the bass would probably be maybe two to three inches long. The blue gill, probably two inches. And the catfish, yeah, about the same, I guess. Yeah. Two to three inches long.

Corrigan: So you could give quite a few fish in a small amount of a tank that you delivered to them.

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Dillard: Right. That was another part of it, too, because the pond owner would have to bring not a very large container to get his fish.

Corrigan: So the farmer came to—

Dillard: He came to a distribution point.

5 Corrigan: Okay.

Dillard: And those were all announced in advance, whenever they'd be there to tell them what size of containers to bring.

10 Corrigan: Okay. But they would have to allow people to fish on that.

Dillard: That was part of the deal was that they would allow other people to fish. They didn't have to allow everybody in. But allow a reasonable amount of fishing.

15 Corrigan: Was it a popular program?

Dillard: Oh, yes. Yes. It was one of the earliest programs in the department of conservation, and it worked out really, really well. We started out way back when actually helping people build ponds. And loaning equipment and things like that. Then we got into providing the fish.  
20 So that was sort of our foot in the door, if you might say, with the land owner. While we're talking about fish here, maybe we can talk about enhancing your farm for more wildlife.

Corrigan: So that was another side of it, too? Would that be just you? Or would you bring in fellow conservation—

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Dillard: Yeah. We had a group called field service agents who had broader backgrounds and broader training.

Corrigan: So field service agents.

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Dillard: Yes.

Corrigan: Because I would think there's—you'd still have to look at water quality. You would have to look at, is there, where is this pond in relationship to the farmer's field? If there's runoff chemical problems. Because I would assume that fish aren't all going to grow the same in every pond.  
35

Dillard: No.

40 Corrigan: And so there's more than just stocking it that factors into it.

Dillard: Yes. And not only that, but north Missouri and south Missouri. North Missouri is typically more fertile.

45 Corrigan: Okay.

Dillard: And so the fish up there grow faster. And I think, I believe, even though I'm a little foggy on this. I think we finally adjusted the stocking ratio a little bit to take that into account.

5 Corrigan: To account for that?

**[End Track 2. Begin Track 3.]**

10 Dillard: One of my all time favorite stories working for the department. Of course, one of the things that we also did in the off season was to present workshops on farm pond management. And this was one particular early spring I was going up into northeast Missouri and I noticed as I was going down the road that a lot of farmers were in the field. And I thought, there's not going to be many people at this workshop. And sure enough, it was all the farmers' wives. (laughs) They sent their wives. It was a good turnout. We were going on  
15 pretty good. And we got to the question and answer section and this gal said, "Well, Mr. Dillard," she said, "how about cows in the pond? Is that okay?" And not even thinking, I said, "Well, it depends on which end's in the pond." (laughter) Because one of the big problems is the cow poop in the ponds.

20 Corrigan: Yeah.

Dillard: And not only that, but trampling the banks down and the vegetation around it.

25 Corrigan: Well and this was the '60s. So this was early on. We're still fairly early in conservation in Missouri. It's only been thirty, twenty, thirty years.

Dillard: Yeah.

30 Corrigan: And I'm wondering if programs like this were, you said it was an in to these farmers. You were giving them a little bit for free. But in return, you were hoping that a lot more things were going to change.

Dillard: Right.

35 Corrigan: Because I would imagine every farm you went on to, you might run into a whole slew of problems that the farmer may not even, would be aware of. Where he stores his gas tank. Where he, you know, do the cattle trample the sides of the creek? Is that filling it up?

40 Dillard: If you'd quit plowing the watershed would help. (laughs)

Corrigan: Yeah. If you, do you have a—

Dillard: Or have a buffer of grass.

45 Corrigan: Yeah. Were filter strips common back then? Or was that something new? The idea, I mean.

Dillard: It wasn't brand new. But it was, yeah.

5 Corrigan: Because I would imagine there's a lot of curves or humps to get over with when you try to suggest to a farmer maybe to have a forty foot filter strip on either side of the stream. And to a farmer, or to some people, they're going to say "Well that's, I'm losing, because that could be planted."

10 Dillard: Right. (laughs)

Corrigan: But there's tradeoffs there.

Dillard: Yeah.

15 Corrigan: Your farm well may not be too far from your field—

Dillard: That's right. (laughs)

20 Corrigan: And so if you don't have these filter strips, you're just, you're taking in all these chemicals. Potentially.

Dillard: Right.

25 Corrigan: It depends on how deep your well is. I realize there's other factors. But so this was all kind of a, it was to benefit everybody.

30 Dillard: If they were really into fish populations, though, it was not all that hard to convince them that if their pond was muddy, that the fish wouldn't grow as well. Because everybody in there except the catfish is a site feeder. Plus the fact, muddy ponds are colder on the average throughout the season than clear ponds. The top layer gets really quite warm. But from there on down, it's like maybe ten, fifteen degrees cooler than a clear pond. And that really does affect growth, in and of itself. Not even thinking about the site feeding.

35 Corrigan: Okay. And also, you had mentioned the livestock. Was that common practice that livestock would actually always feed, or drink from ponds?

40 Dillard: I think probably a lot of ponds were built based on providing water for livestock. (laughs) But again, a lot of farmers or pond owners, once you talked to them about it, would actually install a tank down below and fence off an area.

Corrigan: Okay. So people were generally receptive.

45 Dillard: I think so. There were some, you know, obviously that didn't. But I think once you explain to them the benefits of doing it another way. And not only that, but you know, with a buffer strip you have the possibility for quail, rabbits, bullfrogs.

Corrigan: So you might convince them that if you do this, the benefit, okay, yes, you get cleaner water. But do you enjoy hunting?

Dillard: That's right.

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Corrigan: Do you enjoy outdoor activities? Do you enjoy to fish?

Dillard: Yeah.

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Corrigan: Here's your off time when you're not out in the field. Okay. So you did that for a few years.

Dillard: Yeah. I did that, I did that for, what, four years, I believe it was. I started as a, let's see, yeah, I was a research biologist from '65 to '69.

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Corrigan: And then you started as a fisheries extension biologist.

Dillard: Right.

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Corrigan: Could you just—

Dillard: Oh, one other thing. One of the things I did do that I was proud of was in those early years is I initiated a multi-state organization which was composed of US Fish and Wildlife service people, state entities to consider farm ponds throughout—

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**[End Track 3. Begin Track 4.]**

Dillard: —the Midwestern United States. I thought collectively we could do a better job if we met. And I think it still exists. It was called the Central States Pond Management Work Group.

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Corrigan: Central States—

Dillard: Central States Pond Management Work Group. Yeah, you know, I'm basically a shy and introverted person. But for some reason, when I took that job, I really just did get connected. I just really got excited about what I was doing and I wanted to communicate with other people what I was doing and find out what they were doing.

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Corrigan: Can you say it one more time? Central States Pond Management—

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Dillard: Work Group.

Corrigan: Work Group. Okay.

45

Dillard: And then one day I got a phone call from the central office, from the division chief. And he said, "Joe," he said, "would you consider coming down and helping us out?" (laughs)

Corrigan: And by coming down you mean to—

Dillard: To Jeff City.

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Corrigan: Jeff City. Okay.

Dillard: And I was setting up there at 903 Elm Street, minding my own business. So I said, “Well,” I said, his name was Chuck Purkett. I said, “Mr. Purkett, give me a little time to think about that.” “Okay,” he said. So I hung up. And I kind of reared back in my chair and I said, “Okay, I can stay here and become the world’s best pond biologist. Or I can go to Jeff City and just fail miserably.” (laughs) Because he really didn’t articulate what it was they wanted to do. So I don’t know. I said, okay, I’ve just got to give this a shot. So I called him back a day or so later and said, “Yeah, I’d like to come out and try that out.” Well, what I found out later was what they did. It was a fairly small staff at that time. They went down to each person’s office and said, “What is it you really don’t like to do?” And that was my job. (laughs) When I first got down there, it wasn’t even titled. I don’t think they titled it until after I left. And then they called it the fisheries extension biologist.

20 Corrigan: So it was a new position.

Dillard: It was a brand new position.

Corrigan: So they weren’t replacing somebody.

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Dillard: No.

Corrigan: This was a new position.

30 Dillard: They needed more help. And a major part of my job there was to answer general inquiries, because there are a lot of letters coming in.

Corrigan: More letters than phone calls?

35 Dillard: There was a lot of each, really.

Corrigan: Okay.

Dillard: Yeah.

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Corrigan: You said Chuck Purkett. Do you know, is that P-e-r-k-e-t?

Dillard: P-u-r-k-e-t-t.

45 Corrigan: So P-u-r-k-e-t-t. Chuck Purkett. Okay. So—

Dillard: And like I said there, the duties were really quite varied. Well, for instance, write, arrange for publication and distribute to users, fisheries, management leaflets. Participate in fisheries management problem analysis and fisheries management planning and development. Review and comment upon environmental impact statements. Develop better  
5 communication between the public and division of fisheries by arranging for newspaper and magazine articles and TV shows. Prepare a special report, speeches, posters, information guides and assistance answering both oral and written inquiries about fishing, water pollution, fish kills, fish disease and fisheries management.

10 Corrigan: It seems like a lot of these would be less out in the field and more communications, PR. More working with individuals than out in, is that correct?

Dillard: Oh, yeah.

15 Corrigan: Did you, now you mentioned you were shy and things beforehand. Did you jump right into this?

Dillard: Oh, yeah! I kind of blossomed right into it.

20 Corrigan: So this is a big turnaround from high school, you had said you were—

Dillard: Yes, yes. Quite a bit.

25 Corrigan: So that time period in college and that, you just flourished. Because that's, that's very different than going and checking ponds and working with a few individuals.

Dillard: Right.

30 Corrigan: Versus sitting at a desk and you don't know what the call's going to be. You don't know what the question's going to be. Did you find it challenging?

35 Dillard: Very challenging. Yeah. And that's one of the things, I guess, that kind of stayed with me the rest of my working career, even to date, is looking for the challenges. And I don't know, I early on developed a really good sense for nosing out what I consider very good projects and getting involved in them. Matter of fact, I was in Jeff City two years and one of the guys that was in the same office I was he says, "You're an expediter." He says, "That's your main bag is expediting things. Cause them to happen." And that's the way that plant book was. I didn't write that book. I just caused it to happen. I found a person that could write it. And a person that could do the illustrations and worked with the people who did the  
40 publication. And got it to happen. (laughs) That's the same way with the paddlefish book.

Corrigan: Yeah. And we'll get to that one.

**[End Track 4. Begin Track 5.]**

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Corrigan: The same year when you took this job in 1969, that's also when you came out with this booklet here, the evaluation of two stocking methods for Missouri farm ponds. Now I asked you prior to starting this interview, but this was kind of your first big publication out of grad school. Is that correct?

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Dillard: Right.

Corrigan: And this took a couple of years to put together. So this hadn't been done before. I mean, there were these different methods. But there was, you needed the research behind this to say yes, this is what—

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Dillard: Yes. That's what we need to do. Yeah. And you know, the neat part about that is that Werner Nagel, who had worked for the department forever, basically, helped me edit that. Which I count myself really lucky for having a chance to work with him a little bit.

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Corrigan: Now I see the cover here is a picture by Charlie Schwartz.

Dillard: Yes.

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Corrigan: Did he do this for this publication? Or did he do a lot of like stock pictures that were just used or pulled? Do you know?

Dillard: I think this, this has been used before.

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Corrigan: Okay. So this image had been pulled and used before.

Dillard: Yeah. And I imagine Werner Nagel would be my guess as the reason that that's on there. (laughs) I mean, I knew who Charlie Schwartz was at that time, but I'm not so sure that I knew him that well.

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Corrigan: Okay. And you did that publication along with Max Hamilton.

Dillard: Yeah.

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Corrigan: And you said he's since passed.

Dillard: Right. And that was a real interesting story, too, because Max Hamilton worked for the soil conservation service. And they were not really allowed to do research. But he did partner with me on this and help me get it finished. I can't remember what we called it now, but we didn't call it research. Probably an evaluation or something. (laughs) Some other term.

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Corrigan: Some other term to get around that term.

Dillard: And one of the other things that I did, I always kind of did things in transition. I did that basically after I went to Jeff City, or as I was going. And then when I came back to Columbia, I was in transition again. That's when I redid the Missouri pond handbook.

5 Corrigan: And is that when you, so I have you in 1972, you came back to Columbia.

Dillard: Right.

Corrigan: And then that was for fisheries research superintendent.

10

Dillard: Right. What happened was the person that was in charge of research when I started to work wanted to retire. And he announced his retirement one day. And the next morning at 7:58 and three-quarters, I was in Mr. Purkett's office. And he said, "I kind of expected you to be here." (laughs) I said, "I'd like to apply for that job." And I was really quite surprised because, let's see, what would that have been? I was a fisheries biologist basically four years. And I was down there three years. So I was only like seven years into my career. And to be considered for the chief of research was really something else. Because we had a lot of research biologists. There were fourteen research biologists at that time. And some of them had at least twenty years in. Or maybe twenty-five. And of course several of them applied for it. And they did give it to me. And looking back, I don't know whether they really thought I could do a good job or they just wanted to get me out of the central office. (laughs)

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Corrigan: So that required you to come back to Columbia here. So you no longer had that commute.

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Dillard: No, that's true. That was a good thing. Because back in those days, they only had one bridge.

Corrigan: And [Highway] 63. Was that four lanes?

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Dillard: Oh, no.

Corrigan: No?

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Dillard: Oh, no, no, no.

Corrigan: So we're talking a two-lane road?

Dillard: It was a horrible thing. Yeah.

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Corrigan: So that was a dreaded commute than it would be today.

Dillard: Oh, gosh, yeah. And not only that, but the research section had moved out of 903 Elm Street. And we're actually housed in the lower part of Parkade Plaza shopping center.

45

But by the time I got back as chief of research, they had the new building at the end of College Avenue over there. So when I came back, it was basically a new building.

Corrigan: Okay. And can you describe what did the fisheries research superintendent do?

Dillard: Well, let me check my notes.

5

Corrigan: Because you've said the word "chief" twice. Did they change the title in between?

Dillard: No. That name, I think people understand "chief" better than they do "superintendent." That sounds like schools. But no, the title has changed several times. But it was fisheries research superintendent.

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**[End Track 5. Begin Track 6.]**

Corrigan: That's what I have down. Fisheries research superintendent.

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Dillard: That was the official title at that time.

Corrigan: So this was a big step up.

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Dillard: This was a major step up.

Corrigan: In a short period of time, because—

Dillard: Well for instance, I was in charge of about thirty permanent positions. And there was twenty professionals. Seventeen had master's degree and three had PhDs. And of course at least one of those, if maybe not two of them, applied for the job. And weren't happy they didn't get it.

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Corrigan: Did that make it difficult?

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Dillard: Well, no. Not really. The only, sort of difficult thing, I guess, or unwieldy, awkward would be a good term, was that the person who had been in charge, he didn't leave the building right away. He just stepped down. And he spent two more years there kind of finishing up projects and reports.

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Corrigan: So he was more semi-retired.

Dillard: Yeah. And what would happen, of course, people would come and ask my opinion about something. Then they'd go ask him. (laughs) And of course quite frequently they didn't jibe at all. We were quite different. But it was a little awkward. But no, the person, I think, that took it the hardest, I made it my position to communicate with him a little more frequently than some of the rest about what was going on. And I think I would share with him some of the problems that I was faced with. And I think it wasn't too long before I think he realized, "Boy, I'm sure glad I didn't get it", because he was a premier scientist. He just was not an administrator.

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Corrigan: And there is a difference. It may be a—

Dillard: There is a big difference.

5 Corrigan: There may be a jump in pay and position. But, you hear that a lot with sometimes, I'm thinking of, you made the school analogy before. I'm thinking of sometimes you get the teacher who becomes the assistant principal or principal and quickly learns that they miss teaching. Or they wanted—

10 Dillard: Right. Yeah.

Corrigan: That can't happen if, premier researcher it's very different when you're no longer, I would guess, for some, you made that comment that you may have had those same opinions. Like, "Oh, I'm no longer in doing the work. I'm just administrating other people's work." Did you mind the administration work?

Dillard: Oh, no. No. I welcomed it. The, well, there was three people in the lab making more than I was, so the pay was not really that much of an issue.

20 Corrigan: But it was a step up for you from your previous job.

Dillard: Oh, yeah. It was a step up. But it was several years before I was quote, "the highest paid person in the lab." Yeah, I don't know, I just always looked forward to a challenge and accepted it. I had, the thing I did do was I took advantage of every workshop that they had on professional development. And if you'll check my record, I've got a long record of attending workshops. And we had a human resources person who was in charge that was really gung-  
ho about developing young people.

30 Corrigan: And is that something you encouraged as an administrator?

Dillard: Oh, yes.

Corrigan: Whether the research scientist, everybody that was underneath you that—

35 Dillard: Would attend the one that would help them the most. No, I didn't push people who I didn't think or they didn't want to become administrators into that track.

Corrigan: But if somebody had an interest, if somebody had a—I'd like to see what they're doing there, you encouraged professional development.

40 Dillard: Oh, yes. And not only that, but I did encourage people to get into administration if they really wanted to. Yeah, I mentored several people and was quite proud of them. Matter of fact, one guy is a division chief right now. And I encouraged him a lot because I just saw the potential he had. And he was leaning that direction anyway.

45 Corrigan: Okay.

Dillard: And I just look back and am just amazed, almost, at the faith those people had in me at that time. Because I was just really a junior biologist. I was only in the field four years, for crying out loud. (laughs) But I guess they saw a potential and it worked out quite well. I did that for nine years. And I felt really good. Let's see. Let's look at a few of the accomplishments here. Where did they go? (laughs)

Corrigan: Well, which ones stick out in your mind the most, what you did there?

10 Dillard: Well, I—

**[End Track 6. Begin Track 7]**

15 Dillard: —think the one that stick out in my mind the best is, well, two things. First of all, I got the scientists there, the biologists, to do more publication outside of just their final reports. The other thing that I did was reduce turnover. I think that the former superintendent was kind of a taskmaster and I think he just ran a lot of people off. They just didn't want to stay around.

20 Corrigan: Now why did you pick publication? Did you think that would build the individuals themselves up, too? Or were you trying to build the department up?

25 Dillard: Well, it was, I thought it was important. We were basically being paid to do a job. And the final part of our job was to let everybody know what we found out. In other words—and that's, when I retired in 1998, that was my mantra is I'm going to continue to try to make the information available that we have so everybody can have access to it. And that's one of the reasons I got into that, went back and started working on a temporary basis to do that database of our past reports and publications.

30 Corrigan: Do you think that was that missing beforehand, the final follow-through with the publications? Or?

35 Dillard: There just was not an expectation. An individual biologist might do it just because they wanted to build their resume and felt the obligation to do it. But it didn't take that much to get—

Corrigan: Just that knowing that—

40 Dillard: It's expected.

Corrigan: My administrator encourages it, and I can do it.

45 Dillard: It's a good idea and how can I help you? Help you edit it and help you find an outlet for it. That is so important. The Missouri Chapter of the American Fisheries Society right now is not doing too well. And my take on it is that the expectation is not there in the Department of Conservation. Of course probably eighty, ninety percent of the members of

the Missouri chapter of the American Fisheries Society work for the department. And when I was coming through, that was an expectation. Almost mandatory. Not quite, but almost. We really expect you to belong to a professional society.

5 Corrigan: Okay. It seems like you were definitely on a bigger picture track where you saw professional development, you saw publications. You saw, and all of these little extra things can really fully more develop a department, a team of individuals, a—

10 Dillard: And do a better job. Well, I had worked for this other guy. And he really almost had some of the same ideals but his delivery system was really poor. That's the only way to put it. He just turned people off. And they just, you know.

15 Corrigan: So it was more execution, not necessarily a willing, it wasn't that he was against it.

Dillard: No. No, he was really for it. But he just didn't know how to cause it to happen. It was amazing how it turned around pretty quick, too.

20 Corrigan: And you did that for nine years. Because I have you moving to, in 1981, to senior fisheries research biologist. Now that, going by the title, is that still administration or not? It seems like it would be back in doing research.

Dillard: Let me tell you about that. (laughs)

25 Corrigan: Okay.

30 Dillard: That's another interesting story. Yeah. I did that, was in charge of research for nine years and very proud of what I accomplished. But I had that feeling that I needed to do something else. I said to myself, "Now I can stay here the rest of my career as my predecessor had." He was in the job twenty-some years. And that was probably ten years too long. I said, "Well, maybe what I'd like to do is to get more active in the American Fisheries Society, for one thing. And just try to do something else. See if I can fail at that." (laughs) And I think I was hitting a midlife crisis about that time. And I thought well, rather than changing wives, I'll just change jobs. So I asked for a voluntary demotion. Don't think  
35 anyone had ever done that before. And poor old Mr. Purkett. He didn't know what to do. (laughs) It was really kind of funny. I'll never forget one of the final meetings that we had was down in his office with the assistant chief. And we were all sitting around and talking about it—

40 **[End Track 7. Begin Track 8]**

Dillard: —this needing to make a change. And asking for a voluntary demotion. And it got pretty quiet. And I finally just got a little bit irritated, and I said, "You mean I'm going to have to leave this blankety-blank outfit to get out of that job?" And then it got quiet again.  
45 And the assistant chief said, "Well, you know what we can do? We'll just create a position

for him. That will get him out of there. Then we can rehire.” And that, the little light bulb went on and that was the senior fisheries research biologist.

5 Corrigan: So another position that didn’t exist before—

Dillard: Oh, no, it did exist.

Corrigan: Oh, it did.

10 Dillard: It did exist. Yeah. No, at that time, we had a career ladder which no longer exists, which is unfortunate. You come in as a fisheries biologist and then you went to a, I can’t remember what the second level was. But the final level was a senior fisheries biologist.

15 Corrigan: So the title was there before.

Dillard: The title was there.

20 Corrigan: There just wasn’t—you weren’t replacing somebody, they created a, added a position for you.

Dillard: Right.

Corrigan: Okay. And they filled your position—

25 Dillard: From within.

Corrigan: Okay.

30 Dillard: Which was really neat. Because the guy that’s quote “the main author” of the [aquatic] plant book, Jim Whitley, he’s died, by the way. I was his boss for nine years. He was one of the PhDs, by the way. And he’s the only genius I’ve ever known. Absolute genius. He had a PhD in biochemistry. He could have tripled his salary. He could have quadrupled his salary anywhere. But he was so much in favor of conservation, he decided to work for us. So I was his boss for nine years. Then he became my boss for nine years.  
35 (laughs)

Corrigan: And can you, do you know how to spell his last name?

40 Dillard: It’s W-h-i-t-l-e-y. It sounds like Whitly, but he pronounced it Whitely.

Corrigan: Okay. I saw, I’ve seen his name in the book but I wasn’t, that’s not how I would have pronounced it.

45 Dillard: Yeah.

Corrigan: So that’s why I had to ask there. So you basically switched roles.

Dillard: Yeah. See, when I was his boss, one of his jobs was to write that plant book. And he was not getting it done. And I was on his back all the time. “Jim, you’ve got to get the plant book done.” So finally I said, “Why don’t you just, we’ll set up an office and you can go in there half a day each week or half a day once a month or something, get that book done.”  
5 Never did get it done. So when we switched jobs, we go down to his office one morning and I said, “Hey, Jim, how about I write your plant book?” He said, “You’re not going to write my plant book.” I said, “That’s right. We’re going to write your plant book.” (laughs) So then he put me in charge of the project and that’s when we got it done.

10

Corrigan: Okay. Now, there’s another transition here, too. In 1983 to ’85 you were an extension fisheries specialist [for the University of Missouri]. This was like two—it wasn’t a completely separate job, right? If I remember you telling me earlier. It was actually like you were doing half one job or half—

15

Dillard: Yeah. One of the things that—of course, I was always interested in the aquaculture industry and trying to help them out any way I could. And came over and talked to the person that was the extension forester at the University of Missouri. And we agreed that they probably could use an extension fisheries person because they’d never had one. And so we worked up a little contract and submitted it to the Department [of Conservation] that I would work half time for the university and they would pay for half of my time. And then I went down to, basically went down to Jeff City, wrote a letter back to the university, yeah, that would be okay. And come back up, wrote a letter back—(laughs) I did all the paper work. But yeah, I worked half time. Which turned out to be two fulltime jobs. Yeah. But I did have an office over in the Ag. building.

25

Corrigan: Okay. And what did you do? What was the half time job at the university?

Dillard: It was a lot of the same kind of stuff that I had done for the department in extension work. Answering phone calls and writing leaflets. But the main focus of the project was developing a 4-H project. Raising catfish in floating cages. Because of my work with the American Fisheries Society, I had traveled quite a little bit and made a lot of contacts in Washington. I knew this guy in the fish and wildlife service that had a little drawer of money that he could pass out small contracts. And, or grants, I guess you’d call them. So I contacted him and said, “We’d like to do this 4-H project.” So we got a \$10,000 grant to do that. And so we put together a leaders’ guide and then a participants’ workbook on how to build and use—

30

35

**[End Track 8. Begin Track 9.]**

40

Dillard: —floating cages to raise catfish.

Corrigan: Now this was a how-to 4-H youth guide. It was called “Raising Catfish in Floating Cages.”

45

Dillard: Yes.

Corrigan: And you wrote that in 1985 with Barbara Bassett?

Dillard: Right.

5

Corrigan: Is that correct?

Dillard: Yes.

10

Corrigan: Did you have much involvement with 4-H before that?

Dillard: No. Just when I was in the Liberty 4-H in Chillicothe. Or Blue Mound, actually. I lived in Blue Mound at that time. But I had strong feelings for it.

15

Corrigan: Okay. So how was, was it just creating the guide? Did you already know what needed to be in there? Or was this tailoring it down to a child, though?

20

Dillard: Yeah. It was fairly new at that time, doing that. And we had a person that worked for the department of conservation. And actually went into the business. So he helped out a lot. But no, one of the things that we did do, one of the first things we did was go ahead and build some cages and raise some catfish one summer to just get a better handle on how it worked. But the guide started out by talking about the kind of pond you needed, how to build the cage, how to feed the fish, how much to feed the fish, and then we had a section on how to prepare the fish either for the table or for the market. So it was a complete guide.

25

Corrigan: Was there a lot of interest in this?

30

Dillard: There was a lot of interest, but the project never really got off the ground. And what we found out later, unlike many projects in 4-H who have leaders that know a lot about raising beef or raising chickens or sheep, there weren't enough people that knew anything about raising fish in any way. And we tried to really enlist more the aquaculture community into doing that. But it just never did get off the ground. And I don't know, there were some completed projects. But I'm not sure they're still doing it.

35

Corrigan: Because aquaculture itself was still fairly early on.

Dillard: Right.

40

Corrigan: This was the '80s. But it wasn't a, it was still a small sector in Missouri, correct?

Dillard: Right.

45

Corrigan: So that's what you did there. So you did those two half time jobs. Now during the same time period, though, switching just a little bit here, you convened a, if you want to call it a conference, a discussion, a working group, on the paddlefish. And eventually a publication came out of it, *The Paddlefish: Status, Management and Propagation*. But this

was held alongside the 45<sup>th</sup> Midwest Fish & Wildlife Conference in Saint Louis, Missouri. 1983. December 6th. Before we get into that, though, what can you tell me about the paddlefish? Did you have an interest in this? Or was this somewhere where this is a project assigned to you? Could you just talk a little bit about the paddlefish in general?

5

Dillard: Well, that was another accomplishment, I guess, when I was in charge of research. Mr. Purkett, who was fisheries chief, was the first person to discover paddlefish eggs in the wild. And that was probably back in late '50s, early '60s, I guess. So we knew where they laid their eggs. All of a sudden, it became more and more obvious they were going to build a dam that would block the stream where those, where he found those eggs.

10

Corrigan: So this was the Truman Dam we're talking about.

Dillard: Right.

15

Corrigan: And did he find it in the Osage River?

Dillard: Yes.

20

Corrigan: Okay.

Dillard: That's when the light went on. We're going to have to do something. Because paddlefish need moving water to lay their eggs.

25

Corrigan: Now was the paddlefish, was that a common species in Missouri? Was it found everywhere?

Dillard: No. It's a big river fish. But basically Missouri River and Mississippi River.

30

Corrigan: Was it a popular fish in Missouri? Did people like to fish it?

Dillard: It was too popular. (laughs) There were two threats to the paddlefish in Missouri. One was the dam and the other was the overharvest because of fishing them or killing them for caviar.

35

Corrigan: Oh. So that's what some of it was used for.

Dillard: Yes.

40

Corrigan: Okay.

Dillard: But when it became more and more obvious that the dam was going to be built, we said, we are going to have to do something—

45

**[End Track 9. Begin Track 10.]**

Dillard: —to make sure the paddlefish fishery survives down there. Because it's a very popular fishery.

5 Corrigan: And prior to this, though, nobody knew where they were actually spawning.

Dillard: Right. They weren't sure.

Corrigan: Okay. So that was Mr. Purkett who did that?

10 Dillard: Yes. So what we did was we contacted the Corps of Engineers who were going to be responsible for the dam and said, "We need some money to do some paddlefish research." And I think we, I think we wound up getting, I want to say \$300,000. I'm not sure. It was a big contract. But I'll never forget it because Tom Russell, who was in charge of our stream, or doing stream research at the time, and Kim Graham, who had taken my position as pond  
15 biologist, we had a meeting in my house one Sunday afternoon. And basically that was to convince Kim to switch from ponds to paddlefish. And he was delighted to do it. And that's when we started our paddlefish research. Which was a basis for a lot of this book.

20 Corrigan: Okay. Now the paddlefish themselves, they're an interesting fish.

Dillard: Very interesting.

Corrigan: Because they don't have bones.

25 Dillard: No. (laughs)

Corrigan: They're—it's basically just cartilage, isn't it?

30 Dillard: Yes. It's just cartilage.

Corrigan: They're pretty primitive fish.

Dillard: Yes.

35 Corrigan: Okay. Was their popularity more for caviar? Or was it a fish that people enjoyed to eat in Missouri? Or was it, what was it?

40 Dillard: I think, it's hard to say which was, they were a very popular fish, because the fishery is primarily in the spring when they're coming up the river to spawn. And they catch them mostly by snagging, because they don't bite on a hook. The basic way to catch them is when they're coming up the river to spawn, you just go out in a boat with a big heavy rod and reel, a heavy line, and put a big heavy weight on the end with a treble hook. And you just cast it out and pull it back by jerking it. And if you snag into one of them, then the fight is on.

45 Corrigan: Okay. So you had to snag them.

Dillard: And they're good to eat, too.

Corrigan: But you have to snag them.

5 Dillard: You have to snag them, yeah. The caviar industry was primarily in the Mississippi River.

Corrigan: Okay.

10 Dillard: So there wasn't that much of that going on down on the Osage River.

Corrigan: Definitely a different type of fishing method.

15 Dillard: Yes. Completely different. Because the paddlefish, you know, the way they feed is they have a great big old mouth and they just drop it down and go through the water. And basically they collect food items on their gill filaments.

Corrigan: So you just kind of have to be at the right place at the right time to get that weight and get that hook into them.

20

Dillard: Right. Occasionally one will be caught on a hook, but I think it's kind of accidental. The problem is the paddlefish go around feeding and just kind of moved over that hook.

Corrigan: So the species could have been annihilated, right, without this, in the Osage?

25

30 Dillard: That population probably would have been annihilated, yes. And the key element there was we had to find out how to reproduce those in case that happened. And that turned out to be a real chore, trying to get them to spawn. And we finally found a scientist out in California that showed us how to inject hormones into the female paddlefish so they release most of the eggs all at once. Other than that you would, we could get the female paddlefish, but they just release (clearing throat) excuse me, just a few eggs at a time. And that was not good for mass production. But with the hormone injections, then we could get them to release most of their eggs, which then we could raise in the hatchery. Of course, then it became a chore of what are we going to feed these rascals because they're totally different feeders than all of the other fish that we feed.

35

Corrigan: What do they feed on?

40 Dillard: The paddlefish feed primarily on plankton. So we had to figure out how to make good plankton blooms in the ponds. Other fish you just feed them processed food. But we were able to overcome that, too. It was a real interesting project, to say the least. And that was the key point. And we are still raising paddlefish.

45 Corrigan: For that very purpose, still, because of the dam. Because the dam was built—

Dillard: What we did is was we took a lot of the early paddlefish down to Table Rock and actually established a population down there in the stream above Table Rock.

**[End Track 10. Begin Track 11.]**

5

Corrigan: So then the only way that population is still surviving today is because of, right, because they're not spawning because of the dam? So there still is that need for the department to continue to raise these.

10

Dillard: Right. Well, I think the truth is, the population would still exist below the dam, but definitely would not exist above the dam.

15

Corrigan: Okay. Okay. So was there a good reception towards this? Was the Army Corps of Engineers, were they receptive to, you know, this fish? Or was it just a burdensome, like we just want to build the dam?

20

Dillard: (laughs) I think, it was really funny. Like I said, I think it was, I don't know how much money. It was a lot of money, I know that. I think the bottom line was they could care less. And I tell you why, because we went over one snowy winter day, it was just a blinding blizzard for a little report on how we were doing. And it was three or four of us went over. And we went in there and they either had forgotten the meeting or something. They finally wound up scrounging up a couple of guys to come and listen to us who were kind of looking out the window the whole time at the snow. (laughs) I think they could have cared less, personally. It was a nuisance. Yeah, they wanted to build a dam. But I don't want to be too critical, because they were able to fund the research and we were able to solve the problem, and that's the main thing. But that's the reason we had the, we wanted to capture everything that was known about the paddlefish. And that's one of the reasons we had the symposium.

25

30

Corrigan: And you did get this publication out of it.

Dillard: Yes.

35

Corrigan: This is the North Central Division American Fisheries Society Special Publication Number 7.

Dillard: Yeah.

40

Corrigan: August, 1986. And it's basically a compilation of everything that was at that symposium, correct?

Dillard: Right. And we had then had divided it into various chapters and invited the other paddlefish experts. By the way, this is the map at that time of distribution of the paddlefish.

45

Corrigan: Okay. Yeah, in the front cover there.

Dillard: Yeah. Which is basically the big river systems of the United States.

Corrigan: The Midwest.

5 Dillard: Mid, middle part of the United States. And you know, one of the unique characteristics of this thing is that Kim Graham, who was a paddlefish researcher, did an exhaustive literature review. So he prepared the bibliography, which I think had, at that time, 555 references of paddlefish research.

10 Corrigan: So quite an extensive bibliography. Now can I ask you a question about, since you're a fisheries and a water man, what was your opinion of the dam being built in the first place? Are you for dams? Against them? Do you—

15 Dillard: Primarily against, I guess. Not as rabid as some people. Yeah. That's one thing, it depends a little bit on the purpose. Well, let me back up. When the Good Lord made watersheds, he made them for a purpose. And that was to bring water downhill. Let's take the Missouri River, for instance. The flood plain is there for a purpose. That's when the river comes out it can spread out across that flood plain and then go down. And when we build dams to control floods, then all we're doing is just control flooding. And particularly when you build levee systems, that just causes the problem to get worse and worse and worse. And my belief is that we, maybe it's for power production. I find that maybe better to accept than for quote "flood control," because it usually just doesn't work in the long haul.

25 Corrigan: So you draw a distinction there. So if you're going to get hydroelectricity from it, there can be a purpose for it? It's better than, what you're saying is it's better than—

Dillard: Yeah, right.

Corrigan: —flood control. Because you're saying overall, it doesn't really control anything.

30 Dillard: No.

**[End Track 11. Begin Track 12.]**

35 Dillard: Not down the long haul.

Corrigan: So the levee systems, they're keeping water out but they're also concentrating that water just causing the problem to go further—

40 Dillard: It's got to go someplace. Yeah. Yeah. When you play God, you've got to get it right. (laughs)

Corrigan: So in this case, the Truman Dam, you would say you were against at this time.

45 Dillard: Yeah. Well, you know, it allows people, like Cedar City, north of Jeff City, were you aware, that used to be a town there. And those people were living in the flood plain. It

would flood and we taxpayers would put them back. And it would flood again. You know, it's stupid. (laughs) Live up on the hill! Stay out of the flood plain.

5 Corrigan: And there's a lot of flooding going on now.

Dillard: Right.

10 Corrigan: There's been quite a bit of winter thaw this year. So there's been a lot of flooding. And in this case, a couple of months ago, they did have to blow up the levees along the Mississippi to actually put the flood plain back in use.

Dillard: Right. (laughs)

15 Corrigan: Okay, I was just curious about your opinions on dams. So in general, you're not for them.

Dillard: Yeah.

20 Corrigan: But if there is going to be one, you want it to be producing something.

Dillard: Right.

25 Corrigan: Okay. Is there anything else you want to say about the paddlefish? Because I was going to switch a little bit to still aquaculture fish farming but, but you think it was a successful project overall? Still going on. The paddlefish are still thriving in Missouri?

30 Dillard: Right. No, I can't think of anything else offhand. But it was, it was quite an undertaking to do all that and to get it published. But that was, again, we had a lot of support from our top level administration for that. Because it was a real good accomplishment and had information a lot of other people could use throughout the range of the paddlefish. One of the things that, two things that I wanted to lift up, too, about when I was a senior fisheries research biologist, I coordinated the production and served as the technical editor of a publication entitled *Fisheries at 50: Selected Accomplishments of the Division of Fisheries, 1937 to 1987*. And that was another one of those kind of nose it out, that's a good project, we need to do it. And basically got the people to write the sections and put it together. The other thing that I did, I just decided that the division needed more in-house communication. So I kept badgering the then division chief was Jim Fry. He had taken over for Mr. Purkett. Well, Jim didn't like to write. And he was afraid he was going to have to write this thing. But after a couple of years of badgering, I finally got him to agree to let me put together a division in-house newsletter called "The Aquagram."

35 Corrigan: Aquagram?

40 Dillard: Aquagram. And it still exists, believe it or not. It comes out once a month. (laughs)

45 Corrigan: Was it one word, Aquagram?

5 Dillard: Yup. I tried to get the wildlife people to go in together with us and call it Surf and Turf, but—(laughter) By the way, we did, also when I was a fisheries research, senior fisheries research biologist, we started a newsletter for the lab. And it was across lines both fish and wildlife. And so, this was another deal with Barb Bassett. (laughs) And we called it “The Tracker.”

Corrigan: The Tracker?

10 Dillard: The Tracker. We put out two issues. And we got a letter from Bass Pro, from their lawyer, that you will cease and desist calling your newsletter “The Tracker,” because that was the name of one of their boats. And you talk about pissed off. I was just incensed! I wanted to write back to the guy and say, “What are you talking about? We’ve got a distribution list of probably less than 300 people. Like we’re a threat to you guys?”

15 Corrigan: Because this was an internal—

20 Dillard: Internal. Well, no, it wasn’t internal. What we did is we let people know that if they wanted to be put on the mailing list, we’d put them on. And we had, like I said, two or three hundred people around the state. Various, all the way from just folks to other scientists to whomever. And it was a popularized version of the research that was going on.

Corrigan: And this was in the ‘80s, right?

25 Dillard: Yeah.

Corrigan: Okay. So you, now, because I would, did you have a—

**[End Track 12. Begin Track 13.]**

30 Corrigan: —favorable opinion of Bass Pro before that?

35 Dillard: Oh, I still do. It’s just that some lawyer got probably \$10,000 to write that letter to us. And of course what my boss said, “Oh, no, we have to stop that. We’ll just change it. We’ll just stop it.” I said, “We’ll change the name.” We changed the name and then it didn’t last much more than a couple three years. (laughs) But it was just kind of one of those things that happened to you. (laughs)

40 Corrigan: Now could you tell me about the Missouri Aquacultural Advisory Council? MAAC, I guess it was called? Because right around this time period in 1984, you helped, so I guess the year after you convened the paddlefish, you helped convene Missouri’s first ever fish farming day.

45 Dillard: Yeah. I don't know when the MAAC was formed. It was formed sometime later after that. I think the, that fish farming conference that we had was—well, let me back up just a bit. We had one aquaculturist, namely James Kahrs, Jim Kahrs.

Corrigan: Jim Kahrs?

5 Dillard: Kahrs. K-a-h-r-s. Who was probably the first real aquaculturist, private  
aquaculturist, in the state of Missouri. And his—well, no, let me back up further. There was  
a, there is a goldfish farm which was probably the first. Off to the, a little bit south and east  
of Lake of the Ozarks.

10 Corrigan: At this time there was a goldfish farm?

Dillard: Yes.

Corrigan: Okay.

15 Dillard: And it still exists. And they raise jillions of goldfish. It's a real going concern and  
has been for a long time. But Jim Kahrs figured out how to raise catfish. And his business is  
right there at Lake of the Ozarks. And he would come to our Missouri chapter of the  
American Fishery Society meetings and to represent the aquaculture industry. And so that's  
20 kind of how we got into this Missouri fish farming conference. We wanted to highlight what  
was going on and let other people know the status of the industry.

Corrigan: Is his business still going?

Dillard: Yes.

25

Corrigan: Is he still around?

Dillard: No. He's passed away.

30 Corrigan: Okay. But the goldfish business is still going.

Dillard: Yeah.

35 Corrigan: Good. And you said that's a growing concern. Is that what you said? Did I hear  
you correct about the fish, the goldfish?

Dillard: Going. Going.

40 Corrigan: Oh. Okay.

Dillard: A going concern. Yeah, they're still selling a lot of goldfish.

Corrigan: Oh. Got you. Sorry about that.

45 Dillard: I think the goldfish market is okay, I think.

Corrigan: Okay. So there was a need for a fish farming day in Missouri.

Dillard: Right.

5 Corrigan: And why was that? Because I read somewhere that you said that the biggest problem with the fish farming industry in Missouri was that there was no recognition.

Dillard: Nobody knew about them. Yeah. (laughs) They were just kind of getting their act together. The conference was sort of the beginning part. And then I guess, wasn't it about the  
10 same time I was working for the university?

Corrigan: It was, yeah.

Dillard: So then we started the fish farming day, yeah.  
15

Corrigan: Fish farming day was February 8, 1984. And I have down that you worked at the university part time in '83 through '85. So it's right in the middle of that.

Dillard: Right.  
20

Corrigan: So was it literally only at that time period the industry, really just a couple of individuals?

Dillard: There weren't very many. There were a lot of fee fishing lakes. And a few people  
25 that were raising like bait fish. But very few that was raising fish for stocking ponds or for sale as food.

Corrigan: But you saw a potential there. That Missouri should be more recognized.

Dillard: Yeah. There was no reason not to. And I think, you know, the culture of catfish was  
30 really coming on. It started, of course, further down south where they had a longer growing season. That was always our problem here and it still remains our problem is it's hard to get a finished product out in one growing season. Starting from small fish. See, that's the ticket to cage culture and the secret to cage culture is you start with probably about a six to eight-inch  
35 fingerling. And then you can get a, oh, probably fifteen, sixteen ounce fish by fall. You stock them about May 10 and harvest by October the tenth.

Corrigan: This is all catfish.

Dillard: Yeah. We're just talking about catfish here.  
40

Corrigan: And they have a fairly good growing ratio, correct? Feed to—

Dillard: Good conversion rate. Yes.  
45

Corrigan: Is it a one-to-one? Or is it pretty close?

Dillard: No, it wouldn't be a one-to-one, I don't think. But it's better than, you know—

**[End Track 13. Begin Track 14.]**

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Dillard: —beef and things like that which is one-to-five or whatever.

Corrigan: Yeah. Or beef is probably even one to ten.

10

Dillard: Right.

Corrigan: Because I know some fish is, tilapia and that—

15

Dillard: Of course, one of the big problems in aquaculture at that time, and probably still today, is veterinarians didn't know anything about fish diseases. And they get diseases. Even sunburn. (laughs)

Corrigan: How do you think the, or how is the aquaculture industry in Missouri now? Is it still small or is it—

20

Dillard: It's still small but it's better organized than it was. And of course I haven't been in touch with them closely at all for quite a while. But I would believe since the department got out of the farm pond stocking business, it probably ought to be even better for them.

25

Corrigan: Because it's more in the private sector now. They can—

Dillard: Right.

Corrigan: They're pushing—

30

Dillard: For a bigger role in it.

Corrigan: Okay. Now you got out of the business—well, you know what, actually we're at an hour. Let's take a break.

35

Dillard: Okay.

Corrigan: We'll take a break before you move on to the next one.

40

Dillard: Okay.

45

Corrigan: Give me one second to pause this. [pause] Okay. We took a brief break there for a few minutes. I guess we were going to leave off at was that you moved to fisheries administrative specialist in 1986 with the Missouri Department of Conservation. Now that was your job after the—so basically you went from two fulltime jobs, did you go back down

to one job then? Or was it multi-faceted, too? And the other thing is, is that job, was that in Columbia or Jeff City? The fisheries administrative specialist in 1986.

Dillard: That was in Jeff City.

5

Corrigan: So you went back down.

Dillard: Yeah. I'd worked up here three times and Jeff City twice.

10

Corrigan: So you felt the need to go back to driving that commute each day.

Dillard: Right. (laughs)

Corrigan: Now why did you make that switch? Because that's back to administration again.

15

Dillard: Yeah. I had a thing of switching between research, administration, and extension, it seemed like.

Corrigan: You want a little bit of each of that—

20

Dillard: Right, right. Yeah.

Corrigan: Can you tell me a little about what you did in that job? Because you stayed there for several years, through '89. No, actually through, actually further.

25

Dillard: Let's see. I was administrative specialist from '87 to '96. Yeah.

Corrigan: So ten years.

30

Dillard: Right. Well, I did several things as administrative specialist. I was responsible for assisting and developing the division's annual objective priority list. I served as the division's coordinator for all the department interim and area plans. I coordinated inter-agency special projects and conducted workshops. Facilitated division policy and position statements. And provided the leadership for the aquatic biodiversity initiative. So it was quite a variety of

35

tasks.

Corrigan: It seems like your other administrative job, too, was, it was a little bit of everything.

40

Dillard: Right.

Corrigan: Did you enjoy that position?

Dillard: Oh, yeah. Yeah. I liked the variety of it. There was something different every day.

45

Corrigan: During that position, from 1989 to '90, you became president of the American Fisheries Society. During that time period. But you had been involved in the American Fisheries Society before that.

5 Dillard: Right. I joined in 1964, I believe it was. Or '63. See, we had our first meeting of the Missouri chapter of the American Fisheries Society in 1963. I was still in school at that time. But I did attend the first meeting. As a matter of fact, I've attended all the meetings except two. One when I had cancer and one because of a storm, snowstorm last year. (laughs)

10 Corrigan: Now you didn't just become president of that organization, either. You had worked your way up.

Dillard: Right. (laughs)

15 Corrigan: I don't want to leave out the part that you were president and then that was it.

Dillard: Yeah. No, I volunteered in various committees, at the state chapter level, and became president of it. And then later on became president of the north central division of the American Fisheries Society before I ran for president of the parent society. Which is, by the way, is an international society. It's one of the oldest professional societies around. It was formed in 1870.

Corrigan: And can you tell me a little bit about it? What is its purpose?

25 Dillard: Of the American Fisheries Society?

Corrigan: Yeah. What's its mission?

Dillard: Primarily it's to promote the use of good science in fisheries management.

30

**[End Track 14. Begin Track 15.]**

Dillard: In general.

35 Corrigan: Is it primarily scientists, biologists, researchers, is that kind of who makes up the body of it?

Dillard: As well as fish culturists, to a certain extent.

40 Corrigan: Okay. So this isn't the organization for the avid fisher.

Dillard: No. No, it's not.

Corrigan: That would be the Missouri Federation, that would be—

45

Dillard: Right. The Bass Angler Society. Those folks.

Corrigan: Okay. This is a professional organization. With serious people.

Dillard: Right. Yes.

5

Corrigan: Trying to accomplish serious things.

Dillard: Right. (laughs) Not that the others aren't serious, but—

10

Corrigan: But there's a difference between hobby, entertainment, leisure—

Dillard: We try to provide good fishing for the other group.

15

Corrigan: Yes. Okay. That's a good way to put it. And what were your duties as president? Was it advocacy? Was it building membership? I'm sure it's a handful of things. Probably preparing for an annual conference and—

20

Dillard: Yeah. And the unfortunate thing was that our executive director at that time had developed cancer. So we had to recruit a new executive director. So I was in charge of that committee. But attend a lot of meetings. I represented, the American Fisheries Society had an international symposium over in England. Of course I directly supervised the work of the executive director, too. But a lot of travel.

25

Corrigan: And where's that based out of?

Dillard: Bethesda, Maryland.

Corrigan: Okay.

30

Dillard: Yeah. And dedicated my year as president, one of increased emphasis on communication. The theme of my annual meeting was "Communications: Are we making contact?"

35

Corrigan: And you also, they titled you certified fisheries scientist. What is that designation?

Dillard: Oh. (laughs) It means that you have the combination of education and experience that you would be certified as a fisheries scientist.

40

Corrigan: Okay. Is that something they are the designator of that?

Dillard: Yes.

Corrigan: Okay. And I see you're also a life member still of the American Fisheries Society?

Dillard: Yeah. I'm a life member of the parent society, I'm a life member of the chapter. I'm a life member of the state historical society. I'm a life member of the conservation federation. (laughs)

5 Corrigan: Is the Missouri chapter, is it a fairly large chapter?

Dillard: Yes it is. It's, like I said before, it's kind of losing its steam a little bit, which really bothers me a lot. Because it probably, what, ten, fifteen years ago, we would get the chapter of the year award every year for all the things that we were doing. And it was really a going concern. Our annual meeting, it's not uncommon for 200 people to show up. I mean it's, it's, 10 yeah.

Corrigan: Okay. Was it something that kind of went along with the profession? That if you're a research biologist in fisheries, this is the organization you should be a part of?

15 Dillard: Yeah.

Corrigan: Okay. You mentioned this a little bit earlier. But in the same time period, too, you mentioned the plant book. Which, it's given title *The Water Plants for Missouri Ponds*, and you had mentioned James Whitely and there's another collaboration with Barbara Bassett there. And I also have a Rebecca Haefner as one of the writers.

Dillard: She was the illustrator.

25 Corrigan: Oh, the illustrator. Okay.

Dillard: And then I have you. And you see yourself as more of the facilitator, the—

Corrigan: That's right. The project manager.

30 Dillard: Right. (laughs)

Corrigan: But can you talk about the book a little bit? And kind of what I'm interested in is, okay, was there not something out there already for this but this had been, you said this had, that James had been putting this, this had been a long time coming. But was there not, was there a book at the time that classified all the plants in Missouri? Or no, was this, there needed to be one?

Dillard: There was not one specifically for Missouri. There were several fairly scientific tomes about aquatic plant identification. This was more of a, this was Jim Whitley's idea of a book that would get people more interested in aquatic plants, because a lot of people don't like them. They don't like them in their ponds. So what we did, then was—

**[End Track 15. Begin Track 16.]**

45 Dillard: —not only identify the plants, but also point out some of the beneficial uses of it.

Corrigan: Why do you think people didn't like them? Was it an aesthetic thing or was it a—

5 Dillard: Aesthetics. And also, people that do a lot of fishing, if they go to a pond that's real weedy, it traps their lures and they reel in a bunch of what they call moss. (laughs) It can affect production if it gets thick enough, too.

Corrigan: So you have to strike a balance, I would assume.

10 Dillard: Right. And Jim Whitley, he really did like aquatic plants. And matter of fact, that's what I said earlier, that one of the persons said we really ought to call it Jim Whitley's favorite aquatic plants, because it does not have all aquatic plants in Missouri in it. It's ones that he was the most interested in. (laughs) Which is okay. And not only that, but, see, it's, actually the title is "Water Plants for Missouri Ponds." And what he was saying is put these  
15 kinds in and you will have a better pond than not having any at all. And matter of fact, if you put these kinds in, then the other kind may not have a chance to make inroads into your pond.

Corrigan: Okay. So it wasn't an all-encompassing book.

20 Dillard: No.

Corrigan: What it was was, so it was more towards the average reader.

25 Dillard: Right. It was more of a fun book, more of an aesthetic book. More of a, if you're going to have plants in your pond, put in these kinds.

Corrigan: So it was a how-to to kind of have good Missouri aquatic plants.

30 Dillard: Right. Yeah.

Corrigan: Now he had been working on it for a long time. But it looks like once you kind of, you were able to expedite this some.

35 Dillard: "Expedite" is a good word. (laughs) I didn't think we were ever going to get it done.

Corrigan: Published in 1990. But you said it had been a long time coming.

40 Dillard: Oh, yeah. It was, I don't know how far back that went. Matter of fact, this is a little bit of an aside, but it just occurred to me, one of the projects we're going to talk about, and that is compiling the database of the reports and publications. That was actually started in 1981.

Corrigan: Oh, the—

45 Dillard: The idea.

Corrigan: Oh, the idea. Okay.

Dillard: Yeah. I went to Jeff City one day and somebody asked the question if we'd ever had a conservationist article written about white bass. So here the assistant division chief, myself  
5 and a secretary spent probably three hours looking through all the old *Conservationists* to see if anybody had written an article about white bass. And I said, this is really wrong. We have computers. You should be able to hit the white bass button and it would list all the articles, if any, written about white bass. So I raced back to the office, wrote up a project proposal, which never did get funded. (laughs) But we did get the project started. And that's the one  
10 I'm still working on today.

Corrigan: Oh, okay.

Dillard: Yeah.  
15

Corrigan: So that's been definitely a long time. 1981 to—

Dillard: It's changed quite a little bit. But of course I wasn't working on it all the time. But it kind of come back into focus. (laughs)  
20

Corrigan: Yeah. Well, we'll definitely bring that up there.

Dillard: But the aquatic plant book, I'll bet, let's see. Oh my goodness. I think that, let's see. I took over as superintendent of research, in 1972?  
25

Corrigan: Superintendent, oh, that was in—

Dillard: '72 when I came back to Columbia.

Corrigan: Yup, 1972.  
30

Dillard: Well see he, he really, he had already had that in his work objectives to write that book before I came back. (laughs)

Corrigan: 1990 was a long time after that.  
35

Dillard: That's right. (laughs)

Corrigan: But it was accomplished.  
40

Dillard: But it was accomplished. And it's a good book.

Corrigan: And right after your tenure at the American Fisheries Society. So that had to be a busy year, 1990.  
45

5 Dillard: Oh, yeah, that year was, it was a killer. I was president of the American Fisheries Society. I was working in Jeff City. My mother passed away that year. My wife was working in Kirksville. The secretary quit. (laughs) About two years later I was going someplace on an airplane and the little magazine had a stress test. I took the stress test and it was a wonder I was alive! (laughs)

Corrigan: So that was a difficult year.

10 Dillard: Difficult year. Yes, yes.

Corrigan: So you said up through 1996, then, so you'd stayed there quite a while as the administrative specialist. And then you switched to the fisheries research supervisor in 1996. Is that still a Columbia job?

15 Dillard: That was back to Columbia.

Corrigan: So that was your last trek back, right?

20 Dillard: Right.

Corrigan: Last trip from Jeff City. And 63, Route 63 had to be a little bit better by then. So your commute, hopefully, was getting easier.

25 Dillard: Yes. (laughs)

Corrigan: Bigger bridge, bigger road.

Dillard: That's—

30 **[End Track 16. Begin Track 17.]**

35 Dillard: Let's see. I was trying to think why I came back up here. It was to fill an opening that they had. And I can't remember who retired now. But there was an opening and they felt like it was better for me to come up and do this. But that's when I developed and organized a workshop entitled "Watershed Stewardship in Missouri: Status and Opportunities." And that was really the early beginnings of the Missouri Watershed Information Network. MOWIN.

Corrigan: Yeah. Because you started that in 1998, being the director of that.

40 Dillard: Right.

Corrigan: So the Missouri Watershed Information Network.

45 Dillard: Yes.

Corrigan: Can you go ahead and describe that? What is that?

Dillard: Well, it was another one of those things in my brain, if we could collaborate on providing information about water in general, we'd be better off because people didn't know where to go. There's so many agencies. So I said, why don't we just get together and form the Missouri Water Information Network, and people can come to that entity and find out where to go. The—one way to get that off the ground was to develop a website. Now that was not the end-all. That was just kind of a way in. What we did do was develop a manual that if you lived in Phelps County and you had this kind of problem, you could go into that manual and it told you what agency to go to and where they were and their numbers and things like that.

Corrigan: Because I have down here that it's twenty-seven different organizations and agencies.

Dillard: Yes. Right. (laughs)

Corrigan: That does seem like a lot of people. They're not all doing the same thing, right?

Dillard: Nope.

Corrigan: But they're doing in general water-related—

Dillard: Water-related. Yeah. You know what the fun part about the Missouri Watershed Information Network was the website. We were trying to figure out a way to get people to come to it. So we developed acronym city. And acronym city was a listing of 703 entities that dealt with water one way or another. And they were alphabetized. So you go to the A, and go down to AFS, American Fisheries Society. And if it was highlighted in blue, you could click on it and take it right to their website.

Corrigan: So it was kind of a clearinghouse for—

Dillard: Right. That's exactly right.

Corrigan: Not just Missouri, either.

Dillard: We were going to call it the Missouri Watershed Informational Clearing House, but that would have been something that had another acronym that really didn't fit. So we changed it to Missouri Watershed Information Network. But the funniest thing about developing acronym city, of course, I am very technologically challenged, but I had people that were able to do that. So one day I came back from lunch and went to acronym city and there was KFC. I clicked on it and sure enough it was Kentucky Fried Chicken. (laughs) And then I looked down a little bit further and there was my initials. I was almost afraid to open that one. (laughs) Went back and grabbed me a handful of techies and said, "What are you guys doing?" They said, "This is not out on the web." Thank goodness! (laughs)

Corrigan: It was just the developmental site.

Dillard: Yes.

5 Corrigan: I was thinking you were going to tell me something like the Kentucky Fishery Society, but—

Dillard: No, it was actually KFC. (laughs)

10 Corrigan: Kentucky Fried Chicken. So they were having a little fun with that.

Dillard: Yeah. You'll have to go into MOWIN and try that sometime. It's kind of fun. It's still there.

15 Corrigan: Is the project still going on?

Dillard: The project, it's kind of on hold right now. The website's still there but the basic machinery isn't. And I'm afraid it's going to get out of date. And I really don't know what happened. Well, one of the things that happened, of course, I left. And then another person took over. And then she left. And then they did not replace her. I think it was a budgetary situation at that time.

20 Corrigan: Because that's actually a University of Missouri position, right?

Dillard: Right. Yeah.

25 Corrigan: Or affiliated.

Dillard: Right. Yeah. But when I retired from the department, I had really done a lot of the leg work, foot work, putting that whole thing together. And after we had that workshop, the end product was we really need one of these in the state of Missouri. So we began to work on the concept. And then I, of course, applied for the position. Since I'd been involved they knew who I was and gave it to me. And I did that for two years. My wife was teaching at that time at the university. And she got an early out. And she—

35 **[End Track 17. Begin Track 18.]**

Dillard: —got home and start touching my stuff. (laughs) So I resigned. Which probably worked out really well because then I was almost immediately hired back to Department of Conservation to work on the database.

40 Corrigan: Yeah. Because I have you down as a temporary employee and the fishery staff biologist in 2000.

Dillard: Right.

45

Corrigan: So you didn't really, at one time you used the word "retired," but then you said "resigned."

Dillard: Well, I resigned from the university.

5

Corrigan: Technically, yes. But you didn't retire into the sense of retirement.

Dillard: Oh, no, no, no, no. I think I was off for a month. Well, you know, the really funny part about it, the first biologist that I hired when I was in charge of research was Gary Novinger.

10

Corrigan: Okay.

Dillard: So I asked for the voluntary demotion. Then Jim Whitley was my boss. Then Gary Novinger took over. So the first person I hired is now in charge of research. And he's the one that hired me back. (laughs) Once I got started on this database project, then I hired him back to help me on it. (laughs)

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Corrigan: Is that Novinger N-o-v-i-n-g-e-r?

20

Dillard: Yeah.

Corrigan: Novinger. Okay.

Dillard: It was really interesting, too, because we had several people applied for that position. I looked at his grade point and he just almost flunked out of college.

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Corrigan: And that was for which position? Oh, for the position you were hiring at the time. Got you.

30

Dillard: Which was the pond biologist by the way, too.

Corrigan: Okay. Which was your old job?

Dillard: Yes. Because see what happened was Kim Graham took over after I got out of it. Then I moved him into the paddlefish project, which left the pond position open. And then I hired Gary to do that. So I got Gary to one side and I said, "Tell me about this, where you almost flunked out of school." And he said, "Well," he said, "I just kind of got in with the wrong crowd. And that was back in the good old hippie days." And he said, "I finally got a hold of myself." And I thought well, you know, if somebody can come back from that, they'd be a good, and he was a wonderful guy. Just a real, true scientist.

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40

Corrigan: And is he still there?

Dillard: Yeah, he's working part time. (laughs)

45

Corrigan: Oh, part time, too. Okay.

Dillard: He retired. Of course, that's what the kids said. "Everybody you hired is retired. What are you doing?"

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Corrigan: They retire or they go onto the never retiring, which is just temporary.

Dillard: Yeah. Right.

10 Corrigan: So you were the fisheries staff biologist, temporary employee. And that was with the department again.

Dillard: Yeah. I started in 2000, and I'm still there. (laughs)

15 Corrigan: So eleven years now, temporary.

Dillard: Yeah. That's what I tell everybody. I worked thirty-three years full time. And I'm going to match that part time. And I'll only be 105 when I get there. (laughs)

20 Corrigan: Now you organized an association of Midwestern pond biologists.

Dillard: Yes.

25 Corrigan: I think you mentioned it once before, just briefly. It came up in a different conversation. And is that still existing?

Dillard: I'm not sure it's in existence today. But it was for several years after that, after I got out of it, yeah. They actually took on some projects that they did. In other words, each biologist in each state would do certain kinds of sampling.

30

Corrigan: And is that to work collaboratively again? Share that same information and think more outside the border?

Dillard: Right. Yeah.

35

Corrigan: Because the waters and the rivers don't—

40 Dillard: Yeah. You just never know where you're going to get your next new idea. And even if something fails, you need to look at it really closely because conditions can change. And in the future, it could be, you know, real positive outcome.

Corrigan: And well also, water, watershed, rivers and all that, they don't adhere to the boundaries of state lines and counties and cities and jurisdictions. It's a 'we're-all-in-it-together' kind of approach.

45

Dillard: I think most biologists, too, not all, but most, are pretty amenable to sharing ideas. Because they're looking to make things better and they get their ideas wherever they can. Group think is always better than individual think.

5 Corrigan: Now this, a little bit earlier you mentioned a computerized information retrieval system for the fisheries division. And you said that was quite the, needed, but quite the accomplishment but needed so that you didn't have to search through everything that had been done.

10 Dillard: Right. Well even finding everything that had been done is a bit of a chore.

Corrigan: So was that, you had the computers already, you just hadn't had, that hadn't been put together. How did you do that? Did you use databases? Did you use, how did you go about trying to gather all that information and put it in there?

15

Dillard: It started out as—

**[End Track 18. Begin Track 19.]**

20 Dillard: Well, we gave it, we gave it an acronym. FINS. It started out as the Fisheries Information System. And the idea was we had enough fields, we had, you know, for the title of the article, the author, the date of the article, the number of pages in the article, the species that were involved, common names, the part of the state that the project was done, if that was the case. Of course, some cases it was just statewide. And then a comments section so you  
25 could search any of those fields. The, but knowing where it is, that's an interesting thing because the secretaries still say, "Well, how do you know where that stuff is?" And I said, "I was here before the building was here." (laughs) But I've always made it my business to know where the actual articles are. As a matter of fact, when I was in one of those positions up here in Columbia, that was one of my jobs. I was sort of the quote "fisheries librarian."  
30 And we did have good records. That was the heart and soul of it. Matter of fact, we, I just finished not too long ago putting together all of the annual reports for all of the projects that we ever did. And I think it was something like three hundred and some projects that we did from day one. And each of those projects, well, some of them were only a year long. Some of them were ten years long. And of course there was a progress report for each year, plus the  
35 final report. Well, the final reports were really easy. It was getting all those annual reports put together that was a bit of a challenge.

Corrigan: And those all start at the Department of Conservation?

40 Dillard: Right.

Corrigan: Do they have their own library there?

Dillard: No. Not anymore. We did have one but it's been disbanded.

45

Corrigan: Where's all that information now?

Dillard: What we're doing, well, what the project evolved into—let's see, I can't remember the exact date. I guess I went back in 2000 to work on FINS. And we decided to change and include all the wildlife and forestry publications. And so we changed the name to the SILO.

5

Corrigan: The SILO?

Dillard: The Science Information Locator. (laughs) We were going to call it Conservation Reports and Publications, but that acronym was CRAP, and we decided not to do that.

10

(laughs)

Corrigan: So the SILO. Okay.

Dillard: The SILO. Now the SILO only exists on two computers. That's mine and the gal that really knows the technology. And what it is posted on now is called Sharepoint, which is available to all the conservation employees that have a computer.

15

Corrigan: So it's like an internal network.

Dillard: Right. So what we do is I find all the old publications. Final reports, progress reports, technical publications. Books. Special reports. Anything that has information that might help somebody else do a better job. We digitize that. Make a digital image of it. Take the best available copy and we send that to the state archives.

20

Corrigan: Okay. So this stuff is at the state archives. It's—

25

Dillard: Yes. It either is or will be.

Corrigan: Okay.

30

Dillard: Yeah.

Corrigan: And you're going back how far? Or as far as you can?

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Dillard: To the beginning.

Corrigan: Okay.

Dillard: I think our earliest publication we have in there, I think, was 1939. It was in *The Progressive Fish Culturist* and it was an article on, our hatchery manager at that time was George Morris. And George had figured out a way to hatch catfish eggs.

40

Corrigan: And is this primarily you doing all the research to find all this stuff?

45

Dillard: Yeah. And again, because I was just, I've had an interest in that.

Corrigan: So you don't see it too much as work as it's more—

Dillard: It's fun.

5 Corrigan: It's fun.

Dillard: That is the funniest thing. A lot of my cohorts said, "I wouldn't go back there for anything." What they're saying is they wouldn't want to go back and do what they were doing. I'm not back there doing what I was doing. I'm doing something entirely different. It's something I believe in and it's something they want done. It's a win-win situation. And it's really satisfying because—

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**[End Track 19. Begin Track 20.]**

15 Dillard: What happens now, we'll get a request from West Virginia. "Do you have a copy of this old publication from 1940?" And I can just pull that up and zip it to them on email and they've got it, and they're just happy as a clam.

20 Corrigan: Because they're probably only finding it on a, just as a reference. Just as a citation or a—

Dillard: Yeah. Or they notice there's some information there that they'd like to have. Now this is particularly important for the older stuff. Because a lot of the newer stuff, you know, all you had to do is Google it and you've got it.

25

Corrigan: This would be the smaller publications. They had small circulations. They had very limited distribution points.

Dillard: Right. We have gray literature and we've got gray, gray, gray literature. Some of them are just memos. Now that's the other point, too, that over time, people realize what I was doing. They liked it and I told everybody in the lab, "Don't throw anything away until I have a chance to see it." Because we have people just get up and leave and they leave everything behind. And so because of that, I can spot some of these little publications. Some of them, I didn't even know it existed, either. But I can spot them and put them into the system.

30

35

Corrigan: And that's primarily what you're doing now, then?

40 Dillard: Yes.

Corrigan: And you're working, what, a couple days a week?

Dillard: I work three mornings a week. Usually Tuesday, Wednesday and Thursday. So this is my work day. But it's very flexible. I could do it at home. But I choose to do it there, mainly because all the resources are there. Yeah.

45

Corrigan: Speaking of your home, you've mentioned your wife a few times. Her name is Betty, correct?

Dillard: Yes.

5

Corrigan: And we talked a little bit about her the first time, getting her PhD and coming to the university here and working here. But you have three children, correct?

Dillard: Yes.

10

Corrigan: And what are their names?

Dillard: Lisa is our oldest daughter. And Jennifer is our youngest daughter. And then Steve is our youngest child.

15

Corrigan: So Lisa, Jennifer, Steve.

Dillard: Yeah. And Lisa is married and her last name is Miles.

20

Corrigan: M-i-l-e-s?

Dillard: Yeah. And they live in a log house down south of Hartsburg. So I got them a sign for their new house that says "Miles and Miles from Nowhere." (laughter) And she works for an accrediting agency for proprietary schools. And her home base is actually really in Washington, DC. But she lives in Hartsburg, or south of Hartsburg, and travels probably almost three weeks a month. And she travels all over the United States. She may be in Miami for two days and then fly to San Francisco for a day. Or she may be wherever. (laughs)

25

Corrigan: And then you said Jennifer.

30

Dillard: Jennifer is married to Mark Dressler, the ex-basketball player.

Corrigan: Can you, what's the last name?

35

Dillard: Dressler.

Corrigan: Dressler.

Dillard: D-r-e-s-s-l-e-r. And she's a physical therapist and works over in Howard County. Out of Fayette.

40

Corrigan: Okay. I know where Fayette's at.

Dillard: And then Steve, he and his wife own Tiger Spirit downtown.

45

Corrigan: Oh, okay.

Dillard: Across from Booches.

Corrigan: And what's his wife's name?

5

Dillard: Michelle.

Corrigan: Michelle. And what was Lisa's husband's name? You had mentioned—

10

Dillard: Bruce.

Corrigan: Bruce.

15

Dillard: And Jennifer's husband's named Mark. He played basketball in the 1980s. His claim to fame was we beat Notre Dame when he came off the bench and made 18 points. (laughs) But he wasn't quite tall enough to go to the nationals.

Corrigan: You have several grandchildren, I believe?

20

Dillard: Five.

Corrigan: Five grandchildren?

25

Dillard: Yeah. Yeah, Lisa does not have, Bruce, that's his second marriage. And he had two daughters. But, so Lisa really doesn't have any children. But Jennifer has three children. Ashley is the oldest and then Hannah, no, Ashley is the oldest, and then Jordan and then Hannah. And Jordan is the six-foot-eight guy. And he plays basketball over at Columbia College.

30

Corrigan: Okay.

Dillard: Yeah. And then Steve has Kacey and Taylor. Two daughters.

35

Corrigan: Okay. And primarily they're all here in Missouri?

Dillard: Yeah. And for Jennifer's birthday, which was the 26<sup>th</sup> of July, rather than have a birthday party, we went out to the food bank and repackaged food. The whole tribe. (laughs)

40

Corrigan: The whole group of you. Okay.

Dillard: Yeah. We're very close-knit.

**[End Track 20. Begin Track 21.]**

45

Dillard: We get together a lot.

Corrigan: Yeah, because Hartsburg, Fayette, that area—

Dillard: Well, no. She works in Fayette. She lives in Columbia.

5 Corrigan: Oh, okay. Yeah. So primarily, yeah, they're right here.

Dillard: Yeah. (laughs)

Corrigan: So that keeps you busy.

10

Dillard: Yes. Yes. Because all the grandchildren play baseball, basketball and soccer. Except one. And Kacey's into theater, so we get to see a lot of plays.

Corrigan: So you are never without an obligation to go to. So.

15

Dillard: And of course I built two ponds and stocked them with fish, and so they like to come out and fish.

Corrigan: Oh, yourself, you did?

20

Dillard: Pardon me?

Corrigan: You yourself did it?

25

Dillard: Yes.

Corrigan: Oh. Because you live out in the country, correct?

Dillard: Yes.

30

Corrigan: So how big are, two different ponds? Why did you do that?

Dillard: Uh, it's hard to have too many ponds. (laughs) I don't know.

35

Corrigan: Okay. Well, as opposed to one big pond. Or is it location?

Dillard: It's location. Yeah. There's one on each side of the house. Actually, the one I built, the last one I built was sort of like why am I mowing this when I could have a pond? (laughs)

40

Corrigan: So are they both stocked with the same thing?

Dillard: No. No. No. We got a bass and bluegill in one of them. Large-mouth bass. And the other one I got small-mouth bass.

45

Corrigan: Okay.

Dillard: And then my grandson wanted to stock crappie, which I was really opposed to. But okay, go ahead. Because they usually overpopulate. (laughs)

5 Corrigan: Okay. Now you said the one only has the bluegill and the large-mouth bass.

Dillard: Yes.

Corrigan: Now, your stocking method here, doesn't it call for—

10 Dillard: (laughs) It calls for catfish.

Corrigan: For catfish.

15 Dillard: I don't know how to explain that. I just didn't, just didn't do it. (laughs)

Corrigan: I was just curious. We talked to you a little bit about your stocking method.

20 Dillard: Yeah. Well, what I had planned on doing in that pond was raising some catfish in cages. But I, the pond developed a leak. And by the time I got it fixed, I'd kind of gotten out of the notion. So I was actually going to raise the catfish in the floating cages.

Corrigan: Oh, okay. Okay. And then, so you are raising the crappie then, too?

25 Dillard: Yes.

Corrigan: Okay. I didn't ask, you know, I should ask, when you mentioned your grandson liked fishing. Do your kids themselves, are they outdoors people? Do they—

30 Dillard: Not really. Well, our oldest daughter is. She's an outdoors person. The only problem that she has is she's really allergic to poison ivy. And so that kind of stops her a lot. But Steve, he never was an outdoors person. And Jennifer is so-so. No. None of them come close to me. I have to be outdoors. I just have to be. (laughs)

35 Corrigan: I just wanted to ask quick, because you mentioned fishing. And that's an outdoor activity, but I didn't know if—

40 Dillard: Yeah. And Steve, he didn't care anything about fishing. I took him several times and he just really didn't care about it. It's quite, yeah, it's very interesting. I think being brought up in town has made the difference. You know, we were brought up in the country and what else was there to do but go out and hunt and fish.

45 Corrigan: That's true. Because you live out in the country now. But you lived in town. I forgot you mentioned that you and your wife first started off out by what would be the Everett's restaurant. And that even after that you stayed in Columbia, though, so they were primarily raised all in town.

Dillard: Right. Right.

Corrigan: So you didn't move out to the country till later?

5 Dillard: No. We moved to Jeff City the first time. When I went down there in 1969, we actually moved down there. And then we moved back. And we were on Rothwell Heights where we lived. And then after the kids left, then we decided we're going to move to the country. (laughs)

10 Corrigan: Okay. So that was, I didn't realize that was a later thing. So, well, I'm going to switch gears a little bit and talk about conservation. Ask you a few questions about that.

Dillard: Okay.

15 Corrigan: Missouri does have this long, long-standing history of conservation in the state. In general, why was Missouri so far ahead of the game early on? Why do you think? Why do you think Missouri was one of those early leaders and just really ahead of the game with a lot of other states?

20 Dillard: I think the primary reason was the leadership that we had in the state that realized that what we were doing was not working. And that the state legislature was in charge. And people would go down and say we need the law this way. And they'd change it. And other people would say we need to change that back. The resource was badly abused. So they had this meeting of sports people here in town back in what, '35 or four?

25 Corrigan: Yeah, it was early '30s, yeah.

Dillard: Early '30s. And decided what we really need is a conservation department that is a scientifically—

30 **[End Track 21. Begin Track 22.]**

35 Dillard: —based and out of politics. And the farsightedness of those people is just beyond words. Because, and the one guy, and I can't remember just exactly which one it was now, said what we have to have is a constitutional amendment so that we can do what we need to have done. Because if we just pass new laws, the state legislature will change it back the next year.

40 Corrigan: Yeah, the conservation commission of 1937 is a little bit later.

Dillard: Pardon me?

Corrigan: The conservation commission was started in '37.

45 Dillard: Right.

Corrigan: So early '30s, this was all starting to fall together.

Dillard: Right. See that was the beginning of the Conservation Federation.

5 Corrigan: So really it was a, out of necessity.

Dillard: It was out of necessity. But what they did was poke the right thing. (laughs) And that really put us in a position of leadership throughout the nation. And the first director was not a Missourian. And that was a real big problem with the state legislature. They actually  
10 withheld his salary, I think, for at least three or four months. Wouldn't even pay him. (laughs) And of course I worked for all the directors except him. He was gone by the time I started to work. But he must have been something really special to pull that off. Because basically you're starting from nothing. And to gain the support of the citizens of the state to go ahead and support and maintain that concept is just amazing.

15 Corrigan: Now you mentioned you worked under all the other directors.

Dillard: Yes.

20 Corrigan: Did you have a favorite director?

Dillard: Yes. (laughs) Carl Noren.

Corrigan: Carl Noren?

25 Dillard: Yup. Carl Noren was the director when we did the "Design for Conservation." Carl was a real visionary. He, early on in his tenure, was looking at the need in the state and the revenue. And he said, "We are going to have to do something if we're really going to do a good job of conservation in this state. We need, we're going to have to have some more  
30 money." And that's when the whole idea of the soda pop tax came up.

Corrigan: And now, that's where the idea came up. But that failed.

Dillard: It failed. And the reason it failed was two reasons. The petition for that, the enacting  
35 clause, they left an enacting clause off of the original petition. So it was kind of moot point anyway. The other reason it failed, because the beverage industry said "Oh, you know, people just will quit buying soda." And of course you can imagine what happened to the price of soda since then. (laughs) And they're still buying it! But people said no, we can't let this stop us. So there was a little bit of hiatus there. But we came back then with the "Design  
40 for Conservation," which was the 1/8 of one percent sales tax.

Corrigan: Yeah. That was in 1976.

Dillard: Yes.

45 Corrigan: So although there was a failure at the beginning, that didn't stop—

Dillard: No. It was, it was a crushing blow. No doubt about it. But it was still a desperate need that we had. And so, and that wasn't just the department. It was the Conservation Federation and the sports people in the state.

5

Corrigan: Do you think, was it, why was that one successful? Was it because, did everyone learn from the previous soda pop tax? Did you have to go a different route? Or do you think you could have, you could have gone back to the soda pop tax and construed it differently, but—

10

Dillard: Right. We had a consultant come in and take a look at revenue, potential revenue sources. And I think that was his suggestion, that we go for the sales tax. And I think also we had learned a lot from the first go around. And I think the thing that really helped a lot was we did put together that publication and the concept called Design for Conservation. It basically said if you give us some money, here's what we'll do. And so the people—it wasn't just give us money. Here's what we'll do if you give us some money. If we have the money, this is what we'll do.

15

Corrigan: So you really think the “Design for Conservation” was the selling point of it.

20

Dillard: I think it was.

Corrigan: Because it was really basically a big marketing plan.

25

Dillard: Yes.

Corrigan: It was really, this is, yeah, what we'll do with your money.

Dillard: Yes.

30

Corrigan: That was, wasn't that written by, wasn't, well it was a collaboration of people. But it was the federation, it was the—

Dillard: No, I think the department pretty much put that together themselves, the actual publication.

35

Corrigan: Publication, okay. But it was—

**[End Track 22. Begin Track 23.]**

40

Corrigan: —sold kind of by the—

Dillard: Oh, yeah. The federation was always, I mean they, the primary reason we're here, they weren't about to see us go away. (laughs) They worked really, really hard. There's no doubt about that.

45

Corrigan: So the two of those groups collectively have to work together.

Dillard: Yes. Yes.

5 Corrigan: And have worked together. That's how they've accomplished this.

Dillard: Oh, yes. Yeah. Yeah. We've had some differences now and again, and still do. And of course I don't know the actual numbers, but they represent a lot of folks.

10 Corrigan: How do you think Missouri, you know, they were a leader early on. Are they still a leader?

Dillard: I think so. When—one of the reasons is because of the way we're structured. And another reason is because of the people that have been hired. You know, a lot of other states are still quite political. And I know one good fisheries chief over in Illinois finally had to resign because the person that was in charge of the department was asking him to do things that just weren't right. And he just couldn't take it. I mean, he was a professional and he just resigned.

20 Corrigan: Is that, do you think, the key is that it's not political?

Dillard: Yes.

Corrigan: Is it—

25

Dillard: It's becoming more political. That's my understanding. Of course, I'm really out of touch with the mainstream. But my understanding of listening to people in the hall is that it has become more political recently.

30 Corrigan: Is that internally or is that through the legislature and the actual state?

Dillard: Internally, I think. Well, maybe some of each. But I really don't know that.

Corrigan: Because I mean, it seems to be that the question does come up about the money that is raised, which is a lot of money in Missouri for the conservation does not go through the legislature. So it is not divvied out.

35

Dillard: Right. Right.

40 Corrigan: Which was their intent. Their intent.

Dillard: You know, I think that was one of the biggest accomplishments, or I'm not finding the right word, of the "Design for Conservation." Our budget went from, oh, what was it—seemed like \$300,000 a year to, it was many-fold.

45

Corrigan: So it went from thousands to millions.

Dillard: Yeah. And looking back at that, there were so many ways that we could have really screwed up. But I don't think there was, as far as I know, there wasn't a dollar that was misspent. We said this is what we do and we did it. Yes, it costs a lot of money, but people are now able to enjoy that. And I just think of other state agencies and other states where that money could have been blown on anything. (laughs) And it's dedicated to conservation. That's what it's spent on. You know, that's the other thing. I found out or think I found out, you know, we were having trouble with our highways. And we had this dedicated tax to highways but found out it was not going to highways at all. They were spending, state legislature was spending it on everything other than highways. I thought that was dedicated, but it really wasn't.

Corrigan: So it's how the language was written and how—

Dillard: Yeah. But ours is dedicated to conservation. It has to be spent that way. Now they can withhold it from us. But somewhere along the line, they have to turn it loose until the law has changed.

Corrigan: And do you think part of that success was, overall though, that Missourians do have a fondness for, as a whole, because they're the ones who voted it in, but that conservation and wildlife and the outdoors atmosphere of Missouri is important to the Missourians?

Dillard: Yes. And I think we developed early on a relationship with land owners and Missourians that has served us to this day. And other states, their citizens just can't stand their department, in most cases, the department of natural resources rather than a department of conservation. In many other states, it's, and they're just, they are so adamantly opposed to them and I don't know why. But I know our first director said his emphasis was hire people persons and to listen to the citizenry in terms of their needs. And we just got off on the right foot. The very first commission met on July 1, 1937. And they said that they wanted five things. They wanted a strong research effort to base decisions on sound science. They wanted a protection section to enforce the laws. And I can't remember the other three. But they set that forth as this is our guiding principles. And we've lived by those ever since.

**[End Track 23. Begin Track 24.]**

Corrigan: In what ways do you think Missouri is spot on in conservation? And on the flipside of that, where do you think Missouri can improve? Or where do they need to improve?

Dillard: Well, like I said, I'm a little bit out of the main flow right now. But the spot on part was, again, listening to people, people's ideas, either positive or negative, about what we're doing. And making adjustments to fit in with that. Hiring people that really are into their jobs and don't consider it a job. Consider it a pleasure to work for us. That's so important, in my estimation.

5 Corrigan: What do you think about one of the goals of the conservation department was to restore several species to Missouri? They restored otters. That was one of Glenn Chambers' initiatives. They restored, well they tried to restore the grouse, that was not, the ruffed grouse, that was not successful. There's no effort to bring back the large game, like the bears, although they're coming back on their own.

Dillard: Yeah. (laughs)

10 Corrigan: And the mountain lions, they tend to find those. But those tend to be the male strays now. And there's no initiative to bring back the wolves. But there has been this, it kind of seems like the last animal to bring back are the elk that they just—

Dillard: Yeah.

15 Corrigan: Where do they go from there? If the animals—

20 Dillard: Well, I'm not sure. Of course their two big successes in wildlife was restoring the turkey and the deer populations. And they didn't really have to reintroduce them; they just had to make conditions better. And that was primarily working with landowners, when you come right down to it. Of course there was some restocking efforts, too. But yeah, I don't know. I have a little different feeling, I guess, on some of the larger animals, like the mountain lions and the bears and the elk. And to some extent, the otter. And the beaver. You know, they helped them out, too. And that is, with the changing conditions, we finally get to the point where I'm not so sure we should be doing it. Because the conditions that existed  
25 when we had lots of elk are not here anymore. (laughs) I mean, where do you stop? The buffalo?

30 Corrigan: So do you—because it seems like some of the populations, they did increase very quickly with help. But it pared back down.

35 Dillard: Well, see, that's the other thing. Well, let me put it this way. The guy that used to be in charge of research wrote an article one time for *The Conservationist*. It was called "After the Fish Kill." Which was really, really important. And the reason it was important, because people say, "Okay, you killed all the fish. Just restock it." It's not going to work. And the  
40 reason it's not going to work, because all the food that those fish ate is also gone. You create the food. You create the conditions. There will be animals. And even though we have some areas where the elk will probably flourish, you're again, you're kind of forcing them into a situation that no longer exists. Otherwise they'd be here. In some fashion. And I don't want to be that adamant against elk. And the other side of that one, too, is I've heard a little  
45 grumbling on the side, we have some really big game hunters that are tired of driving all the way out west to hunt elk. (laughs) I don't, I'm not sure that is, but it makes a good story. (laughs)

Corrigan: Because I think that's one of the last species on their—

Dillard: On their list. Yeah.

Corrigan: On their list. So where does the department go from here? I mean, this is just—

5 Dillard: Oh. Well, yeah, of course that's just the huntable aspect that we're talking about there. But just the conservation of what we've got, me, the biggest challenge that we have is all the invasive species. We're just not going to have a natural Missouri anymore. And I don't think there's any way around it. I mean, we can kind of slow it down, but I don't think we can ever totally stop it.

10 Corrigan: And where's that coming from? Like can you give some examples of things that you think are really—

Dillard: Autumn olive is one example. And the department actually provided species of that, or seedling stock of that, until 19, let's see, what was it. I got the last ones that they offered in 15 1983, I think it was. Wait a minute. Is that right? No. It would be '87. And planted them on my property out there. And I've been fighting them ever since. I finally took them all out.

Corrigan: And what is—

20 **[End Track 24. Begin Track 25.]**

Corrigan: —that? Is that a bush? Is that a—

25 Dillard: It's a treelike shrub, bush.

Corrigan: And you said the earlier, not on the recording, but the multiflora—

30 Dillard: The multiflora rose. See, those were all good intentions of increasing the amount of habitat for wildlife. The thing they didn't realize is how invasive they could become. And they just took over. And we have a patch of autumn olive, a guy that lives just, doesn't live, he's got ten acres west of us, it's just total autumn olive. That's all you can see in it. It finally just gets so thick it's not good habitat for anything.

35 Corrigan: And those were, the multiflora rose, those were introduced by the department. So they're not—

Dillard: Oh, yes. Oh, yeah. We had people that actually went out and convinced people to plant them.

40 Corrigan: So not everything, although they've been a leader, not everything has been spot on—

Dillard: Oh, no.

45 Corrigan: There have been some setbacks. There have been some wrong calls.

Dillard: Oh, yes. Well you know, the fish people, way back when, stocked trout in the Missouri River. (laughs) Wrong. The wildlife people, back in the '50s, I think it was, stocked coturnix quail, which is a Japanese quail. And they were going to bolster the population in areas where there weren't very many quail. Well, the thing they hadn't realized that they were migratory, and they just flew away. (laughs) So that didn't work.

Corrigan: Are there other things? You've mentioned the—

Dillard: I think sericea lespedeza, we recommended that for quite a while. And decided that was not the best thing to do.

Corrigan: Now do you have a problem or is it a problem, not necessarily for you, is it a problem for just the average citizen what they're planting in their yard, in their—I mean, it can start small, if you can contain it—

Dillard: Right.

Corrigan: But people do want their landscaping to be a certain way. Do you think there's less thought nowadays to what should be there? Maybe native plants versus what people want?

Dillard: Right. And I don't, we've tried really hard to help people, assist people in that, in terms of growing and planting native. And promoting that idea and concept with publications and workshops and lists of people who provide native plants.

Corrigan: Primarily we've been mentioning plants here. But now what about, what threats are there in the waters? We've got, there's invasive species of fish that are not supposed to be here, either. Isn't it the carp?

Dillard: Right. The Asian carps.

Corrigan: Is that a problem in Missouri?

Dillard: Yes, it is a problem. It's an increasing problem. And it started back in the '60s, I guess, late '60s. And at that time, I felt like we were going to have a real problem here because the Missouri River is ideal for these Asian carps, and they're going to out-compete our native species. And that's becoming more and more obvious as time goes on. Of course we also have the clams. What's the word I'm looking for?

Corrigan: The zebra? No.

Dillard: Zebra. Mussel, they call them. Zebra mussels.

Corrigan: Zebra mussels.

Dillard: Yes. And now there's a species of algae, oh, what do they call that? Well, they call it snot moss, is what they call it. (laughs) Which is about what it looks like, too. It's invading our clear, our cooler streams down south.

5 Corrigan: Now the zebra mussels, those primarily get moved by people not cleaning off their boats, correct, and going from one—

Dillard: Or bait buckets, things like that.

10 Corrigan: Now the Asian carp, is it, I mean, it is a problem. But is it a controllable problem?

Dillard: Well, not, I don't think so. Not really. One of the things that they're trying to do right now, not so much Missouri, but mostly in Illinois. And the national lab out here has worked on that problem, too, is to be able to process these into some food-like substance.

15 Corrigan: Because right now people don't really eat them, do they?

Dillard: Oh, yeah.

20 Corrigan: Or they do, but it's not a popular fish.

Dillard: Not a popular fish. Right. And they're dangerous.

Corrigan: Because these are the ones that jump out of the water, correct?

25 Dillard: Yeah. They hit you in the head and knock you out. Knock you clear out of the boat. (laughs)

30 Corrigan: Now I know in Illinois they're trying to, they're trying to keep them out of the Great Lakes.

Dillard: Right.

35 Corrigan: Because they're saying that that would just decimate it. I think they kept them, I think they're right at the Chicago River.

Dillard: Yeah. Right.

40 Corrigan: And I know they've tried electric fences. But there is that push back there. I think there's even an effort to close it, but it hasn't, because of the traffic that goes through there—

Dillard: It's really hard to, once they get into the system, it's really hard to get them out of there. But we have all kinds of, back to the plants again, we have all kinds of other plants that the department did not—

45 **[End Track 25. Begin Track 26.]**

5 Dillard: —introduce that are taking over, too. Johnson grass is a really bad one. Kudzu is coming in from the south. And I don't even profess to know all the plants, but I've heard a lot about them. We have an invasive species coordinator now in the department to try to coordinate all these efforts.

10 Corrigan: Now the department's evolved. But is the idea, is the basic premise from what these other things that have been introduced by the department is that you don't introduce things that aren't from here? Is that kind of step number one now? If it's not native to Missouri, it should never be here?

Dillard: That's right. (laughs)

15 Corrigan: It's taken a lot to get to that point. Now other things, they weren't introduced by the department, like the, I mean the multiflora rose was given out all over the state. But the zebra mussels, the Asian carp, that's just—

Dillard: And the Johnson grass, we didn't introduce that.

20 Corrigan: And the kudzu is just coming up from the—

Dillard: Right.

25 Corrigan: Okay. So those are, that's probably some of the biggest threats to the department. Although if they're done kind of reintroducing species, it might be keeping species out or trying to tame them. You did say you think the department, or at least have heard the department's becoming more political. Do you think that's, is that going to be a detriment to the department?

30 Dillard: It would be down the long haul, yeah. In my estimation, it would be. The thing that intrigues me the most, and again, I'm out of the main flow. But it's the increasing number of people that do not even go outdoors. I mean, the current generation, you can go anywhere and everybody's plugged into some kind of device. Playing games or talking to one another or texting one another. And I think that the number of hunting and fishing permits sold is  
35 continuing to decline. And that's not so bad for us in terms of revenue, because we've got the sales tax. But that tells me that people are not going out and doing those kinds of things. And again, that's not our only job, because we also have a tremendous job in terms of just trying to conserve the natural resources, period, above and beyond the huntable and fishable ones.

40 Corrigan: Now one downfall of that, though, with less hunting and fishing licenses, there is the possibility for overpopulation. Especially with deer, I would think—

Dillard: Yeah.

45 Corrigan: And things that can produce quite well.

Dillard: Well, I think, sometimes I think we're almost there with the deer.

Corrigan: Where, with the less licenses out there—

5 Dillard: Yeah. And not enough people to kill the surplus. Yeah.

Corrigan: Because I think that's probably, there are a lot of deer out there.

Dillard: There's a lot of deer out there. Yeah.

10

Corrigan: So yes, the revenue's not necessarily the downfall. But if less people are hunting and fishing, there's less of a connection to those.

15 Dillard: Right. That has been sort of the main connection to the conservation and natural resources is don't mess with my water or don't mess with my game. And what we need is more people who just enjoy the out of doors. And the way I used to look at the water pollution thing is would you drink water that a fish couldn't live in? (laughs)

20 Corrigan: Yeah. And most people, when you put it simply like that, they're going to answer that question.

Dillard: You know, we had a biologist one time, he was really funny. In our water quality unit. And people would call him about eating fish out of the Missouri River. And his question was, do you smoke? And if they said yes, he said, "Eat all the fish you want." (laughs) He was a real anti-smoker.

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Corrigan: Now these are kind of broad questions. And then we're going a little bit over our time. But broad questions about Missouri. You've had a long career in Missouri. How are we doing, and how are our streams and water bodies in Missouri?

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Dillard: I think they're really in pretty doggone good shape considering the amount of increase we've had in population. I think people have become educated in water quality things and have done a lot better job. It's not that we're not without problems. My greatest concern is the amount of chemicals that we're putting in from cities that get into the water supply. Ones that, you know, will influence hormones, will influence reproduction. You've probably read about the number of organisms that are—

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**[End Track 26. Begin Track 27.]**

40 Dillard: —increasing number of females versus males. And this really came home when I had cancer a couple of years ago. And when I was getting hosed with all these chemicals. And one of my friends said, "You probably have to get a permit for your toilet now, because those are all coming out of your body." And I thought oh my God, that's right. They're coming out of me and going right down into the river.

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Corrigan: Is there a problem with antibiotics in the water supply?

Dillard: Oh yeah, yeah. That's—

5 Corrigan: I mean that's not like the, I think you're talking about the endocrine blockers and the hormones.

Dillard: Right.

10 Corrigan: But antibiotics have got to be another one. And not just in humans. A lot of antibiotics are fed to the farm supply. The livestock.

Dillard: Yeah.

15 Corrigan: Is that showing up in the water supply?

Dillard: Oh, yes. It has shown up. Of course the treatable water that we drink, supposedly they've taken most of that out. But I don't know.

20 Corrigan: So that's, so in general the water supply is good in Missouri.

Dillard: Yes. But you know, down the long haul, you really wonder. Unless we can step up our ways of treating water.

25 Corrigan: Are we in a situation where, I mean, you hear other states, especially out west, predicting the next twenty, thirty years, fifty years, they're going to have serious water supply issues. Is that a problem in Missouri?

30 Dillard: No. If they'll leave us alone. Of course, you know, there was a project put in place to move a lot of the Missouri River water out west via some kind of canal system. And that would have really affected us.

Corrigan: So as long as nothing drastic changes or some big idea project, Missouri should be fine in water.

35 Dillard: I think so. Yeah. We're pretty well water-blessed. I think we've got, what, about 900,000 acres of water, I think. Total.

40 Corrigan: Okay. And a supply coming into Missouri. So from the Dakotas and from—we're okay?

Dillard: We've got the Mississippi River and the Missouri River. (laughs)

45 Corrigan: Now how are the, in general, how are the fish and animal populations in Missouri, do you think?

Dillard: I think they're really in good shape. When you realize the increase we've had in population in this state in the last fifty years, or seventy-five years, I guess. We're coming up on now, it's amazing we've been able to maintain and sustain the populations the way we have. I mean, we've almost got an over-abundance of deer. The only problem that I know of is that the quail populations have dwindled quite a bit. But I think that's primarily because of habitat. The lack of habitat. As the farms got bigger, there were just fewer places for quail populations.

10 Corrigan: Is that, are programs like, federal programs like CRP, is that the kind of habitats you need for quail?

Dillard: Yeah, that would help a lot.

15 Corrigan: You need to have wide open stretches of prairie grass and tall grass.

Dillard: Right. That's a good program. But of course they tend to fudge on that once in a while when the going gets tough. They'll go ahead let them graze it or let them mow it.

20 Corrigan: So that's one species you think that could be a problem in Missouri is the quail?

Dillard: Yeah.

Corrigan: Now you mentioned population. Is Missouri growing too fast?

25 Dillard: For me, it is! (laughs) No, probably not. No. It really isn't.

Corrigan: It's not affecting the overall conservation landscape of the state?

30 Dillard: No.

Corrigan: Its population isn't pressing it so much that we have shortages of water, we have shortages of—

35 Dillard: Right. No. It's just sort of constant encroachment. Just like Columbia, where we live now, one of my friends used to quail hunt there. Well, you can't quail hunt there anymore.

Corrigan: What about the population? Most people don't think of the cities as habitats.

40 Dillard: Yeah. (laughs)

Corrigan: Rural Missouri, it seems like that's mostly what we've been talking about. But what about urban conservation, urban environment, urban fishing. You know, how is that?

45 Dillard: I think that's, that has gotten a lot better. And I think a lot of it is because of the department of conservation and the programs they've put forward. You know, we started the

urban fishing programs in both Saint Louis and Kansas City and Springfield. And even here in Columbia, to some extent.

5 Corrigan: Is that a program you're involved in at all?

Dillard: I'm not.

Corrigan: Was that after your tenure there?

10 Dillard: No, it was while I was there. But I wasn't directly involved in the program. And then we have a lot of urban programs. Of course we—

**[End Track 27. Begin Track 28.]**

15 Dillard: —got our urban centers for people who want to come and learn more about how to manage their properties. And of course we have, one of the selling points of the “Design for Conservation” was we were going to get more into the other aspects other than hunting and fishing. We have done that big time. We've got a book basically now on everything. A book on trees and plants and animals. And snails and toads and frogs.

20 Corrigan: So the department is for urban people as well.

Dillard: Yes. Definitely. It better be. (laughs) Because most of them are there anymore.

25 Corrigan: That is where the population is, yes.

Dillard: Oh, yes. Yes. It makes it more of a challenge, too.

30 Corrigan: This is more southern Missouri. But the Ozark Scenic National Riverways and that. And that's a federally protected river. Do we have problems in Missouri? Are people boating too much? You know, float trips are quite popular. Is there a problem with pollution? Litter?

35 Dillard: Yes. (laughs) Definitely. Rowdyism.

Corrigan: Is it, especially when things are left off from boats, there is pollution.

Dillard: Yes.

40 Corrigan: Is it okay right now?

Dillard: Right now, other than some isolated areas where it's a real problem.

45 Corrigan: But we're not at a point right now where fishing populations are declining?

Dillard: I think we're kind of quote "on top of it" and can, well, I won't say legislate, but make rules and regulations. And our enforcement people are on top of it.

5 Corrigan: Do you know, is there a, how does the state, or I guess the department, view like the Ozarks Scenic National Riverways? Since they don't actually control it. It would be federally protected. Is that a good working relationship?

10 Dillard: Yeah, we work really hard to get that developed. It needed to be at the national level.

Corrigan: Do you think there needs to be more of that, regulation of rivers and streams in Missouri?

15 Dillard: Probably down the long haul we'll have to. Because otherwise, we'll love them to death. (laughs) We wanted people to be able to use them.

Corrigan: Well, there's that balance there. If they're overused, you almost have to stop use.

20 Dillard: You have to control it to a point, yeah. And you can do that by controlling the number of access points and the number of people that can be on the river at any one time.

Corrigan: You do get, I guess you would the need other departments' help, like water patrol.

25 Dillard: Right.

Corrigan: Is that kind of the easiest way to kind of, not control but to monitor those situations? If it is too much pollution, littering, motorized boats. But you're saying it's not affecting the fish population. So if people want good healthy streams and rivers to fish.

30 Dillard: The only thing affecting the fish populations is just the constant agitation. I mean as far as physically hurting the fish.

35 Corrigan: Is the—we just briefly touched on it, but the chemical runoff, is that a serious problem? Do you think people are taking it seriously?

Dillard: I think people are becoming more and more serious about it and thinking more about it. I think we should think more about it.

40 Corrigan: Is that kind of an area where you think, is it lacking right now? Or is it, is it education, is it, what needs to be done to get, so that people know what that fish they're fishing in that river is safe to eat?

45 Dillard: Well, that, the department of health at the national and the state level are both on top of that as far as levels of contaminants. And they actually put out a fish advisory every year. And it changes depending on the situation. But I'm talking about just kind of down the long haul as we put more and more stuff in, there's got to be some upper level capacity for nature

to recover. Nature has a tremendous recovery property, as you know. We can just abuse lands to fare thee well, and given enough time it will eventually come back. And the same thing with water, to an extent, at least.

5 Corrigan: Just not the point of no return.

Dillard: You know, this should not probably be put on tape, but if I wanted to be a terrorist, that's where I'd go. There are certain chemicals you could put like five drops in somebody's drinking water reservoir and you'd have a lot of dead people—

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**[End Track 28. Begin Track 29.]**

Dillard: —really quick. And those are very vulnerable, as far as I'm concerned.

15 Corrigan: Well, water in general, it seems to be that most people take it for granted.

Dillard: Yes. They do.

20 Corrigan: That it's just something that you turn a faucet and it comes out. And it should be clean. What do you think of these systems like, it seems like, for example, at Columbia here, there's a, basically a marketing plan to let people know that storm water to stream, this does not go through a treatment facility. But if people are educated, do you think they know not to dump things down? It's different from dumping it down your toilet—

25 Dillard: Right.

Corrigan: —versus dumping it down outside on the curb. That, at least in Columbia and a lot of places, that goes directly to the streams, where it doesn't go to the treatment facility. Is a lot of it just education, educating people?

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Dillard: I think a lot of it is. And which is hard to believe, but you know when you're sort of been that way all your life, you can't imagine that somebody can't understand that. And it's kind of like we were talking about the expectation. I think, I believe the whole litter campaign really did help. I mean, there's still a lot of litter but I think it really did help. I think if we hadn't had that, I think we'd be clear up to our eyeballs in it. (laughs)

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Corrigan: In garbage.

Dillard: Yeah. Yeah.

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Corrigan: Okay. So things to look out for. We're going to have to look at the antibiotics. We're going to have to look at the—

Dillard: Got to keep an eye out for it, yeah.

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Corrigan: —the endocrine blocking chemicals, the hormone growth chemicals. Missouri was at one time a, livestock roamed free into the forests. They fenced them in. You guys had to work with them to get them out of the ponds and fence them off.

5 Dillard: Right. (laughs) Yeah.

Corrigan: So that's the next step is you still have to deal with the waste.

10 Dillard: You've still got to deal with the waste. Yeah. Waste management is, yeah, it's an industry. (laughs)

15 Corrigan: What do you think about, it's not as, I mean, there is pollution with fish farming if it's done entirely, I mean, not done in cages and that. Same thing with like confinement houses for chickens, for hogs. Is that kind of intense factory farming, is that a problem?

20 Dillard: I don't think it's a problem. But again, the people that are doing it are aware of what they're doing and they have made provisions for that. And I think it was yesterday's newspaper, *The Tribune*, had an article about this trout farmer down in south Missouri. And he's got a system set up to deal with the waste from his fish farm. Which he didn't used to have, by the way.

25 Corrigan: Is Missouri pretty strict on, for example, confinement farming? Those sewage beds, that they're not going to leak. That they're not going to seep into the groundwater. Is that an area that you ever had a concern? You know, if you had a big hog farm production going in, they're having, you know, they have the waste is dropped down and then it's pushed out to pools. That those pools, those, I mean, they look like ponds. They are not ponds.

30 Dillard: Right. (laughs)

Corrigan: There are feces in that. But that they don't leak. And that there are permits and standards.

35 Dillard: That's the department of agriculture primarily, and the department of natural resources.

Corrigan: So before it becomes the department of conservation's problem—

40 Dillard: Right. If the fish die in the creek, then we come in. (laughs)

Corrigan: Do those departments work together well?

Dillard: Pretty good. Yeah.

45 Corrigan: Agriculture and—

Dillard: It kind of, it waxes and wanes, depending on who's in there. Of course, both department of agriculture and department of natural resources are a lot more political than we are.

5 Corrigan: But overall there's a good working relationship?

Dillard: Yeah. I'd say pretty good.

Corrigan: Okay. We are over our time.

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Dillard: Yeah. Got to go. (laughs)

Corrigan: We're going to stop here. And let me pause the recording. But thank you again for coming in today.

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**[End Track 29.]**

**[End Session.]**