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UNIVERSITY OF MASSACHUSETTS
AMHERST • BOSTON • WORCESTER

DEPARTMENT OF FORESTRY AND WILDLIFE MANAGEMENT
HOLDSWORTH HALL
AMHERST, MASSACHUSETTS 01003

November 16, 1978

Dr. Joseph J. Hickey
5517 Dorsett Drive
Madison, WI 53711

Dear Joe:

Enclosed is the transcript of your biographical Career Narrative which I am sending you for the purpose of suggesting slides which you might or might not provide. The transcript is pretty literal with only a few spots of questionable accuracy (i.e.; p. 8 line 14, p. 13 line 10, p. 14 lines 7 & 16 and p. 16 lines 22 & 28). Otherwise the transcript should match your copy of the original unedited master.

Any suggestions you have on slides or editing you can identify to me by reference to page and line of the transcript. The transcript will only be used for editing the the tape, not for distribution with the final version.

Everyone is well. Give our regards to Susie. We enjoyed your visit.

Sincerely,

Frederick Greeley
Associate Professor,
Wildlife Biology

FG:em
Encl.

Thank Susie for sending the
Timbergen address on autism.
We ~~will~~ read it with interest and
will pass it on to Lynn -
FG

J. J. HICKEY

CAREER NARRATIVE

July 18, 1978

Transcript of Original Master Tape

Testing Testing Testing Testing -- This is the story of Joe Hickey's life. It's a fifty-minute burst which is what professors are always talkin, told of course in the accents of ~~The~~ Bronx in which I was raised, although I was born in Harlem. Around 1920 ~~The~~ Bronx was a rather lovely place with plenty of open space, fair amounts of birds, and ah, nice things like Boy Scout troops, Bronx Park and access to the American Museum of Natural History. So that being raised in ~~The~~ Bronx meant that you had access to Nature and that you also had access to some great educational institutions. So I don't feel particularly wharped in that respect in looking back at my boyhood. In fact I think ~~it was a~~ I had a gifted childhood in the sense that I had access to such a thing as the American Museum of Natural History. (Static) but unfortunately I wound up in a high school of 5,000 where I was completely lost, and I must say that my high school period was a disaster. I knew nobody, I had never got anywheres, and after I had worked a year for ~~an~~ an insurance company I went to college. And this time I decided, by George, I was not going to be lost. I was on the campus of New York University with about only 1200 students, and so I went in for everything. I was on the literary magazine, -- the ^{year} book -- I was president of my class, I was on the Student Council and, ah, I ran Cross Country and track. My classmates probably remember me most for the latter because, ah, apparently I won very few races and ~~the ones I didn't~~, a couple of the ones I did win happened to be the big ones, so that John Keilran, the New York Times Sports reporter, reported that I only won the big ones. Well, that wasn't really true; ^{of the lesser races} I won, ~~won~~ two of them. However, ah, ah, when the depression came on, I sought refuge in the only job I could grab at the time,

and you weren't choosy about jobs. I wound up with Con Edison which I must confess was an absolutely terrible company with a terrible personnel policy^{so} that you got stuck in a little job and you had to go up through the channels that were there, and so, I woundⁿ up in wholesale power sales and no place to go but to be a supervisor with an electrical engineering degree; and since I had only a degree in history, I was going nowhere. Ah, so, during this Con Edison period I was resorting more and more to bird study and I became exposed to a, a young German ornithologist at the American Museum ~~was~~^{was named} Ernst Mayr who did the singularly nice thing of setting up a seminar for business men. ~~And~~ once a month we had what, ~~now~~ now we call a Journal club (in Mayr's office) ~~and~~ about 12 of us appeared and, for about the first year or two, Mayr reviewed the literature. ~~And~~ of course, it was all German literature, and I got to know who Konrad Lorenz was ~~and~~ ~~and~~ Erwin Stresemann who was Mayr's major Professor, ~~and I~~, Mayr had the thought that everybody should have "a problem." ~~And~~ we made a lot of fun of Ernie; but he poked fun back at us, and ~~we~~ we enjoyed this young man very much, ~~but~~ but he did have a superlative effect ~~on us~~ of exposing us to the literature of research. So that halfway through the 1930's I became somewhat seriously interested in ornithology as an ~~an~~ intellectual pursuit rather than an emotional pursuit where you were just listing life birds. ~~And~~ In the 1920's, we were all exposed to Ludlow Griscom who was the great list-chaser of the time, and who had a simply disasterous effect on all of us. We ~~we~~ were simply list-chasers. But Mayr made us into a problem-interested people, and I began taking breeding-bird census^s on the slope of ~~the~~^a reservoir in Westchester County and ultimately got into a study of the Peregrine Falcon which I carried on for two years. Uh, This problem was an important development ~~for me~~ because ~~by 1930, well~~, by 1940, at the age

of 33, I realized I could go nowhere in the Con Edison Company, I lacked that engineering degree, and so I decided I had to get out and why not get into Biology. So at age 33 I went back to night school and took eight credits the first semester at night and fourteen the next. Got my undergraduate major in Biology and ~~and~~, the following fall I went to Wisconsin to work for Professor Leopold. Now, ~~and~~, I'll talk about Leopold in a moment, but I must say that no professor ever took on a graduate student with the worse academic record than I had. I had been on probation in college, and when I got to Wisconsin, they put me on probation right off the bat because I had such poor grades, but of course, in night school when I was taking comparative anatomy and invertebrate zoology the same semester I at least got B's or A's, ~~and~~ and I wasn't worried about ~~the~~ the academic grind at that point. The reason that Leopold took me on, I think as much as anything, was because I had done some research. ~~And~~ I met him at the Yale Club ~~at~~, one pleasant cocktail hour, ~~and~~ we talked Peregrine Falcons and he pumped me and found what my interest in ecology was so that he was willing to take a chance on me without looking at my academic record. Of course, Leopold never looked at academic records but ~~and~~ when I see people who ~~and~~ want to change horses so to speak and get into Biology with poor academic records I think, it may be instructive to note that in this case I sold myself to graduate school at the university of Wisconsin on the basis of research I had accomplished as an amateur ornithologist rather than on the A's and B's I got or did not get. So I came to Wisconsin, and perhaps it is now ~~and~~, relevant to talk about Leopold as a professor. His Sand County Almanac is well-known but as a person he was a simply, ~~and~~, what shall I say, he was an extremely attractive man, not in the, the way of his good looks, which he really didn't have. I think he was a fairly homely man, but ~~and~~ the

word "vivacious" comes to mind in respect to women, and Leopold had that quality in men. He sparkled. ~~He~~ He had such an active mind that you ~~could, you~~ were stimulated by him. And when he talked to students, he never talked down to them, he treated them as equals, and ~~so this~~, this built you up, ~~and~~ I have seen the humblest undergraduate come to him with some corny story of having just seen a rose-breasted grosbeak and Leopold was all ears and nodding his head and encouraging him and so on. I think he had a great effect on undergraduates ~~in~~, in encouraging them, ~~and his~~ ~~course~~ course, Wildlife Ecology, which became Principles of Wildlife Ecology, was a fairly well-attended course for its time. I think the last time that he taught it he had 80 in the class. The lectures were hardly ever the same two years in a row, and I remember his secretary Alice Harper used to ~~attend~~ attend his lectures. ~~And, ah,~~ This gracious gentleman who had the rare combination of an eastern education in, in Lawrenceville Prep and Yale, and then the years as a forester in the southwest ^{had} ~~with~~ a combination then of a ~~field experience,~~ rich field experience, and academic background. But, he had a young mind and ^{coming} to Madison as a professor, having written this magnificent book, Game Management, he never lost his enthusiasm for research. I don't think he was ~~a, he was~~ really a trained scientist -- He was a trained forester, but, ~~and~~ he had a zest for research, a zest for new ideas, I think that's what fascinated him. And ^{when} any one of his graduate students ~~who~~ found something brand new, why Leopold was just fired all up. So he was an extremely stimulating man to work for. And, it was one of the tragedies of our time that this man should be stricken down at age 62 by a heart attack while fighting a fire, a grass fire. Here he was at the height of his literary powers. I remember writing him shortly before I joined the faculty here, I was then at the University of Michigan, and saying ^{Aldo,} ~~although~~

you should not waste your time on research, you should be writing these essays for us. Incidentally he was my best man when I got married. That kind of gracious guy ~~was~~ would do something like that for students. So, we lost this man at the peak of his literary powers, And, this is a real tragedy for all of us.

What I probably next should report on is the research, ~~what~~ shall I say, quagmire in which I once got, involving DDT. I picked up rumors of DDT affecting songbird populations in something called the Bulletin of the Illinois ~~Nat., Illinois~~ Audubon Society. Margaret Nice probably had sent me copies of this thing, and here were people in Winnetka and suburbs of the city reporting wholesale die-offs of robins. Now no scientists had ever looked at these things. ~~And ah,~~ One year, not long after I had read this stuff, I went down to Kenilworth to attend a funeral, and as I sat on the porch waiting for the ceremony to begin, ~~ah~~ -- funerals always take a lot of time -- and I have something called Hickey's Law which states the amount of time required to get a party moving varies as the square of the number of the party. Of course, my students, ~~they~~ bastardize this by saying it varies as the square of the number of women in the party. I won't concede that this is true, I think ^{that} ~~ah~~, it's just the square of men. But, here I sat on the porch and the ~~Mulberry~~ tree was full of ~~Mulberries~~ ^{but} ~~and~~ there were no birds. And I thought, my God, this is a strange thing, what's happening here, where are the Robins? And I really wasn't connecting DDT with anything like this. Kenilworth ~~is~~ had obviously been sprayed. ~~So, ah,~~ Sometime during the course of the day I questioned, for one thing, the local minister and, ~~oh he said ah,~~ I said, where are the robins? I didn't see a robin in Kenilworth that day. He said, "they were here in the spring, but I think they all went north." ^{That almost} ~~They always~~ sound\$

like the ~~Passenger~~ pigeon stories that you heard. ~~So I came back,~~ That was in June, I guess, whenever the ~~Mulberries~~ are in season, and I came back to town and I thought I would check into the DDT thing. And having spent a year during the War at medical school at the University of Chicago, on a toxicology project, I used the standard toxicology approach. I set out to find what was the LD 50 -- lethal dose killing 50% of the subjects, for DDT and for a related compound called methoxychlor which some people were recommending should be used instead of DDT. And so, we captured robins and ~~was~~ we fed them DDT. It was a horrible experiment. But we did find out that DDT was quite lethal, particularly with respect to methoxychlor which in one case might have made the bird sick, but killed none of them. ~~And then,~~ That was in the fall. The following spring, ~~in~~ ^{Wisconsin} the ~~campus~~ was sprayed with DDT. They used tons of DDT. There were robins dying all over the place. Even our screech owls died. The screech owls died only after rainstorms when the rains force the earthworms up, and the earthworms carrying DDT or DDE were eaten by the screech owls. We found the cuticles of the worms in the screech owls' ¹stomachs. So we lost about 90% of our robins on the campus. I got at this figure by counting all the dead robins which we recovered and finding out how many survivors there were. So the figure is a little, what shall I say, ~~a~~ soft, but only about two or three pairs of robins survived on the campus and then only in particular parts of the campus where there were ~~no~~ no elm trees. One part of the campus, ^{near} ~~at~~ the Bio-Chem Building lost three pairs of robins. The first one died, another pair move in, the second pair died, the third pair moved in: You could actually see these, these new robins moving across the campus, from off campus onto the campus, and into this ^{death} ~~this~~ trap. ~~So, at,~~ We had already that year going in Wisconsin a graduate student working under me, Barry ^{is} Hunt, who was censusing communities in the state which did not spray and communities which did spray. And we

found a very interesting thing. We found that ~~the~~, the density of songbirds in these towns was inversely proportional to the number of trees sprayed with DDT per acre. In other words, ~~if~~, if they had only one tree the density was only lightly reduced but if it had ten trees, it was essentially a silent spring. So we saw silent spring in the spring of 1959. We saw it at Shorewood, Wisconsin, north of Milwaukee where the density was about 9 to 10 trees per acre. Now, we kept on doing some research, done by my student Barry^{ie} Hunt and a high school teacher working under me, Rolly Sacco, on such things as how much ~~was~~ in the earthworms, ~~and~~, how many earthworms you need to kill a robin, and things like that. But we had no idea of the ~~an~~, insidious effect of DDT in a sublethal sense. ~~At, Now,~~ In 1962 the International Ornithological Conference took place at Cornell and there I picked up the rumor that not a single Peregrine Falcon in the northeastern part of the United States had raised any young that year. I picked this up as a rumor, and I didn't necessarily believe it. Ah, But the following June, ~~my~~ my copy of Bird Study came in, I think it was Bird Study, and there was Der^erick Ratcliffe's report of the decline of the Peregrine Falcon in Britain and I thought, my God, this may^e be going right on in the United States and we are not even aware of it! ~~And~~ ^{So} I wrote a letter to Carl Buckheister of the National Audubon Society and I pointed out what Ratcliffe said and ~~I said,~~ ^{that} I wrote to Carl, this may be happening to our own Peregrines but I don't know anything about it. But we may really be in trouble. So then, I had to get to work and I organized a research project which my good friend, Kathleen Herburt, financed as a memorial to her late husband, Dick, who was one of my oldest and best friends, ~~and~~ ^{we} we put two men to work to census the Peregrine Falcons that I had mapped in the 1930's. You see, in a way, ~~I~~ I felt that having done this survey of the Peregrines in the 1930's ~~that~~ I had a personal

responsibility to run this down right away. This was my job! It was something I couldn't duck. And, ah, so, I went off to Europe for 1964 for seven months, but my two men, Dan Berger and ~~Syndalah~~, Chuck Syndalah, went around the eastern part of the United States. They covered 14,000 miles looking at Peregrine Falcons at the time they would have young in the nests ~~and~~ ^{but} they did not see a single bird. They found some whitewash on one eyrie indicating recent occupancy. In the same time that they were doing this, I was ~~going~~, getting around in Europe and interviewing people in Finland, Switzerland, France, ~~and~~ England, and ~~soon~~, Germany, and finding out that ~~there~~ ^{their} Peregrine Falcons were down there, too. ~~So~~, ^{Thus} it looked like something that ^{had} happened on two continents and so in 1965, with the help of National Audubon Society, the National Institute^s of Health, ^{the} Wisconsin Society for Ornithology, and the American Museum of Natural History, we ran a Peregrine Falcon Conference and we brought people in from Europe and from Africa ^{and institutions}, our own colleges ^{and Canada} (around the United States), and had about 50 people, ~~and~~ we tried to discuss what research we needed to carry out to find out what was going on. Well, the British had done their homework, and ~~when~~ they came, it was a magnificent meeting. They came with their facts, and their facts were that the Peregrine Falcon population crash in Britain was due to a reproductive failure and this reproductive failure was due to the fact that the birds were eating their own eggs. And, wow, did that hit us like a bombshell, because nobody in this country had ever suspected this thing except that in retrospect ~~we~~, one person had actually seen ^{egg eating} ~~it~~ take place and another person had seen the broken egg shells and thought it was raccoon. Hagar had done a study, I think it was in 1947, ~~and~~ ^{when} he found broken egg shells and he said, the raccoons you know are all over the place. It must be raccoons. But the eggs were broken on the Sunlife Building in Montreal, and on the 23rd floor on the Sunlife Building, you do not find raccoons. And then Charles E. Hall actually

saw the Peregrine eat her own eggs on the Sunlife Building. He was so, what shall I say, he was so shocked by this behavior that he didn't report it. That's a fact. But the British at this meeting convinced us that we were dealing with broken egg shells and this peculiar behavior. ~~HOW'S THE TIME?~~ Uh, then uh, this was a long process of translating the spoken English at this conference into written English which are two different languages. ~~and~~ it was an experience that I had never had before and never hope to have again. ^{When} ~~But, uh,~~ this took place and I, what shall I say, I dragged my legs a little bit, my feet a little bit, because we were hot on a research lead. We were, nobody in America had measured eggs, egg-shells or even checked a single Peregrine, or Peregrine egg for DDT and the British convinced us that it had to be an insecticide. Well, I think the Americans were a little reluctant to, I was certainly a little reluctant to do this. It was easy for friends of mine in National Audubon to say we have an insecticide problem and the Peregrine is being wiped out by by DDT but it wasn't possible already for researchers to say this. And one of the dilemmas of the time was that as much as one wanted to be a conservationist, it was impossible for a research worker to come out against DDT because we didn't have the research and if you were conducting research in this field, you were then conducting research to prove that you were right and that is something you cannot do. So, my wife Peggy would say, Joe, why can't you come out against DDT the way Roger Peterson is. Well I would say, Peggy, Roger Peterson isn't conducting research. My contribution is to test hypotheses and one hypothesis is that DDT may be causing this thing but I cannot afford to put, make a flat statement and then try to prove I am right. Finally, I sent to Ratcliffe ten hypotheses having to do with why the birds were breaking and eating their own eggs. And two of the ten hypotheses included the possibility that the eggshells had, had become thinner,

and at this point he wrote me and he said, Yes, it is an eggshell change and I have been testing this for about three months and he had been going to private egg collections in Britain and finding that the eggshells there were thinner than those in the Museums. And so he, he broke this story to me in February and I immediately, uh, I had to write to him and say, can I make this public? In the sense, can I talk to other researchers and so he talked over with Norman Moore and said, yes, you can. So I got on the telephone and I called Lucile Stickle in Maryland and had Tony Keith from the Canadian Wildlife Service on the phone and the three of us talked together and they knew about it but they didn't attach as much importance to this change as I did. Uh, I immediately got some money from Patuxent to start measuring egg shells, egg shells themselves and I selected a fellow named Dan Anderson who was one of my graduate students, who was working with me on Herring Gulls. In the 1960's we found that ah, Lake Michigan was loaded with DDT or what we thought was DDT. And the Herring Gulls were loaded. We had a kind of interesting study, we sampled mud 125 feet down, the anthropods in the mud, little fishes feeding on the anthropods, the old squaws and the Herring Gulls were feeding on the fishes and so on and the Lake was loaded. Uh, Actually it was loaded with something beside DDT, it was loaded with a group of compounds called PCP's which on the gas chromatograph have the same peaks as orthopara DDT. What Anderson did was to go around to all the museums in the United States -- to all the major museums -- and measure their Peregrine eggs as well as the eggs of about 10 other species. I think in the course of that study he measure about 40,000 egg shells. We devised our own Micrometer, which Derrick Ratcliffe didn't have, to actually get inside a Museum egg and measure the thickness. The one thing that Anderson had that I didn't realize was, uh, I knew that he was a very likeable guy, but Anderson proved to be almost a confidence man, he, he could charm an egg collector into selling

him all his illegal treasures. In the course of that tour, he found over 80 sets of Bald Eagle eggs illegally collected in violation of the Federal Statutes. One or two of them by some very prominent ornithologists. Hmmm. And so, what Anderson found with the help of these egg collectors was that in 1947, the same year as the change had taken place in Britain we had an eggshell change in Peregrine Falcons in Massachusetts and in California, southern California. So here we had our evidence of a, a startling change unprecedented in the history of the species. So we had eggshells going back to the 1860's which we could measure and in nothing like that. The question was, why. Well, since we were working with Herring Gulls so much on Lake Michigan we knew a lot about Herring Gulls. Anderson and I decided to get egg, Herring Gull eggs from five different colonies in five different states, in the Middlewest and in the East. And when we ran these egg shells, with the help of our colleagues who collected them for us, when we ran these egg shells for thickness and DDE we found that ah, ah there was a relationship. Now, something strange had happened at about this time and that was that a ah, Swedish Chemist working on Baltic material found a group of compounds called PCB's and ah, not only in the fish but also I think in his daughter's hair. These are industrial pollutants that are in the environment. They are fire resistant and not only are they fire resistant, they are biologically non-degradable. This is pretty important because to me, it meant that we were not really dealing with the compound DDT itself in the environment, we were dealing with something else and when Anderson and I ran various correlations of eggshell thickness with the contents of these eggs, we found that the correlations that stood up best was that of DDE. In fact uh the probability of this occurring by chance was on the order of 1 in 1000 so to me this was absolute proof. Although there was no doubt that the scientific

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community itself would demand a controlled experiment which indeed Patuxent Wildlife Research Center ultimately carried out. But now we were off and running, we had a chance to look at DDE and egg shell thickness and all sorts of things. And we found that in species after species, including ultimately in the Peregrine, that DDE was correlated with eggshell thickness. So a team of researchers really put together this case and the nice part of the DDT story from the point of view of ecological research was that it was done by a team that worked easily with each other, gave each other ideas, and nobody had to worry about a Nobel prize. When I think of my colleagues in fields like virology that have to worry about this prize and the like, I realize that we work in ecology in a much different atmosphere. So the, as research on this compound was finally brought to a close, it meant that we now had to take a stand on this environmental pollutant and we did. The environmentalists in our society now would began to press for legal action against DDT. In Wisconsin the law suit was brought and the Department of Natural Resources had to indeed ah, run a hearing and it was then under completely court-room-like procedures with adversary proceedings, uh, the chemical industry had its own lawyers, own lawyers in the end and each witness was grilled as if he were a criminal. (chuckle). . . of course, they were out to destroy us. Some of my colleagues, like Lucile Stickel, were absolutely apalled at the idea that they had to be subjected to such treatment, but you see ah, there is a competitive streak somewhere buried in my Irish background, which made me into an occasional good athlete, ah, and I enjoyed the adversary type hearings. When I got on the stand against, essentially against McLean the lawyer, this was like a race to me. You know, you, here is a man out to destroy you and your reputation and all you have to do is stay within your field of competence. Do not make statements on human health. That

is not what we ecologists were involved in. And so you are safe. And, uh, I thoroughly enjoyed it. McLean, what shall I say, he slipped once in a while. ⁱⁿ in the early part of the hearing he mentioned that he liked to read the Encyclopedia Britannica, 1884, before going to bed. And I made a mental note of that and checked out the Encyclopedia Britannica 1884. When I was on the stand for three days he ultimately brought up the Encyclopedia Britannica 1884 and he said now Doc Hickey what do you say to this following quotation from this authoritative work on the Peregrine Falcon? And here he read this article. Heck I had a photocopy of that very, very article right there in front of me and as soon as he mentioned 1884, so he got out of that very easily. Ah, So I guess the lesson for the DDT hearing, or the DDT era, was that ecologists should stay within their own field of competence and I have often felt that Nobel prize winners should be seen and not heard. Uh, there is a tendency on the part of some of our colleagues who have won these great prizes to now be quoted on X, Y and Z problems about which they know nothing. Uh, So, that DDT as a wonder chemical was phased out of this country and so ultimately was dieldrin. I had nothing to do with the dieldrin story, that was put together best by Ian Nisbet in Massachusetts. The DDT hearing at Madison was, what shall I say, was master-minded by Charlie Worcester of State University of New York and Bob Ricegrow of Berkeley. The rest of us were, what shall I say, we were actors in a melange of characters in the Greek drama.

One more thing about my career that I think I would like to mention and is that how much fun it is to be a good teacher. I realize that at Madison we lived a charmed life and that we were only allowed to, we were only required to teach 50% of our time and research was 50% also. But my colleagues in some of the smaller colleges would have to teach two courses every semester. This is a different atmosphere in which I, than the one in which I ultimately taught.

we all respond to challenges. I uh, had the tape recorder going when you walked in the class--bird songs every time. And when the class ended, the tape recorder was put on again so you exited to bird music. Specimens out, always specimens. Every specimen had a card on either side of the table so as the class filed by the table, they could see one fact about each specimen. Just one. That was all you got. And at the end of the table was the lecture summary. The reason was that I was turning the lights off as soon as the first bell rang and I kept them off for the entire semester. Nobody could take lecture notes in that class. And I was just giving slides and films. And who can write a better summary of that lecture than I could? I did such things as pass out, of course, the lecture outline at the beginning, the first, first class, but I also passed out the six weeks exam from the last semester. So everybody had a copy of the six-week^s exam of the last semester. At the end of the, beginning of the, after that six-week exam I passed out a copy of the 12-weeks exam. So everybody knew what the Hell this, the 12-week exam, was about. I didn't do this for the final. But, the general idea was that I felt that, you know, there are rumors that certain Fraternities keep copies of exams and I thought everybody should be on the same level and, moreover, there shouldn't be any trick questions. You should know what kind of a course you are involved in and the style of questions that you are going to have. I don't think I like them, giving exams. I certainly didn't like giving D's and F's. And I am trying to think of the percentage of the class that got D's and F's on the first exam. Uh, I am sure it was higher than 10%. And uh, I regarded this as another challenge. And every one of those students has to come in and see me. And I tried to build them up, find out where they went wrong, on the textbook or on the lecture notes. And, in general, I was flattered by the way these

I had for the most part to teach only one course a semester. And ultimately after trying courses like Principles of Game Management, which I probably taught for 25 years or so, uh, I taught Principles of Wildlife Ecology which was the introductory course in our department. And, this was Leopold's course. It took years for me to break away from Leopold and teach my own course, but there were handicaps. I was not a widely traveled person. I lacked Leopold's geographic experiences. You ^{only?} own acquired this with time and the University system is such that they don't give money for teachers to travel around and see the United States and talk to people and photograph landscapes and that sort of thing. And I only picked that experience up by being a researcher and only in the later years of life did I have a really good personal slide collection. And so when I, as I taught this course, it got better and a little better and a little better. And of course the class began to respond to the environmentalist movement and it got larger and larger and larger. And I thought, well now, instead of teaching once a semester, once a year, in the spring, I will teach it both in the fall and the spring and maybe that _____[?] no effect whatsoever. For years I used to have the class come over to my house on Friday nights, eight at a time. You signed up and came over. We had great bull sessions here. But, then as the class got larger and larger, I said to Peggy, my wife, how about having the Friday night on Friday and Saturday nights. And she said, nothing doing! So, well, I think she got turned off because a girl turned up one night with sandals and absolutely dirty feet and that, my dear Peggy, regarded as a personal insult. But the Friday nights went out and yet uh, I felt that these, ^{most of the} notes of disapproval about large classes had to be faced as a challenge and so as the class grew in size, I simply reacted to a challenge and you see again this, something like Toynbee's dictum you know, that

kids would respond to the second, second challenge. The kids who had D's. I'd say to this, you know, fellow, well, ah, you obviously made this mistake, and you didn't study enough. He'd admit, the kid would admit this. So I said, now you get two A's on the next two exams I'll give you and A for the course. That kid goes out of there, out of there, on, he's walking on air you know, by God he's still got a chance for an A, and by, by George once in a while they made it. So, uh, I thoroughly enjoyed teaching and I think one of the techniques I used was to put a fair amount of humor into the first, the first third of the course. I didn't worry about the last two-thirds. By that time I had them with me, you see. They looked forward to coming in to this class, and, well I'll give you, some of these are you pretty corny jokes, you have to, they always have to be cleaned up for classroom use but when we got to the Bor-, Boreal forest and talking about that, then I would show a picture of two Saw-whet owls. Well, I would say now, to the Class, you know, this is one of my favorite birds because in 1929 I went out on a field trip to southwestern Connecticut and saw an owl in a plantation. And I thought by George I think I can catch that by hand and band it. So the next week I went back and I was on this estate. I was about to walk in the Pine Grove and a car drove up. I thought I was going to be kicked off. But the lady in the car raised her binoculars. She was with her highschool daughter. And, she said, what have you seen? I said, nothing. I am just up here to band a saw-whet owl. And she said, where have you seen a saw-whet[?]owl? Right in that pine grove. She lived 200 yards down the road and she had never seen a saw owl and neither had her highschool daughter. I was a college senior now. So, the highschool girl and I went in, into the pine plantation and there was the saw-whet owl about eye height. She stood at one side and I stood on the other and I just reached around very slowly and I grabbed him. Took it out, showed it to that lady, put the band on it and let it fly back. Now, one year later that saw[?]owl was shot in Kittery, Maine,

proving that it wintered in different states, and 13 years later I married the highschool girl. So that's the kind of corn you got away with and Oh, you know, you, so you were glad to have lots of girls in the class, you know, and that girls were defined by our department as any female of your own age or younger and for me this is now covering a lot of ground. Corny things like that. Ultimately uh, the University passed out some teaching awards and I was given one of them, the Chancellor's Award. There were five awards that day and the other five men were getting different amounts than I was, and everyone of them said he was going to accept the award and not say anything. And, ah, the Chancellor wanted us to say something. So, I got ahold of the Chairman of Awards Committee and said put me on last because I want to talk. And so, it was at a Faculty Senate Meeting and I said that the thing that impressed me about the University teaching after, you know, giving the thanks for getting the award was that so few of us got good advice on how to teach. None of us were really trained in teaching. Maybe that was a good thing considering the way some of the teachers are trained. But, I said that I thought the system really worked because everyone of us tended to have in mind the best teacher we ever had. And we were modeling our teaching on the great teachers that we have had in the past. So I said to the Senate, in recognizing us today you are honoring the great teachers that we have had and for me there were, particularly, Professor Leopold. So that's how we got out of that.

Now that probably ends this story as of today. I don't know how many minutes we have gone but ah, of course, I could always tell some more stories but let's stop here. (Long gap in tape)

Supplement: I think it is incumbent ^(Static) on me to conclude these remarks by some of the great men I have really met. Certainly Professor Leopold was one. And uh,

it's easy for others now for posterity, to judge him on the basis of his, eh, magnificent Sand County Almanac. I don't hold a great deal for, ah, Round River because ^Ito think that it represented the culls that he, he, had dropped out of Sand County Almanac. But, ah, he was not only a thinker, an olympian, ah, but a great teacher.

Ernst Mayr, would have to be another of the great men I have met. Uh, that a museum curator should have taken on a bunch of business men as he did, in the 1930s, and exposed us to the scientific literature was something that is almost unprecedented. And there were a considerable number of people who got their scientific start in that seminar. Among them was Daniel S. Lehrer, who became one of our leading behavior workers.

Robert P. Allen, of the National Audubon Society, went on to write monographs about spoonbills, ah and whooping cranes.

William Vogt, ah, got his start in this, ah, seminar and so did I.

I think Roger Peterson was not in the seminar. Roger had already left for Massachusetts. And perhaps I ought to talk about Roger -- he's very close to me and I am his second oldest best friend and uh, vice versa. Uh, I knew him when he was a shy young boy coming out of, ah, Jamestown and, uh, working painting furniture in New York while he was at the Art-Students League. Uh, passionately interested in birds then as he is now. Uh, he got in with us, and we were a bunch of boys called the Bronx County Bird Club who were a sort of a wave of the new generation entering the Linnaean Society of New York and Roger went on with us as did Ernst Mayr later on uh, and, of course Peterson was always comparing the birds we saw with, with what there were in Jamestown and he was known to us as Roger Tory Jamestown Peterson. The thing I've liked about Peterson is that, uh, rather like Leopold, Leopold was constantly being educated

by everybody who he met. Uh, important people to help Leopold in later years were George Wehrwein in Land Economics and Norman Fasset, I think, in Botany. Uh, but Roger grows all the time, as he travels around the world he's picking up all kinds of new research and he's a walking encyclopedia of research. And for me to read Peterson, ah, today is still refreshing. I think that fella does not become stale, he's got new ideas and ah to me he's an intellectually, ah, stimulating guy. Uh, and I am appalled that a friend of mine should be subjected to, what shall I say, such adulation which makes it difficult for a guy to keep his uh, sense of modesty. I think Roger remains modestly modest (chuckle) and he certainly isn't offensive to me.

But I think I would like to close with, with, another story about an interesting man I recently met. Uh, This past winter, Murray Gelmann, from Cal. Tech., who won the Nobel Prize for his discovery of the Quark, turned up in Madison for a lecture in the Physics Department and uh, Professor Gelmann is one of these life-listers, a sub-species which I have not yet -- uh -- with which I'm not yet afflicted. A sub species of behavior.

Professor Gelmann is interested in life birds and he travels around the world giving lectures and he expects to go out and see new life birds when he goes to the new localities. So here was turning up in the middle of winter and the Physics Department was hard pressed as to what they were going to do about getting him life birds. And so I was drafted, Professor, uh G. W. Foster of the Law School, a much better birder than I am, was drafted, and a young physics professor. And so we, he wanted to see owls, and in, around the tenth of March we set out on an owl trip. Now what do you do for a Nobel prize winner to show him owls. Well, I'll tell you what we did. We drove 300 miles north to Duluth. And there in one afternoon, we showed Professor Gelmann a Snowy Owl,

a Hawk Owl, a Great Gray Owl and two Boreal Owls. Was this due to our, what shall I say, our skill as field ornithologists? --? Heck no. This is due to the new past-time of birding which is now so organized all we had to do was consult the local authorities: they knew where just all the owls were. So we were depending entirely on local people. But

I wanted to mention Gelmann particularly because spending two days with him in a car, uh, I was impressed with the fact that this guy had a renaissance type mind. I have seldom met a man, perhaps never, who had such a sweep of interest in science, in humanities, in history, in literature and languages and so on. And it was, this was a breath-taking exposure to see a scientist, who wasn't, you know, just with his blinders looking at something inside the cell and that's where his boundaries are sort of thing. So Gelmann, to me is one of the great minds I've ever met.

And perhaps we ought to close on that but if this is for Wildlife students I should mention that the nearest thing we have to Gelmann in our own field would probably be C. H. D. Clarke of Ontario, who was Chief of Game Management in, uh, the Ontario Department of Lands and Forests. And who I think is one of the most cultured men I have ever met and one of our great scholars.

So somehow in ecology we have produced only a few of these. We are not giving him the Nobel Prize but we are giving, have given him the Leopold Medal. Shall we stop? (pause)

Since we have a mere 5 minutes left perhaps I should close with one more story. Now this is not one I can always tell in class, but I certainly tell it in polite society and I'm sure it's alright here. It has to do with the historical origins with the term "how about that." Now that's a phrase I use frequently but did you know that this was first used in the Civil War when

Sherman's army was marching towards the sea. They had burned Atlanta and here were 17 men marching into a small town and their captain said "men, tonight I'm going to have each one of you sleep in a bed and they came to the first house and he said to a soldier, "Peters, see how many beds are in that house." Peters came back and he said, 'Captain, the house is empty.' They go to the second house and Peters came back and he said, 'Captain, one bed.' Captain says 'Peters, you take it.' They go to a third house and, by gosh it's a house of ill-fame. And the madame opens the door and she sees these men there and she beams and she says 'My,' she says 'what can I do for you' and the soldier said, 'Madame, we are federal troops and our captain wants to have one man sleep in each bed in this house tonight. And she says, 'My, how many are you?' An he said 'seventeen.' And the sargent says 'Without Peters.' And she said, 'Well, HOW ABOUT THAT.'

END OF TAPE