00:00
(All right. We'll get started. This is Wednesday, June 29th, and I am interviewing Mike Fall for the oral history project for the trapping information. So we'll just get started, Mike. I see from the information that you gave me that you grew up trapping and hunting and fishing. And tell me a little bit about those experiences and who influenced you.)

Well, I grew up in northern Ohio. We had a small marsh that was about a quarter of a mile back from Lake Erie. So you could get in the boat and go out through the marsh and into the lake. We had orchards and, you know, a small subsistence farm and lots of vegetables and things. Especially in the '40s, with World War II and rationing, what we ate was what we caught, shot, or otherwise captured or grew.

01:20
([chuckles] And who—did your father trap? Any other relatives?)

My father trapped, but in that area virtually everybody trapped. All my friends in school trapped. If you had a note from your mother you could get the first day of hunting season off from school. So I mean, I would say, a wildlife culture. Yeah, my father trapped extensively, so I spent a lot of time chasing around the marsh. One of the great legends was me disappearing into the marsh when I was three years old and frightening everybody. "Where *is* that kid?"

([laughs] And they obviously found you.)

Well, or else I came back out when I got done doing whatever I was doing and found them.

(So you were doing that at a very early age.)

Apparently.

([laughs] Wandering around. Tell me a little bit about your educational background and work history.)

02:32
Well, I went to a, uh, small school that had at the time I was there grades one through eight. There were, I think, when I started, three teachers. And the most that were ever in my class was eleven, and I think at times it was down around five or six. And then I went to a big city high school seven miles away that had about a hundred people in my class. From there I went to Bowling Green State University, which was about forty miles away. And after a lot of messin' around majored in English and was sort of pointed toward outdoor writing. And then a kindly old professor somewhere along the line told me that was a pretty worthless way to make a living and suggested that it'd be a good idea if I got some technical background first if I really wanted to do that. So I packed all my biology courses into my spring and summer of my senior year and then went on to graduate school.

03:54
(And where'd you go to graduate school?)

Well, I did my Master's work at Bowling Green also and worked on initially sort of a mammal survey of northwestern Ohio, but ultimately my thesis involved mice on islands in Lake Erie. So I spent a couple summers chasin' around in a little boat, goin' to islands and trapping mice.

([chuckles] What kind of traps did you use for them?)

Mousetraps!

([laughs] All right! [laughs])

They were called museum specials. They were made by an animal trap company, Woodstream Corporation, and they're like regular mousetraps, same kind of mechanism, but they're a little longer and wider. And the purpose of that is so that when the bar comes down and strikes the animal, it strikes 'em across the back instead of in the head, because for systematics work, to look at variations among animals or identify species, the skull has very, very important characteristics, and so you need to preserve the skulls.

05:19
(And you did your Ph.D. work—?)

I did my Ph.D. work at Penn State. And my reason for goin' there was originally that one of the grand old men of rodent biology was at Penn State, and at that time I was tryin' to arrange a project that would have me living out on a remote Pacific island for two years trapping rats. That, because of uncertainties with the military, because of the strategic importance of that island during the Vietnam war, turned out to be impractical. So I ended up spending a couple thousand hours sittin' in basements watching rats instead. [chuckles]

([chuckles] And—OK, so explain that, sitting in basements. You were watching tapes of rats, or were you watching actual rats?)

I was watching actual rats. [chuckles] My graduate work turned out to be a little bit complex, because early into these efforts, I'd been at a Penn State field station for a year workin' on woodchucks. And then my advisor decided to move to North Carolina State, which I didn't want to do. So I ended up switching to a different department and another fellow and I set up a vertebrate pest control class. This was right at the stage that universities were getting pressed under the Animal Welfare Act to build up new facilities that would meet new federal standards. I became kind of a guinea pig for the university, so a nice veterinarian and the Dean's office helped me rehabilitate an old house. We made the upstairs into offices and the basement into a rat laboratory. [chuckles]

07:42
(Did you do any trapping besides rats, you know, in that school work area in terms of, like, probably after your four-year degree? I mean, did you trap anything else? Did you do that at home, kinds of things?)

Well, while I was an undergraduate and started the summer of my freshman year, I think, even though I was majoring in English, I started working in the biology department museum. This was a really spectacular museum, because it had collections that went back to the late 1800s from a

fellow, the fellow that started the science department at the university had been a ornithologist on a Steere expedition to the Philippines. So he had many, many collections of birds from the Philippines and then mammals from all over the world. And those collections had been stored in basements and attics and things all over the university. So part of my job turned out to be recapturing these animals, cleaning them up, and displaying them. Our university also had a cooperative agreement with Wildlife Services, which at that time was called Wildlife Services and went through several subsequent name changes. Their office was down in southern Ohio, so often if they had calls, they'd ask us to, you know, help with this or that. So in the course of being at that museum I trapped a whole host of things. You know, people would call up and say, "There's a bat in my house," or so, and yeah, the university would help. And there wasn't much of a vertebrate pest control industry in those days, and so Wildlife Services was very important in that respect, and probably most little universities with biology departments did those things also. When I went to Penn State, I spent the first year at a field station in southern Pennsylvania, down by Gettysburg. That project involved studying woodchucks. The overall project was related to trying to understand the mechanisms of woodchuck hibernation, but also their ecology. This was a army ordnance depot and basically had the run of 16,000 acres of high-security munitions storage. And there'd been a woodchuck population explosion at the time that they built this, because they built all these cement bunkers that were covered with dirt, and so the woodchucks would burrow into the dirt.

11:02
So for that year that I was at the field station, I basically ran a trap line of two hundred traps seven days a week. And the trapping season was more or less—started in February or March when animals came out of hibernation and ended about mid-October to November, when they went back into their burrows. Then the rest of the time, I was keeping a whole host of woodchucks fed and clothed in several old barns. We had a little lab where we were working. We also did a lot of work there with deer, and we had two thousand square foot—or a thousand by a thousand mousetrap grids, with four hundred mousetraps in each of 'em that were run once a month, summer and winter. So I spent a lot of time on snowshoes digging down through the snow to set mousetraps on that stupid grid.

12:16
([laughs] What work did you like the best during your education, your Master's work and your graduation, what of all that work did you like the best and why?)

I rather liked sitting in my basement laboratory staring at rats.

(Really!)

It took some real self-discipline to get used to, because when I first started, I would just—my idea was just to sit there with pencil and paper and keep notes. Well, in a small lab, the rat's very sensitive to sounds and things. They would take a little while to get back to normal activity after you'd walk into the lab. So I would go into this lab and sit there very quietly for fifteen or twenty minutes. Right about the time the rats were all calmed down and ready to resume activity, I'd fall asleep and drop my pencil or drop my pad or something—

([laughs])

—and pandemonium, just start all over. So I really had to reorient the laboratory approach a little bit to facilitate observation.

13:27
([laughs] Well, after your education, tell me a little bit about your work experience.)

Well, throughout my education, in part because of this experience with the Philippine bird collection, and in part because of the professors that I worked for having been interested in rat outbreaks in the Philippines after the colonial period, my orientation had been to work on rats in the Philippines for a long time. As I approached that, I looked at several different possibilities of ways to do that. And right at about the point I was ready to make a decision, the National Wildlife Research Center, which was then the Denver Wildlife Research Center, got funding for an international programs project from the State Department and started out workin' on rats in the Philippines. So I was recruited into that situation and spent about seven months in Denver waiting for the government to get their act together, and then spent about five years in the Philippines.

14:55
(When did you start with DWRC at that time.)

1970. October 1, 1970.

(Remember that date.)

Well, that was back before the fiscal year changed, but it certainly became a pretty easy date to remember once the fiscal year changed.

([laughs] And so you're five years in the Philippines. What did you do there?)

We had a project that started out with three Americans and one Filipino biologist, perhaps two. And we were based on the University of the Philippines College of Agriculture, which was a beautiful big campus right on the lower slopes of a rainforest and a big marsh area, much of which had been converted to rice fields. That project grew substantially over a period of time. We were basically looking at finding better rodent control methods, but at the same time we were also training graduate students and training Asian biologists and training farmers and training extension workers. We I think by the time I left had a staff of about thirty, and many of those were students that were working for us part-time. We went through several building renovations. What had started out as an old pesticide storage shed by the time I got there had been converted into a small research center. We put several additions into that and built enclosures and animal pens and observation towers.

16:47
And then ultimately, and this was about the time that I was winding up and getting ready to move back to Denver, we got a rather extensive US government loan to the government of the Philippines, and that put us into a new building program. In the original project, we had built three houses. All the faculty were housed on campus. Well, in the course of that developmental loan, we built several more houses. We built a dormitory. We worked—I think our piece was setting up eight field stations with surplus military buildings in different parts of the country. The

German government did four more, so we ended up with twelve field stations scattered around, so it became quite an extensive project.

And then ultimately, and it was I think finished up when Lyn Fiedler was there, we built a new research center that encompassed not just vertebrate pests, rats and birds, but the whole range of crop protection disciplines.

18:14
(What type of trapping did you do in the Philippines?)

Primarily rodents. There were a number of different species of rats in the Philippines, and while I was still in Denver, one of the initial efforts was to try to describe what the rodents were and identify which ones were really involved in crop damage. And so we had collectors that were traveling all over the country, to all the major islands, and capturing animals. And those collections were principally placed in the Smithsonian. So I had an opportunity to look at those collections before I ever went over there.

But what we were often doing in terms of trapping there was simply related to evaluation of different control methods, looking at population dynamics, and so we were usin' a variety of kinds of rat traps, much like I'd used in my Master's work. And also doin' a lot of live capturing. One of the things that was done extensively was to capture animals and ship 'em back to Denver, because we had a number of scientists that were based at the Denver center working on a couple of species of Philippine rats. And so we'd go through the process of capturing these animals, getting them identified in good health, and then takin' them in to Manila in the middle of the night and gettin' 'em on an airplane.

20:15
(So you did ship live rats to Denver?)

Oh, sure.

([laughs] All right! Was there trapping of any other animals in the Philippines that you-all did? It was geared toward rats?)

It was geared toward rats. We did a lot of bird trapping, especially toward the tail end of the time I was there, because we were expanding the scope of research effort a little bit.

(All right. After your five years in the Philippines, what did you do?)

Well, I moved back to Denver, and I continued to be a staff mammalogist in the international programs group. What that basically entailed was trying to take some of the technology that we had developed in the Philippines and extend it to other countries, responding to various kinds of requests that would come in to the State Department from US embassies around the world, either for information or for site visits. So I spent a fair amount of time working with project development, training, working with biologists from other countries. At that time we had a number of foreign biologists that either were working with us in graduate programs in Denver or would come for shorter training visits that worked with us. In the course of that, I had an

opportunity to visit a lot of different countries and help get several of our field station projects started.

21:57
(And you came back to Denver, it must have been in 1975?)

Right at the end of ’75, yeah.

(Mm-hmm. And when you did the other overseas trapping, or work, did you do any trapping in other countries?)

I did lots of trapping, yeah. [chuckles] I would typically travel with a whole suitcase full o’ rat traps.

(Really! [chuckles])

For whatever things I thought I was gonna encounter.

(Give me an example of a country or two that you trapped in.)

Well, uh, we worked in Nicaragua and Venezuela a fair amount. And in both situations, they were havin’ substantial damage to rice and really didn’t know what species of rat was causing the damage. So we’d go in, collect some animals, try to identify ‘em or get ‘em shipped to experts. I worked in Indonesia quite a bit and did a fair amount of trapping there. Wherever we would go, we’d collect animals and make what are called study skins for museum preparations. So we were basically doin’ a necropsy on the animal, removing the skin, stuffing it with cotton, not in a lifelike—when you think of taxidermy, but flat mount that could be stored in a museum drawer, and then preserving the skull.

23:31
So, you know, we’d stop and I’d take all these things out and set ‘em on the hood of the vehicle or somethin’ to dry and invariably gather a crowd.

([laughs])

That was also, it turned out to be a very good way to get the attention of high-level embassy people in terms of starting projects. Because if you want to sort of deformalize a briefing of high-level diplomats while you’re tryin’ to tell ‘em you need money to do rat control, start passin’ a bunch of stuffed rats around the room. Loosens everybody up, as it turned out.

([laughs])

[chuckles] I had an opportunity to do that one in a number of places.

(And it worked?)

It worked. I spent a lot of time in Nepal and did a lot of rat trapping there as well.

24:24
(Now, on something I got from you before, I saw the jackal—)

Mm-hmm.

(—the stories about the jackal. So tell me a little bit about that and where that was.)

Well, when we started the project in Bangladesh, it was entirely oriented toward rodents. After Joe Brooks was there a little while, it became clear that there was concern about jackal problems as well, primarily as livestock predators, probably on chickens, was my guess. But on small farms, a variety of kinds of problems with jackals. So Joe had constructed some jackal pens, you know, much like the pens that we have out here, small kennel things for holding jackals. The design was pretty much based on the facilities that we had at our Logan, Utah field station for the coyotes.

Joe went on home leave during the final stages of construction, and when he came back from home leave, I went over there to help him get some jackal work started. At that point I'd moved out of international programs and was supervising predator control research at the center.

So at any rate, we looked at that. Joe had trapped a couple of jackals. You know, we were—we didn't have good communication in those days. We used cables, which was fairly slow. So Joe and I were sending cables back and forth. Very mysteriously, these jackals would—you know, you had, I don't know what, probably twenty kennels, maybe, or more? And these jackals mysteriously, you had two that would be in a different kennel every morning. So at any rate, I went over there to help Joe. The contractor had apparently sort of done eye-level stuff, so they built these kennels without any screens on the top. [chuckles] And jackals, coyotes, and other things climb very readily. So these jackals would climb up and check out the kennel down the road.

27:13
([laughs])

At any rate, one of the first things we did was sort of rebuild those pens and then we trapped a few jackals to get 'em filled up so Joe could start some research.

(And there was something about the villagers and the jackal traps, you had sent me about how they were "assisting" with the jackal traps.)

Well, we wanted to obviously capture the jackals alive and in good shape, and at that time, soft-catch traps or padded traps were a relatively new technique for capturing carnivores. They weren't very efficient. They—you know, animals tended to get out of 'em pretty easily. But at any rate, when you're doing work in a developing country, you kind of work with what you have. Joe had some of these traps, and so I fixed up the traps and got 'em ready to use in the field, and we went out and started setting traps for jackals.

One of the things the jackals were doin', as it turned out, was quite a bit of sugar cane damage. They would go around and pull down stalks and chew on 'em and do a fair amount of damage that way. So we were trapping in sugar cane fields and areas around them. It also turned out that

the way they process sugar was to boil these things in large, flat pans maybe the size of this table over an open fire, and so there would be a molasses residue on those pans at night. Well, the jackals, you know, once the sugar cane harvest started, abandoned the sugar cane fields and went over to the molasses pans at night and would lick the molasses.

At any rate, so we started trapping jackals. We were trapping all around these areas. Basically, the traps were gettin' stolen as fast as we could set 'em. After a little investigation, it turned out they weren't really being stolen, but helpful villagers who really hadn't seen traps like these before but quickly got the concept that this was a new way to harass jackals were moving the traps and setting them in "better" quote places. [chuckles]

30:07
([laughs] Were they better places?)

No, not necessarily, but you know, as a consequence, we had the whole village involved in this process, and we were doin' several villages, so whenever you would catch a jackal you would certainly have a big crowd of onlookers helping you.

(So you worked in the international programs for about how long with the center?)

About eleven years.

(Really! And then what'd you do after that for the center?)

Well, in June of 1981 I moved into what was then known as the predator management section and basically supervised the research on predator control methods the center was conducting. That entailed work at several field stations as well as work in Denver.

31:13
(I see by my notes I do have one question I want to go back to before we leave your international experience and move you into administration, and then we'll talk about what you do now here. When you were doing all that traveling internationally with traps in your suitcase [laughs], this points up some interesting points to me, in the '70s, it had to be, mid- or late '70s, did you have any problems with customs? What kind of traps did you usually have with you?)

Uh, by and large I didn't have any problems with customs with traps during that period. And I usually had rat traps, because that was sort of the focus of our project. You know, if somebody went as far to look, they'd kind of laugh.

(And that would be it?)

That'd be it. Um, official passports for government employees tend to do wonders in getting you through customs. But I did have one very interesting experience in England, because one of my counterparts that I'd worked with a lot for many, many years was in charge of rodent control research in UK. They also did a lot of developing country work. But ultimately his department did a variety of kinds of things with other mammal problems. This fellow was a trap collector, and I also collect traps. So I was in—you know, I would guess this was a little later on. I couldn't

be certain of the year, but I'd say late '80s, because by that time Joe Brooks was in Pakistan and I was headed over to help out good old Joe Brooks again.

33:24
([laughs])

I didn't quite abandon my international ties after I moved into administration in Denver. So at any rate, I had a couple hours between flights, and this fellow who was retired but still very active and very prominent in mammal control research lived near Gatwick Airport. So I took a taxi and went over and visited him. He was, you know, pulling out all his old traps and showing me, and pulled out what was known as a gin trap, which is just a plain old steel leg hold trap, but "gin" is sort of diminutive of "engine," that traps used to be known as in the 1500s or something. So gin traps had been made illegal in England in the mid-'50s. At any rate, so he had this whole collection of these things. He said, "Well, you don't really have any of these gin traps, do you?" These were fox traps. And I said, "No, but it—you know, not very convenient, because I'm headed for Pakistan."

34:49
He says, "Well, you gotta take at least one." So OK. I said, "Yeah, I really need one." So I picked out a nice-looking old gin trap. It had a little chain and it had a long trap stick for staking it in the ground, which you know, it was about an eighteen-inch spike, somethin' like that, a big nail, maybe. So OK. We've got these traps spread all over his living room floor, and it's gettin' time, I gotta get back to the airport. So I get a newspaper and wrap that trap up in the newspaper and I stick it in my hand carry, without thinking.

Well, when I get back to the airport, and sittin' out—"Dave, you're sure I'm not gonna have any problem with carryin' this trap?" "No, no. Won't be a problem." So I get in there and go through airport security, and just send my bag through the x-ray machine. There's this kindly Australian fellow, an airport security guy. Well, this bag goes through, and the fellow says, "My God! What have you got in there, a saber?"

36:11
([laughs])

I said, "No, no, that's just a trap." [chuckles] At any rate, so, you know, we start unpacking my hand carry and unroll this thing and here's this trap, a long spike and chain. And this Australian fellow looks at that and says, "That's a gin trap! We used to use those in Australia! They're illegal here!"

([laughs])

So that sort of got the attention of the airport security guys, so then they had to make a few calls, and the bobbies came. So they said, "Yes, Dr. Fall, you need to come with us." So I'm off sitting in a room waiting for them to examine this trap. After about half an hour, the two bobbies and the supervisor came back and very formally said, "Well, this trap will only be illegal if you attempt to set it in the airport." I promised I wouldn't attempt to set it in the airport. So we packed my trap back up and delivered me back to airport security. I'm watching the time.

37:35
Well, OK, so this time the guys in airport security, I suppose to save a little face, said, "Well, that still looks dangerous. So we'll give it to the pilot, and he'll keep it in the cabin. And then about five minutes before you land in Islamabad, just tell the stewardess that you want your trap back." OK.

([laughs])

So you know, whatever it was, eleven hours later or something, five minutes before we land, I want my trap back. Well, they never heard of it. I mean, "Trap? What trap?" "Well, there's supposed to be a package with the pilot." "No, nothin' there." OK. So easy come, easy go.

38:32
(So your trap was back in London?)

Who knows? At any rate, this was 5 in the morning. I—take the, you know, airplane lands out in the middle of nowhere and I take the bus into the airport. I'm standin' there waiting for my baggage. Not a lot of people standin' there. Bust at any rate, so bags are comin' off and comin' off and all of a sudden this thing in a big, six-foot-long red plastic bag marked "Hazardous materials" in about foot-high letters comes off. And as it's going around, while I'm waiting for my other bags, I see my name on it.

([chuckles])

[chuckles] So I pick this thing up, look inside, and sure enough, inside is my gin trap. So 5 in the morning, I'm standing in line with my two suitcases and my carry-on and this six-foot-long red hazardous material bag. So, I'm and I, you know, I didn't see any other Americans. So I'm casually, while I'm standing in line, just sort of slowly crunching up this bag and collapsing it and slipped it back into my carry-on, thinking, well, [laughs] at least it'll be as inconspicuous as possible. So I finally got up to customs and showed 'em my official passport. "Oh, good morning, Dr. Fall, have a nice visit." And on my way.

40:27
([laughs])

So I finally caught up with Brooks and I said, "Joe, I'm not carryin' that damn trap back home with me. [chuckles] If you want to stick it in your sea freight when you move home in two years or somethin', help yourself." At any rate, I ultimately got my trap when Joe moved back some time later. There is some danger about traveling around with traps.

([laughs] Oh, that's good! Now, you moved into administrative work in 1981, except for some brief forays [laughs] into some more international work. When did you retire, officially?)

Well, I retired officially in 2000, but I might mention also that the predator work slowly expanded as the Center reorganized and changed its name several times. So when John Seubert retired in 1991, the mammal research program, which was everything except carnivores, was consolidated, and so that brought me back into some other kinds of work, including rodents. And then when the international programs group disbanded in 1993, I acquired into the mammal

program several of the biologists that had been in that group. And so we continued to do some international work, but case by case, it wasn't really on a project basis. And then I basically supervised that expanded group and its successors until I retired in early 2001.

42:23
(What is your role now with the Center?)

I'm a part-time biologist with the Center now in the mammal research program and work with a project with the International Association of Fish and Wildlife Agencies and the state wildlife agency, so I'm evaluating various kinds of animal traps.

(When you think about all the work you did with NWRC, what did you like best about the trapping aspects of your work?)

[pause] Well, that's a hard question, but one of the exciting things about trapping, and it's you know, it's a bit like bird watching and other kinds of activities, is, it gives you a good excuse to get out in the field at all times of day and really have an opportunity to closely watch the behavior of animals and the habitats in a way that you normally wouldn't do. So it sort of forces you to pay very close attention to a lot of the interesting outdoor things that you could easily walk by if you were just on your way to go fishing or somethin'.

43:49
(What did you like least?)

Uh, I was never very, uh, very patient with bureaucracy. And to this day, you know, that continues to be a concern. You should always try to make things as simple as possible. I got very, very acquainted with bureaucracy in the course of doing the international work, because, you know, working through embassies, the simplest cable you want to send back and tell your supervisor you arrived alive, you know, usually required about fifteen signatures or something to get that sent back through the State Department.

(Mm-hmm. Well, in your work now you probably work quite a bit with bureaucracies, with the international—?)

Not really so much. I mean, most of the bureaucratic part of what I do is still within the Center. My orientation has always been in part because of my own experiences with it is to try to keep the bureaucratic things out of the way of scientists and keep them focused on science rather than the latest problem of what form you need to fill out to do what to whom.

45:26
(What interactions did you have with operations trappers and government contract trappers?)

Well, not a lot. Starting when I was an undergraduate, because of this cooperative agreement that we had, you know, I suppose that was about 1962 that I started havin' those contacts. And as a consequence, I knew a lot of the people in operations in the East. One of the things that Bowling Green did was sponsor a bird control conference every couple of years, and one of my side jobs for the six years I was there was helping to organize those, you know, everything from doin' registration to picking up visiting government dignitaries at the airport and following up, helpin'

with the proceedings. So I met a lot of people in operations that way. Same when I was at Penn State. During that period, Wildlife Services was still very involved in urban rat control, so as a consequence of the kind of work that I was doin', I encountered a number of people that way.

46:54
After I came to Denver, one of the first things I did was go to Oklahoma for several weeks because we had a research project there that was in cooperation with the operations folks. I spent a fair amount of time there workin' with them, collecting birds for a food habits study that we were doing, and then when, I came back to Denver after that, worked with some of the folks at the Denver lab on the other end, doing necropsies on the bird and seein' if they ate peanuts, which of course they did, big time.

([laughs])

When I went to the Philippines, that project was not just research, even though it was administered through the Center. So I not only had the responsibility for working the Philippine counterparts on the research side, I also worked with counterparts in operations, and as a consequence of the Philippines being a former US colony, they were organized very, very similar to the way we were. My first supervisor in the Philippines was a former state director. He was leading the AID project at that time. And then of course when I moved back into the predator work, we worked extensively with operations, because most any kind of field project required a great deal of logistics and people and covered wide areas, and with the kinds of budgets we had at that time for predator research, we couldn't simply have done anything on a very large scale with just the resources in hand. So we always works with operations folks in a number of states to do whatever kind of research we were doin'.

49:14
(In your years at NWRC, when changes did you see in trapping?)

[pause] Oh, [pause] well, I guess in terms of [pause] the work in operations, one of the big changes has been the relative numbers of animals taken. I'm most familiar with coyotes, but in the mid-'70s, trapping accounted for probably a third or more of the animals that were taken, and today it's much, much lower. Part of that is because of other kinds of technologies that were developed and worked effectively: M-44s, aerial hunting, guard dogs, fences, a variety of other kinds of things. In the hands of a skilled trapper, trapping is still one of the most selective kinds of tools that we have for individual problem animals, but in terms of a general approach, its importance as a first-line control tactic is not nearly as important as it was many years ago.

50:45
And [pause] in many cases, the cooperators and the employees themselves still call themselves "government trappers," but that's—I mean, once upon a time, government trappers, that's basically what they did full-time. And that's really not the case now, because now the government trappers are professionals and they're trained in the use of a variety of techniques, trained in biology and ecology.

(So they don't just trap any more?)

They don't just trap. But at any rate, I had a good opportunity to work with operational people, and I continue to do that, a little bit, in the project I'm involved in now. I work with a lot of state biologists that by and large supervise the private trapping programs in the individual states, set trapping regulations and those kinds of things.

51:50
(What public attitudes did you see over your years at NWRC?)

Well, I never had to deal a lot with public attitudes at NWRC. But one of the things that always struck me was the difference between developing countries and our own country, because many, many places, in my experience and the experience of many others, it became clear to governments, villagers, or whomever that we were involved trying to help increase or stabilize food production, prevent wildlife damage, work with programs that could lessen the impacts of diseases. People were very, very grateful. It was often big news if a researcher was workin' in a village or workin' in a country. I inferred from the fact that a number of the field stations that I supervised were being attacked by terrorists and other things that that wasn't always the case in the US. [chuckles]

([chuckles] So there was quite a difference.)

53:19
Let's say a more vocal, active minority.

(So that's what you saw change the most, perhaps, is the militant aspect?)

Well, I think that's certainly always—that militant aspect's always been there, and I'm, you know, certainly familiar with it from study more than personal experience. I mean, there's been a number of public attitude studies done and still are, and many of 'em are highly flawed because they're based on misinformation and incomplete information, and what you get back often depends on how you ask the question. The militant part, first I first encountered that when I was in graduate school. [pause] It was all wrapped around the Vietnam war. But we had people when I was at Penn State firebombin' laboratories, not because they were necessarily against the research, it was simply that it was government-funded, or it was a way to protest. To me, much of what I subsequently encountered with militancy, whether it's among the professional groups that make their living raising funds by being the cheering sections or the ones that are actually out lighting the fires, they basically are unemployed Vietnam protesters [chuckles] or their heirs. But you know, that's where I've first seen this. And the government's always been a very good target for that kind of protest. The Denver Center, by nature, or by virtue of the fact that it works with techniques that kill animals, has always been a target. It was a target when we were in Denver, and certainly a number of our field stations in the past were very vulnerable and were attacked.

55:54
(Now, I know that you collect old traps. So how did you get into doing that? What sparked that hobby?)

Well, the consequence of the way I grew up, I had quite a few old traps scattered in barns and basements. [chuckles] So I was always around old traps. Once I started bein' involved—

working with training, and I started that when I was in graduate school, talkin' to pest control operators and others about how to trap, well, you pick up things that you use in training programs, this kind of trap, that kind of trap. Overseas, after a number of feeble attempts when I'd be on a trip of trying to bring back some souvenir for my wife and being berated, what a terrible thing when you spend your money on that, I started lookin' around and pickin' up traps when I'd see 'em, at that time, mostly mouse and rat traps because I was doing briefing. A very good briefing technique is to have a bag full of mousetraps when you're talking to people about research programs, sling 'em out across the table. "This project isn't about trying to find a better mousetrap." So at any rate, I piled up a bunch of traps and got [pause] back to the US—I guess I had a few on walls in the Philippines also—got back to the US and started unpacking, and what better place to put the traps than hang 'em on the walls? So, you know, gradually I started gettin' more traps. And the more species I got involved with, the more kinds of traps I picked up.

57:58
([chuckles])

And since I was still traveling to a lot of different countries, I, you know, continued to spend my spare moments lookin' around for unusual traps.

(What's the motivation for collecting 'em?)

Well, I collect a whole slew of things.

(Besides traps?)

[chuckles] Besides traps. And I don't know if that could be a character flaw. It could be the fact that my family had a summer antique shop once upon a time. But I collect a lot of stuff. My interest in traps is in the different kinds of mechanisms that are used in different kinds of traps. And I envisioned part of what I would do when I retired is spend a little more time studying those. Unfortunately, my traps are still packed up, by and large, in the attic of my garage until I get some more basement walls finished so I can hang 'em back up and curate 'em.

59:09
(What's your favorite trap that you have?)

I don't know. I've got a bunch of neat traps. I have one trap that's made from bamboo and powered by a bow-and-arrow kind of arrangement that's used for live capture of rats in the Philippines. I kind of like that one. But I think my real favorite is, when I was working in Korea, they had had a national contest to invent the best rat trap, and so they had forty traps submitted. And the Korean government biologist had a little project where they were evaluating these traps. Now, they only had one prototype of each kind of traps. So they took these forty traps out and set 'em on farms for a few days to see which would catch the most rats.

At any rate, when I finished in Korea, the Korean government presented me a very nice black enamel and pearl plaque commemorating my work there and how helpful I'd been. And the loser from [chuckles] that national trap contest, which is a sort of a normal-lookin' rat trap, but it's got a little food cup, and then around the food cup it's got these huge spikes. So the idea was that if a rat would come up and try to eat rice out of the food cup, then the fire would come down and

impale the rat on these spikes. Clearly, it didn't work real well, because it was number forty out of forty. [chuckles] At any rate, I do like that trap.

61:19
(And you got that one as a gift? [laughs])

I got that one, yes. And I've actually got a little book in Korean with a picture of it sayin' how worthless it is.

([laughs] Well, when you were doing your active work trapping, what was your favorite trap then to actually use, and why?)

Well, I spent a lot of time building woodchuck traps, because our woodchuck project was pretty low-budget. Basically runnin' two hundred traps, keepin' track of populations, but a bunch more to catch animals for the laboratory and for all these barns where I was holding 'em and all these various freezers and refrigerators [chuckles] where we were tryin' to see what it took to get 'em to hibernate. That design was based on an old Pennsylvania Game Commission rabbit trap, made out of just three-quarter-inch pine boards. So I spent a lot of time makin' those traps. But woodchucks have pretty impressive teeth, and if they stayed in one of those traps for very long, they'd pretty well drill their way right through. So when I got there, they had piles and piles of these old traps with big holes in the side and stuff that woodchucks had chewed out of. So in addition to continuously building new traps, I was continuously patching old ones.

63:03
That was a high incentive to check the traps quickly, so you'd get there before the woodchuck escaped and you had to repair the traps. So I came to really enjoy the old woodchuck traps as well.

([laughs] What was the most difficult social or political situation you found yourself in, and how did it get resolved?)

Well, I'm awfully tempted to say embassy cocktail parties. [laughs] Which are indeed [chuckles] pretty terrible for an impressionable marsh guy. The way I resolved those is to get the hell out of international work and start hangin' out with trappers again. A variety of kinds of problems you have when you're workin' overseas. And I don't know that "difficult" really captures it for me, because, you know, whenever you're dealing with people, particularly when you're dealing with people that may have different agendas than you or people that are funding work and don't understand that research might actually take ten years to produce something useful and it isn't gonna happen tomorrow, and the way you resolve those is just to be patient and try not to take offense and work your way through the problem.

64:51
(So you found that your international work actually presented more of these difficult situations?)

Well, I wouldn't say that, you know, it necessarily had to do with the international work itself. It's just that we were dealing with a number of different agencies and a lot more people, so sometimes to do the simplest thing and get somethin' on the ground would take a lot of interaction and planning to accomplish, whereas here it probably wouldn't.

(So your resolution was usually planning and interaction?)

Mm-hmm.

(OK. What will trapping and wildlife management be like in the future?)

65:43
Well, I think [pause] wildlife management goes through cycles. We have a long tradition of appreciating wildlife. We have a tradition of—in fact, a legal basis for the government not only owning wildlife but holding it in trust for the people. State agencies have the legal authority to manage resident wildlife. The federal government doesn't get involved except in places where they are the land management agency or where there's international treaties that come to bear. But as we create bigger and bigger interface between people and wildlife, you know, wildlife problems become more ubiquitous. What used to be a concern mainly with rats and pigeons when we were dealin' with people in cities and a problem with crop damage when we're dealin' with people on farms has really broadened to include a whole host of new problems as we deal with changed habitats and people in suburbs and the high interface with wildlife, whether it be woodpecker damage to houses, which is a big, big problem now that wasn't conceived of when I was growin' up, or wildlife diseases. The more we look, the more problems we find, and the problems are extensive. We don't have good ways to manage this human-wildlife interface. We want to be close to wildlife, we want to enjoy them, but we don't want 'em in our houses or back yards to the point where they threaten our pets or our children or our property. I think there's gonna be a continuing need to find creative ways to manage those kinds of things. Insofar as government entities are involved, they're probably still gonna have an important role in research. There's certainly been tremendous growth and broadening of the pest control industry into the area of wildlife.

68:37
What used to be primarily rodent control and a little bit of bird control is now a major industry in many areas, and lots of companies doing suburban wildlife control. And that's become an area where trapping continues to be very, very important, because if you're trying to deal with one raccoon or one squirrel in a problem situation and you don't have the alternative techniques and you're regulated so that the kinds of techniques you can use are restricted, trapping is still the likely way to resolve that problem.

(So you just see the human-wildlife interface just continuing to grow?)

That's certainly the pattern. We've done very little to limit our population growth and our expansion into traditional wildlife habitats, and there's no real signals that we intend to put those limits on any time soon. [chuckles]

69:57
(To slow down. Well, I think we're about done with my questions. Is there anything you'd like to add?)

Well, not really. [chuckles]

(OK. [chuckles] Thank you very much, Mike. We are concluding this interview at about 70 minutes on June 29, and thank you for your time.)

You're welcome, Nancy.

70:16 End of interview.