P R O C E E D I N G S

OF THE

FIFTEENTH ANNUAL MEETING

OF THE

ASSOCIATION OF MIDWEST FISH, GAME, AND CONSERVATION COMMISSIONERS

HELD AT

PUT-IN-BAY, OHIO

ON

JULY 16-17, 1948

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CONFERENCE AT PUT-IN-BAY, OHIO, JULY 16, 17, 18,
1948.

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Mr. H. D. Ruhl
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Mr. Roy Schoonover
Kansas Fish and Game Commission
Pratt, Kansas

Mr. Otto Tiemeier
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Mr. Robert C. Sparks
Chief Inspector
Department of Conservation
Springfield, Ill.

Mr. Charles J. Nelson
Chief Clerk
Department of Conservation
Springfield, Ill.

Mr. Livingston E. Osborne
Director, Department of Conservation
Springfield, Ill.

Mr. Philip Barski
Field Representative of the Northeast Wildlife Management Institute
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Assistant Director
Wisconsin Conservation Department
Madison, Wisconsin

Mr. T. H. Davis
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Minneapolis, Minn.

Mr. F. R. Zimmerman
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Mr. Max L. Huls
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Columbus, Ohio

Visitors

Mr. Emory Beetham
Member, Ohio Commission of Conservation and Natural Resources
Cleveland, Ohio

Mr. Frank Atwood
President, League of Ohio Sportsmen
Columbus, Ohio

Mr. P. M. Jones
Secretary, League of Ohio Sportsmen
Ravenna, Ohio

MORNING SESSION,

Friday July 16, 1948.

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PRESIDENT RIDER: Gentlemen, we will get started on the meeting if it meets with your pleasure. I wish to take the opportunity to welcome you to Ohio. We aim to have a constructive meeting and at the same time a little fun. If there is anything lacking, tell us about it and we will do our best to provide it. We are selfish about this thing, we think if you men will open up and talk that we in Ohio will get great benefits from this meeting. I feel that this Midwest should be one of the great organizations of this nation for the reason that from the hunting and fishing license statistics, I find that these twelve states sell about forty per cent of all the fishing licenses sold in the United States; take in about forty-five per cent of all the monies taken in from the sale of fishing licenses. We sell about thirty-six per cent of all the hunting licenses sold in the United States and take in about forty per cent of all the monies collected through the sale of hunting licenses in the United States. We have strong representation in the Congress. I think that we probably have the most acreage of hunting grounds and fishing waters of any region in the United States and there isn't any reason why this organization shouldn't be a most influential organization insofar as conservation is concerned, not only in this region but in the entire United States. In setting up this meeting, it seemed to be the opinion of most of the states that they did not want papers;

what they wanted was rather an informal discussion of the problems concerning game and fish, so we have dispensed with papers. Before we get into our discussion, there are certain committees that should be appointed and start to work. A most important committee is the resolutions committee. Therefore, I am naming Mr. Steen as chairman of that committee and to serve as members, Mr. Osborne, Mr. Ruhl, Mr. Willard and Mr. Stiles. We need a finance and auditing committee. They should go to work to find out whether we got all the money we should have and I am appointing Mr. Sparks as chairman of that committee, and appointing as a member of that committee one helper, Mr. Harry West, an auditor from Ohio. Mr. Sparks, will you two gentlemen find out in what shape our accounts are and just where our money happens to be? We have, you will find from the secretary-treasurer's report, intact all the funds that have been collected since the last meeting but it looks as if our balances in the South Dakota Bank and some place in Indiana are not forthcoming, but the secretary-treasurer will give you that information. We come to a nominating committee, which should go to work making nominations for officers for the next year. I am appointing on that committee Mr. Harry Ruhl as chairman. As members, Mr. Ed Wickliff, Mr. Sprecher and Mr. Swensen.

PRESIDENT RIDER: I think that's all the committees that the organization has had in the past and it seems to function on that basis, so let's proceed into this program discussion.

A VOICE FROM THE FLOOR: Where will be the place of the next meeting?

PRESIDENT RIDER: Well, in the past, I think it has been the

custom that we meet in the home state of the President, is that not right?

MR. OSBORNE: Yes, that's right.

PRESIDENT RIDER: Director Osborne this morning suggested that inasmuch as this duck and waterfowl matter is hot at the present time, and as regulations are just about to be set, it possibly should be the first thing on the agenda for discussion this morning. Therefore, if it meets with your pleasure, we will go right into a discussion of the waterfowl situation. I believe probably the best thing we can do is to call state by state starting in the west, get their opinion and then go to an open discussion on all these various species of game and fish. Therefore, we would like to have the reaction of Nebraska on this waterfowl situation. Will somebody from Nebraska start that discussion?

PRESIDENT RIDER: Will you please give your name for the benefit of the recording secretary?

MR. VANCE: Vance from Nebraska. I believe the remarks that are made here are confidential, is that not true?

PRESIDENT RIDER: That's true.

MR. VANCE: Our meeting of the Commission which was held last Saturday, after quite a discussion pro and con of the suggestions coming out from the Fish and Wildlife Service, indicated some pleasure at the dates that were offered by the Service. Most of the discussion at home centered about the daily bag and possession limits. Our people, particularly in the administrative capacities, feel that daily bag and possession limits should be the same. We feel that from the knowledge now at hand and the

apparent scarcity of ducks that are reported nation wide, that strong conservation measures should be in effect where necessary. From the discussion we have had with our neighboring states particularly in Colorado and Wyoming, we feel that where our waterfowl supply is not down as great as it is in Mississippi and Atlantic flyways, that perhaps we can afford to harvest a greater proportionate share of the waterfowl that come through our respective flyway. We are aware, of course, that as we get farther east and the lower proportionate number of the birds come through that those people living in those flyways may not be so happy with the proposed regulations. We cannot at the present time offer a great deal of criticism of what has been offered because we in Nebraska feel that we have been treated fairly.

PRESIDENT RIDER: May we have a representative of Iowa speak on that subject?

MR. STILES: Stiles of Iowa. I will say that we feel that the date that is the best for our state is the 29th of October and the Commission at their last meeting decided to ask the Fish and Wildlife Service for an opening on that date. Apparently the bag limits and the rest of the regulations seem to be fairly satisfactory and if the population of ducks is down where they say it is, I feel that we shouldn't ask for any more liberal regulations. There is one thing that I am somewhat concerned about, where while directly it may not affect Iowa, it has been reported that while the population of Canada geese is low, the Fish and Wildlife Service contemplates opening Horseshoe Lake in Illinois this season. I don't know whether that's true but it does sound rather unusual and I am wondering what the

reason is, and, as I say, it doesn't affect us directly but I would like to hear some further comment on that and have some explanation of it. I believe that is all I have to offer, Mr. Rider.

PRESIDENT RIDER: I think when it comes Illinois' turn to speak, that Director Osborne will give you some facts on the Horseshoe Lake situation. May we hear from Minnesota?

MR. HUSTON: Huston of Minnesota. We are not too happy about the suggested regulations in that we think that the season should open on Saturday, October the 9th, and instead of Friday the 8th. Friday is a bad day we think because it doesn't permit a great many of the fellows to get out opening day that otherwise would if it opened on Saturday. We are holding out for October 9th as the opening day. In addition, we are not too happy about the fact that the Dakotas are getting thirty-five days and we are getting thirty. We think that we should be entitled to the number of days that the Dakotas are or vice-versa. We are content to let the bag limit stand as it is, that's satisfactory, we will go along on that, but we are not happy about the other two parts, that is the opening date and the fact that the Dakotas have five days more season than we do.

PRESIDENT RIDER: Let's hear from Wisconsin.

MR. ZIMMERMAN: Zimmerman from Wisconsin. Ever since our waterfowl season and last year where we had the dates changed from a later opening to an earlier opening, we have been anticipating trying to do something to have a later opening. The reason for this is that we want to give our local breeding ducks a chance to get on the wing before we burn them all out the first few days and the suggested dates given Wisconsin for opening this coming

fall are satisfactory. We kind of feel, though, just like Huston does in Minnesota, that instead of offering a 15th opening, we would rather see the 16th on a Saturday. I might mention, too, that the Pittman-Robertson Waterfowl Research Project has just finished running their project on breeding birds and the situation is not at all good. That is as to numbers, number of breeding places for the state.

PRESIDENT RIDER: May we hear from Missouri on that subject?

MR. STEEN: Steen of Missouri. Well, like the rest of you, we are happy about some of the things and not so happy about some of the other possibilities of these regulations. I might start by saying that we believe, of course, that the most important thing to do with any species is to manage it properly and insure its perpetuation. In order to do that, you have to restrict harvest to certain levels. What that level should be with respect to waterfowl, we believe the Fish and Wildlife Service can best determine. They are in the best position to determine that. Therefore, we don't argue much about the seasons and the bag limit. That is as to their length, as to the size of the bag limit. We do have a peculiar situation in Missouri in that a portion of the state is in one zone so to speak and the balance of it in another. Southeastern Missouri is southern in every way. Last year when we had a season opening on the 4th of November, a thirty day season, we managed to pretty well take care of the two zones. This year, we have got to start on the 29th of October, and it cuts off pretty short in that southern zone. We really have a situation there in waterfowl where the state might well be zoned, biologically speaking, as to seasons. We are not so sure that this flyway

management thing will work out satisfactorily, although we have an open mind on it but there are complications. For example, on our western border, the Missouri River, we have one bag limit and one season . on one side of an imaginary line in the middle of the river and another season and limit just across that line. What the complications are going to be, we just can't say, but we anticipate some complications. I think, in general, that tells the story as far as Missouri is concerned.

PRESIDENT RIDER: May we hear from Illinois?

MR. OSBORNE OF ILLINOIS: Mr. Rider, and gentlemen, I am going to talk first about Horseshoe Lake. I inherited, as Director, Horseshoe Lake, it had been an established preserve for a great many years prior to my being appointed Director of the Department and I found that around the Lake were quite a number of farms that commercialized on the killing of wild geese, originally charging ten dollars a pit and later on fifteen dollars a pit per man until they got their bag limit and then inserted someone else to hunt in the same pit. I found that one man was making about thirty-five thousand dollars a year next to our preserve by renting out these pits and part of them were on state land. It took us two years to get a surveyor in there to get the facts as to where the state-owned land was and since then, of course, he has been one of our worst enemies. I realized it was commercialized slaughter but I was unable to do much with it. There was quite a lot of talk all over the country in articles and I was blamed for a great many things. Two years ago when there appeared to be very much of a shortage of Canadian geese, and the Fish and Wildlife Service suggested closing down Horseshoe Lake, I said, "If the situation is

as bad as it is, why not instead of remedying it in a small way, why not close down the whole flyway?" In other words, if we are facing a loss of Canadian geese, let's cure the thing at once with one stroke, which was done, and geese began to come back and we had considerable geese last year, in the Mississippi Valley flyway, but in order to alleviate the trouble at Horseshoe Lake, we designated a buffer zone. I think it was about eight miles around the lake within which you were not allowed to kill any Canadian geese. It worked out very well last year, although we had, of course, a lot of objections from the people who owned the land immediately around the lake who had been renting out these pits. As a result, I think they killed about thirty-five hundred geese in Illinois last year, and the man who didn't have to pay for hunting was very well satisfied,and I am informed that generally the people in that section are very pleased with the closing down of Horseshoe Lake and the buffer zone. The Fish and Wildlife Service told us to try to buy some of the land within the buffer zone, knowing we intended to buy all of it later on. Of course, they are holding the price terrifically high. We tried to condemn this area some time ago but the price which was alloted to these owners by a jury was such that we couldn't buy the land and we had to pay about fifteen hundred dollars costs. The Federal Government appraised this particular territory and their appraisals of the land within the buffer zone was a great deal lower than we were able to buy it or even get it on condemnation proceedings, and, of course, we can't buy it at this time because we are using part of Federal funds with which to buy it. We must get the land within the price of the appraisal of the Federal Government. I was told a few months ago

by Al Day that if we didn't buy a lot of this land this year, Secretary Krug would probably want to reopen that area. Now, I might add that's a Democratic part of the state and this is an election year and I told him that if the Federal Government attempted to open up this area and, by the way, it was closed by a proclamation of Mr. Krug, the Fish and Wildlife Service, and our Governor, that I would blast the thing from one end of the country to the other as being strictly political and I mean just that. There is absolutely no reason why Horseshoe Lake should be reopened for commercialized shooting at this time within this eight mile buffer zone except to get the Democratic vote in that particular part of the country, and I am absolutely opposed to it. Now, of course, I can't speak for the Governor. I haven't taken this up with him; he would have to change his proclamation which was issued last year closing it down and reopen it again, but I am of the personal opinion that the Governor will not agree to the re-opening of Horseshoe Lake and the buffer zone and that if the Fish and Wildlife Service and Mr. Krug want to fight, they have it as far as I am concerned, so to that extent we are going to ask for your help. I am going to ask that a resolution be prepared which I will offer, that we will go on record as an association opposing the reopening of Horseshoe Lake and that buffer zone as being against the best interests of conservation, in the conservation preservation of the Canadian goose. Now, for that! I will speak now on the regulations. The Fish and Wildlife Service boys are my best friends. I get along with them fine. I have always cooperated with them but I always speak plainly. For some time I have felt that they could do a lot more than they are doing in the way

of giving us information on waterfowl. I see no reason why we have had so much uncertainty over a period of years as to waterfowl conditions because it's been a guess work proposition all along, and once or twice they have missed it so many millions of ducks, that it especially doesn't look to me as if the right kind of effort is being put forth. Today, none of us know exactly the conditions on waterfowl. We don't know approximately how many ducks there are. You hear one story from the Fish and Wildlife Service and one from Ducks Unlimited, and stories, different stories from different states. On the regulations, I think that the Mississippi Flyway and the Central Flyway should be the same. The proposed regulations give thirty-five days to the Central Flyway and five a day kill and ten in possession. In the Mississippi Valley it's thirty days for four and eight. Now, I know it is going to work considerable hardship on some states that are on the border line, so I, for one, would like to go on record as saying that I think the regulations of the Central Flyway and the Mississippi Flyway should be exactly the same. We wired a protest also on the opening a half hour before sunrise. I have opposed that ever since that first regulation came out. I know in Illinois if you start shooting a half hour before sunrise you are scaring the ducks away. It is all right to get to your blind and get ready but I don't believe any shooting should start before sunrise. Of course, apparently that's a disputed question, but I think that's something that we should discuss from a practical viewpoint because many people talk to me privately and say they think the same way, and I, therefore, think we should go on record and whatever it is, send it on as an association to the Fish and Wildlife Service as to the bag limit and the length of the season

and also on any other questions that are concerned in these proposed regulations. Thank you very much.

PRESIDENT RIDER: May we hear from Michigan?

MR. RUHL: I would like to ask Livie a question if I may.

PRESIDENT RIDER: Harry, I wonder if you will go ahead and give us your viewpoints and then immediately we will open up for discussion after that.

MR. RUHL: I wanted to ask him about Horseshoe Lake. Shall I do it now or later?

PRESIDENT RIDER: No, do it later and then we will go into a general discussion.

MR. RUHL: Well, as far as we are concerned, in regard to flyway management, I think we are generally open-minded and we realize that it is not a perfect tool but we are willing to let them use it for awhile and see what they do with it. I think our sportsmen generally feel that it may work out all right so there is no particular opposition to that as far as I know. Now, we do have in the Saturday opening, a very different problem. Our factory workers and our people in the north would like to have it open on Saturday of every year, but our farming element and our Seven Day Adventists distinctly do not want it open on Saturday because of the trespass problem. We are thinking of opening waterfowl and upland game at the same time with waterfowl down and pheasants down to dissipate the pressure of the opening day so that we, while we have some sentiment for Saturday opening, there is the feeling definitely against it, that would be the 15th, easier to remember, come on Saturday one and seven, take your chances and the grocer man who can't work on Saturday gets his chance and doesn't get it on the seventh, but that's a local problem I suppose.

Now, we are running into a zoning thing. We would like to have our upland game season in the upper peninsula and unfortunately we can't change ourselves. We haven't as much authority as some of you efficient state administrators and--

PRESIDENT RIDER: You are speaking of bureaucrats?

MR. RUHL: No, I am speaking of Ohio for one, but there is a lot of feeling to have our states zoned, upper peninsula separate from the lower, and opening with a small game for enforcement reasons and so that the pressure is dissipated, people are scattered out and not competing for shooting sites so much. We aren't getting anywhere, maybe we won't, but we still think it is a good idea as far as we are concerned. Now, I don't think that we are particularly in favor of the one day bag limit, although we have a lot of places where that would work with advantage, but our trouble is that we are trying to get our people to go away from the congested areas to hunt and to fish in our northern territory, and if you go three or four hundred miles, you ought to bring back six or seven ducks or eight. There is a feeling that a two day bag limit for our state is probably better under the present conditions. I think it is too, but there are some arguments from the other way. As far as the duck populations are concerned, I think that we are quite willing to go light and be on the safe side. While we would like to shoot more and like to have a bigger bag, we would rather be safe and be conservative now and send more back and hope for the future rather than to overdo it and I think most of our sportsmen would agree. The objection we have is the people that hunt in the Great Lakes, where you must have quite a lot of equipment and where when things go well you will get your

four or five ducks just like that, you may have to work three or four days before they click and then it is kind of hard to stop, but I think by and large it is all right. As far as the surveys are concerned, we aren't satisfied with the surveys and reports either but we aren't satisfied with our own until we can do a better job of our own. We don't feel that we are in too damned good a position to be too critical of the Fish and Wildlife Service. Yes, let's be able to better our own and we aren't too damned proud of our own.

PRESIDENT RIDER: Doctor Martin, will you report on the subject for Ohio?

DOCTOR MARTIN: Well, Mr. Chairman, Ohio is not a waterfowl state to start with. We are getting some bodies of water scattered over the state in our impoundments that will probably in the future mean more to us from our waterfowl situation. Our main waterfowl territory, of course, is not very far south from where we are situated right today and that is along our marshes on the south shore of Lake Erie. Now, banding records indicate that we have a certain percentage of these birds that go east to the Atlantic Flyway and a certain per cent that goes to the Mississippi Flyway. That means, of course, that we do get a spread of birds in some of our old canal reservoirs, so to speak, over in the western part of Ohio, and then along our lake shore and south through the state along the east and southeast in a few bodies of water over there. Now, as to our dates, I can't see where we can better ourselves very much from the dates that we had last year. There is one thing, and this perhaps is a selfish thing in Ohio. We here in this state do not have any Sunday

shooting and there are some of the states which do have, so that if it could be worked out, we would appreciate a few extra days in there regarding those just because we are penalized here in our own state. That's the only thing that we have in mind on that. I don't see at this time, from all reports that we get, that we should increase our bag limits. Those are my thoughts on this thing.

PRESIDENT RIDER: Well, gentlemen, as Commissioner of Ohio, I want to sustain Doctor Martin and say that we do, being a Christian state, no hunting on Sunday. I have said to Mr. Ruhl many times, we do object to being penalized those four days and I can't see any good reason why any of the states where Sunday hunting is prohibited couldn't be given four days to compensate for the loss of those Sundays. Our Commission feels that fundamentally flyway management is certainly biologically correct. We feel, however, that we could have a great many more facts on which to set up a program for flyway management. I feel to increase the duck stamp might help to get these additional facts as the Service would have additional funds. We also agree with Mr. Osborne that there should be no shooting of ducks before sunrise; that from our experience is the best way to drive the ducks out of the state. We would like to have a two day possession limit because as Doctor Martin told you, all our shooting of ducks in this state that amounts to anything is on the shores of Lake Erie. That means if a down-state man wishes to participate in the sport of duck shooting, he has to make a drive of one hundred and fifty to two hundred and fifty miles, and that is pretty tough to make and go back with one day's possession. Now, let's open it up to a general discussion. Before we do, however, we have visitors who

I think should be heard. Mr. Barski os the Wildlife Management Institute, can you give this gathering any thoughts on this duck situation?

MR. BARSKI: Well, of course, I am out of this territory entirely and my travels have been along the Atlantic coast and the reports that I have gotten from the upper region have been somewhat more favorable than I have heard here, particularly our black duck, but at the hearings they have had, the one important thing is that the sportsmen have evidenced the same interest in, "Let's go easy this year and hope that what we can save is going to help ante up our population next year", but the regulations have the same thing, the people have the same interests. Of course, I have stayed out of those entirely, that's not my position. My main thing is the working towards the increase of the ducks and possibly when we get into that discussion I may be able to offer a little bit more but this regulation situation is something that I stay away from entirely. I think you can understand that. Thank you, Mr. Rider.

PRESIDENT RIDER: Doctor Leedy of the Ohio Wildlife Station is here and I wonder if you will make a contribution and a statement, Doctor?

DOCTOR LEEDY: Mr. Rider, I don't believe I have anything worthwhile to offer on this problem. Thank you just the same.

PRESIDENT RIDER: Well, gentlemen, the meeting is open for a full discussion of the duck situation. It is my feeling the resolutions committee should come out with a resolution that probably we could approve this afternoon and send our thoughts on by telegram to Washington. Mr. Ruhl.

MR. RUHL: I would like to ask Livie to elaborate a little

bit more. There is this question of dispersing the Horseshoe Lake flock of geese by your new refuges. I would like to know how it is working because I think everybody is interested in that situation because it may be in the long run the partial solution to that problem.

MR. OSBORNE: Well, we have two new refuges, one at Union City, Indiana, and one at Crabb Orchard Lake and of course we are going to do a lot of feeding down there and we did start breaking up the flock last year and I may not be absolutely accurate but my recollection is we had from sixty-five hundred to ten thousand geese in that area last year and we expect to have considerable more than last year.

MR. RUHL: Well, do you think that is going to work out and be a perfectly useful tool in the handling of that local situation in the long run?

MR. OSBORNE: We are trying to drive the geese away by airplane and other methods from Horseshoe Lake and we are only going to feed up to a certain time. That is, the natural feed on the island and so long as they are bothering the farmers' crops and then let them try to shoot some of them away to other areas and also we are trying to buy several thousand acres of land around there to prevent that.

MR. RUHL: I had hoped you could move part of that flock to other places where you could buy some other land before you get the flocks built up.

MR. OSBORNE: You know, Missouri particularly would like part of that flock. I understand all about that. We are not wanting to get rid of the geese so much as we want to prevent depredation and we want to prevent commercialized killing of geese.

We are not trying to get the geese for you.

MR. RUHL: You want better distribution in your own state?

MR. OSBORNE: We want to catch the geese in Illinois, but we don't want them killed in commercialized slaughter.

MR. RUHL: You don't want to keep more than your share, do you?

MR. OSBORNE: Well, I could say the same thing about deer in other states and other things of that sort, too. We would like to have deer and large animals but we can't get them. You know, the geese come to Illinois because we treat them so well down there; we are very hospitable to them down there. If you show the same hospitality to your wild geese, they would come down there, too, and not try to kill them so much. When they were hollering in Michigan about us killing the geese at Horseshoe Lake, on the checkup, we found they were doing more killing of geese in Michigan than we were doing in Illinois as a matter of fact.

PRESIDENT RIDER: Let's have some more discussion of this problem. I don't think we are through with it yet, are we?

MR. OSBORNE: I would like to know whether generally the people here from the states agree with my theory on Horseshoe Lake that we should not permit it to be reopened within the zone that we have declared closed as a buffer zone? I would like to know whether those here don't agree that we should not try to reopen the Horseshoe Lake?

MR. RUHL: The thinking sportsmen are in favor of your program.

MR. STEEN: I don't see any reason why the states, if they want to go beyond the restrictions imposed by the Federal Govern-

ment, why the states can't do that, and I don't see any reason why, as far as that is concerned, the Federal Government shouldn't go along with the states. I think that is your prerogative. If you want to keep that area closed, keep it closed.

MR. OSBORNE: Well, I know, but this is a political year.

MR. STEEN: I know, but irrespective of that.

MR. OSBORNE: And I, as Director, need some help in this case because the politicians; this is a year when they want to do anything to get the votes and I will have pressure put on me as Director and even from my own party folks up town there. The Governor will have some pressure but if this association would go on record as being opposed to anything like that, it would help a lot in my situation. I only mention it now so that you will understand when the resolution comes up because I expect to offer the resolution.

PRESIDENT RIDER: Director Osborne, has there been any change in the situation since last year? That is, if you acted and the Federal Government acted correctly last year on good sound facts and those facts haven't been altered, why shouldn't that action be continued?

MR. OSBORNE: Well, the sentiment in Illinois is very much for it now, even down in that section; the people believe that we have the right proposition and the right out and that a man shouldn't be forced to pay fifteen dollars a day to hunt geese down there. Generally, the state approves it and the newspapers approve it and I don't think that we are going to have much trouble, but I want to get all the help I can so there wouldn't be any question about it. The facts are unchanged.

PRESIDENT RIDER: I think, and I agree with you, that we should have a strong resolution on this matter and the resolution committee probably could present it at the afternoon session and we could get it on to Washington after acting on it.

MR. ZIMMERMAN: Zimmerman, Wisconsin. In talking to the goose hunters in Wisconsin, they are all in favor of what Director Osborne has just been talking about, that is, of continuing the closing of this buffer zone down in the Horseshoe Lake country. They are very much in favor of it.

PRESIDENT RIDER: Mr. Davis?

MR. DAVIS: Davis of the Fish and Wildlife Service, Region three, Minneapolis. It is unfortunate that I haven't had an opportunity to discuss this Horseshoe Lake thing with Director Osborne. As a matter of fact, that is one of the reasons I am down here at the present time and if we could have had an opportunity to discuss this before this meeting, I am sure that Director Osborne would have a little different slant on this thing. As far as the opening of the season is concerned in Horseshoe Lake or opening or taking off the enclosure order, I have a letter from Doctor Cottam and was reading it last week, in which he states that our program of dispersion of Horseshoe Lake is based entirely upon the surmise that a closed order will be in effect this year again the same as it was last year and before you get this resolution thing started around here maybe Director Osborne and I can get together and have a little confab about this. Director Osborne has drawn up a program for the management of the Horseshoe Lake flock of geese and we have concurred pretty much in the plan that he has drawn up and I think we should have a discussion

on that, Director Osborne and I, as soon as possible.

MR. OSBORNE: Well, thank you very much, and I was only going on what I was told when I was at this meeting, and also on my conversation with Mr. Day saying that if we didn't buy a lot of land down there he thought it would be opened up; he told me that personally.

MR. DAVIS: Well, I don't think there is anything wrong about asking for a resolution that that area not be opened. I think that is perfectly all right.

MR. OSBORNE: We didn't intend to criticize at all in the resolution; we just merely said we expected to continue it as closed.

PRESIDENT RIDER: We will pass on to ring-neck pheasant. I should tell you that North and South Dakota are not here. South Dakota has their annual hearing today. North Dakota didn't state any reason; Indiana is not present. I wonder if we might hear from Nebraska?

MR. VANCE: In the absence of the Dakotas, I presume that Nebraska will probably be the most representative pheasant state here today.. As you folks know, during the period of years from 1941, 1942 and 1943, we had a tremendous number of pheasants within the states. Since that time, the population has declined with unprecedented rapidity. Our checks up to the present time indicate a good increase this year. We will not have our complete picture until this time next month, the middle of August. The present indications show that approximately a thirty per cent increase in our pheasant population this year over last year. It still doesn't bring us back to our period of former abundance. If we can have another series of favorable nesting seasons, I believe

that we can again have some good pheasant hunting within the state. The birds this year came into production about, that is egg production, a week later than they have for several years; probably influenced by the severe March weather that we had. The brood size this year is running larger in some sections of the state and normal in other sections. We are feeling at the present time quite happy over the possible pheasant situation this year.

PRESIDENT RIDER: May we hear from Iowa on pheasants?

MR. STILES: I presume that all of the states in the pheasant territory where they have pheasant hunting had somewhat the same experience that we did last year. Our population was low. It rather materially affected our sale of hunting licenses. Quite a controversy developed in Iowa due to the fact that we opened the season in the face of the low population. We felt that even though the population was low, as long as we limited the shooting to cocks, that the surplus of cock birds existed even though the general population was low; we did open it. This year, our population is still not good. The results of the population studies that we have made today would indicate that we do have some increase, possibly somewhere between three and fifteen per cent and nesting conditions were quite favorable in Iowa. One thing that helped them materially was wet weather and it came along about the time the alfalfa crop was cut. One of the most important nesting areas of the pheasant is in the alfalfa and the cutting was delayed so at the present time the picture looks somewhat brighter in Iowa than last year. I believe that is all I have to offer on it.

PRESIDENT RIDER: I note this to be one instance of wet weather being beneficial. May we hear from Wisconsin?

MR. ZIMMERMAN: Zimmerman from Wisconsin. Well, gentlemen, the pheasant season last year in Wisconsin was very poor. The take of birds was low. We have had a very good nesting season this spring for pheasant, but the picture is somewhat like it is in the duck situation where we don't have the population of matured birds for the amount of habitat that we have. We have had good broods and the birds are coming along very nicely but the population will be spotty; that is, Wisconsin still has a lot of good pheasant habitat that isn't being occupied because pheasants are still down generally but the hatch has been good and we expect in some localities that the population will be a little bit higher but generally speaking it is still down.

PRESIDENT RIDER: May we hear from Minnesota?

MR. HUSTON: Huston, Minnesota. Minnesota didn't have a pheasant season in 1947. We didn't have the birds to justify it. This year, I rather think we will have a season. We have had the first good nesting season for years; the conditions were ideal. The hay crop wasn't cut until a little later than usual in the season and as a result there weren't as many nests destroyed during haying operations as usual. We had two periods of rather severe winter loss, in February and again in March, in certain sections of the state. However, it did not cover the entire state. At the present time, we are getting our data in on the population.

PRESIDENT RIDER: Mr. Osborne, will you take over the chair for a moment?

MR. HUSTON: Our broods this season are larger than normal. We won't have all our data in until the latter part of this month. On the basis of what we found out so far, it looks very much as if we would be able to have a season. Our population, of course, is not to the point where it was in 1942 but I do think that we will have sufficient birds to give us a good season in 1948.

MR. OSBORNE: Missouri, will Missouri now tell us their situation in pheasants?

MR. TERRILL: Terrill from Missouri. Our pheasant range is so restricted that I don't think there is much that we can add to the discussion. As most of you know, we have a small area in the northwestern part of the state next to Iowa and Nebraska and again along in Mississippi and Missouri our bottom lands; that's about the only pheasant territory that we have in the state. Our population apparently is holding its own, our small population, but there is from a standpoint of your real pheasant range; we are on the southern limits of the range, and have only a small per cent of the state that can support even just a fair supply of pheasants.

ACTING CHAIRMAN OSBORNE: Next is Illinois. First, before I go into pheasants, there was one question on waterfowl that I overlooked; that's the coot season. In Illinois, men who hunt around Fox Lake up in our chain of lakes, have lots of fun killing coots on opening day. I notice that the regulations propose to reduce the number of coots to be killed from twenty-five to fifteen and only one day's possession limit. Now, I am not an expert on waterfowl; I have never seen the particular value of coots, because most people, except in certain territories, do not care for coots, and they eat up a lot of the duck feed and I

personally see no objection to their reduction; I mean at least from what they have been in the past, and I know we are going to get serious opposition in the northern part of the state of Illinois, to the reduction of the coot season, the coot bag limit from twenty-five to fifteen. Now, as to the pheasants, Illinois being a highly agricultural state, with not very many wild areas, with a tremendous population with terrific hunting pressure, it has always had trouble in its pheasant season because only from Springfield north, the glacial area, can we raise pheasants. Up until last year, ten days of hunting was permitted, and last year it was two weeks. We had a very good season last year, one of the best we ever had. Our surveys this year tell us we will have an increase this year over last year because one of the reasons is we didn't have the floods that destroyed early nests that we have had in previous years. It will be necessary in order to help the pheasant hunters to supplement what nature does by raising a tremendous amount ourselves and with that we are able to keep the hunters and the man on our public hunting grounds pretty well satisfied, but I don't ever expect Illinois to be a great hunting area like the Dakotas and Nebraska, and some of the other states that have a lot of wild land.

PRESIDENT RIDER: Thank you, Director Osborne. You will be interested to know that telephone call was from the Kansas delegation, who arrived in Port Clinton this morning and we are sending over for them. May we hear from Michigan on the matter of pheasants?

MR. RUHL: I think I am quite in agreement with everything that has been said. We had a season last year. We don't think

we made a mistake, even though we did only shoot a rather small harvest. We can't see where shooting cock birds in a season such as we had with various farms that are closed under the trespass law as harmful. The only thing is, don't shoot hens, and that is something we can pass back to the sportsmen themselves and say, "Your responsibility is to see that you and your party and your friends and your cousins, and so forth, don't shoot hens", and I think that that really accomplished something. Other than that, we can't see any danger of the pheasant population by shooting cocks, and as long as there are seasons on rabbits and grouse and other birds, we don't see why we have that enforcement problem. We push back the responsibility for not shooting hens on the sportsmen. I think that is what we have to do.

PRESIDENT RIDER: Doctor Martin, will you talk on pheasants for Ohio?

DOCTOR MARTIN: Mr. Chairman, last year there was some debate as to what we were going to do in the way of a season and we finally arrived at doing something that Ohio had never attempted before and got away with it. I want to tell you this because we feel that it did have a lot of value in the saving of birds. We were fortunate insofar as our season was concerned in having some weather that was unfavorable for the hunters and that helped us out a little more. As a result of what we did, we feel that we have an increase or a carry-over of breeding stock at least ten per cent above the previous year which isn't anything to get on the house tops and shout about, but it is up a little bit. Now, what we did last year; we held our bag limit to two cocks, and possession limit two. We cut our shooting hours down starting at

nine o'clock in the morning and closing at four. This is one of the things that we feel was very beneficial in saving us some birds. Now, this year we have or did have a couple of bad floods in our pheasant territory right at the peak of the nesting season which may hurt us some from the standpoint of the pheasant population in our best pheasant counties; that's northwestern Ohio. However, to compensate for that, in our central counties of the state, we have had very favorable nesting cover, or nesting conditions, and reports are that we are finding larger broods, seeing larger broods than we have other years. Now, I would like for Dr. Leedy to discuss at the proper time, just to show you what our drop was from the year before based on our census report as compared to last year. I think he can give you more on that than I can; he's the man that handled it. How about it, Dr. Leedy?

PRESIDENT RIDER: Dr. Leedy is recognized.

DOCTOR LEEDY: Gentlemen, I think that Doctor Martin has covered the situation pretty well. Our census techniques have been varied; that is, we have considered the nesting found in hay fields as reported by farmers, we have carried on intensive nesting studies on relatively small areas, we have tabulated the hunters take figures. For example, last year the pheasant killed in Ohio was only about two-thirds that of the year before, 1946 season. From all reports this year, there has been an increase and I would like to comment on Mr. Ruhl's statement regarding the possibility that the kill of cock pheasants doesn't interfere with production. I think it has been shown that most hen birds do lay rather a large number of eggs, but for some reason or another, last year and the year before the sex ratio that we observed in the field, I am

speaking now, we can't say that it is actual, but for some reason we have found out about only one cock bird for four or five hens. Now, in the good seasons, prior to the war, we had a sex ratio of one to two or three hens in the spring and again this year the ratio was more nearly that than the ratio of one to five. Now, I don't know what the mechanics are there but it may be some indicator of pheasant productivity. I believe they are on their way up. The kill figures are rather interesting in that several counties reported increases even last year, and we know that the total take is much less and these counties that did report increase in take were, you might say, border counties. They were out of the area that had heavy floods. We feel that the flooding was one of the main factors, at least a factor.

PRESIDENT RIDER: Does the gentleman with the Wildlife Institute have any remarks on pheasants?

MR. BARSKI: Just one, Mr. Rider. If I could take the poorest state out of this region and bring it back east, I would have accomplished my aim in wildlife work. The only pheasant area is New York, in the Ontario and Erie region, and I spent four days out there last year and did not see a wild pheasant, so the situation back there is just about the same as it was. In New York, the one fair area they are still hoping for pheasants to come back, the other region is strictly a matter of raise them, throw them out and hope that they can shoot them.

PRESIDENT RIDER: In this general discussion, for the benefit of Ohio, I would like to have the opinions of you men on just what are the limiting factors in pheasant population and if possible shed some light on just what were the factors which

caused this tremendous decrease in population. We have gone through this period. It seems to be quite universal. I think it would be rather neglectful if we can't arrive at some factors that were directly the cause for this decrease so the meeting is open for a general discussion. Have land use practices changed? Have row crops increased? Let's have some contributions on the subject.

MR. STILES: Stiles of Iowa.

PRESIDENT RIDER: Mr. Stiles of Iowa.

MR. STILES: I might say that one of our men in cooperation with the Department of Agriculture, went over the land use record in Iowa for the past ten years getting the number of acres that were in pasture, the number in grass, and the number of acres in corn. While he hasn't completed the study yet, we seem to find a pretty close association between the amount of land in corn and the pheasant populations. If the price of corn went up, the amount of acreage in corn was greater; the more grass land was turned into row crops and the pheasant populations it seems over this ten year period went down and as the price of corn went up, fewer acres in row crops, more land in pasture and hay and grass, the population seemed to go up. Now, that study hasn't been completed; whether that has a material bearing on it or not, I do not know, but at least it seems that that was the factor in Iowa.

PRESIDENT RIDER: We in Ohio, the Division in Ohio, agree definitely with that, Mr. Stiles. It seems our row crop increase had the same effect on our pheasant population as you stated for Iowa. I can remember that we had our greatest pheasant population in this state when the Federal Government was paying farmers not

to produce and to permit the land to lay idle. We have on record here one instance, I think, that to my mind justifies our belief. We had the Federal Government come in during the war and the Army picked up an ordinance area over here of some nine thousand acres right in this county at Sandusky; no, not in this county, in the adjoining county; it was just ordinary farm land and was almost marginal insofar as pheasant production was concerned. Well, they put a ten foot woven wire fence around it with three strands of barbed wire on top; they made TNT there, and naturally there was very little human disturbance there except the workmen within the grounds. The farms, of course, were not worked at all and we found right there, in spite of bad nesting situations, and all the other factors that seemed to contribute somewhat to pheasant decline, a tremendous increase in pheasant population, so it seems to me that in Ohio, and I appreciate that you in Iowa are in even worse shape than we are, that this agricultural activity, particularly in alfalfa and the row crops has been very disastrous and we are simply having to go on out and pay good money to take some of this land out of production to get winter cover and nesting cover. If we didn't spend our money in buying it, it just wouldn't be there and so we are buying alfalfa fields; that is, we are buying the crop to permit it to stand undisturbed and unmolested, not to be moved, and having to pay right through the nose. In Ohio we have no proper habitat low in population of birds. We think possibly next year that we will have to pay as much as forty dollars an acre. I wonder if anybody here can contribute some discussion on mowing which has been, along with row cropping, so disastrous to us here in Ohio. Do the delegates here have any

idea on flushing bars? Are you doing any work towards working up a flushing bar that would be satisfactory to the manufacturer that he could put on his equipment at the factory? Doctor Leedy,,I know you have some thoughts on that.

DOCTOR LEEDY: Some of you probably were at the North American Conference two years ago down in San Antonio and at that time Dussman and I presented a paper in which we pointed out that in Ohio the acreage of hay in the pheasant counties had decreased about twenty-five per cent in a five year's period. We feel that the hay crops are probably the most important as nesting cover for pheasants and we have found that in alfalfa only about twenty per cent of the nests that are present have been hatched at the time the hay is mowed and we find a very high mortality of hen birds and during the second or third cuttings of alfalfa of young birds also. For example, in one field, one twenty-three acre field last year, Dussman found fifty-five pheasants killed as a result of mowing. Now, that's really a high mortality and we felt that if we could devise some sort of a flush bar that was effective and could be mounted on a tractor without any great difficulty, perhaps farmers would use it, so we worked on one last year and tested it out only in a small way. We found that it flushed in two fields, for example, seventeen out of twenty hens that were present and the question is now whether saving these hen birds will increase the pheasant production. It won't save the nests because they are practically all destroyed but if we could save the birds early enough in their incubation stages that they will go and renest then we feel we are doing some good and also all the young birds that we save will help boost the pheasant

crop, so this year we have expanded that study and are using six of these flushing bars in the northwestern part of the state, getting the alfalfa mills to work with them, and we think that if they work out effectively that there will be enough pressure from the sportsmen that farmers and especially the hay mill companies will almost have to use them. One other thing I wanted to mention awhile ago and forgot as regards the shortened hours of hunting. In spite of the fact that we think we have pretty good law enforcement, we get a big kill of hen birds along with the cocks, so if the shortened seasons don't do anything else, they will perhaps save some hen birds and they are, after all, the goose that laid the golden egg.

MR. HUSTON: Huston of Minnesota. I would like to say a word about this pheasant situation. We are of the opinion that economics has a whole lot to do with the success of your pheasant crop, and I agree with Stiles and Rider that the row crops have a great bearing on your pheasant reproduction. One point that also has a bearing and hasn't been mentioned here and that's the matter of promiscuous weed burning. We are very much concerned about it in Minnesota and we would like to do something about it. We find that where farmers mow or burn, their fence rows or their slough grass on the roadsides, places that provide early nesting cover that forces your bird to go into the meadows, the alfalfa, the red clover, is usually about the first thing that is up, with the results that their nests are probably destroyed, so we think if we can prevent a lot of this unnecessary burning, that we are going to save a lot of nests because your birds are going to nest in your fence rows and your roadsides and your dry sloughs with

the result that they will probably be successful in hatching their clutch of eggs, where as if they go into hay, they undoubtedly will lose them. We find that as high as seventy per cent are destroyed in meadows. We are working on that angle and we think that is going to do some good. I would like to hear some comment from the rest of you, if anyone else has had any experience along that line and see how it's worked out in the other states.

PRESIDENT RIDER: I think, too, we ought to have some discussion here on what you men know about the effects of insecticides and fungicides on the pheasant population. We in Ohio have conducted a study on fungicides and found that the generally used fungicides for the treatment of corn fed to pheasants in moderate quantities as you would suppose they would get it out in the field apparently had no effect. I think that the examination of the birds,Doctor Martin and Leedy, didn't it show possibly a little enlargement of the liver but nothing else?

DOCTOR MARTIN: Well, Dan, you have that report on that thing I think pretty well worked out. If you have anything there, go ahead.

DOCTOR LEEDY: Well, we have had some of them examined by a qualified doctor of medicine and he found that it might have irritated the walls of the intestines some but none of the birds died so far as we know as a result of the fungicides and we held them over the winter and with the idea of seeing whether it had any delayed effects on reproduction, egg laying and so on, and so far as we could tell, it did not.

PRESIDENT RIDER: Mr. Vance.

MR. VANCE: Just a comment along that line; two years ago

we had reports from certain places in Nebraska where the farmers were attempting to poison pheasants to get rid of them, they had too many in this one area, so at the game farm we set up a series of experimental pens and used strychnine, copper sulphate and barium carbonide and semisan and semisalt, and arsenic. We were unable to kill any adult pheasants with the use of any of these poisons. The hatchability and liveability of the chicks in these experimental pens exceeded those from those receiving the normal rations, if that means anything. At the same time this year our State Highway Department has gone into an extensive weed control program and spraying weed killers along the sides of the highways and roads and, of course, we immediately got reports of the vast numbers of young pheasants that were killed by the use of these weed sprays, so we again set up some pheasant pens and some wheat patches and alfalfa and grass, and what-not, and put our young birds in there and sprayed them, and the last reports which were day before yesterday are that the birds are thriving, so while those experiments are limited and the observations I could make, at the present time we see no particular cause for alarm from either the poisons or fungicides that are used for treatment of seed corn or on the wheat sprays that are used on the highways. To get back to your comment about the limiting factors on pheasant production during these past several years, we have given that considerable thought and study in Nebraska and, frankly, are unable to arrive at any conclusion that will affect the entire state. As you know, the good portion in Nebraska is in grass in the sand hill country and that country, too, had its ups and downs in pheasant population. A good many of those areas, great

extensive acreages in which there is limited grazing, sufficient cover, the pheasant population has gone down there similar to other areas. We think perhaps that a shortage of feed in those areas may have been responsible. We have had areas set aside as ordnance depots that because of the increased amount of cover showed an increased number of pheasants. We have had other ordnance depots in which the pheasant population dropped down as it has in other sections. We think perhaps that a combination of intensive farming during the period of higher prices for farm produce, and probably most of all the effects of weather, either in preventing the production of the normal seed crop on the wheat and the unfavorable conditions that occur in the spring during the occurring of the nesting season are probably most responsible for the situation that we have faced.

PRESIDENT RIDER: I might say to you men that in our hunting regulations last year we set the daily opening hour at nine and the closing hour at four. That lost us just about a hundred thousand licenses and brought a lot of criticism. I don't know whether we can hold the line this year; we are going to try it. You might see revolution in Ohio within the next thirty to sixty days. Are there any other comments on the pheasant?

MR. HUSTON: Huston of Minnesota. I just wanted to add a word about the poison grain situation. In the last several years, we have had a great many people advance the theory, of course, that one reason we weren't getting a good reproduction in pheasants was because the pheasants had access to the grain that was poisoned. We found that we could give pheasants a lethal dose of this semi-san, I think that is what they called it, isn't it, Vance?

MR. VANCE: Semisan.

MR. HUSTON: We found that we could give them a lethal dose. However, they under natural conditions could not get that much and we poisoned, I think, it was twenty-four last fall, carried them through the winter and collected the eggs in the spring and set them and the reproduction was just the same as it was from our other birds, so apparently there is no ill effect or no carry-over of the poison.

PRESIDENT RIDER: Mr. Barski.

MR. BARSKI: Mr. Rider, while we were talking about poisons, I was going a little bit out of that field and ask if any of the gentlemen here have any thought on the use of herbicides or the pyrocides or the killing of weeds by fire? Now, I have just been able to read about this partly because of the potential use of the herbicides in large fields killing out the weeds. I wonder if any of the gentlemen here have had any experience with that?

PRESIDENT RIDER: I think that is going to present a problem. I don't know what we can do about it.

MR. BARSKI: Well, I am sure because back in the east in our limited areas where, well, oh, in certain areas, spotty areas where we have some pheasant production, it is largely in the marketing gardening areas and they are going in for the weed killers to utilize that last foot of land and I have seen some of the farmers that have had these fire packs and they just have a great time. They burn the last weed, not next to the last one but they get the very last one and they really have a grand time with it, and I was wondering if that has cropped up in other areas? If not, I think it is going to.

MR. RUHL: Well, We have quite the same situation; they kill the weeds and then burn them, and things of that kind as being the practice, and I think the whole situation is that we don't know too much about it, because it's a Dow Chemical in our state which makes, I don't know how many new products every year; they have some things coming out that they themselves don't want to talk about. They don't know whether they are just too damned dangerous or not. We are working with them to try them on something to find out, but certainly the thing is cropping up, and there is quite a lot of concern and alarm and we are getting reports along railroads where somebody has picked up a pheasant or a rabbit and by the time it gets to us, it's ten rabbits and fourteen pheasants. It's all out of proportion but the problem is there. I think the only answer is to test them and you had better get it before they tell you what the answer is, even if they know. Never in doubt, you know. I think it's something we have to watch. The Dow people have a chemical which is a hundred times more powerful than DDT. They are not marketing it; they don't know whether they want to market it or not or make it; they want to test it discretely some place where it won't get out of hand. Then if it has proven satisfactory and safe, then they will market it.

PRESIDENT RIDER: I think in Ohio a farm manager who manages some fifteen thousand acres has an arrangement now set up with Dow; they are going to spray a six hundred and twenty acre farm with an airplane and I asked him what effect he thought that would have on game and he said, "Well, I don't know but by God we are locking up the chickens and we are getting the kids out of the fields, and getting the stock in the barn".

MR. RUHL: I think the Dow people are really concerned about it themselves and want to do the right thing. We ought to help them do the right thing if we can help it.

PRESIDENT RIDER: Is there any further discussion on the pheasant? If not, and you men can bear with me, let's pass on to quail. This discussion can be very beneficial to Ohio where, as you probably all know, quail is a song bird. We are trying to get it off that song bird list. Frankly, we just don't know what a management program will do for the bird in this state. We are just not able to say because we haven't managed it in the last twenty-five years. We have a feeling that a natural resource is being wasted. Nebraska, have you thoughts on quail?

MR. VANCE: Have some thoughts, I don't know if they are good ones or not. Nebraska, as you know, lays on the extreme edge of the quail range which cuts only the southeast corner of the state. I can't tell you the year of the last open season up until recently but in 1940 we went into our limited quail range with a habitat restoration program, supplemented that with stocking of game farm birds and after the habitat had grown for several years and during the war the quail season was open and we have enjoyed three successive quail seasons in southeastern Nebraska. I am not in a position now to tell you whether we will enjoy a season this year or not because there again I say we are on the fringe of the range; we had abnormal weather conditions and we must expect ups and downs in our quail populations. It would appear that we hit a tremendous down because of unfavorable weather, but we feel with what we know on habitat work and protection to care for those birds now we will be able to bring those

birds back up in a short period of time where they will be utilized by the sportsmen again.

PRESIDENT RIDER: Minnesota, any quail range?

MR. HUSTON: Yes, we have some quail range. It is limited primarily to the counties adjacent to the Minnesota and Mississippi Rivers, up as far as Twin Cities. We open those counties to quail shooting every fall. We don't have quail shooting as some states, of course, but we still have some pretty good quail shooting and our sportsmen are well satisfied with the quail hunting that they get. We are making an effort to improve it by improving environment. I think that we are going to be able to have additional counties but at the present time the counties are confined to those who onjoin the Mississippi and Minnesota Rivers up as far as the Twin Cities.

PRESIDENT RIDER: Before calling on Wisconsin, I might tell you that the secretary of the National Outdoor Writers Association of America is here, Mr. Jim Stuber; he is also representing at this meeting AP, UP and the International News Service and if any of you gentlemen have news items that you would like to send on the wire service back home, let Mr. Stuber have the information and he will get out a daily news release.

MR. STUBER: Yes, a daily news release.

PRESIDENT RIDER: A daily news release will go to the local papers and to those three wire services. May we hear from Wisconsin on the matter of quail?

MR. ZIMMERMAN: Mr. Zimmerman of Wisconsin. Wisconsin is on the northern limits of the quail range, and I believe the last quail eruption that we had there was in 1936, had a very very

severe winter loss at that time. I think there was at least around a million birds. Periodically, it seems that we have the same situation as you have here in Ohio in that in certain years the sportsmen feel that the quail is on the song bird list or should be, and, of course, he is the farmer's great friend but we have a season every once in a while in about a half dozen counties in the southwestern corner of the state and we are going to have a season of four days, five days, this coming year. The quail have never come back since that last die off, that winter kill of '36, but the situation this year looks pretty favorable and like the pheasant we have had a pretty good hatch of birds and Pittman-Robertson project on quail and pheasants have just taken a survey whistling count on quail and the population was pretty good, and so we are going to have a short season this fall of five days, the last five days of the pheasant season in about a half dozen counties in the southwestern part of the state.

PRESIDENT RIDER: May we hear from Iowa on quail?

MR. STILES: With your permission, I would like to ask Mr. Beckman, the Chief of our Fish and Game Division to discuss quail now.

PRESIDENT RIDER: Mr. Beckman is recognized.

MR. BECKMAN: Iowa is in pretty much exactly the same position that Ohio is at the present time. Quail was on the song bird list in Iowa for seventeen years and I believe it was 1935 that we started opening various counties, just a few at a time, to quail shooting and I might say that at the close of this seventeen year period we had less quail than probably at the time that we closed it seventeen years prior to that time. Since we

have had it open, which has been about thirteen years, I believe that we have just as many quail as we had at the time we started opening it. We have in other words thirteen very successful years of quail shooting in Iowa; we had, I think, about thirty-five counties open last year and our bag limit has eight birds a day with a possession limit the same, and I believe that just about covers the picture as far as Iowa is concerned on quail.

PRESIDENT RIDER: Well, I am glad to hear that statement that you had less birds after that song bird period. We might call on you to appear before our next session of the Legislature if you will do it. I have made this statement and I think it holds water. I defied even the Audobon Society to deny it; I don't believe that any ground nesting, ground feeding bird can for long hold its own under the intensive agricultural conditions we have in Ohio without management and God knows a bird like the pheasant that we intensively manage, we are having a hell of a time even holding our own with that pheasant so that quail seems to us to really be losing out in Ohio. How about Missouri? They should give us a lot of information on quail.

MR. TULENKO: Tulenko, Irish. I don't have to tell you that we have, so far as quail is concerned, a marvelous state. I don't have to brag; I can be modest and still say that we have one of the best quail states in the United States, and quail, oddly enough, are doing a magnificent job of taking care of themselves in Missouri. Nevertheless, we think that there are limiting factors. For instance, we had a good scare when we had a reduction in quail members because of drouth and we had another scare when we got another reduction because of climatic conditions of bad winter

conditions, so naturally that led us to thinking along the lines where we could improve the situation to help eliminate such conditions. Our first limiting factor that we worked on in a big way was water. A deficiency in properly distributed water. The next one we worked on was a proper distribution of cover. That's the one we are working on now. We had amazing success in bringing back water. I think most of you know what we have done with the farm pond program in Missouri and any time you come down there and look over the situation, ride through Missouri; it seems like you just can't go anywhere without having a farm pond in sight all the time. With cover, we have been doing some experimenting for the past three or four years and right now we have a new Federal Aid Program. We are getting ready to embark upon a rather extensive cover restoration program and Missouri, meaning the Conservation Commission, is not going to do the work. What we are going to do is just like in the farm pond program; we are going to show Mr. Landowner how it can be done and in such a way that he is benefiting by it; it fits him to his farm economy; it is something he is going to profit by and our wildlife we think will profit incidentally and in a big way. We are specializing, rather we are emphasizing the use of multiflora rose and Korean lespedeza in this restoration cover program. To give you an idea of how we are going to operate it, we have set up the state in seven administrative districts. In each of these districts, we are going to have what we call a district assistant completely equipped with a tractor, a pickup truck or panel truck and a trailer to haul his tractor around and farm equipment and other miscellaneous small equipment, everything that he needs to put on a good demonstration. These

boys are setting themselves up a goal for this next fiscal year of twenty miles of multiflora rose cerise plantings in the nature of a living fence. These will be broken up in small units because we don't want to go in and develop any particular man's farm from scratch. We have exceptions here; we are going to cooperate with the Friends of the Land, you know, where they go in and completely do over a farm, but generally our demonstrations are going to be confined to small units so that we can make a bigger coverage within the district, so that the rest of our field personnel, whenever they talk to Farmer Smith about multiflora rose say, "Jump in a car; I will take you over here and get the job of illustration done in a hurry". Now, those are the two major methods that we are planning that we have used and are planning to use to combat limitations so far as the increase of quail is concerned.

PRESIDENT RIDER: Well, that's fine, and after we come to an open discussion on the matter, I wish to ask some questions on some of the aspects of the multiflora rose. Illinois.

MR. OSBORNE: We had a very fine quail season last year and expect to have a much better one this year, in fact, the best season we have had that we can remember at least for twenty years. We follow along the same lines you just heard from Missouri in the way of planting multiflora roses and other covering and machinery to the farmers and making farm ponds and things of that sort. Our quail population lies south of Springfield. We have tried to get quail going north of Springfield and found that when we have planted them, they have increased very little, so we have discontinued putting quail north of Springfield and discon-

tinued putting pheasant south of Springfield, but as I said before, we expect to have a very good year and a very good quail season, and we don't take a back seat for anybody on quail.

PRESIDENT RIDER: Mr. Ruhl, what about Michigan in the matter of quail?

MR. RUHL: Well, we are way back; we haven't many quail in our northern range. They are song birds. We don't see any chance of getting them off, and the people of Ohio think that's the answer but I am sure we have less quail than anybody, and I don't see much chance of actually having much of a suitable quail population except from a very limited program, perhaps two or three counties in the south. For that reason, we are even in a more hopeless situation than you are.

PRESIDENT RIDER: Well, I sort of doubt that, Harry, because you see really Ohio has little wing shooting and not having any great duck shooting, not having any great number of grouse areas, we just almost have to depend upon the ring-neck pheasant for all our wing shooting and most of it is concentrated in about ten counties up here in northwestern Ohio, so if we got the quail off the song bird list, there is every indication that we could do something with them down in southern Ohio, where they don't have pheasants, and help our situation immensely.

MR. RUHL: I quite agree with you and all of our experience would indicate that that's a much better bet, and all of our experience would indicate that you are on the right track.

PRESIDENT RIDER: Doctor Martin, do you want to speak for Ohio on quail? There is not much to say about it.

DOCTOR MARTIN: The only thing on quail that I have to say

is the fact that there was a bill in, as a matter of fact our bird has been now on the song bird list for thirty-six years and that at the end of that time as far as northern and northcentral Ohio is concerned, I would say that we have less quail, far less quail, than we had when it went on the song bird list. However, there are a number of birds in some of our hill counties and I don't question myself in spite of our law enforcement,and I know the boys are doing a good job, but what there are some quail killed in some of our so-called better quail counties, that is southern counties, the hill counties of the state. At our last regular session of the Legislature, there was a bill introduced to take the quail off of the song bird list. It was sponsored by the sportsmen of Ohio and it was the first time of all the bills that had been introduced that it got through the House. For some reason, it didn't get out on the floor until the last week of the regular session, and while it got through there, it had an amendment whereby there wouldn't be a season unless it would be set by legislative acts but it went through that way and went through by a nice majority in the House. That is a farm controlled branch of the Legislature, so we do have hopes of sooner or later that we will get a bill that is going to take a ride and go through and then at least we will be in a position to possibly try to do some management work. It is just accidental up to this time in this state.

PRESIDENT RIDER: Doctor Dan Leedy, do you have any expressions on quail?

DOCTOR LEEDY: No, except that our surveys,such as they are, show that last year there was an increase of quail over the year before and the probability is there is going to be one this year, too.

PRESIDENT RIDER: May we hear from the Wildlife Management Institute on quail?

MR. BARSKI: Well, we have two quail states in my territory, one in Delaware and one in Maryland, and they are doing absolutely nothing other than what SCS Service is doing, and, Maryland, of course, has geared practically their entire program to quail. In their habitat improvement program, they are now purchasing some waterfowl lands, but their entire PR, other than land purchase, is quail habitat restoration and it is really doing a job down there. Multiflora rose and Korean lespedeza are being used and they have geared it the same as Missouri's program, fitting it into the farmer's land economy and it really does a fellow's heart good to see that program down there. The landowners are accepting it, asking for it, and they are at least three years behind in just drawing up plans to fit on the landowners units, and I think it is quite a healthy sign to see that.

PRESIDENT RIDER: Well, gentlemen, it approaches the time when we must feed and we will come back into session this afternoon about two o'clock and open up with a general discussion of the quail situation. We will adjourn until two P. M., and we will eat in about one-half hour just as soon as they get the tables set up.

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AFTERNOON SESSION,

Friday, July 16th, 1948.

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PRESIDENT RIDER: Gentlemen, if we can come to order, we will continue the program where we stopped this morning. Is there any more discussion on the quail? I wanted to question Mel

Steen a bit about multiflora rose. We in Ohio have had some difficulty in maintaining fence rows, that is, the gentlemen of agriculture just haven't been too strong for fence rows. Our extension service has advocated for a great many years past that they be taken out and a great many of them have been taken out. Now, we are in great need of them and we would like to initiate a program to reestablish in a big fashion fence rows in Ohio. It looks to us as if multiflora rose would be the ideal fence row, except that before we get started, we have to know we are on the right track. In other words, Mel, have you found anything that would indicate that multiflora rose might be injurious to agricultural crops, let's say corn, as to take moisture out of the ground and for how far does it take moisture out of the ground, how much shade does it throw, does it harbor diseases or insects that might be injurious to any of the agricultural crops? How much land does it take out of crop production? Particularly, what have you found out regarding its effect on orchards so far? Could you give us some information on that, Mel?

MR. STEEN: Yes. Well, to begin with, we have coordinated our work with the extension service and we have sold our program to them. We work with them and with the college of agriculture, so that we don't run into this difficulty that you speak about of having conservation commissions saying one thing and another land use agency saying something else to the farmer. Now, it was true that in the old days the hedge row was taboo; that is, that has been true up until very recent times. One of the difficulties, of course, was that the hedge row that was used largely in our country was the osage orange and it had a lot of undesirable features, which we do not find in the multiflora rose. As a matter

of fact, the big sales argument for the multiflora rose is that it will give the farmer a living fence and it will give him the things that he desired in the old hedge row without the disadvantages; in other words, it will give him the advantages of hedge row without the disadvantages that he experienced in the past with a different species of shrub. With respect to its use around fields and orchards, the evidence is that it is not good agriculture management to use an herbaceous fence row around your herbaceous crops; that is, to use grass rows around cereal crops for the reason that the insects and the mammals, the animals and the diseases that prey on cereal crops find habitat in the related plants which are the grasses that grow in the grass fence row. The evidence is that good management, farm management, agricultural management, calls for a woody fence row where you are growing cereal crops and calls for a grassy fence row where you are growing woody crops such as the orchard. We do not recommend putting rows of multiflora rose around an orchard but we certainly do recommend putting it around a corn field or a wheat field or an oat field or any other cereal or grass crop.

PRESIDENT RIDER: Well, Mel, could you tell me what you have found, I suppose it would be different in different types of soil, but just how far out to the right or left of that fence row is moisture taken to the extent that it would be harmful to, let's say, a corn crop?

MR. STEEN: On the contrary, we believe that the multiflora rose fence is beneficial, that it does not rob adjoining crops of moisture. Multiflora rose stays where you put it. It occupies about as much width as it occupies height, roughly speaking. If

you have a six or an eight foot multiflora rose fence you will take up maybe eight to ten feet of space and--

PRESIDENT RIDER: That is on either side, Mel?

MR. STEEN: No, all together. It does stop wind erosion and it does stop evaporation or reduce evaporation and transpiration due to dry winds and the evidence is, although it is limited, the evidence is that the production of corn and perhaps other cereal crops immediately adjoining the multiflora fence is greater than it is out in the middle of the field. I would say we have some evidence along that line but perhaps not conclusive.

PRESIDENT RIDER: In the soil you have in Missouri, I suppose again it depends on the type, but how long, Mel, before the plant grows to actually a living fence that will turn stock?

MR. STEEN: Well, in our state, I would say an average of three years if you give the multiflora rose assistance. Now, I believe that in your state, Buck, you could probably accomplish it easily in three years, perhaps in two. Most of your state, I believe, of the fertility level is higher than it is in the soils in Missouri.

PRESIDENT RIDER: Now, how close do you plant to make certain that once it has attained some growth you have actually a fence which will turn stock?

MR. STEEN: Well, that depends on how tight a fence you want or what you are trying to turn. For livestock, cattle, horses, sheep, so on, one foot. If you are trying to hold hogs and some of these smaller animals, maybe sheep too, you should plant about six inches apart. We use the single row in tight planting because it takes up less space horizontally and therefore the farmer has

less objection to it.

PRESIDENT RIDER: Well, Mel, one more question, how much maintenance time is required after it has reached, let's say, maturity?

MR. STEEN: Well, very little, I would say. No maintenance at all, compared with other types of fencing such as barb wire or of woven wire. You may want to trim it but that can be done with machinery, if necessary. You can run your mower cycle down along laterally if you have that type of mower, right down along the side of your hedge row and trim it off that way. The beautiful thing about multiflora rose is that it gets up to just about the right height and density for a real fence and stays there. Now, that's one of the big advantages of it.

PRESIDENT RIDER: Well, it seems to me, of course, if you have had any experience in fencing, I have been trying to get enough money together to build a mile and a half of fence on my own place and I have about a half mile of it built and times will have to change or else my salary will have to go up, I think, before I will complete it. From that angle, It seems to me, Mel, that you shouldn't meet much resistance to those farmers who need fencing, it seems to me, with the cost of fencing, cost of labor, cost of posts, that it ought to be acceptable, is that right?

MR. STEEN: Yes, we anticipate that probably our major problem in this program that we have launched is going to supply the stock rather than to sell it and it looks like agriculture is going to take this idea with a vengeance. However, we are set up to promote it to the best of our ability, as Paul illustrated this morning by pointing out the seven regional setups and all that sort of thing. We are going to promote it; we are set up to really do the job of promoting

but we think the evidence is that agriculture is going to take it and go with it. Now, I would like to point out one thing right there and that has to do with a lot of things we talked about this morning, this problem of maintaining game supplies under ever increasing intensity of land use, every state is faced with it, the western states. The problem is not as acute as it is here in the east where you have higher human populations and higher land values and higher land intensity, but our experience has been in cold hard figures where you use a pencil and a piece of paper, demonstrate that the state on its own cannot hope to restore habitat in any state such as ours where we still have pretty good natural conditions, can't hope to do any good; it has to sell a program that agriculture will take and go with. In other words, we have a hundred million dollars program and we probably have a couple of million dollars to sell it with, that's the deal.

PRESIDENT RIDER: Now, we set up in Ohio a couple of years ago a Wildlife Conservation Extension Section. That Section, I suppose now, is costing us thirty-five thousand dollars a year, is that about right, Mr. West?

MR. WEST: Yes.

PRESIDENT RIDER: That Section works entirely with the county agents. They have no other duty except to work with the county agents, the organized and unorganized farmers, the youth groups among the farmers, and, Mel, we are this year making a study; it will start now in a few weeks, to determine these facts as to just the exact amount of moisture that this multiflora rose will take out of the various types of land that we have, just exactly the amount of shade it will throw, and determine whether

or not in our findings that it does harbor disease or it might be harmful, and then we expect once we know we are right, to sell it to the county agents, to the agricultural extension people, to the Grange,,the Farm Bureau, to the organizations of all types that are concerned with agriculture in this state. I was interested; we have a youngster here, well not too young either; he is working for his doctorate, from Denmark, studying Hungarian partridge. He has been here now about six or seven months, hasn't ascertained many facts, but his first observation was this. In Denmark where they have a good stand of hunkies, a good population, he observed this, that the average field is about three to four, and never greater than five acres and it is completely surrounded by a hedge, each one of those fields, where as in Ohio our average field in the particular territory that he was studying was fifty, sixty, eighty, ninety acres, and if there was a fence, it was a woven wire fence, and it was cultivated right up to the last strand of wire so that was his first observation that we had one factor there that was inimicable to production of hunkies.

MR. STEEN: Now, I will say another word, then I will quit. One of the reasons we pick on multiflora rose as the backbone of this program is because we felt that we could sell it. Now, I had a lot of beautiful restoration plans laid out on my desk but there wasn't a damn one of them in the group worth a dime unless you can put it on the land and you can't put it on the land with your own power. It would take me, with the money that I can get for this purpose, two hundred years to put any reasonable amount of cover on the land in Missouri with conservation commission's money; it can't be done that way, you have to sell the program.

That's the first thing, so we picked on multiflora rose. Second reason, and perhaps a compelling one, was because we looked at the old world and we took a page from its history. Now, we are tending towards greater and greater intensity of land use in this country all the time. Then, sir, human populations, the same problems that exist over there are coming our way in time. We have to build towards that period and towards those problems. They have come to this point in Europe in agriculture and in wildlife management, small tracks of land have hedge rows around it. Now, they have game and they are also producing the things that human population wants. Those are the two motivating factors, the two principle ones behind our selection of multiflora rose as the backbone of the restoration program.

PRESIDENT RIDER: Of course, there is one other good reason, the fact that they do not have public hunting.

MR. STEEN: Well, with the intensity of land use that they have over there they wouldn't have any game, public hunting or no public hunting.

PRESIDENT RIDER: That's right.

MR. STEEN: Unless they had habitat that would carry it and the thing that carries it is the hedge row.

PRESIDENT RIDER: Mr. Huston.

MR. HUSTON: I would like to ask Mr. Steen a question. Do you have any trouble with the multiflora rose in northern Missouri?

MR. STEEN: No serious trouble that we are aware of.

MR. HUSTON: We have had some for about two years, but I was wondering, do you have your apple crops killed at various times in the northern part of Missouri. I wondered if Missouri storms

might kill the multiflora rose?

MR. STEEN: I think it was Bruce Stiles that was telling me the other day that he had some plantings that underwent thirty-five degrees below zero, wasn't that right?

MR. STILES: That's right.

MR. STEEN: And they killed back to the root, but the following spring they came right up again and they attained a good growth, a rapid growth.

MR. STILES: That's right.

PRESIDENT RIDER: Doctor Tiemeier, have you some questions while we are on this subject that you would like to ask Mel?

DOCTOR TIEMEIER: Yes sir.

PRESIDENT RIDER: You are recognized.

DOCTOR TIEMEIER: I would like to ask Mr. Steen; we are trying to get a program like this under way in Kansas. Now, what do you think it is going to do -- multiflora rose will do in Kansas?

MR. STEEN: Well, I will tell you. I don't know. I don't know. I am just getting---I would say it would be used in Kansas fairly well, western Kansas, maybe.

DOCTOR TIEMEIER: What would be the limiting factor if it did?

MR. STEEN: Well, I would judge in your territory it will be moisture.

DOCTOR TIEMEIER: Well, I talked to everybody I can get hold of and asked them what they thought it would do in western Kansas. Nobody has given me any idea.

MR. STEEN: Well, what do your other shrubs do out there in western Kansas?

DOCTOR TIEMEIER: Well, in a lot of places, we don't have any.

MR. STEEN: Well, that's it. When you are working with woody plants, you have to have water, of course, and if your evaporation exceeds your precipitation by a wide margin, you are going to have trouble making woody plants stick.

DOCTOR TIEMEIER: May I suggest the only way you are going to find out is to hurry up and put some in.

MR. STEEN: That's what we are hoping to do but I was trying to see if anybody had laid any ground work in any similar type. One thing that might help Kansas and some of these other states or western states is when you reach a point in your---west of where your cotton woods or Chinese elms and other things that will grow, one thing that might help on multiflora rose, and we have found it in Missouri, is to use fertilizer, and put it down as deep as you can physically get it, and the roots will follow your line of fertilizer down and it might even be necessary for you to plant in a row of sweet clover and a year or two later follow it with multiflora rose and have a passage way that goes deep. That's just based on limited work in Missouri there in some of the dry areas.

DOCTOR TIEMEIER: Well, some of those wind breaks that they have out there are doing very well, are doing surprisingly well and I myself don't see why in most of the areas, they won't do all right.

MR. STEEN: Well, you will probably have to use some fertilizer or put a row of sweet clover or something in in order to get a passage way down to the roots to go deep to the water.

PRESIDENT RIDER: I do believe, Mel, that if we find out in Ohio that---and we can say in publishing in a pamphlet that it

is helpful and that agriculture will go along. I do believe that's one way in which the Division could cooperate in a big measure with soil conservation and with agriculture. It might be interesting to this group to know that Ohio is putting on its second frontier day and it will be a two day affair this time in which soil conservation folks, in cooperation with the other conservation agencies of the state are making over in two days a farm owned by Rio Grande College at Rio Grande, Ohio. If any of you happen to be through those parts, I think it's the 23rd and 24th of September, you are welcome to see the demonstration. We are hoping that a hundred thousand people will be in attendance. If there is no further discussion on rosa multiflora, or quail, we will pass on and take them as a group, prairie chicken, ruffed grouse, Hungarian partridge. Has Nebraska any statement to make on these species?

MR. VANCE: Very few Hungarian partridge, no ruffed grouse. I think the last one left us in 1916. We have a good remnant population of both sharp tailed grouse and prairie chicken, Canadian grouse. The brood sizes this spring are good. We are not attempting a harvest of the grouse in any shape or form but we are keeping our eye on them all the time. We have them, that's all.

PRESIDENT RIDER: How about Kansas?

DOCTOR TIEMEIER: Well, of course, the only thing involved is that prairie chickens seem to be coming back in areas, but I doubt if there will ever be enough gain for hunting.

PRESIDENT RIDER: Minnesota?

MR. HUSTON: As far as Minnesota is concerned, the prairie chicken is just about out of existence, because I doubt very much

if we will ever have enough prairie chickens to justify having a season. However, the sharptail is coming back nicely and so is the ruffed grouse. In fact, I expect that we will have a season of ruffed grouse this fall. The Hungarian partridge is just about holding its own. It isn't gaining much and it is not losing much. The chances are that we will have a season of Hungarian partridge this fall in the western part of the state.

PRESIDENT RIDER: What do we hear from Wisconsin on these species?

MR. ZIMMERMAN: Well, the Hungarian partridge is down now for the last three years and making a pretty good comeback in three or four counties and there will be a season this fall in three or four counties. The range, the total range in the state, in the southern part of the state, covers about twenty counties but there will be four or five open this fall. The sharptail grouse are coming back very very nicely. They have the same situation in Minnesota and Michigan; they will be coming up but there will be no season, and prairie chickens are just holding their own in most places. The ruffed grouse have come back very very well and we are going to have a two weeks season this fall on ruffed grouse and the cycle is upward. Doctor Bowes felt that in 1950 or 1951 the peak would be reached in the ruffed grouse cycle.

PRESIDENT RIDER: How about Missouri?

MR. STEEN: It is said that there are ruffed grouse in Missouri. That's all for ruffed grouse. Now, on prairie chickens, it is very probable that we have an outdoor museum species in that bird. That about covers those two species.

PRESIDENT RIDER: No hunkies?

MR. STEEN: No hunkies.

PRESIDENT RIDER: Illinois? Livie, what is your situation on Hungarian partridge?

MR. OSBORNE: Practically none.

PRESIDENT RIDER: Prairie chickens?

MR. OSBORNE: Two counties have prairie chickens, one in the north and one in the south. We are babying them and doing all we can to help them along but the flock doesn't seem to be increased at all. We are very much disturbed about the situation and believe we will eventually lose our prairie chicken because of the civilization progress.

PRESIDENT RIDER: Michigan. Harry Ruhl ought to give us a lot of information on Hungarian partridge. He has been working with them for years.

MR. RUHL: Our Hungarians are next to gone. I don't think there is any chance in sight of doing anything about it that we know of. Ruffed grouse are on the up and we have had an open season and we are going to have another one and we think we did all right having it open during the low. They more or less take care of themselves. Sharptails in the upper peninsula are on the up incline, although we don't have the number you have farther west and the prairie chickens are in precarious situation. We would like to protect the prairie chicken all over if we could but we can't do it and have an open season on sharptails so we are setting aside some areas where there are more prairie chickens and sharptails and we are closing everything, because we are just introducing sharptails. Our prairie chickens are not on the way out but they

are damned precarious.

PRESIDENT RIDER: Well, what is your grouse situation, Harry?

MR. RUHL: They are up good.

PRESIDENT RIDER: They are good?

MR. RUHL: It is not going to be in the peak this year but about half way between low and high.

PRESIDENT RIDER: Well, tell me, are you artificially propagating Hungarian partridge?

MR. RUHL: Yes. We have at our game farm; I am keeping just enough of Hungarian partridges so if the next turn of the weather or events, or whatever it is, that does something to these species, shows that there is a chance, I will have the thing to start with. That's just the ace in the hole. Only raising five or six hundred birds in order to have a broodstock of artificially propagated birds, if and when there is a need for it.

PRESIDENT RIDER: Are you releasing any of those, Harry?

MR. RUHL: Yes, a few.

PRESIDENT RIDER: Have you followed them after their release?

MR. RUHL: Yes. The results are next to zero.

PRESIDENT RIDER: Well, maybe they are coming down in Ohio. We are getting a fair stand of them down south or about the central section of the state. They are moving down from the north.

MR. RUHL: Well, originally we got them from Ohio so it would be only fair if some of them came back home.

PRESIDENT RIDER: That's right. Doctor Martin, will you report for Ohio on Hungarian partridge and grouse?

DOCTOR MARTIN: To give you an idea of what our Hungarian

partridge is, it got to the point last year the population was so low that we decided it was time to close the season or we would lose the last one. Now, there are a few counties in central Ohio in which our hunkie is coming back and coming back fast but the original section of Ohio, northwestern, where we formerly had what we considered a large population of those birds has not come back in proportion to what we are seeing in the counties in the central part of the state and slightly south of central and I think on the grouse Doctor Chapman should talk on the grouse.

PRESIDENT RIDER: Doctor Chapman, let's hear from you on Ohio grouse.

DOCTOR CHAPMAN: The grouse situation in Ohio is improving somewhat, especially about thirty-five counties of eastern and southern Ohio. In that section, land abandonment is progressing, the land is reverting to forest and brush types and we are getting a pretty good situation there for ruffed grouse. In 1946, on our game survey we found that only about two per cent of the licensed hunters in Ohio really hunted grouse. Well, we publicized grouse hunting considerably last year in order to take the pressure off the ring-neck pheasants and we were able to increase that percentage to about ten per cent. We haven't noticed any evidence of a grouse cycle in southern and southeastern Ohio, although it may be present in the northeastern part of the range in the state. That just about sums up the situation regarding grouse in Ohio. We are not a grouse state but whatever we can do for the ruffed grouse in this state we will most certainly provide some additional wing shooting and take some of the pressure out of northwestern Ohio.

PRESIDENT RIDER: Doctor Leedy, do you have any statement

on these species?

DOCTOR LEEDY: I might make one comment. This Danish student that Mr. Rider spoke about, we felt might be able to put his finger on some of the reasons for the decline of the partridge in Ohio; he has worked with them in Europe and he is going about the basic things; he is working with eggs. We got some birds a year ago from Mr. Ruhl and he has been experimenting with them; he has been taking grit analysis from different parts of the state, feels that the area in which the partridge exists, haven't as much grit in them as the partridge territory in Europe and he thinks that there might be a possibility of introducing birds from Denmark rather than Hungary and the more southern areas of Europe, which would be better suited to Ohio conditions. Now, I don't know whether they will be or not. That's about all.

PRESIDENT RIDER: Do we have anything from the Wildlife Management Institute on these species?

MR. BARSKI: I would like to speak for the whole area. The grouse prospects look very good for the coming year. Last year they were quite good. I spoke to several of the state representatives in the past two weeks and they all say the prospects look good. There is always a but. We have had especially heavy rain in the last spring and the boys haven't checked as closely as they would have liked to but the prospects still look good.

PRESIDENT RIDER: There is one thing that I think possibly that you gentlemen would like to discuss. I would like to hear it discussed a bit. With a lot of disease rampant among some of these species, and particularly with great dangers of disease

coming in from foreign nations, Europe in particular, I am wondering if we all have laws that make it impossible for sportsmen's groups or any organization to import these various species of birds without authority or permission of the Conservation Divisions or Departments. We had the experience this last year of buying for our own game farm New York pheasants. We went over and looked at the pheasants and to all appearances everything looked in order and regular. They came in and we put them into a field with our broodstock birds and it wasn't long until we had an outbreak of poultry cholera. We found out from the State Veterinarian that the chap from whom we bought these birds had experienced that disease during the past year; we stopped the one epidemic by inoculating every bird on the farm and in about a month, six weeks, it started again, and how many outbreaks did you have, Doctor Martin?

DOCTOR MARTIN: Well, our second---we did our injection, we went just about 86 days before we got our second outbreak and immediately we got in and used our bactrins on them and our losses were practically nothing after that, so that there is a point there while the use of bactrins in diseases is only the most that you can hope for is a passive immunity which is of a very short duration. However, in an emergency like this, it is either get in there and use your vaccines or else let the thing destroy most of your birds, so there is no indication that this disease showed up on our farm after second vaccination and we had them there about five months.

PRESIDENT RIDER: Mel Steen, does Missouri have laws that prohibit the importation of birds from states or---

MR. STEEN: Yes, sir.

PRESIDENT RIDER: Do they?

MR. STEEN: No one can release any wildlife to the wilds without the approval and consent of the Commission and under their supervision.

PRESIDENT RIDER: How about Michigan, Harry?

MR. RUHL: Same thing.

PRESIDENT RIDER: Illinois the same, Livie?

MR. OSBORNE: Yes.

PRESIDENT RIDER: Well, we are apparently very lax in our laws in that fashion and I would certainly hate to have seen a thousand or so of these birds come in to Ohio from this one New York game farm to be released because we might have had that in our wild native birds.

MR. RUHL: It ought to cover not only disease but the introduction of some other undesirable forms, too.

PRESIDENT RIDER: Well, gentlemen, if there is no more discussion on these features, we will have the report, if there is a report drawn of the resolutions committee on the waterfowl regulations, the thought being that we ought to communicate this resolution immediately to Washington if it is not already too late. It will be just about under the line. Mr. Steen.

MR. STEEN: Well, we agreed on one resolution and we disagreed on several others, so we have one here. It says: "Be it resolved that the 1947 regulations of the Federal Government and the State of Illinois closing Horseshoe Lake and a buffer zone surrounding it to the hunting of Canadian wild geese be continued in effect for 1948; and that the Fish and Wildlife

Service and Illinois Department of Conservation be commended for their efforts in helping to solve this most difficult and important management problem."

That's all the resolutions we have to offer, sir.

PRESIDENT RIDER: Gentlemen, you have heard the resolution. What is your pleasure?

MR. VANCE: Move it be adopted.

PRESIDENT RIDER: The adoption of the resolution has been moved. Do I hear a second to that?

MR. RUHL: Second it.

PRESIDENT RIDER: The question is now open for discussion. Any discussion on the resolution? If not, all in favor signify by saying, "aye". Opposed, "no". The resolution is carried and will be immediately transmitted to the Fish and Wildlife Service at Washington. Jim, will you take that and phone it over and get a wire off to them?

MR. STUBER: Yes, sir.

PRESIDENT RIDER: If nobody objects, let's have a fifteen minute recess.

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And thereupon a recess was had after which the following proceedings were held:

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PRESIDENT RIDER: Gentlemen, if we can come to order, let's continue with this program and see if we can't wind up here in about an hour before we start into a cocktail and food. I think we have covered the birds. We are now down to the mammals. We will start with cottontail rabbit. May we have a statement from Nebraska on

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cottontail rabbit?

MR. VANCE: We have practically done nothing as far as the management of the cottontail rabbit is concerned. We have done something with the cottontail rabbit in the management of the coyote. We have some coyote in Nebraska and coyote round-ups have become a popular winter diversion among certain of the sporting fraternity which gives them an excuse to get out into the fields with a gun after the season on most game species. The cottontail rabbits decreased in slight numbers and we frankly used that as an excuse to close the season to eliminate coyote hunts which were helping to decimate the pheasant population. We have not been particularly concerned about the cottontails because we have so many, but we have reduced bag limits and cut the season simply as a device to discourage mass coyote hunts in order to protect pheasants.

PRESIDENT RIDER: What is the statement of Iowa on cottontail?

MR. STILES: Why, the cottontail in Iowa is probably the most popular game species. We haven't done much in the way of management as far as the cottontail is concerned. We do protect it during certain periods of the year. We had a high about 1939 and generally speaking a low about two years ago. The population seems to be on the increase now and we aren't able to associate hunting pressure in any way with the ups and downs in the cottontail. For the most part, it is just like Patsy; it just grew there and we haven't done much about it.

PRESIDENT RIDER: How about Wisconsin?

MR. ZIMMERMAN: We have the same situation as some of the

other midwestern states in that the cottontail has come back this year over the all time low that we had the last number of years. I might mention it at this time that we are beginning -- well, we have begun July 1st, Pittman-Robertson restoration habitat improvement project in three regions of the state. This is being financed by Pittman-Robertson funds and we are going to be working on the class eight lands in the various soil conservations districts in the southwestern and southern part of the state. The program will be much the same as the one now in force in Illinois and Nebraska and I believe Pennsylvania is just starting out on this restoration improvement project, OSES farms that are in that program but we are going to have a season this fall on cottontails and jacks, and snowshoed hare.

PRESIDENT RIDER: Minnesota, what is your situation?

MR. HUSTON: Our rabbit population is showing an increase. There was an increase last year and apparently another one this year. We have a lot of rabbit hunters in Minnesota but although we haven't done anything in particular to help the rabbit, the cover improvement work that we have done for upland game birds of course, why automatically helps the rabbit and the rabbit pretty well takes care of himself. You have your highs and lows but right now apparently the population is on the increase.

PRESIDENT RIDER: What is the situation in Kansas?

DOCTOR TIEMEIER: Why, the rabbit cottontail or the jack either one isn't a game animal in Kansas. However, they are working towards putting it on the game list and it seems to be coming and from the work on studies on the coyote it seems now like it is up pretty high and you go out and you don't see very many

of them but it seems to be coming back. There is no management program on them at the present time, however.

PRESIDENT RIDER: What is your situation in Missouri, Mel?

MR. ROBB: Mr. Robb from Missouri. Well, unlike Kansas, cottontail is a game species in Missouri that is really gaining a lot in popularity. It was low last year. We have some indication that the population may be a little bit better this year. It is a species on which there is also commercialization as many states know. We have a very high rabbit harvest in the state. The low population that we had last year or the slight decline in population attracted a great deal of attention from a lot of our sportsmen's clubs. I think that indicates to a large extent the popularity of the rabbit as a game species. We are expecting the rabbit, incidentally, to benefit a great deal from this cover restoration program that has already been discussed.

PRESIDENT RIDER: Illinois, please?

MR. OSBORNE: We are a lot like the other states; we have no management program on the rabbits. They take care of themselves. We have highs and lows over a cycle and when they get built up high and along come the foxes and live off of them and then we have a big high of fox population and vice versa. Some of our hunters like rabbits very much and a good part of our population hate them because they are very destructive to our nurseries, and I have a nursery and I can testify to that and to shrubbery and things of that sort, and so our population is quite divided on the rabbit question. Some want them killed and some want them left alone.

PRESIDENT RIDER: What is your rabbit situation in

Michigan, Harry?

MR. RUHL: Why, cottontails are not as important---they are important in Michigan, of course, but we don't produce nearly as many. Our population of cottontails gets better as you go south. They are recovering a little bit from a lowish period not real low but lowish and look like they are on the up. We are not having too much damage now because we have the damage usually in the fruit country during the high rabbit population, not having too much right now, that problem is always with us. Of course, we don't have any cottontails half way up the lower peninsula. Of course, snowshoes, they are on the increase generally.

PRESIDENT RIDER: I might say for Ohio we are just exactly the opposite of the state of the gentleman who testified before the congressional committee, you know, when they were talking the PR legislation; they had the various commissioners down there to talk this game situation over, the need for restoration. This chap got up and he talked for a great long while on quail and figured he was about through and got up to leave the stand when the chairman of the committee asked him, told him that he just would like to have a few statements from him regarding rabbits, and he was very much insulted and he said he wanted the gentlemen of the committee to understand that by God that was nigger meat he was talking about and by God he left the stand. Of course, in Ohio, with quail on the song bird list and with pheasants doing good in only about half the state and in about one-half of that not too good, but with at least forty southern Ohio counties that have positively no wing shooting except as far as scattering of grouse, you have to depend upon rabbit, raccoon and squirrel. If they

didn't, they wouldn't have any hunting, so hunting cottontail rabbit is a most important game animal in Ohio until such a time as we can reinstate quail as a game bird and get to a place where we might have a shooting season on it. In other words, I mean to say to you when our crop of rabbits is down our gripes are up. We have to keep up the cottontail rabbits and Doctor Martin has made quite a study of rabbits. What have you to say, Doctor? What is our situation now and what can be done? There is a difficulty, by the way, gentlemen, if you will pardon me for a moment. No state seems to have given rabbits any serious study. You figure he is a rodent, he will always be with you, you can't get rid of him, and we are just unable to get information we think should be available because nobody has taken him seriously or given him any study. But Doctor Martin, let's hear from you on it. Doctor Martin has probably given the cottontail more study than anyone in America.

DOCTOR MARTIN: The cottontail rabbit has been and is our number one game animal in Ohio and for that reason our Division of Conservation is placed in a position whereby it is necessary to carry out management practices that are beneficial for rabbits. Management practices for the cottontail rabbit were begun in 1936 on an experimental basis. The experiments were carried through 1940. During these years a series of experiments were conducted under partially controlled conditions to evaluate the livability and productivity of imported rabbits as compared to native Ohio cottontails. Experiments were also conducted during the same years on three widely separated areas to determine the life span of the cottontail rabbit and to evaluate reproduction. Each of

these three areas contained approximately the same number of acres. One area represented the usual farm management practices in that community but no management practices for rabbits was done on this area. It was closed to hunting. The second area had numerous fence rows and ditch banks and woody cover but had a high hunting pressure. Our third area was land owned by the state where we could carry out management practices such as distribution of nesting cover, winter cover and a distribution of a wide variety of foods. No hunting was permitted on this area during the experiments. The results of all these experiments were based on the number of rabbits trapped or ferreted out of holes on each area during the entire experiments. Each rabbit caught was identified with a tag and tatoo in the ear. Separate records for each area were kept during the entire experiments. To summarize the results on the partially controlled areas with rabbits bought in Missouri, Kansas and Oklahoma, the longest life span, based on 157 rabbits, was 122 days. Reproduction of these groups was not sufficient to carry any of the experiments beyond 12 months. Average life span of native cottontails managed under similar conditions was 220 days. Reproduction of the native rabbits justified continuation of the experiment beyond 12 months. On area number one where only the usual farm management practices were carried out and no hunting was allowed, the maximum population was one rabbit to 10 acres. On area number two which had numerous fence rows and ditch banks with woody cover, the maximum population was one rabbit to each four acres. This area sustained a heavy hunting pressure each year of the experiments. Our state-owned land representing the third area and where rabbit management

practices were used there was a maximum population of approximately one rabbit per acre. The average life span on this area was 18.6 months. No hunting was permitted on this area during the experiments. We are using the knowledge gained by these experiments with cottontail rabbits in Ohio now in our Federal Aid projects. By applying these management practices we can begin to see an increase in the number of rabbits this year over last year's population on our managed areas. This increase in the number of rabbits this year is most promising in the poor agricultural counties of the state. After our game census is completed in August we will be in a position to determine rabbit population trends. Therefore, our Commission is withholding setting the length of the seasons, bag and possession limits until its September meeting.

PRESIDENT RIDER: Gentlemen, we will open the discussion now to a general discussion on rabbits. Mr. Huston, did you have a question there?

MR. HUSTON: No, sir.

PRESIDENT RIDER: Who was it? Mr. Stiles?

MR. STILES: I wanted to ask Missouri something about the commercialization of rabbits but before I do that I think that I probably gave the group here the impression that we have done nothing on rabbits. We have done very little is all but we do have a research project on a cottontail rabbit and we have done a little management work but the thing that I was especially interested in was whether or not Missouri had found that the commercialization of rabbits affected their populations. I presume that depending upon the price of meat and so on the number of rabbits taken com-or-

cially goes up and down and I wonder is there any association to the commercial--between the commercial harvest and your general average population. Would you care to answer that?

MR. STEEN: Well, commercialization has been with us in Missouri for all these years and has been permitted because we have the rabbits. Most of the commercialization exists in those sections of the state where rabbit populations are very high and where we normally have-- when we have normal rabbit populations more of a control problem than we have a production problem. The rabbits are very important in Missouri. We produce a lot of them. I think Dixie was a little conservative in his statements about the rabbit. Actually, there are more rabbits taken in Missouri by the people of Missouri than any other species of game and that's true whether you compute it on the basis of units of game or pounds of flesh taken. They are way out ahead of any other species. Now, the type of commercialization that our people will make the most complaints about is the live trapping of rabbits for exportation to other states but actually the live trapping of rabbits for exportation to other states is insignificant insofar as the rabbit population is concerned. We take an average of about one hundred thousand rabbits in that fashion out of a total take of somewhere between four and six million. Now, more than that, trapping does not decimate any population in any particular territory in our experience. Our investigations indicate that you can only trap a population down to a certain level. Actually, you can take a relatively small part of the population by live trapping. Therefore, we do not consider live trapping an important factor but our people think it is atrocious. The dead rabbit trade is much more of a factor because

a lot of rabbits are taken and wasted and they spoil in barrels and what not, and the take is pretty high for the dead rabbit trade and recently with these present prices, there has been an increase, an intensification of that particular activity. We are contemplating some additional restrictions on the commercialization of rabbits this year but we do not believe that the rabbits are in any serious danger.

MR. TULENKO: Well, I would like to add something to the interest of this group with regards to our rabbit situation down there and that is that wherever live trapping occurs in Missouri there is almost a complete absence of cyclic behavior with the species and where they have practically no attention paid to rabbits, where the population is way up and down in the areas where we do our live trapping it stays at a rather high average population year after year.

MR. STILES: Well, the thing that I was especially interested in was whether or not your highs in rabbit population were more closely associated with heavy harvesting pressure or with habitat.

MR. STEEN: Well, of course, I think the high production is due to a favorable habitat but the high harvest is also in those areas normally and the evidence is that the high harvest tends to level off, not to eliminate, you understand, gentlemen, but to level off to some extent the extreme fluctuations and populations that may occur. In other words, the populations in the sections of the state where the rabbit is not harvested adequately will fluctuate more than it does in those sections where they are taken, taken heavily. That's the indication.

MR. WILLARD: Mr. Steen, when you refer to rabbits in Missouri, do you refer to cottontails only?

MR. STEEN: Yes.

MR. WILLARD: You don't include the snowshoe and the jack?

MR. STEEN: We have no varying hare and very few jack rabbits, blacktail only, or largely.

MR. WILLARD: In Minnesota, I think we have more thousands of snowshoes than we have of cottontails.

MR. STEEN: Yes. We don't have any snowshoes.

PRESIDENT RIDER: Well, tell me, Mel, what are the factors in the habitat that makes it so favorable for you to have these huge rabbit populations?

MR. STEEN: Well, it is just a good rabbit habitat. We have a lot of country that has adequate cover and adequate food supply and favorable habitat for the rabbit and that we produce large numbers. It is a good deal like your snowshoes in Minnesota, you have good snowshoe habitat and when you have a snowshoe population, you really have one. We have a cottontail population most of the time that is quite a heavy population.

MR. WILLARD: Well, isn't the rabbit very unpopular with orchardists and gardeners? I think I have ten of them in my back-yard right in town. Now, you can have the limit any time you want them if you go down there.

MR. STEEN: Well, an illustration of my own place there, now, I kill all the rabbits I can kill and I have dogs that run them all over the place all the time and yet I can hardly grow cabbages for the rabbits; they eat them up as fast as I can put them out and so forth and so on. They are a problem, all right, but that is the

reason -- one of the reasons -- why our seasons and regulations are so liberal. We give the rabbit virtually no protection, but the reason is the rabbits will take it and when they are high, are quite a problem.

MR. ZIMMERMAN: Mr. Chairman, this group may be interested in the last sessions of the Wisconsin Conservation Congress. About fifteen counties went on record prohibiting the digging of fox dens the year around to provide a place for rabbit burrows. At first, the Congress was going to just have that particular regulation in force during April and May but finally it was around a point of prohibiting of digging of fox dens the year around to give better protection and afford a burrow for the rabbit.

PRESIDENT RIDER: Of course, we have apparently experienced that same cycle. Have any of you men put your finger on the number of years that is involved in this so-called cycle, that is how much do we know there is a cycle? Has it occurred, Livie, in Illinois? Has it occurred with any regularity that you can time it?

MR. OSBORNE: Yes, it is a nine year cycle, we figure.

PRESIDENT RIDER: A nine year cycle?

MR. OSBORNE: It is almost definite with us.

PRESIDENT RIDER: Gentlemen, I wish to call your attention to the presence of the Secretary of the League of Ohio Sportsmen, Mr. Tenny Jones. He has come to observe the proceedings. Of course, we are in the position of having the rabbit not desired by a great many men of agriculture, orchardists, and so forth, but yet we have, as I told you a moment ago, to produce rabbits and we have to keep that population up and I am not certain -- Doctor Dan Leedy, have we discovered all the factors necessary to increase

rabbit population or keep that population up?

DOCTOR LEEDY: I would say no to that one.

PRESIDENT RIDER: And we don't get much help from the rest of the states, do we? That's the reason I thought you might help us a little and tell us what we ought to do if we want hordes of rabbits. I know we have in the unglaciated section of Ohio some bad lands; I mean badly eroded and depleted. Now, we have acquired some of those areas; we had one given to us here a few years ago, an area known as Woodbury area. We have spent about forty thousand dollars. It looks like we have excellent habitat for rabbits but there just are no rabbits. Now, whether that's a soil nutrient matter, I don't know, or whether we could develop a rabbit that could take in those worn out hills, I wonder. Can anybody shed any light along that line?

MR. TERRILL: Terrill from Missouri. Back in 1935 when I was with the Agricultural Extension Service, they were just starting to promote what we call Korean lespedeza. It is a short lespedeza crop used, and we had some difficulty both with Korean lespedeza and with clover, because the farmers complained it caused an increase in rabbits and from just superficial checks I don't know whether it was true. There is no doubt about it but what that did snap up the rabbits, at least the young rabbit population, the use of inter crops particularly. Now, whether it was because of the fact of the lime in the soil or the phosphate that was put on that helped bring the rabbits up, there was no doubt about it but that there were many more rabbits in the same field and adjacent fields of barley, rye, and so forth. Our rabbits generally speaking are herbaceous and like shrubbery vegetation; never is it a high quail habitat, it

is usually high in rabbits. In other words, it's very close correlation. That might shed some satisfactory light.

MR. STEEN: I think there is probably one other difference, too, between your state and ours, our winter survival is probably higher or I should say that at a given level of habitat, it will probably protect and carry more rabbits through the winter in Missouri than it will in Ohio because our winters are not as severe. I think in Michigan, you, Harry, did quite a lot of work on the rabbit which indicated that winter mortalities were quite a factor, especially in the colder section.

MR. RUHL: That's right, we assume because there are rabbits absent from one place and absent from another, the same cause or combination or causes may be there so that you can't always prescribe the same remedy, and I think at one of the places where we had a rather extensive experiment on a small scale, of course, where we got no measurable results from the improvement and things of that kind because we did have a shortage of lagoons. In other words, the brush piles are not cleaned out, the limitation is something else, and where it did work is in the better farm lands.

MR. STEEN: Buck, I have looked at some of your Ohio and Indiana lands in the winter time. The land that's intensively used and, by God, I wonder how any rabbit is able to survive the winter. There is just absolutely no place for them to go, except under a grainery or a covert or under a rock. There isn't a bush or anything out there for a rabbit.

PRESIDENT RIDER: That is a condition that worries me also about what we are able to do, if and when quail is turned back to our hands. Our big problem, of course, in Ohio, we recognize is

this; lack of winter cover, a shortage of nesting cover and in some sections a depleted soil situation. We don't worry about food. Any species can always get the food in Ohio. We don't worry about water because we are a humid state and we never got in the position where game suffers for water in Ohio but we are -- you hit the nail on the head, Mel -- we just don't have winter cover and we certainly have less, even less nesting cover and our every effort is to solve those two problems.

MR. STEEN: I have been interested for a long time in the probable correlation of cover, amount of cover, and density of cover, and the annual fluctuation of cover as related to the annual fluctuation of these species of high reproductive capacity like the rabbit and the quail and so on and so forth. The quail has an annual turnover of better than eighty per cent; on the rabbit, around ninety or ninety-five per cent. I think cover goes the same way. Now, right now in Ohio you have all kinds of cover, you have capacity to carry on abundance of wildlife but look at your country in the winter time; you can't carry a thing through the winter in some of that land. I don't know what would live unless it was a burrowing animal unless it lived up in a tree.

PRESIDENT RIDER: You are right definitely. There is one other angle I would like to discuss a little before we leave rabbit. We have this problem in Ohio. We need rabbits, need them badly; we seem to have a heavy population in sub-divisions that are selling slowly around these large cities. We have, you know, a great many cities in Ohio; more cities over ten thousand than almost any two states in the United States. Now, these rabbits do a lot of harm in those sub-divisions, and you can't hunt them

because there always is a municipal ordinance which says you can't hunt within the city limits. Thus we have them where they are not desired and yet we could use them. We have them in orchards and some farm areas where they are not desired, but we could again use them so we are attempting to trap them off, trap them off and take them out immediately to proper habitat and release them. We attempt to trap them in the evening, run those traps and get them released by eight or nine or ten o'clock the next morning in almost the immediate vicinity. Is there anybody that could shed any light on whether or not that's just throwing money down the rat hole? From the standpoint of increasing rabbit population, how effective can this trapping be? There is no doubt about it being helpful from the angle of being able to appease the damaged land-owner or city dweller.

MR. RUHL: Two tests we made were negative. They were minor and small but they were negative, I mean. Now, if we tried it the wrong part of the cycle or something else more important, I don't know.

PRESIDENT RIDER: Well, is there anybody in the group that has any thoughts as to just how much disturbance a rabbit can take in this matter of live trapping in a short haul and a release?

MR. RUHL: Well, some of these lived several weeks. I can't tell you, they apparently didn't die off but next year on that area we didn't have any more rabbits.

PRESIDENT RIDER: And yet you apparently had habitat there or you wouldn't have released them at that spot?

MR. RUHL: It wasn't the best. We ran it in connection with these cover improvements. We had brush piles and we had holes.

PRESIDENT RIDER: We are through with the cottontail and we still have much to determine regarding this species.

MR. ZIMMERMAN: Just one more example, Mr. Chairman, the school children in Neenah; we had a situation there of a lot of rabbit damage being done to the gardens and one thing and another, and under the supervision of the warden, the school children in Neenah trapped about two hundred rabbits and took them out in the country where the population was low and it seemed to help out, and that's the only example we have where it was affirmative. There are some other cases where they were negative, like Mr.Ruhl mentioned. There was very good cover and they really held some rabbits around there for awhile.

PRESIDENT RIDER: Your experience would seem to indicate that properly trapped and handled native rabbits released in optimum cover might increase the population. Well, Doctor Martin, what did you trap last year, about five thousand?

DOCTOR MARTIN: Approximately five thousand, Commissioner.

PRESIDENT RIDER: And you haven't been able to ascertain yet whether or not those plants did any good?

DOCTOR MARTIN: Well, no, we haven't because there weren't any of those rabbits that were tatooed or banded or tagged, I should have said, and nothing checked out on them. On areas that they have placed rabbits, they claim that they have seen more young rabbits this year than last, but that doesn't tell us anything because it wasn't under controlled conditions.

PRESIDENT RIDER: Well, we will leave rabbit and go on to deer.

MR. STEEN: Before you start that new subject, I have

something that I would like to present here. I have been asked by two of the states that were represented on the resolutions committee to submit a minority report. A couple of states on that committee have the feeling that this proposal to regulate waterfowl by flyways and the proposal to set a different season and a different bag limit in the Mississippi and the Central flyway is not what it ought to be. They believe it should be the same in those two flyways. They believe that the problems are about the same in the two flyways, that the two flyways join in the southern extremity of the two flyways and they would like to submit the question to this conference to have the conference decide whether or not we should make any recommendations with respect to that situation. Three of the member states on the committee feel that they do not have sufficient information to make any recommendations on the subject. They have the feeling that maybe the Fish and Wildlife Service doesn't have too much information either but it is indicated that management by flyways is the way to manage waterfowl and the three states are perfectly willing to let the Fish and Wildlife Service go ahead and try it out, although they realize that it will present some problems, even to those three states, but they feel that we ought to give them a chance at least to try it, that's the proposition, and I present to you the minority report for consideration.

PRESIDENT RIDER: Well, gentlemen, you have heard a minority report on the resolution regarding waterfowl. What is your disposition toward it? Is there anybody who wishes to make a motion?

MR. HUSTON: I wonder if I could say something on that?

PRESIDENT RIDER: Yes, go ahead, Mr. Huston.

MR. HUSTON: The situation in Minnesota is this; we feel that there is too much variation there between the privileges given the Dakota hunters over the Minnesota hunters. We are not trying to hog the game kill at all, we are satisfied to go along with 30 days season and a bag limit of four and a possession of eight but we do feel that the Dakotas should be in the same category. On the other hand, if they are to have thirty-five days and five and ten, we want a similar setup for Minnesota. And now off the record to show that the matter was presented here and I would like to have the group express themselves with their opinions. Last fall we received a great deal of complaints from Minnesota sportsmen because of the regulations accorded the Dakota hunters and it is our contention that the central and Mississippi flyways should be managed as one and not as two flyways. We think that we should have an equal chance with the Dakota hunters. We are not trying to hog the game at all; we would go right along with thirty days and four and eight but we do want a fair shake there and I would like to hear an expression from some of the rest of you as to what you think about it.

PRESIDENT RIDER: Would it be a good thing, gentlemen, to call a roll of the states on this? Mr. Osborne.

MR. OSBORNE: I am one of those that presented the minority report. The Fish and Wildlife Service are regulating these two flyways on a comparative basis as to the flight and the percentage of the kill last season which was an unusual or unnatural season so far as the central flyway was concerned because usually in the pheasant season in the Dakotas there is a tremendous amount of

foreign hunters who go up there from other states to hunt and last year they didn't go up there because the hunting of pheasant was practically shut down. Therefore, that wasn't a true test. This year when the season is open again there will be lots of outside hunters go into the Dakotas and they will kill the ducks as they did two years ago in tremendous quantities and come home and the Illinois hunters will brag about the amount of ducks they killed in the Dakotas, so I feel that this, as has just been said, should be considered as one flight because the two flights join a little further south and it is just a sort of a V-shaped flight coming from the north with a union toward the south and I don't believe that the test of last year is a true test.

MR. DAVIS: Mr. Chairman, in order to keep the record straight here in regard to the hunting of migratory waterfowl in the Dakotas last year the same regulation will be in effect this year as last year in the Dakotas in that there will be no non-resident hunters -- waterfowl hunters -- allowed in the Dakotas.

PRESIDENT RIDER: Are there those who wish to express their sentiment on this matter?

A VOICE FROM THE FLOOR: Mr. Chairman, I wonder if we could clarify this thing a little farther? I understood this morning that Mr. Osborne wanted the support of this conference on the closing of Horseshoe Lake.

MR. STEEN: That's been disposed of.

A VOICE FROM THE FLOOR: Is that a different matter?

MR. OSBORNE: That was Horseshoe Lake we were talking about, then.

A VOICE FROM THE FLOOR: What is the minority report on?

MR. OSBORNE: The minority report is on the length of the season and the amount of ducks that we can kill this season.

A VOICE FROM THE FLOOR: It has nothing to do with the resolution that was passed this morning?

MR. OSBORNE: Not at all.

PRESIDENT RIDER: In reality it is based on flyway management, whether or not it should be used, or is practical.

MR. STEEN: Let me explain it. The proposal is to manage waterfowl by flyways. Now, a different season is proposed for the Mississippi flyway than for the Central flyway. They both lie between the two mountain ranges in the central part of the country. Four ducks a day and thirty days or a split season of twelve days in the Mississippi flyway, five ducks a day and thirty-five days or a split season, I think, of fourteen days in the central flyway. Those regulations are based on the information that the Fish and Wildlife Service has of the kill of waterfowl in the two flyways as related to the population in those two flyways. They say that we are killing more ducks in the Mississippi flyway in relation to the population than in any other flyway in the nation. Therefore, more restrictions are necessary here. Minnesota and Illinois doesn't like it at all. The other three states on the committee are openminded about it; they are willing to let the Fish and Wildlife Service try it out and if we don't like it we will squawk about it later. That's our attitude.

PRESIDENT RIDER: Mr. Willard of Minnesota.

MR. WILLARD: As I listen to this discussion, it seems to me that the decision to manage by flyways has been based on incomplete information. It is largely experimental and that in

all probability it is entirely possible that there is not sufficient information at hand to act perhaps in the best interests of the waterfowl. In view of the fact that this discrepancy between the Mississippi flyway and the Central flyway introduces some awfully mean administrative problems and causes a lot of dissention and criticism and fault finding, I am wondering whether this difference or whether the price we have to pay in the administration of our differences isn't too high a price to pay by having this difference in management of the two areas. It seems to me that if we don't have all of the information that we ought to have we should go along and have the same bag limits and the same possession limits in both of the areas and have it coordinated.

PRESIDENT RIDER: For years we beseeched the Federal Fish and Wildlife Service to split the state of Ohio into two zones. We know and they know that this area around Lake Erie is about two or three weeks advanced over southern Ohio, in both spring, fall, any season of the year. They said at the time they couldn't do it because of the problems presented in administration. Well, it looks as if flyway management presents those same administrative problems, even greater problems for you, as I understand the imaginary line down through the Missouri river, you have the one season; on the other side of the line, it is an altogether different season, bag limit, possession limit, and a longer season. It also brings to mind the fact that they won't give us the Sundays credit. We can't hunt in Ohio on Sunday, and it seems to me there is not a bit of difference between giving Ohio those four extra days or any other state in the same situation as giving a neighboring state five more days or ten more days and a different bag limit and a

possession limit. I am for flyway management; I believe it is the only sound biological way; it is the thing we do in our game in this state and every other state. It is logic; I don't believe that anybody here would be against flyway management -- the principle of flyway management. I think it does come down to this problem, "do you have the facts?" If you do, it is good, and if you don't, it is poor.

MR. STEEN: Well, Fish and Wildlife Service claim to have the facts; we don't have the facts to refute them. I don't think the argument that there is going to be more hunting in the Dakotas this year is valid because there is no non-resident hunting of waterfowl in South Dakota and the non-resident hunting pressure in North Dakota is insignificant. I don't think that's a valid argument and there might be some validity in the argument that their information is insufficient to justify a differentiation in the two flyways, although I am disclosed to think that their information is correct, based on what I know about the two flyways.

PRESIDENT RIDER: Well, could you tell me, Mr. Willard, or Mr. Huston of Minnesota and Director Osborne of Illinois, are you fearful that this setup of flyway management, as proposed by the Federal Government, will be inimicable to the duck population of the continent or to the duck population on that particular flyway?

MR. HUSTON: No, I wouldn't say that. I don't think it is going to do any particular harm. The only thing I think it is an injustice to the state of Minnesota. There is such a fine line that you have to draw there to distinguish between your Central and your Mississippi flyways. Those ducks don't go right straight down the paved road, you know, they criss-cross back and

forth, one day they are in the Central and one day they are in the Mississippi. I don't think anyone can draw a line and say whether the ducks will take the Central flyway or the Mississippi flyway. For that reason, it is my contention that it should be considered as one; that the regulations should be the same for both of the flyways.

MR. DAVIS: In other words, then, Mr. Huston, you would think that the Mississippi and the Central flyway should be considered as one flyway as far as the administration and management are concerned?

MR. HUSTON: Right.

MR. RUHL: The way I feel about this is, I know damned well that all of your administrators have made the decision when you didn't have all the information you ought to have, not because you wanted it that way but because you had to do it that way. You made the decision with the best information you had. The Fish and Wildlife Service did the same thing, they have to do it one way or another. I am not satisfied they have all the information they ought to have, but I think they have a lot more than we have, more than Michigan has and it is a compromise but when you draw a line between one county and the other, the rabbit population isn't much different on one side of the line than on the other. In other words, these are all arbitrary decisions. Seems to me the local difficulties between flyways or between states ought to be handled on some mutually satisfactory basis for that particular water. Those difficulties, I think, we are always going to have to compromise in the situation and the situation isn't going to be entirely uniform towards any flyway. I don't see how we can con-

scientiously say to the Fish and Wildlife Service, "We would like to see upper Michigan have a different season than lower Michigan", and I think the arguments are plenty solid if you aren't willing to let them divide the country into four zones.

MR. HUSTON: What is the sense of dividing three zones, Harry?

MR. RUHL: Well, I think the principle of flyway management is sound. I think we have to come to it and I think we might as well get our feet in the water now and see how it feels.

MR. HUSTON: It doesn't feel good.

MR. RUHL: You don't know yet, you are just anticipating.

MR. HUSTON: I had it last year.

PRESIDENT RIDER: You don't believe the time will ever come when we people who are on the Mississippi might have ten or fifteen or twenty days and a few more ducks a day and more in possession than the Central. Do you think, Livie, that that day will ever come or not?

MR. OSBORNE: Well, I think it has been said by Mr. Huston that when these two flights of ducks come down practically together, you can't tell which duck is in which flight, Central or Mississippi, and to say one has a bigger kill than the other, I don't think that's possible unless ducks are tagged in some way or marked.

MR. RUHL: That information is based on banding, isn't it, that's the basis of their information?

MR. OSBORNE: You can't tell which flyway the duck is in, can you?

MR. RUHL: I understand that banding information was given in the Fish and Wildlife Service on ducks, and then we have

rough outlines of the flyways. Of course, there are some birds like the pintail that just wander all over but by and large, I think the flyways are maybe eighty-five per cent the same population.

MR. OSBORNE: I know our ducks vary from year to year. One year we will have a lot more mallards and pin stripes than small ducks, and that's an indication to me that they are leaving one flyway and changing flyways.

MR. RUHL: Not necessarily. We have the pintails this spring; I guess the fellows over in Minnesota didn't have them but they are still in the same flyway.

MR. OSBORNE: Well, I am talking about two flyways being together, crossing back and forth.

PRESIDENT RIDER: In other words, Livie, you believe the ducks don't know which flyway they are on.

MR. OSBORNE: I believe there is a variation when they are so close together that they will change from one flyway to the other, certainly I think that, just as your geese do. Some of your geese come down to Horseshoe Lake and go down by way of Pittsburgh and some come straight down and they go in different directions.

PRESIDENT RIDER: Well, do you think, Livie, insofar as the Pacific and the Atlantic flyways are concerned that that's a horse of a different color?

MR. OSBORNE: There are three flyways, only three.

PRESIDENT RIDER: That is, you wouldn't object to flyway management regardless of the season or the take on the Pacific or the Atlantic flyways providing the Mississippi and Central were

considered jointly or as one and the same flyway?

MR. OSBORNE: That's right.

MR. VANCE: It appears to me that most of us are familiar with the waterfowl situation in our own state, and until we have more opportunities to visit in other states and see the waterfowl possibilities in those states that we still must depend upon the Fish and Wildlife Service and other organizations who have the facilities for working in more states than we as individuals do. I believe that Nebraska is favored among this group represented here today in being in the Central flyway. That's a thirty-five day season and a five and ten bird bag. Eastern Nebraska is definitely in the Mississippi flyway along the Missouri river. Our big flight of birds is from central Nebraska on west and if it is possible within one state to be in two flyways, I believe we have them or at least we see it in both the spring and fall migrations. If we were to base our hunting regulations on the flight of birds that appears in eastern Nebraska, I believe some of our Nebraska sportsmen would be set aside to take the regulations that they are putting on at the Atlantic flyway but you couldn't talk that kind of stuff to western Nebraska because they have birds there and a lot of them. Strange as it may seem, we do have some criticism from our sportsmen. When we talked early this summer and this spring, when we talked about the possibilities of flyway management. They said, "Do you mean it is possible if we have a longer season or more birds here that people from Chicago and Detroit are going to come out to Nebraska and hunt ducks?" The people are even thinking of that angle, and I don't believe that as far as the sportsmen are concerned that they would

feel too bad in the Nebraska -- at least in our part of the Central flyway -- if they took the same more restrictive regulations that you would have to take here in the Mississippi flyway if it means more waterfowl for more hunters.

PRESIDENT RIDER: Well, gentlemen, we should dispose of this situation one way or another. Do you wish to support the minority report with a motion? Not hearing of that, we will go on to deer. Nebraska, have you a deer situation?

MR. VANCE: Yes, we have a deer situation and that I wish was in the hands of some of you other folks, inasmuch as we have a non-deer state and too many deer. A number of years ago we held a deer season on a natural forest which because it was easy to control, ogress and ingress, relatively easy to manage. Today, in portions of the state which the Legislature has seen fit to allow us to open the deer season, bucks only, we have a deer problem. Adjacent to those areas, we also have the deer problem, that is damage to farm crops. Then we have adjacent landowners, one of whom wants the deer removed or at least reduced in numbers and his neighbor threatening to kill anybody that will remove a deer. I don't know whether I should bring that problem before this group or not because I am sure that none of you are faced with the same situation that we are, plus the other faction, of course, which want to introduce, we have made an attempt to get an open season in Iowa. I don't know whether we will be successful but we believe that you can have your surpluses in low populations the same as you may have them in high populations and in certain areas there are a surplus of deer there that should be harvested. We get complaints every year; about every four or five years it comes

to a point and we got a little more heat than at other times. I suppose we can live it down, but it seems to me that the solution there would be to allow the Commission to determine what the harvesting methods should be and we probably should take some of the deer.

PRESIDENT RIDER: Minnesota, what is your situation regarding deer?

MR. HUSTON: Well, we also have trouble in agricultural sections of the state. A year ago last fall we had the entire state open and we thought perhaps that would remedy conditions for five to six years but apparently it didn't because of the result of not having a state-wide season last year in the season of 1947-48 we received numerous complaints. Part of those complaints resulted from the fact that Dakota had unhusked corn fields, but boiling it all down we have about, oh, twelve or fifteen places of a section of the state that's normally not open to deer hunting where we have a problem and we may have to open these areas or in fact open the entire state this fall in order to further reduce the deer population. There isn't much argument you can give these farmers when they see those deer out eating their corn. Some farmers of course, like to see them running around through the fields, but when they find that by so doing it is cutting into their pocketbook, they lose interest in the esthetic value of the deer and want to do something about it. As an alternative, we have the wardens shoot a few of the deer occasionally but that doesn't solve the problem because they can't shoot all of the surplus deer so undoubtedly we will have to do something either this year or, if not this year, in the next

year, and further reduce our population of deer throughout the entire state during our open season.

PRESIDENT RIDER: Wisconsin?

MR. ZIMMERMAN: Well, Wisconsin has had a serious problem on deer for a number of years now. We have had a Pittman-Robertson deer management research project going now since 1940 and we don't know how many deer we have in the state but we know that we have too many deer for the carrying capacity of the winter range. Now, for two years now we have had an antlerless deer season on the site of the National Wildlife Refuge in conjunction with the United States Fish and Wildlife Service. Last fall we took one thousand, five hundred and eighteen antlerless deer on this refuge; we also had a buck season. I don't remember the number of bucks taken. That was the first time they had had a buck season on the refuge and the refuge is now seven years old. In 1943, we had a split season where we had four days for the hunting of bucks, and a rest period of three days and then a three days season on doe, and during that season they took one hundred and twenty-eight thousand deer. This year for the first time, we had various study committees composed of members of the congress; we had a study committee on waterfowl, ice fishing, trout, deer, fur-bearers, and this study committee on deer toured the northern part of the state, the central part of the state where most of the deer range and they also took a side trip over to Minnesota and one in the upper peninsula of Michigan. This study committee gave a very fine report on what they thought ought to be done to better manage the deer herd, and the deer herd is in such a situation now that the eruption has begun to break in certain parts of the state where

the deer are already going downhill. That is Mother Nature taking care of it by herself without any help from us. Well, this year at the Congress, it was close but they voted for a season to take any deer, one deer of any age or sex, the Commission approved this particular type of season to run for nine days. There are a number of counties that will be open to only shotgun, using slug or ball and the counties will be allowed to have closed areas within their counties if they so desire. This order -- the season order of the seasons is in the Governor's hands right now and we don't know right at the moment whether he signed this particular order or not but it looks like we have a good possibility this year of having a deer season of nine days. We have spent considerable money on fencing against deprodations of crops and we have paid -- how much was it, Mr. Sprecher, on deer damage alone?

MR. SPRECHER: About sixty-five thousand.

MR. ZIMMERMAN: Quite a few sportsmen clubs throughout the states are finally recognizing the fact that it is impossible to feed all the deer in Wisconsin and when you are doing something artificially that way, you are just augmenting the situation, making it tougher so it looks like we have a good possibility for an antlerless deer season this fall.

MR. WILLARD: It was a good season when you had four days for bucks and four days for antlerless deer. When you took one hundred and twenty-eight thousand deer, what sex predominated, the male or the female?

MR. ZIMMERMAN: I think the females did, quite proportionately. There was a period of three days between the two seasons

a rest period, but the antlerless deer were preponderately more wanted.

MR. WILLARD: You don't remember the ratio, do you?

MR. ZIMMERMAN: Because during the four day buck season, we have been talking all the way from fifty-three thousand to sixty-three thousand bucks, and I don't remember the figures exactly of the fawns and the does.

MR. STEEN: I had the impression, I don't know where I got it, that when you did have that split season, you took more males than you took females, but that impression may be wrong.

MR. ZIMMERMAN: That may be right. Mr. Kramer's paper that he gave at the Northern Wildlife Conference, I think I remember that figure, that it wasn't two to one, or anything like that but it was higher.

MR. STEEN: But a lot of those fawns were males?

MR. SPRECHER: That's right.

MR. RUHL: This money from deer tags was used for acquiring deer yards?

MR. ZIMMERMAN: Yes, deer yards.

MR. RUHL: Acquiring them?

MR. ZIMMERMAN: Purchase.

MR. RUHL: What difference does it make to the deer who owns the deer yards?

MR. ZIMMERMAN: Well, we want to practice deer yard management much the same way as you are doing in the upper peninsula.

MR. RUHL: There had been a lot of privately owned land that was used as deer yards, was that so?

MR. ZIMMERMAN: Yes, sir, and we want to practice the same

thing that you people are doing in the upper peninsula of Michigan in the rotation of cutting cedar off poles where the tops are used by the deer and try to get the reproduction to come back into the deer yards.

MR. RUHL: Have your deer yards been showing a bad over-browsed condition?

MR. ZIMMERMAN: Very bad.

MR. RUHL: Most of them?

MR. ZIMMERMAN: Most of them, and this past winter we had a severe loss, winter loss on deer, and of course, as you gentlemen know, the figures run high on the loss, that is as to age, eighty-five per cent of the deer that succumb to the rigors of winter, are deer of the year, yearlings.

MR. STEEN: I have looked at quite a few deer yards and the worst deer yard I ever saw in my life was in northern Wisconsin and that was four or five years ago.

MR. ZIMMERMAN: The Flag yard?

MR. STEEN: The Flag yard, that's right.

MR. ZIMMERMAN: It has been bad for a number of years, they are eating **popple** one inch in diameter, very bad.

PRESIDENT RIDER: Has Kansas a statement on deer?

DOCTOR TIEMEIER: No deer, no problem.

PRESIDENT RIDER: Missouri?

MR. ROBB: Well, Missouri's problem, their problem is right now one of herd restoration. Our main job is to get more deer and get a better distribution of them. The herd is making a pretty satisfactory comeback after being shot down almost to the point of extinction in 1925 or thereabouts and we have been able to have

a short open season since 1944. We now have twenty-five counties included in the open territory. Most of our really suitable deer territory is south of the Missouri river, but in recent years, deer has spread throughout almost the entire state. There are very few counties now even including those really northern counties up along the Iowa line that do not have deer. We are anticipating problems in the way of complications with agricultural crop production in that area in the very near future. We are already getting a few of them as a matter of fact, but right now we are still attempting to get better distribution through live trapping to permit short season harvest a part of our annual increase and yet allow the herd to continue to build up.

PRESIDENT RIDER: Has Illinois a statement on deer?

MR. OSBORNE: In the northern part of Illinois we have just a fair population of deer in the extreme northern part of Illinois, and the farmers are complaining about the destruction of crops up there because we have never had an open season on deer; we are trapping some of the deer there and moving them down towards the central part of the state in Union County on some preserves that we have, and some in our national forests in the extreme south, but I would say, with the high price of meat, and with the outlaws we have in Illinois we will never have an open season.

PRESIDENT RIDER: We now come to the state that should give us all the facts on deer, Michigan.

MR. RUHL: Well, I can't give you all the facts on deer but we have headaches. The northern problem where the limitation is range and where the deer are over browsing the range. We have some areas where the deer population is about where it should be,

and a lot of areas over browsed so bad that there is no reproduction of preferred food species for the last twenty years. It is getting worse fast. We are losing deer and we do not have the legislative authority, machinery, to handle it. What we thought would be suitable measures maybe ten years ago when we prepared to settle this idea twelve or fourteen years ago when we were first able to print if officially is going to be too late I am afraid. This other situation, we have the deer where they shouldn't be although we have less expensive cultivation than Iowa or Ohio I believe, but I think we are going to have to keep those deer in those agricultural areas at a very low level and in some places pretty nearly wipe them out. Again, without machinery. We are having boards of supervisors and and sportsmens' organizations and everyone is getting awake to the situation but it has been going a long time and the longer it goes the harder it is to salvage a respectable portion of what you would have otherwise done. We think we know what to do. Our problem has been to sell the idea and I have one suggestion to even Illinois with all your poachers, Livie, if you will set up a few guide posts and remember how damned long we have been trying to sell the idea of management and how futile it has been, it may take you longer to sell the idea than you think, so have your machinery ready in plenty of time so you can put the brakes on without making them squeal too loudly. Of course, our problem is hooked up with our tourists, our recreational business. Our resort business is very important with us, but we have a lot of people that are convinced mentally but not emotionally. Now, they want us to reduce the population by killing those fawns. I say, "I have the answer for you." I say, "Here, if you want half as many deer, I will give you one man to

help you, if you want one quarter, I will give you two."

PRESIDENT RIDER: I will give you a little report for Ohio. Thanks to Pennsylvania's broodstock or surplus, they don't seem to know just exactly where that state line is, and the fact that farmers on poor land in about three of our Ohio counties have found it profitable to go to industry rather than to stay in the fields, we have a considerable deer herd in northeast Ohio, probably some place between five and ten thousand right among three million people in the most populous section of Ohio. We have had three seasons; one, however, in this territory, and we attempted to shoot with rifled balls in shotguns every deer on four legs regardless of sex or age in that section of the state. We have had many claims for damage; we have pending before the Sundry Claims Board of Ohio now a great many claims, not only agricultural damage but automobile wrecks on the highway. Fortunately, the Sundry Claims Board has not awarded any damages. Heaven help Ohio if they ever do because the minute they award damage for deer we will certainly get thousands upon thousands of claims of damage by pheasant and more thousands damage by rabbits. Well, we don't know and can't say whether or not a deer herd of any size in Ohio would be at all compatible with agricultural or with the municipalities in which they seem to thrive. We had a case of a cemetery in which John D. Rockefeller and Garfield lots are located. Those two lots were planted with literally thousands of tulips. They had eight deer in the cemetery. It is surrounded by a high rod iron fence about ten feet of it. I think dogs must have chased them in or the old caretaker must have opened the gate and let them in. We had the experience here about a year ago of every single solitary tulip

on those two lots being eaten off. Next we had a call and found a herd of sixteen of them eating in an azalea field. We have Lake County which is the largest nursery county in the United States, located adjacent to Cleveland, and it seems that they thrive on those nursery plants. We have had them run through delicatessen shops and barber shops and in the middle of towns and our attitude has been to keep up with them and shoot them out, at least keep them -- the herd from growing but I am being told on every side by my fellow Commissioners that you just can't shoot a deer herd out after it gets six, seven, eight thousand, you can't possibly do it with rifled balls in shotguns. Now, we just don't know. Doctor Martin, or Doctor Chapman, I wonder if you would give them your thoughts for Ohio?

MR. OSBORNE: Mr. Chairman, may I interrupt just a second? I had a call from John Hughes, the Director of Conservation in Indiana who said he was sorry he couldn't be here and expressed his sorrow at not being able to be present with you at the meeting. He wishes to extend greetings to everyone here at the meeting, and says he will cooperate every other way he can and he hoped we would have a successful convention and I told him we would have with you in as chairman.

PRESIDENT RIDER: Thank you, Mr. Osborne. I am encouraged.

DOCTOR CHAPMAN: We have two rather definite deer herds in Ohio. The one that the Commissioner mentioned in northeastern Ohio which we owe to the state of Pennsylvania and the one in southern -- southeastern Ohio which we are responsible for. We stocked a number of deer there about 1922 to 1925. We had three open seasons on bucks only and took out only about three hundred

deer from 1943 to 1945, We had our first season last fall in northeastern Ohio. We took out over twelve hundred some odd deer. Official take by licensed hunters who bought special five dollar permits was around nine hundred and fifty deer and the farmers up in that section are believed to have taken about three hundred more. Now, of course, the State Board of Control is rather envious of this five dollar special license fee which we are charging. We sold ten thousand of these special permits last fall to mostly Ohio hunters; a few out-state hunters had been accustomed to going up to Harry Ruhl's territory evidently, and these hunters, one out of every nine of them, were successful in getting a deer and they took bucks and does and fawns and so on, everything, with this rifled slug used in shotguns. We have had a number of reports from these six counties in northeastern Ohio that were open to deer last fall and from the reports so far this year there are just as many, if not more, deer being seen in those counties as there was this time last year, so evidently we have to have a lot more hunters in those eight counties if we have it open again to control that deer herd in northeastern Ohio. Incidentally, I want to thank Harry Ruhl for heading the state of Ohio off on this matter of paying deer damages; he batted my ears down about 1935 when I sort of recommended that procedure for this state and I appreciate that very much.

MR. RUHL: I did it selfishly because I didn't want you to set a bad example.

PRESIDENT RIDER: Doctor Leedy, have you a statement?

DOCTOR LEEDY: No, I think that covers it about all, Commissioner. The only one thing that I might say is that if we

are going to control this deer herd in Ohio, we probably are going to have to take in additional counties this year as compared to the eight counties last year.

PRESIDENT RIDER: Possibly later in the season?

DOCTOR MARTIN: Well, it is possible that we will at least have a week to ten days. Last year we had a very short season, two days for bow and arrow fellows and ended up on the other three days that we had taking their shotguns to get a deer.

PRESIDENT RIDER: There is one question I would like to ask these gentlemen from Wisconsin and Minnesota and Michigan. How effective can we be, men, using -- and that's all we will ever be able to use in this territory -- a shotgun with a rifled ball? Does that, Harry, depend upon the number that we permit to hunt and the length of the season or are we ever going to get up with them?

MR. RUHL: Well, I don't think we have too good dope, but our information would indicate that a large percentage of our deer in the north are shot within the range of a shotgun with rifled slug, but they are not as accurate and you can't reach way out across an open space and do it but I think from the sentiments as it is expressed in our farm territory, you will have to do that whether you want to or not.

PRESIDENT RIDER: Oh, yes, you couldn't do different.

MR. STEEN: What time of the year do you have your season?

PRESIDENT RIDER: In December. It might do well to put it back to where they could track them in the snow; that is, we had no snow.

MR. STEEN: Then that would step up the vulnerability of

a deer.

MR. RUHL: Mel, you want to remember the breeding season comes about the middle of November and every buck is being shot because he was doing something else.

MR. STILES: Buck, what was your experience in regard to casualties as far as humans are concerned?

PRESIDENT RIDER: In three seasons we haven't had a single casualty with exception of one last year in which a fellow shot himself through the foot.

MR. STILES: Did you have many complaints from farmers on loss of stock?

PRESIDENT RIDER: No, not a one. A peculiar thing happened; we tried to open this season a couple of years ago up there, and the garden clubs or the Federated Women's Club really started on it and we backed up; that is, we always send up a trial balloon. We announced at the meeting that we are going to propose to do this and that goes up and we get reaction for a month. Well, the reaction came back to us, it was so tough and so hot, it was too hot to handle. We dropped it and let it lay for a couple of years, and this year just simply announced that there would be a season and went right on into it. A few farmers posted their farms in fear the hunters would come out and shoot their livestock. The second day of that season a great many signs which were up, were taken down. The Cleveland Plain Dealer came out with an editorial praising the whole scheme of things, so we are in good shape. That is, we have no difficulty insofar as shooting fawns or shooting does.

MR. STILES: That was one of our main things in considering the proposed bill in Iowa; that was one of the principal objections and that is why I wanted to get your experience on it.

PRESIDENT RIDER: Well, gentlemen, the cocktail hour is approaching and I think dinner is about waiting. We will recess to the bar.

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MORNING SESSION,

Saturday, July 17th,

1948.

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PRESIDENT RIDER: Gentlemen, let's come to order. Is Mr. Emory Beetham out there, Harry? We happen this morning to have one of our Commission Members, Mr. Emory Beetham, who is the only man who has ever served a full term of eight years on the Ohio Commission and reappointed for another term of eight years. This is the first time it ever happened. I feel the Governor and the sportsmen of Ohio felt he was just too young a man with too much experience and had too much work left in him to let the noose off his neck before he had served another eight years. Mr. Beetham cam in on the beautiful yacht you see at the dock this morning and I would like to introduce him to say a few words to you gentlemen. He tells me that he is going to give us an invitation to visit the ship. Mr. Beetham.

MR. BEETHAM: Mr. Rider, that's a very fine introduction. I would like to extend my greetings to all the guests and I am sure we are all glad to have you here and I hope you can come back to Ohio often. But supplementing Mr. Rider's remarks, if any of you would like to go down and look over Mr. Hutchison's boat, he would be very glad to see you. We hope to be tied up here today and we hope to see more of you today.

PRESIDENT RIDER: We will dismiss right now, if it meets with the pleasure of you gentlemen, for fifteen minutes so that you can make an inspection of the ship.

MR. RUHL: I so move.

PRESIDENT RIDER: Blow that whistle.

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And thereupon a short recess was taken after which the following proceedings were held:

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PRESIDENT RIDER: Well, gentlemen, let's get started. In order to make up for some lost time, I think it would be well that we group the rest of these mammals, the squirrel, raccoon, muskrat, beaver, and so forth, and when you make your statement, each state, will you please include that entire list? Let's hear from Nebraska.

MR. VANCE: Vanc, Nebraska. There is not much that I need to say about these several game and fur-bearing animals left on this list. We have red squirrel in Nebraska chiefly in the eastern part of the state and while we do give them the protection of seasons and bag limits we have practiced absolutely no management in the control of the squirrel within the state. Among our fur-bearing animals, the muskrat is found throughout the entire state and are in the period of apparent continuous decline. Our sand hill lake area which is managed primarily by the ranchers for muskrat protection, furnishes an important source of revenue so that actually the water surface involved on these lakes are more valuable than the grass land is for the protection of cattle, and they jealously guard the privileges on these areas. Those lakes because they are managed so well by the individual ranchers are holding up their rat population much better than the streams in the eastern part of the state which are subject to periodic flooding. A number of years ago we thought we had a raccoon problem, started working with sportsmen and farmers and others in an

attempt to save those trees and produce more raccoon. In fact, we went so far as to raise a few raccoon at our State Game Farm. The situation at present makes us wonder why we were ever concerned with the conservation of the raccoon. Since pelt price has dropped to one dollar, one dollar and twenty-five cents apiece, we have more raccoon in Nebraska than we know what to do with. The young raccoon furnish a wonderful temptation to women, children, and others to pick them up and make pets as do the young of other fur-bearing animals and we have quite a problem at times in the control of taking game and fur-bearing animals out of season, and at the present pelt prices, they don't understand why. Mink, we have a fair distribution over the entire state; no management practice concerning mink. Red fox, found only in the extreme eastern part of the state in any numbers. Some problem perhaps with the red fox in the possible predation on ground nesting birds and flocks. Two years ago, our Legislature included the fox among the animals which a bounty is paid within Nebraska; it's also classed as a fur-bearing animal but it is not important. We have a good distribution of the skunk, both the striped skunk and the little spotted skunk within the state, and reasonably good numbers of beaver, annual harvest in Nebraska amounts to between three and five thousand per year. Beaver are handled on a nuisance permit basis, supposedly where the beaver are causing damage to individual property owners. They may secure a permit good for sixty days and the number of beaver to be taken is determined by the officer who issues the permit on the farm after an inspection is made. Under our Federal Aid Program, we have one man and an assistant assigned to the study of the fur resources problem in Nebraska.

That program has been in effect now for three years. The best thing that has come out of it now has been the publishing and distribution of a trapper's guide which has been very well received by all the trappers in Nebraska, and if some of you gentlemen would like copies of this publication by Doctor Fichter, I am sure if you would write our office we would send you a copy or copies. Thank you.

PRESIDENT RIDER: Mr. Vance, when we get through and open up the discussion, I would like to ask you some questions concerning your fox bounty and how valuable it might be in exterminating or reducing population in fox. I would also like to ask some questions about the nuisance value of the coons and whether or not you are thinking of putting them on the predator list as the fox in Ohio.

MR. BECKMAN: Relative to squirrels in Iowa, our squirrel population hasn't changed much over a period of years. The type of forests we have there is practically farm wood lots and our squirrel population has held up just about equal one year with the other and we have practiced very little squirrel management. In reference to raccoon, raccoon in Iowa has increased just about the same as Mr. Vance told you, that they had in Nebraska. However, our take of raccoon has increased in proportion with the population each year; it hasn't been because of the fact the low price that's held down the take of coon which has made the increase. To cite an example briefly, back in 1929 our take of coon, or about that time, averaged about twelve thousand each year, and the last two or three years the take in Iowa of raccoon pelts has been between forty and fifty thousand each year. Muskrats, we had a closed

season in Iowa last year with the exception of a portion of the Mississippi River and the population of course was not too good. It is spotty now. We have certain areas in the inland part of Iowa in which muskrats have definitely come back and I think that it would be safe to say that our population is considerably better than it was last year. Fox, we believe, in Iowa, that our population which has been very high has reached its peak about a year ago and is now started on the decline. I am not going into the reasons because there may be several. I might say this, that because of the fact that our fox population got so high in Iowa there has been a lot of fox hunting; that it did bring about a new source of recreation which we hadn't had before and naturally has probably had an effect. It is one of the factors in bringing down the fox population. We don't have a state-wide bounty. However, our law does provide that various counties can and do have bounties. Personally, I feel that if you take care of this increased population from a recreational standpoint, that's the way the job should be done if you can do it in that manner rather than from the bounty angle. That's the way we have felt and I think with proper education that it can be handled in that manner. Skunk population: Civet cats in Iowa have been steadily on the decline. Beaver: We don't have an open season on beaver in Iowa and that constitutes our biggest problem from a fur-bearing animal standpoint. We have a nuisance problem there that has been increasing each year and we do, however, allow beaver to be taken by permits where after an investigation has been made that it is found that they are doing damage. That, however, has been still a bigger job to take care of it. We hope to have legislation after the next session which

will provide for an open season in Iowa. We have -- Mr. Vance just asked me if we had used state trappers in Iowa. We have used our own trappers as well. However, we have given the farmers who had the actual damage the opportunity to take over these beaver if they so desired and in the event that they didn't want to, then we would send our state trappers in to do the job.

PRESIDENT RIDER: May we hear from Minnesota?

MR. HUSTON: Well, we have a considerable beaver problem up there. We do not have an annual open season but when we get sufficient population to justify it then we open whatever number of counties that have sufficient population. That is to say, we handle it through permits quite similar to that system in Iowa and we give the landowner who is handling the damage the opportunity of taking the animals. But we find that a great many farmers don't know how to trap beaver and for that reason they want someone else to do it. That's all right with us if it doesn't get to be a racket but you have to watch out for that. In our larger refuges and on state-owned land, we do most of the trapping with our own employees. Our muskrat population is fairly good. The season last year wasn't quite as good as the year before; we didn't have as many rats. This year, I think we are going to have a pretty good population on the basis of what we know about the increase so far. Our other fur-bearers like the skunk, they remain pretty consistent. Trappers aren't too much interested in them because they aren't worth much and they are regarded as more or less of a nuisance. The raccoon is becoming more numerous each year. There are more of them taken, of course, by hunters and trappers but at the same time they are not keeping up with the

natural increase. I don't know how to account for it but raccoon are showing up in portions of the state where heretofore they were unknown and in large numbers. In fact, up in the northern part where farmers ordinarily only have small acreages, raccoon becomes so numerous they will destroy an entire corn crop. Now, on the squirrels, they remain pretty constant. We don't do anything about management. We haven't initiated any management practices. We opened the season on them in accordance with what surplus we felt we have. We don't have enthusiastic squirrel hunters in Minnesota, I don't think, like they have here in Ohio. For that reason, they aren't too much interested in them, but nevertheless we do have good population of squirrels and that remains pretty constant year after year. The mink population is a little down in Minnesota, I think. I don't believe it is as good as it was two years ago. The red fox, we allow them to be taken by airplane. We haven't told it yet, but I am satisfied that the airplane hunters took at least eight thousand fox. In addition to that, we, of course, have the fellows who enjoy hunting fox for sport with dogs and they oppose the use of the aircraft and the bounties. In our state, it is up to the counties as to whether or not a bounty is paid on fox. It is not mandatory. The county commissioners want to pay a bounty if they can. Bounties are not consistent in the various counties; some counties pay more than others with the result that they oftentimes get the fox that's taken in adjacent counties, so it isn't really a fair system. Our grey fox are not too numerous. We find quite a few of them in the counties adjacent to the Mississippi River but they are slowly spreading out into other sections of the state. I think our red

fox population in general is on the decline. The fact that we have taken so many of them, of course, has something to do with that but then in addition I think the cyclic condition appears to be headed downward. Our coyotes are quite numerous and we also have the timber wolf which is credited with doing a great deal of damage to our deer herds. We have timber wolves over there that get up as heavy as one hundred and twenty-five pounds and an animal like that, it is not much of a trick for them to get a deer or a moose when conditions are right. For our larger refuges, the men keep after the predatory species such as the wolf and the bobcat and they account for a great many of them each year. In fact, this past winter I think our refuge patrol men, took some sixty timber wolves. In addition, I don't know how many bobcats they took but probably one hundred or more. Other fur-bearers such as the otter are not too numerous. We don't have a season on them but I think they are becoming a little more numerous than they were a couple of years ago. I believe that about covers it.

PRESIDENT RIDER: May we hear from Wisconsin?

MR. ZIMMERMAN: Mr. Chairman, Zimmerman. The squirrel situation in Wisconsin this year is, I think, a little better than it was last year. Four or five counties in the southeastern part of the state around Milwaukee, a large hunting population, are having a shorter season there, not having a two weeks season as compared with the pheasant season for Wisconsin. The muskrat situation is very favorable. There was a good season last year and this past spring we decided to have a beaver season during the month of February making the trapper really work for his pelt. I think possibly we can work out something where we could have a

short season each year with a small bag limit rather than a season in March. That's what happened in 1946, we took about fifty-three thousand beaver at an average of about forty-six dollars a pelt. The mink situation is just about the same. I hadn't noticed any increase or decrease there. I might say that our Pittman-Robertson program over on the Horegon Marsh Wildlife Ares, we have a muskrat research project over there and we have a share cropping program in effect where trappers submit their names and they are drawn from a hat and so many trappers are allowed to trap the marsh on given units that are staked out and it is a fifty-fifty proposition, and if the trapper so desires, the state will take care of his furs at the same time the state furs are auctioned off or if he wants to handle them himself that is all right, too. Our otter situation is the same as Mr. Huston mentioned in Minnesota. We have even noticed an increase in several counties in the southwestern part of the state where otter were thought extinct or so low as to be on the brink of extinction, and we have had an increase in some of these rivers and small streams. The skunk situation is still pretty high as is the raccoon population. Raccoon have come back and are on the upgrade right now. We raise at the State Experimental Game and Fur Farm about twelve hundred coons. There are three strong associations in the state, the fox and coon hunters association, and they take these coons and continue to rear them and then release them for these coon hunts. The skunk is, as I mentioned before, as they are quite numerous and they are on the unprotected list. In Wisconsin, we divide the state like Michigan does into two zones, and rabbits and raccoon and squirrels into a northern, southern, and a northern-southern, and then you have

the season earlier in the north than we do in the south with these species. We are very fortunate this year in that quite a few of the seasons are running concurrently. That is the upland game bird season will be on at the same time that the squirrel season is on and the raccoon season. This year for the first time in a good many years, Congress decided to have a season limit on coon of twelve, two a day. I think that is about all.

PRESIDENT RIDER: Thank you. May we hear from Kansas?

MR. ZIMMERMAN: One more thing I would like to mention on this beaver situation. We have a lot of complaints, flooding timber and flooding roads out and so forth and we had three state trappers that trapped these beaver out and released them in areas where beaver are at a low and we do have that different program and they also dynamite the dams out and live trap these beavers and move them out then in suitable areas where there aren't so many.

PRESIDENT RIDER: Thank you. May we hear from Kansas?

DOCTOR TIEMEIER: I can't give you too much information on this. Muskrat population seems to be fair; not much change in the last couple of years. The raccoon problem at the present price of the furs seems to be a control problem more than anything else, and the mink and fox are very scarce in Kansas. The skunk population seems to be good. The beaver are quite a problem in Kansas. A few years ago they were introduced in parts of Kansas in some of the streams in western Kansas. Well, in a few years they got so numerous, we had so many complaints that we hired trappers to trap them out of certain areas; and the coyote population seems to be high in Kansas at the present time. That is all I have.

PRESIDENT RIDER: Thank you. May we hear from Missouri?

MR. ROBB: Robb from Missouri. Our squirrel population is in general pretty stable. It fluctuates somewhat. At the present time we are starting on what it looks like is going to be a very satisfactory season. Squirrels in general take care of themselves pretty well. We don't have many management practices that we are using for the benefit of squirrels. The muskrat population was low last year. However, we did not consider the drop off serious enough to warrant a change in the regulations to give them any more protection. All indications are that the population is still low, maybe a little bit lower this year. We are watching that very closely at the present time. Raccoon, on the other hand, is up at the peak as it is in most states. I think Missouri's take last year was around sixty-five thousand raccoon pelts. Mink, low, apparently quite low this year. That's another species that we are devoting quite a bit of attention to this spring and summer, in case there is any indication that additional protection is needed for this winter. The fox in Missouri is protected in that it is classified as a fur-bearer, no bounties are paid on foxes at all and the take is limited to a certain specified season. The fur season plus an additional period during which grey foxes had to be taken. Under that system, we take around -- we took around twenty-three, twenty-four thousand reds and greys combined last year but the population is definitely high although we do have some indications of the possibility that the fox is beginning to decline a little bit in certain local areas. I have heard that mentioned by some of the other states already. Skunk is very low, has been low for a long time in Missouri. Beaver are still quite low. We are getting pretty satisfactory population increase. We

allow the taking of beaver under a nuisance permit where the conservation agent investigates the damage complaint and permits the farmer to take one or two or three beaver to compensate him for the damage he has suffered. At the same time, we have a live trapping program which attempts to remove beaver from these unwanted colonies during the summer and fall months, make use of these animals for restocking primarily in the Ozark Region where they are not as likely to cause damage. Most of our damage in Missouri, beaver damage, is either clogging of drainage ditches in the northwest corner of the state or crop damage. We have very little, practically no damage like Wisconsin has mentioned, the flooding of timber areas. Occasionally, we do run into a private road that's being flooded. Otter is very scarce, no open season. On the control which is directed primarily against coyote, we have a cooperative problem worked out with the Fish and Wildlife Service and the Agricultural Extension Service. The Conservation Commission has two extension trappers. We don't attempt to do the trapping ourselves. We merely arrange demonstration trapper training meetings through the local county agents and teach the local farmers who are complaining of damage how to do their own trapping. We found that to be by far the most effective method that we have used in Missouri so far and we have tried state trappers and federal trappers and several other possibilities. There are a number of counties in the state that pay bounties, there is no statewide bounty of any type but the counties do have the privilege of paying bounties on coyotes or wolves as they are more commonly called. I believe that about takes care of it, Mr. Rider.

PRESIDENT RIDER: May we hear from Illinois?

MR. SPARKS: Sparks from Illinois. We in Illinois have a somewhat difficult problem due to the fact that our state is about four hundred and seventy miles from the south to the lakes and the northern part of Illinois. It may be very cold in the north, at the same time, in southern Illinois, they might be planting cotton, so it was necessary for the Department a number of years ago to zone our state, putting in three zones, the northern, the central, and southern zones. The seasons on fur-bearing animals, particularly, are staggered about fifteen days period between the open season in the southern and the central, and the fifteen days in the northern zone. Our squirrel population in Illinois is very good, particularly in the southern part of Illinois. It seems to be one of the major sports there and I am told by our field representatives that we have a good outlook for the squirrels. Our beaver, we are having a little trouble with beaver, the same as many of you other states have said here, in regards to plugging up drainage ditches and other streams. We do the same, as has been explained here, we live trap the beaver out of these areas and plant them in places where it is a low ebb on them. The same thing refers to our division of predatory control. This is probably a little off the subject but we do have a division of predatory control in which we probably put most of our effort into the taking of crows. I noticed two or three states here represented that we have sent our predatory control supervisor into those states and have showed them our method of destroying the crow, with a dynamite bomb. I might say that it is nothing for us to maybe have a bombing in a crow rookery and possibly kill as high as eighty or ninety thousand crows in one bombing, and I know

we have helped Nebraska, and I think that one other time we were in Colorado. In the state of Illinois, the fur-bearing animal is quite an industry. Many of our farm boys trap and we have some of the largest fur industry businesses right in Chicago. And I might say that our problems, as has been explained here, you folks have explained your problems of your fur-bearing animals, just about fits the problem down in the state of Illinois, about the same situation.

PRESIDENT RIDER: Thank you, Sparks. May we hear from Michigan?

MR. RUHL: I think in general the picture is more or less the same. There are two or three things that I might bring up. In general, our fox, coyote, bobcat, timber wolves, mink, raccoon, the carniverous animals are generally up although the fox has started to decline; started first in our northern counties and it is more pronounced there than in our southern. They give you some hope that it will get down to Ohio and Indiana but it has already arrived. We can't see any relationship whether you have a closed season, completely closed, or partially closed or a bounty on some of these; they seem to go up and down together. Maybe we game managers are kind of more futile than we admit. You can take that out of the record, of course, but actually we can't see any, on some of these larger mammalian predators, for example, we don't see how the bounty is doing anything under the statewide scale. We believe under local conditions where they are warranted, in spite of the fact we have some bounties. In connection with skunk, they have been down for a long time and they are very low. We think they had a disease similar to encephalitis in foxes

which as far as we can tell is new and different but we didn't get anybody's name on it yet. They haven't recovered from that yet. Our fox and squirrel population fluctuates in local areas due to severe winters. Probably that isn't true in Ohio and Missouri but it is with us. We have a management tool there that can be used in some places with some degree of profit. In connection with otters and beavers, now, we have lots of otters so far as otters go. I think, now but they never were plentiful like muskrats and we had only a lowish population of beaver. We have another angle that these two species often conflict with the trout fisherman's interest which makes life more interesting and complex. Sometimes these trout streams bring headaches as well as opportunities. One of our thoughts is that we are not utilizing the crop of crows. We like to bomb ninety thousand crows at one fell swoop and make work out of it. We would like to get more people shooting crows for sport. Now, all of us eat crow more or less often, in one form or another, and if we could somehow glamorize it as a table food maybe we could have more fun, but here is fox and coyote and wolf and bobcats and raccoon and crows, and hawks and owls, all, I think, there is a technique in the sport that can be developed and if we could get it from the work column over into the fun column, I think it is mighty smart business. Now, we are trying to make fox hunters by persuasion, by propagandizing, by cajoling, by example, and I think we are getting them by slow process. Now, one of our problems is we started to work on them when the foxes are up and so forth. About the time we get them coming, the foxes are down and we don't stage our campaigns so the interest is coming up when the foxes come up. I think that's one of the fields

we ought to work on more. I think that is all.

PRESIDENT RIDER: Thank you, Harry. I think you have expressed some very good food for thought there. Doctor Martin, can you report for Ohio?

DOCTOR MARTIN: Well, our squirrel population is probably like I have heard in most of these states; it is up at this time and has been for at least three or four years. We do have a rather interesting thing in our larger forest blocks on our grey squirrel. There is a question and we have evidence -- some evidence at least -- to verify this, take in our large forest blocks of which we have a few of one to eight, nine thousand acres, we feel that our grey squirrel are not harvested. In other words, we can't get enough as yet, enough hunters in there. They are so afraid of getting lost in those large forests that they fail to actually get out there and get these squirrels and harvest them, but we are trying to publicize the thing more and more and trying to induce the sportsmen to go into the squirrel shooting game a little bit more in those large areas of forests. Raccoon, I think everybody has expressed themselves and Ohio goes the same because we do have an enormous population of coon. In fact, they have reached the point that they are a problem, and in spite of the fact that based on our fur-bearers reports and our census work, that is our game kill census in the last two years, they take from a hundred and fifteen thousand down to ninety thousand pelts a year, still we have too many. Our little coon farm at one time was besieged with requests so that you could hardly live under the condition of the coon hunters organizations asking for coon. We got away from that and we don't hear much about it any-

more, although we do propagate a few raccoon. It will run anywhere from two thousand up to twenty-two hundred a year and we are cutting down as much as we can at this time. Of course, there is a public relations thing. That is about all it amounts to. Skunk: We have already set our season for this year which is a closed one. We had a closed season last year, and I want to point out one thing that we definitely know here in this state that we do have encephalomyelitis or a form of distemper in the skunk that we know when it gets into a colony or a brood, it will wipe it out, and while our skunk shows a slight comeback this year, we didn't feel that we should have an open season on them. Muskrat: In this state, we have two zones. Our state is divided, I might say, the Lake Erie District which is -- we have our commercial marshes, muskrat marshes. They have a season there from November 15th to March 15th. In other words, they harvest their muskrat when the fur is most valuable. On the inland district, our season has been from November 15th to January 15th, and I might say that that is our coon season as well, November 15th to January 15th. Mink fits in the same class as the muskrat and we have the same season. Now, getting down to the fox, probably most of you know that four years ago our Legislature, in which our House is strongly agriculture, got a law through which took the fox out from under the control, so far as the Division of Conservation was concerned. Now, it looks like that agriculture has a bear that they don't know what to do with. For the last two years we have had this high population, we have had rabies in different sections which got among the fox which has caused agriculture a rather severe economic loss due to the fox getting in among the livestock and biting them and actually

bringing on rabies. I wouldn't be surprised this year that this coming Legislature will introduce a bill where they are going to ask for some general revenue funds to actually help handle this fox situation on account of the rabies condition that we have in our fox in this state. They are open as predators, naturally, and we have no season, we try to encourage our sportsmen to get out and help kill off as many of them as possible in order to satisfy agriculture and make just a little bit closer good feelings so to speak between sportsmen and agriculture. I think that covers about everything that we have here.

PRESIDENT RIDER: Gentlemen, in this general discussion, Ohio would like to know from you men regarding fox. Is a bounty beneficial? Does it help count down the population? If there is a bounty in existence, should it be a standard bounty for every county rather than this county given two and the next county given five dollars? Means of identification. For instances, we take the front paws, Michigan takes an ear. I think Indiana possibly the tail or some other section of the fox. A man can trap a fox in Ohio in one county, go to the adjoining county paying the highest possible bounty, take the paws, give his brother or his cousin up in Michigan the ears, and give that portion of the fox necessary for identification to a friend in Indiana, and collect three times. That appears to be a racket. It seems to me this midwest could work out some agreements to stop that sort of thing. Now, in the matter of raccoon, we in Ohio are faced with the threat that it will be made a predator by the Legislature, that is, they took fox off the fur-bearers, it is not a fur-bearer, it is not game, it is not a bird; therefore, the Ohio Commission of Conservation has no

authority and it can't be construed to be hunted any more than you hunt a regular sewer rat or house mouse. I am wondering whether you are faced with that situation and what can be done about it. I got down on my knees almost and begged two members of our Legislature last year not introduce legislation which would have put the raccoon in the same bracket as the fox in Ohio. I wonder if we hadn't better give some real thought and consideration to a discussion of how much a problem is the crow. Every once in a while I hear reports in Ohio that these crows are really at the bottom of our pheasant decrease. Well, I wonder if we are handling that situation throughout the midwest as we should? I wonder if there can be things done to incite some enthusiasm concerning hunting of these predators for fun rather than the methods we are using? I am of the opinion, I agree absolutely with Clark Venable and Gabrielson, that it looks as if we in America insofar as this game crop is concerned in the future, are going to have to enjoy much less much more and it is possible that there are matters that Harry Ruhl touched on that might be discussed. It is open for discussion, gentlemen.

MR. OSBORNE: Mr. Chairman.

PRESIDENT RIDER: Mr. Osborne.

MR. OSBORNE: I am going to say we try to encourage the crow killing in Illinois by offering to sportsmen's club trophies who kill the most crows on a crow hunt day. Sometimes it may be twenty-five pheasants to the sportsmen's club for their own use in putting out birds, or maybe a trophy or other things, but in that way they get together and have a little lunch and chew the fat after a day of crow killing, and they bring in quite a

number of birds that way. Of course, that's only a small amount compared to our actual bombing but it creates the necessary interest in the killing of crows and helps stop this discussion that you had when you kill foxes in Ohio. The ladies who objected to the killing of any birds and say that God put them on earth for some particular reason do not like the sportsmen out selling the proposition that they are predators and they destroy the waterfowl up in Canada. I think the figures are that they take about eight per cent of the waterfowl in Canada today, crows and magpies. The destruction by crows and waterfowl is as great as that taken by hunters in the states. They are also very destructive to the farm if you are raising ducks or chickens or if they kill lots of young rabbits, and, therefore, any incentive we can give to the sportsmen to kill crows is of great benefit to our wildlife.

PRESIDENT RIDER: Well, Mr. Osborne, could you tell us have you any definite figures, documented figures or comparable figures on the real factor in game destruction that crow becomes. What is your feeling on upland game, quail, pheasant?

MR. OSBORNE: Well, there isn't a question but what they are very destructive for young pheasants and quail; they are very destructive of nests, they destroy many nests. If you haven't the proper cover for nests and for the younger birds, there is no question but what the crows get a large part of it.

PRESIDENT RIDER: Mr. Stuber here just said under his breath that the Crow Hunters of America estimate thirty per cent, is that their opinion or is that a fact, Jim?

MR. STUBER: I have also heard from about twenty-five Conservation Commissioners, whom I wrote to a year ago asking their

opinion in damage done by crows and summing it all up, it looks like about thirty per cent. As Mr. Osborne said, they kill a lot more game than hunters' guns do. I think the marshes here, they tell me the crows definitely take thirty per cent through destruction of the eggs.

PRESIDENT RIDER: You found also on that refuge that coon were quite --

MR. STUBER: Oh, my God, coon just about whipped us. We have trapped out twenty-seven coon in one rather small area, in a waterfowl refuge.

PRESIDENT RIDER: Mr. Beckman, do you want recognition?

MR. BECKMAN: Yes. I just wanted to make a remark relative to this fox bounty. As I mentioned awhile ago, in Iowa that certain counties -- we don't have a statewide bounty -- but certain counties do. I would like to substantiate the remark that someone made here relative to the fact that they could notice very little difference as to the number of foxes that were taken in the counties where they had foxes, or bounties against those which did not. We have experienced exactly that same situation in Iowa. We cannot tell that there is any difference in the population of foxes where we have had three dollar bounties, two dollar bounty, one dollar bounty, or even a fifty cent bounty. I do or would rather like to point out the fact that it has caused complications. It has caused us a considerable amount of trouble, particularly the counties in the fact that foxes which were killed in the county where they had no bounty would be brought over to those that did have a bounty. However, I definitely feel that we are defeating our own purpose and certainly it is not to the best interest of

conservation to promote bounties. I definitely agree with Mr. Ruhl that we should in some way, even though it does cause us some trouble, that we should extend every effort to keep the population down by encouraging their take from a recreational standpoint.

PRESIDENT RIDER: I make this observation. I think it is very very dangerous. We were foolish enough to tell our Legislature so when they took fox off the fur-bearing list, and therefore took it out from our domain, we were foolish enough to tell the Legislature in a four page letter and we almost got ripped in the next week or ten days. I can see the day if the state legislatures continue to take away from their conservation commissions one by one these species, we in Ohio, for instance, are likely to come up to the day, if we ever get a rabbit population, when raccoon, rabbit, and possibly groundhog are considered vermin. Now, in Ohio, that's important. You heard the gentleman from Missouri say yesterday that as he goes through Ohio, particularly during the winter, he can't see how in God's name a field mouse has any habitat in which to live. Well, it is very important that we protect, and we do protect groundhog in this state, because, as I said yesterday, unless there are dens for the rabbits in the ground, certainly they can't exist in winter in Ohio, so we must have groundhog. We had an experience last year that created a problem with agriculture. Gentlemen from the Fish and Wildlife Service walked in and said they had been invited to the state and they were going right out to kill groundhogs, and Lester Bailey here, our Law Enforcement Chief, said, "Well, if you do, you will go right to jail. We have no groundhog problem

in Ohio. We want more of them, and you fellows can just pack your bags and get on your way." Well, I think we ought to watch that point and not permit, if it is within our power to keep these legislatures from taking away certain species. I think that we should do everything that we can. It was a mistake -- we have made two great mistakes in Ohio. One lies on the quail, of course, which is a song bird, and the other is on the fox which is not now a quadruped or a fur-bearer, regardless of what the dictionary says or the encyclopedia, and I think we have made just damned fools out of ourselves before the world and it has certainly created a problem. Doctor Martin, do your records show that since the bounty -- and our bounty law is not mandatory -- but it says that any county may pay a bounty, a bounty may be from one to five dollars, that's at the discretion of the county commissioners, but if they pay a bounty, they must set aside enough funds to pay a bounty on one hundred fox, that is, they can't set aside fifty dollars and pay for it in a five dollar bounty, or set aside ninety dollars and pay a one dollar bounty, but they must set aside sufficient funds to cover a hundred fox, what do our records show, Doctor Martin?

DOCTOR MARTIN: Well, there are only a few counties in the state at this time that are not paying a bounty on fox. I don't recall just which two there are, but there are only two out of the eighty-eight which do not pay a bounty.

PRESIDENT RIDER: Do our records show, Doctor, that we have since the bounty killed more fox than before the bounty?

DOCTOR MARTIN: Well, no. Based on the reports from our county auditors, which we compile annually, for they worked out

on a fiscal year basis, it showed that two years ago, they bought a few more or paid for a few more than what they did last year. I think it was down about eight hundred in 1947 and, of course, we haven't got this year, the fiscal year of '47 worked out -- I should have said '45 and '46. We are down now. Our peak was nineteen thousand and some, then we dropped down to eighteen thousand. We were just off about a thousand, but if you check that against the fur buyers report, there is a very close correlation in our state as to the numbers. It runs fairly close in there, not enough to get alarmed about this thing of peddling these fox, because once the pelt, you are checking a pelt, and you are checking against that, the bounty on an individual fox also, it might not be the same fox all the time, that's all, they could juggle that.

MR. RUHL: It seems to me we ought to marshall our forces. Now, you are about in the same situation, I think, we were about four years ago on the fox. You have county bounties that don't come out of your game funds?

PRESIDENT RIDER: That is correct.

MR. RUHL: Well, we had the same thing but we wanted to raise our license fees and this county paid a bounty and this one didn't. You know what happened, they were paying the counties for counties all around them and they could see that, so we got stuck with the bounty on fox. You are going to be up against the same thing if you are not careful. That's the next step.

PRESIDENT RIDER: You mean it came out of your fees, Harry?

MR. RUHL: Yes, they raised the license fee another fifty cents, so it isn't hurting you and the people want to pay for it,

why go ahead. We got lost in the horse trade.

PRESIDENT RIDER: Well, of course, since they have taken fox completely out from under our authority, they couldn't conceivably use any game or fish money because fox with us is just a rat, we haven't anything to do with it.

MR. RUHL: But what about the Legislature, what it takes away, it can return?

PRESIDENT RIDER: Well, that's right.

MR. RUHL: The thing I think we ought to do is assemble the individual facts such as this gentleman over here mentioned, we have some, you have some, so we all have them, and have the ammunition all greased up, so if we lose a fox bounty, I figure that puts you behind the eightball.

PRESIDENT RIDER: That's right.

MR. RUHL: It is just a matter of divide and conquer.

PRESIDENT RIDER: Well, in this matter of crow, is it the sentiment of the men here that crow can't possibly be as much as a thirty per cent factor in these game populations? What is your opinion of that, Harry?

MR. RUHL: Well, I wish I knew how much but that sounds big to me. I know in the mowing operations that nests we have tried to leave with flushing bars and things of that kind, there is a very high mortality, and the higher the mortality, the nests that we can find, but I don't think our indication -- if we can't find them, the crow can't either quite so easily. I think that varies very greatly. We have similar circumstances in the same area. Mink, on the same area, in two years were approximately the same populations of muskrat and mink varied from very serious to

negligible. The difference, as far as we could tell, was that much difference in the water level. Fear that the water level was down restricted the range of the muskrat under the ice, and the mink went to town. Anyway, we got so many local varieties and so many confusing factors, that I don't know. That sounds high to me but it is a factor, but of course we have the fox and the cat and the skunk and the possum and we have humans and so forth, and we have hawks, and we have owls, and they all eat, and if crows get thirty per cent and raccoons get thirty per cent, and foxes get thirty per cent, and the possum gets thirty per cent, we wouldn't have any left, so something is wrong somewhere. I think the answer is they are all going to get what they can; they are like us, if we can get a good meal, we will take it easy, so our problem is we are not going to change the crow, the answer is how to find the places that are worthwhile to make an investment and an effort to do it and then to capitalize on the enthusiasm of hunters and sport as much as we can because they will work a lot harder for fun than they will for fish.

PRESIDENT RIDER: Thank you. Is there any other discussion of these small mammals?

MR. STUBER: Mr. Rider, you want information on that crow business.

PRESIDENT RIDER: Mr. Stuber says he has some lowdown on crow investigations. Would you like to hear it? Go ahead, Jim.

MR. STUBER: I don't know whether I have the lowdown on crow investigations, but as referee of the American Crow Hunters Association in which we have the National Crow Shooting Championship, we have to collect a lot of information. We find that wher-

ever we have adequate cover, the crow problem is not so much of a problem. Thirty per cent maybe in agricultural states where there is a shortage of cover. There are states like your state in Michigan where there may not be such a problem, they have different cover, and we do find this that the hunter has left for him, for the hunting season just what is left after all these other predators get what they can take, and the the take sometimes seems to be pretty heavy, but as far as we can see it is largely a cover problem. If you have adequate cover, you can cut down your predator take. That's based on our experience through making a study of predation birds and animals. Now, not in the Conservation Department but I mean through the Outdoor Writers Association and the Crow Hunters Association.

PRESIDENT RIDER: Gentlemen, before we go on to fish, just a few announcements. First, we would like to take a group picture immediately before lunch. That will be in about three quarters of an hour and will everybody please be available for that picture? If you are available, we will take the picture and within the next week or ten days mail to you a good sized picture of the group. Now, as to trips and points of interest that you gentlemen might wish to see in Ohio. If immediately after luncheon you will contact Doctor Martin and tell him what you want to see and where you want to go, we will take you there. If in your travels, you can stay long enough, you are welcome at my home in Columbus. You are welcome to visit the office at Columbus, and we can stir up a lot of fun and get a lot of information from you follows I am sure if you will stay with us for awhile. Now, we will proceed to fish and we want to confine our discussion first to factors limiting

the production of game fish, rough and forage fish, and what if anything can we do about it. We would like to hear from Nebraska first on the fish situation.

MR. VANCE: Mr. Rider, Nebraska doesn't have the fish representative here and any comments that I might make regarding fish would have to be misleading.

PRESIDENT RIDER: I heard the other day, much to my surprise, and I wonder if you can tell me is this true, somebody at the Democratic National Convention on which I was tuned in, made the statement that Nebraska had more miles of streams and running water than any other state in the United States. Is that true?

MR. VANCE: We will put that up against any state in the United States. We have more miles of stream bankage than any other state.

PRESIDENT RIDER: Is that right? Well, of course, you are fortunate. We have twice as many miles of ditches as we have streams in Ohio, so you can see what a problem that presents. All right, may we hear from Iowa on the matter of fish?

MR. BECKMAN: Mr. Stiles isn't in the room, I guess. I would rather he would report it. I might say this on fish -- well, first let me say that we don't have our fish representative here either. Nevertheless, in regards to the factors that limit the production of fish in Iowa, our number one factor is siltation. After all, you all know what type of a state we have in Iowa. This is not only true as far as our rivers and streams are concerned, this is also true of our lakes. That's the number one limiting factor. The number two factor probably in Iowa is pollution, from our various industries in the cities. We probably will have, or at

least a definite effort will be made to put through a stringent pollution bill at the next session of the Legislature and we did try it last year and we thought we were going to make it. At least we felt that we had come very very close to getting through a very effective pollution bill in Iowa two years ago and that might be one of the reasons why we do feel that we have reasonable assurance of getting through a very effective pollution bill at the next session of the Legislature in Iowa. After all, one other factor, of course, is law enforcement and I think ours is similar to most of the rest of the states in regard to that and the effect that it might have on the production of fish, of course, is pretty general.

MR. RIDER: The mention of pollution motivates me to make a statement to this group. Therefore, if the Chair may have your indulgence I would give you the following facts. At the last conference of the Midwest Association a resolution was passed which endorsed the Taft-Barkley bill on pollution. Later, at the International Association, after considerable discussion, this resolution was passed by the International in its meeting at Denver. Consequently, many conferences were held with members of the Congress and considerable work by members of the Midwest was put in on this Taft-Barkley bill. Finally, the bill was passed by the Senate and sent to the House. At the first meeting of the committee in the House it was decided by the members of the committee to give the bill to a subcommittee for action. The first move by this subcommittee was to indefinitely table the bill or to write a new bill or, finally, do nothing about it. Due to the strenuous effort of many of the members of the Midwest asso-

ciation the subcommittee was finally compelled to some concrete action on the Taft-Barkley bill which had already passed the Senate with the results that Representative Harry McGregor of Ohio was most instrumental in having the bill rewritten in such a fashion that finally it was not opposed by any of the many interests involved in the bill with the exception of the Izaac Walton League of America. The bill as rewritten was passed and as a result for the first time in the history of this Nation there exists a federal statute on pollution. The bill decrees that pollution is a public nuisance and is a matter for federal control in many instances. The bill makes available $22,000,000 each year for the next five years to be loaned to agencies of government to help finance construction of a proper sewage system and disposal plant. The bill sets up $4,000,000 for a research laboratory at Cincinnati, Ohio, to work out means and methods for the treatment of pollutants which to date have no proven method of treatment. Beyond this the bill makes available various sums to the Surgeon General and other agencies of the federal government on which they may proceed to correct pollution throughout this Nation. It is true that this bill is far from perfect and satisfactory in every respect. However, it is a good beginning. If we who are concerned with fish and wildlife properly advise the various agencies in our respective state governments concerning the advantages of the bill to them in their work with pollution it may become a great benefit in eliminating the pollution factor in our fish and wildlife situation. Our active interest and participation in the workings of this federal legislation will, if the legislation is weak, develop and initiate proper strengthening

amendments. Finally, I wish this group to know that it is my feeling that this Midwest organization should consider itself as the most potent and influential organization in the enactment of this federal pollution legislation. If you will bear with me for an additional moment I wish to call your attention also to the fact that in the fight which brought the Pittman-Robertson appropriations up from $2,000,000 requested by the President in his budget message to well over $9,000,000, this organization initiated the action and led and won the fight. Therefore, I wish to stress once again that not only can this organization be of great help to the states within the organization but it has already been of tremendous service to all of the states of the United States because of its active and successful work with the Congress of the Nation. Now, returning to fish, what is the situation in Kansas?

DOCTOR TIEMEIER: No comment.

PRESIDENT RIDER: How about Wisconsin?

MR. SPRECHER: Mr. Chairman, Sprecher of Wisconsin. I would say that we have four very important factors limiting the production of fish in Wisconsin. First, of course, is pollution, draw-downs, carp, and regulations. Now, we have in Wisconsin the paper making industry and we have a tremendous number of dairy industries, cheese factories, and creameries, and so forth. The biggest river in the state, the Wisconsin River, is a running sewer as far north as Rhinelander down to the middle of the state at Wisconsin Rapids, because of the tremendous number of paper mills that are located on that river. The Fox River that extends down through the largest lake in the state, Lake Winnebago to

Green Bay and Lake Michigan is so polluted that it is impossible to have a fish live in it. We have attempted to plant fish in that river and have had the fish die within two or three hours and wash up on shore and it is traceable directly to the pollution that is dumped in by the paper industry. Then located on a lot of our trout streams and smaller streams in the state are small cheese factories and creameries, and so forth. Now, the fact that these are industries that employ great numbers of people creates a problem. I think we are the second in the state in the Union in paper. When we move in we have adequate pollution laws on the Wisconsin statute books. We can in a week enforce the pollution law but if we did we would put a tremendous amount of people out of business. There would be unemployment of skilled men in the paper industry. The farmers would strictly object to having their cheese factories shut down. As a result, we are trying to use a little bit more tame methods in controlling pollution. We are trying to get the industry to control its own pollution. As a result, the paper industry has set up a plant for the turning of the paper mill wastes into yeast for feeding stock. They have a vanilla plant in one of the cities making a substitute for vanilla and similar things like that. Now, I would say the next important factor would be draw-downs and that applies particularly to those reservoirs on the Mississippi River and also on some of our inland reservoirs. On the Mississippi River, there was a time when everybody concerned with that question said that you couldn't ruin the fishing in the Mississippi River; that it was there forever; that it was the greatest fish hatchery in the world, but after several drastic draw-downs during the war, the population of fish in the Mississippi River was so greatly

reduced that fishing was almost ruined in the river and our neighboring states, Minnesota, and Iowa, are now carrying on a big project on the Mississippi River to see if we can't improve fishing on that river. In the southern part of Wisconsin, our big factor is carp and we have found from bitter experience that carp take the place of game fish and carp are not game fish in Wisconsin. We pursue the carp wherever we can find them and get rid of them. We have no size limit and we take them from minnows on up to the largest carp. We have a state crew -- a state organization -- for the removal of rough fish and we also permit the taking of carp by contract fishermen. The carp are concentrated more or less in the southern part of the state and we have populations as high as a thousand pounds per acre of carp and when we remove that population within a very short time our game fish come back and we have larger populations of game fish, so we feel that that rough fish is one of the factors that would limit the production of game fish. Now, there is another factor, on the Great Lakes, and we have two, Lake Michigan and Lake Superior, and that I believe is regulations. We have, ever since the Fish and Wildlife Service started their investigations back in 1933, attempted to establish regulations that are uniform with the other states. We have met with Michigan, we have met with Minnesota, Illinois, Indiana, and all of the states bordering the Great Lakes that border Wisconsin, and I believe one of the reasons for depletion of Great Lakes species is because we have never been able to agree on regulations. If we have a two and a half inch mesh, Michigan will have a two and three eighths mesh, and then our fishermen will complain until they finally get a mesh size down to two and three eighths and Illinois

and Indiana will have the same situation. Now, here about four or five years ago a treaty was proposed with Canada and the other states bordering on the Great Lakes. We were in favor of that treaty and we feel that it is absolutely essential if we are going to control and patrol and regulate the Great Lakes fisheries. That's still laying in Congress and I think any resolution that this conference would pass to push through that treaty would be a well deserved action. Thank you.

PRESIDENT RIDER: Ohio opposes the treaty.

MR. OSBORNE: For Illinois, we oppose the treaty.

PRESIDENT RIDER: We will get into that a little later. Before calling on Minnesota, I want to call your attention to the fact that this group passed a resolution last year which Chester Wilson, in a letter to me about two weeks ago, stated was very effective. It was concerning the Mississippi, and he told me that because -- chiefly because of this resolution that they went to work and achieved some very constructive objectives. Mr. Willard is here right now and will tell us about the results.

MR. HUSTON: No, he left.

PRESIDENT RIDER: Oh, did he leave? Well, you probably, Mr. Huston, in your discussion of fish, can tell what he did regarding that Mississippi Valley organization.

MR. HUSTON: I think Mr. Swenson or Mr. Johnson will know.

PRESIDENT RIDER: Will you report on fish for Minnesota?

MR. SWENSON: I would like to, in order to cut time short, Swenson of Minnesota, I would like to touch just a little bit on regulations, because I think the points that Mr. Sprecher covered in Wisconsin just about fits Minnesota from every angle. However,

there may be some special points that I would like to call on Doc Johnson for later. In Minnesota, the Legislature sets the general fishing regulations. That is, they set the dates and the bag limits and the Commissioner has the authority to reduce bag limits and change dates, and so forth, on species that he feels need further protection. In addition to the regular authority and seasons, the Commissioner has authority through the last Legislature to set up not to exceed fifty lakes in the state where he could set any type of fishing regulations, dates, bag limits, method of fishing, and so on, and the purpose of that was to try to do something experimentally at least on lakes that have overcrowded fish populations, and that we haven't gone along far enough with yet to have any real substantial report, but we feel that we are definitely on the right road to reduce some of this overcrowded fish population. One point I would like to bring out is that our zones are definitely set, that is by dates, and soon we are going to have to make some sort of a change to try to get together with Wisconsin, especially on trout opening dates, and we would like to get the information we can in regard to weekend openings. That is how the other states feel about weekend openings. We are sending out questionnaires throughout the states to the various organizations to find out how they feel about it. There is some feeling, of course, both within and without side of the Department that weekend openings would be some advantage. We are not in position yet to say, that would have to be said by the Legislature, of course. Now, we do all we can in Minnesota the same as Wisconsin does to hold down the rough fish population. We take rough fish by state crews and contract, permit fishing, we issue permits to,

I believe, something like two hundred individuals and sportsmen's organizations to operate carp traps in the spring and summer during the spawning runs and our regulations for our contract and permit fishermen are that it is unlawful to return any rough fish to the waters in their operations, that is regardless of what size. Now, I am not going to go over any more because I believe what Mr. Sprecher said in regard to the draw-downs -- he took care of the border waters and the pollution adjacent. We have, I believe, I would say approximately the same in Minnesota and we felt the same way, of course, about the Great Lakes treaty. Now, I believe that Doctor Johnson probably has some special remarks. I think maybe he has.

PRESIDENT RIDER: Doctor Johnson, you are recognized.

DOCTOR JOHNSON: Well, in the interests of pushing this meeting along, I would rather let you go through the roll call of states and then if a discussion develops, some special point might be talked about.

PRESIDENT RIDER: Permit me Doctor Johnson to ask you this question, will you make that report for Mr. Wilson, that Chester Wilson would have made had he actually been here? I would say we have in this organization three outstanding men insofar as working with the Congress is concerned. Chester Wilson, I. T. Bodie, and above all, Livingston Osborne, who is Chief Counsel of the International and who is Chairman of the Legislative Committee; he has spent a lot of time and a lot of effort and has been most effective and successful with the Congress, so I would like to honor Chester who wasn't able to get here. I would like to have a report on that matter in the general discussion. Missouri?

DOCTOR HERNDON: Mr. Chairman, Herndon of Missouri. I would like to state that our most serious problem of limiting factors of production is siltation. We have a long term watershed management plan which, of course, is on a cooperative basis and requires a lot of time. In the meantime, we must find more immediate approaches. The other problem is over production, over production of anglers in proportion to the fishing opportunities and over production of the unwanted species. The latter we attempt to control through regulations putting the fishing pressure on the less desirable to relieve the pressure on the more popular species. The other more immediate approach is creation of new waters. We have had for many years a statewide farm pond program under which some ten thousand farm ponds are developed annually; then we have our own lake development program, a program for acquiring, creating and developing state-owned lakes of not less than a hundred acres in an area. We are not yet able to do very much with stream management. We have some twenty thousand miles of streams in Missouri; too little is known about it. We have had for three years a continuing inventory and census program on a statewide basis which we believe in a few more years will give us some of the needed answers. I think in general that states our problem.

PRESIDENT RIDER: Mr. Osborne, will you report for Illinois?

MR. OSBORNE: Well, first, might I say that Buck Rider is modest; he neglected to say that he himself was, I think, the greatest factor of all in the passage or the recommendation of the passage of the right kind of national laws on conservation and the defeat of those, that were not what we wanted and more than

anyone else in the country, I think Buck has spent more time this last year than anyone else, and I think he should get the credit, not some of the rest of us. Our fish man, Sam Barr, isn't here, but I will do the best I can to report on fishing in Illinois. Of course, a great problem is pollution, the same as the rest of you, and we have it in industry and from the cities and from the coal mines and from the oil wells and the individuals, and soil erosion and siltation which we just heard about. The state set up a water board and when complaints are filed, the investigator is sent out immediately, one or two of them, and they make their reports to this secretary of the board and he investigates further and investigates through engineers and calls a meeting of the board and then we call the industry or individual, or whoever it happens to be wrong into a meeting, and if a finding has been made that that individual or concern is guilty, an abatement order is issued to be effective at a certain date. If it isn't effective on that date, then the board is authorized to ask the Attorney General to proceed against the individual or concern and then they are fined a hundred dollars a day until the nuisance has abated. We have cleaned up a lot on the Illinois Rivers and streams since the war. We had so many industries there that were dumping pollution into the streams. I think we are pretty close to the top now according to the survey. On erosion, we are trying to teach soil conservation, contour plowing and replanting the trees on the hillsides, and teaching farmers not to overgraze the hillsides with their cattle and things of that sort to prevent silt in the streams. A good many of our lakes in the southern part of the state have been drained for farmland and the district is now broke and the

Government has spent a thousand dollars an acre trying to appease individuals down there. They should go back into lakes again to give hunting and fishing and recreation and to prevent floods. We believe that if we go back to nature and do not straighten out our streams and let the water go back to these drainage districts, that our tremendous floods that we have every year destroying two and three hundred thousand acres of crops will be over with. We have a building program of new lakes. We started that about five or six years ago. The Legislature has given us five million dollars already and we expect to get a much larger sum than that in the next session. We have gone to every county in the state, surveyed every possible site, amounting to over a thousand sites and we have checked from a topographical standpoint, and engineering standpoint, to see whether or not it is possible to get the water, and the amount and kind, and whether we can hold the water, and the value to the neighborhood, and we expect to end up with about a hundred new lakes in Illinois running from probably a hundred acres to several thousand acres per lake, and this will do much towards not only recreation, hunting and fishing, but also our water table in Illinois which dropped 47 feet in the last thirty-five years; that is, the underground water table; the deep table; because industry and people who formerly used surface water in lakes and through their water in the rivers are now going down deep into the bowels of the earth for their water, and our water table can't stand it much longer. So it is essential that we get clean water on the surface, so industry and golf courses, and cooling systems, and other things that are going down deep into the earth can use that

particular water, and then we must have some regulation or control on deep wells, in my opinion, in Illinois. I think a lot of our trouble in the past in fishing has been lack of proper management, not only from the pollution end of it, but from the unbalanced part of our ratio of fish. For instance, we have been taking game fish out of the lake and leaving all out of the rough fish and certainly if we are going to interfere with nature, which always gives you a natural balance, by removing the good fish which is the game fish, the edible fish, we should remove a like amount of rough fish, and then nature will take care of itself. Another thing is that we didn't realize until recently, I think it has become nationally known that a great many times we have poor fishing because we have too many fish in the lake rather than too few. Heretofore, when somebody would complain, when the fishing was poor in the lake, without a proper investigation, we would seine. I wouldn't be a bit surprised, and I say this not being a scientist, and apologize more or less for saying it, I predict that we will have practically no closed season on fishing or no bag limit, or numbers of fish. That may be a radical statement, but that happens to be a personal theory of mine. Our licenses for fishers have tremendously increased; we have 8000 out so far this year. A few years ago we only had about 250,000 out a year. We probably will sell close to eight or nine hundred thousand fishing licenses this year, which shows you the pressure we have in Illinois which has been quite drained.

PRESIDENT RIDER: Thank you, Mr. Osborne. Gentlemen, I know that Michigan is well represented here by Doctor Hazzard and Mr. Westerman, who can give us real information, and rather than

to have them rush because of the noon hour, I would suggest that the conference recess until two o'clock. Come back promptly at two, and be prepared to stay until about six, and let's give this fish situation a good going over. Does that meet with your approval? Go right out for the group picture immediately, will you, please?

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AFTERNOON SESSION,

Saturday, July 17th,1948.

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PRESIDENT RIDER: Gentlemen, let's come to order and before we start in on the continuation of the fish program, we have here visiting us at this moment a Mr. Anderson, who is biologist of the Winous Point Club. That's a private duck club here and it is made up of a private membership, and they do an excellent job of management; in fact, on most the things the state could not do. Mr. Anderson, you are recognized to tell them a little about your marsh and extend the invitation to anybody who would like to visit it tomorrow.

MR. ANDERSON: Well, the Winous Point Marsh is over here on the west end of Sandusky Bay. It is about fourteen miles from the end of the Peninsula, over there off to the southwest, and unfortunately at the present time we don't have a boat which would take you out into the bay, which would give you the best view of the levees, which we have had to put in in an attempt (notice that I call it an attempt) to keep Lake Erie from flooding the marsh, and drowning out all of our vegetation and destroying all the nests as she has done for the past three years, and as you probably know, the only way to really see the marsh is in a punt boat, and you can only have one man to the punt boat. So we are up against the problem of how to show you the marsh, but the thing you would probably be chiefly interested in is some of the construction work such as the levee that I already mentioned, and then there is a land use practice along Lake Erie which should be of interest to you conservation men. For the last few years, Lake Erie has been at

such a level that the farmer who has been raising soybeans here along the lake finds it so much trouble to keep the water off his soybean field or his cornfield, or whatever it may be, that instead of pumping the water out of his cornfield he turns around now and pumps the water in, and he is trying to raise enough muskrats to make more money off of his muskrats than he did formerly off of his soybeans. They usually rent the shooting privileges to a club and if you care to, after looking over that marsh, we might go over to see another one which the man is just starting from scratch. There is a wheat field standing there now, and about 40 acres of millet, the man has just sown, and it will give you some idea of the battle that's going on between the Lake Erie and the farmer, but I'll be out at the club tomorrow before noon and any of you gentlemen who do happen to drive out that way I'll be glad to show you around the club.

PRESIDENT RIDER: Thank you, Mr. Anderson. Doctor Martin tells me he hasn't yet heard from you gentlemen about the trips. Now, those of you who may be interested in marsh management, we'll be able to show you not only Winous Point which is one of the most intensively managed areas in Ohio, but one or two others. The fact of the matter is we can spend a whole morning or a whole day, we can show you as much as you would like to see in this marsh management work along the lake, but remember, will you please make arrangements with Doctor Martin? Now, if there are men here who would like to see the strip mines areas of Ohio, we'll spend a day showing you that work; if there are men here who would like to see some of our recently established restoration projects, we can well spend a day or a half day at that. Anything you might want to see

we are at your service to show you. Now, proceeding with the discussion on fish. I wonder Mr. Westerman, if you won't now report for Michigan?

MR. WESTERMAN: Why, I think our situation in Michigan may be compared quite well to what some of the other speakers had to say this morning just before we adjourned for lunch, particularly Mr. Sprecher, from Minnesota. One of the factors that we feel is largely responsible in limiting fish production, pollution, certainly is one to be seriously recognized. I don't think we have quite as extensive a pollution problem as Mr. Sprecher pointed to in some of the Wisconsin streams but still it is present, and it is seriously present in a few localities. We are undertaking to do something about it in the state of Michigan, we have the Stream Control Commission, an agency that is set up to operate under the state pollution laws, and which consists of effective heads of several state appointive and elective agencies with Mr. Adams, as some of you men know, as the Executive Secretary and Engineer, and a man who is largely responsible for directing pollution control work in Michigan. We think we have made considerable progress, but it hasn't been too fast, and perhaps like most states, if anything, we lost ground during the war, but for one thing, it seems to me we have today a much greater aroused public interest in this pollution control problem than we have ever had before. People are actually beginning to think about it, and when they do that, I think they are going to do something about it. Soil erosion is another factor that we certainly recognize as limiting fish production in many waters. That is certainly true in the agricultural section of the state, and it is

to some degree true in some of our more northern sections of the state, in our trout waters. Much of the erosion there probably is due to the logging era when tremendous quantities of logs were floated down those Michigan rivers, and which started serious bank erosion. Much of the sand, and sand I think we are all pretty well agreed is rather unproductive of fish and fish food, so we are concerned with trying to control sand erosion in some of our trout streams, and in the agricultural section of the state there is developing a more active interest in soil conservation practices among the agriculturists, and that certainly is a move in the right direction, trying to keep soil on the land where it belongs, and out of the streams where we don't want it. Cover on the watersheds, we think, is of tremendous importance, too, particularly in the trout country in the north where the removal of American timber and the frequent burning that took place before fire control was practiced, resulted in denuding the cover off of a good many thousands of square miles of northern Michigan. Well, that, to a great degree, has now been corrected through forest fire control, and management, which has been a very important subject in our Conservation Department in Michigan for a good many years, so that we now have covered to a degree where Harry Ruhl's men are wanting to burn here and there a spot to have a little bare ground for something in game bird work, and experiments, and I think this recovery of cover on our watershed in northern Michigan is a very important factor, has a very important bearing in undertaking to stabilize stream flows and when you do that you help to maintain temperatures, too; it helps to reduce maximum floods, and to some degree to control minimum low periods of flow. In our state we

have a diversity of soil conditions. Michigan was, of course, a glaciated state, and much of the cover or much of the soil in the state is not of too high a grade, not to be compared with your agricultural land here in much of the state of Ohio, which gives you, of course, rich bottom soil in the lakes. We have often observed it, made a good many studies, and analysis of even the Great Lakes, where we have said that Lake Erie, next to Ontario, the smallest body in the Great Lakes, yet there have been years when it produced larger quantities of fish than any of the Great Lakes. I should say all the Great Lakes some years ago. Lake Superior, the largest body of fresh water in the world, has a record of producing greater quantities of fish than any of the other Great Lakes, which we think symbolizes this factor of bottom soil, and that factor is present in a great many of our inland lakes. We are much more fortunate than some of the states represented here. I guess Minnesota has probably more inland lakes than Michigan and Wisconsin has many or more, but we do count up to about 11,000 bodies of water large enough to be considered as inland lakes, and widely distributed over the state, so we don't have any problem. We are not too much concerned with trying to make more water. Ours is more a problem of trying to manage what we have, so as to get the most from some of these lakes. Some of these northern lakes, where the bottom is very poor, largely sand and sometimes rock; we are concerned with what perhaps can be done to improve the natural food or fertility in those lakes. Al Hazzard here, as you folks know, is Director of our Institute for Fisheries Research, and we have been carrying on some experiments along that line. Hardly gone far enough yet

to give us the answer, yet we think it has some possibility. We are not sure it is going to be practical at all. Now, further, in connection with work that Al's been doing has led to quite a change in our fish management program in Michigan in the last few years. We think we are beginning to benefit from the results of this research work and demonstrate the work that has been carried on several years ago in Michigan and our Commission approved quite a radical departure in our fish management program both as relates to our trout program and to what we call warm water fish. On warm water fish, we have adjusted our stocking program so that it is now limited to water where we feel it is desirable to introduce desirable game species, or to waters where due to some catastrophe like winter kill, or serious pollution, the population is eliminated, and you need to start over. It means that in planting for maintenance which is the backbone of the planting we used to do has been eliminated, and therefore there isn't a great need for any large amount of undertaking to propagate the warm water species of fish. I say propagate rather advisedly because in warm water fish handling I don't think it is just the right term perhaps, because they have never been propagated. Ours is to provide the most suitable conditions in controlled ponds and then transplant them as fingerling generally speaking. The work, on the trout side of the picture, has been in progress for some years and we have moved from fry planting to fingerline planting to now legalized planting, and at a goal of about a million, which at the present time is about the capacity of our established hatcheries or I should say more properly perhaps winter holding ponds. We have plenty of hatchery space and even for the production of a larger number of fingerlings by

the over winter holding, which is necessary to bring these trout to legal size, seven inches in Michigan, that is sort of a bottle-neck, and there are questions in our mind right now whether we need to expand much beyond the million. We have been carrying on a marking experiment, or rather a marking demonstration, put it that way, with our legal sized trout over the last two years. We mark practically all of our legal sized fish before planting. Last year, '47, the dorsal fin was removed, this year the adipose. Now, that was done largely to permit the anglers themselves to determine what part these hatchery planted fish took in their trout fishing program in Michigan. We are certain that in some streams it adds little or nothing. In other words, there are some streams that we don't stock at all. There are other streams where plantings are more concentrated, and in practically all of them where we are doing this planting we also have the benefit of much natural reproduction, and we have had a feeling for a long while that the average sportsman really hasn't appreciated the contribution that the natural reproduction makes to the trout or even the warm water fish they catch. As a matter of fact, in our warm water fish program we think it is even more pronounced than it is with the trout. I don't mean to say we are not planting some sub-legal sized trout; we are actually, numerically speaking, planting no more sub-legal sized trout than we do legal size, because in order to insure having all we need for rearing the larger size, we have to stock with more than we need and we are planting off a surplus, but I think we have some lakes -- in fact, we are adding to our number of lakes suitable for trout as we expand our research. We think that has been a real contribution in our Michigan program in

adding to the trout waters by stocking trout into some of these lakes that we find to be suitable, and these lakes apparently are going to call for more or less continual and repeated stocking, because as far as we know there is a little, if any, successful reproduction of trout that we find to be sometimes suitable for trout, so that seems to be the appropriate place to use a good part of the hatchery trout. Our experience has indicated, too, that generally speaking, the loss of the trout planted in lakes are significantly less than are the trout planted in the streams, especially that's true in connection with, say, fall plantings, and on that point, and in connection with the trout planting program, we now have carried it to a point where our planting in streams is done before the season opens in spring, and through the season. Actually, it means that most of the planting is done throughout the open season in the more northerly sections. Some years it is not practical to do scarcely any planting before our season is open due to the road conditions and the stream conditions. So most of the planting is done during the open season. Now, the biggest criticism I think that we have had to meet in this distribution of legal sized trout is to get them well distributed in the waters we want to stock, that is in the stream. It isn't a problem in the lakes, but it is a problem in the streams. We are getting away from these so-called bunch plantings. We certainly have found that these fish do not seem to distribute themselves or move, generally speaking, very far from the locality where we put them, so we have had to, at more expense, of course, spend more time in planting, using boats in many streams where we can, and trying to avoid actual carrying as much as possible and planting fewer numbers, and planting more

often throughout the season. Actually, some streams will be planted four or five, or perhaps even a half dozen times through a single season, and we are aiming to discontinue about three weeks before the season closes and this type of planting trout is very decidedly on the put and take basis -- put them in today and take them out tomorrow. Apparently the sooner they are removed by anglers, the larger the number they take. At least, that's our experience, and we find the opinion of anglers quite a little bit divided, we have some so-called purists who apparently even dislike to take a hatchery trout and would be satisfied with little or no planting. On the other hand, there are a large number of people interested in trout fishing who are perfectly satisfied, in fact, derive considerable pleasure from the possibility of catching trout whether they are hatchery planted or wild, and it looks from the analysis of the marking that we have carried on through these two years and from the reaction we are getting from sportsmen that they are going to want a continuation of it. If not perhaps even demand more before we get through. In connection with regulations, the tendency in our state now is decidedly in favor of liberalizing regulations. In other words, making it possible for people to spend more hours and more days on our waters. That's not so true on trout, although we have right now a little extension and this is more than we have had in some years due to the fact that the Legislature saw fit to extend our trout season beyond Labor Day to the second Sunday in September, inclusive, which means it adds about a week or ten days. We have a rainbow season that goes beyond the regular trout season which is through the months of September, October, and November, in most waters where trout are

more or less isolated. That is, where there is not a high population of brown trout or brook trout, and that list has been added to. The plan was initiated a few years ago and we believe it is working satisfactorily and is on the side of liberalization and permits definitely the harvesting of many of these large rainbows that move into some of our streams, tributary particularly to Lake Michigan, and Lake Huron, some in Lake Superior. On the warm waters side we have liberalized there by areas. That is, about two-thirds, the northern part of the state has been opened to year round hook and line fishing with protection on black bass and bluegills and northern pike and walleyed pike under those species. In other words, there is no closed season on perch at any time in that part of the state, bullhead and some other species that are commonly taken there. Calico bass and rock bass and so on. The sportsmen have accepted that quite wholeheartedly. As a matter of fact, at the annual convention of the Michigan Conservation Club, which is the largest sports organization in our state at Sioux St. Marie last month, they adopted a resolution favoring the removal of this closed season even in Region 3, which is a metropolitan section of the state, so that indicates the sort of reaction we are getting from our public, and it may come up before the Legislature this winter for adoption. We haven't agreed on our recommendations that will be made to the Legislature, it hasn't come before our commissioners. No one said anything from the neighboring states. I think I should mention it since the preceding speakers didn't see fit to, because it ought to be brought to the attention of your Midwest Association here, and that is the minnow bulletin that recently came out and it has been widely distributed, that is, in

the three states. The history, briefly, is that a year ago last winter when our little organization in Wisconsin and Michigan were having their annual get together up at Higgins Lake with representation from Fish and Wildlife Service present, we got into quite a bit of discussion of the problems surrounding bait minnows and it developed that each of the three states had rather similar problems, that of meeting the increasing demand for big minnow in fishing during particularly certain months of the year, so the three states together with Fish and Wildlife agreed to pool their interests or rather their information and combine it into a bulletin which the Fish and Wildlife Service agreed to publish, and recently came off the press. Doctor Hazzard had one in his hands, this is it. We in Michigan bought five thousand copies; we paid for them at the cost of the printing, and I think Mr. Sprecher told me their state did the same thing. I don't know how many Minnesota bought, but I know they also were interested and perhaps got as many or more. In Michigan we are making a copy available gratis to all of the licensed minnow dealers that we have in the state, and there are some 1500 of them at the present time, and then we are offering them for sale to other interested parties who may want them, and the announcement brought in quite a lot of requests for them. I am sure there will be a distribution made to neighboring states. If they haven't gone out already, you will probably be getting them, Mr. Rider, your state, and the other states as well. We think this is going to be quite a helpful contribution to some of these people that are interested in this forage fish problem, and big minnows problem. Up to a few years ago, our bait dealers were saying they couldn't afford to raise

bait themselves, as long as they were able to get it from public waters, but the increasing habitation resulting in scarcities in some localities and the increasing prices that minnows are bringing now has made quite a few dealers conscious of the possibility that they are producing a part at least of their own supply, that they are willing to, so this bulletin is intended to be of some service to them in that connection. I was glad to hear Mr. Sprecher speak about the regulation on the Great Lakes, because we in Michigan also are faced with, I think perhaps, the most complicated problem of any one state due to the natural shape of Michigan and the fact that we front on four of the five lakes. The fact that Michigan controls twice as much surface area on the Great Lakes as the seven other states together and Mr. Sprecher referred to the problem on Lake Michigan, which is just as much a problem in Michigan as it is in Wisconsin, but with us it is also a problem in dealing with our Canadian people on Huron and Superior, and Erie. We have only a small stake in Lake Erie, still it has been somewhat of a problem there, and we in Michigan, like the people in Wisconsin, when I say "we" I mean our Conservation Commission, and Department, because commercial fishermen, I am frank to say, haven't viewed it quite the same way. We believe that the treaty, the International treaty that's been proposed as a mechanism to provide for the eight states fronting on these Great Lakes and the province of Ontario, which is the only province in Canada affected, we feel that it would provide a mechanism whereby some of these complicated problems could be worked out. Our experience in Michigan there has been something like this. I don't want to make this too long, but briefly, in

Michigan we don't have authority for the Department or Commission to make regulations affecting commercial fishing. We have two laws that specifically forbid that, the Organic Act of the Department, and our socalled Discretionary Power Act in Michigan. We have to go to the Legislature. We had the experience of meeting with Ohio people and people on Lake Erie here, and perhaps more particularly in dealing or trying to deal across the line with the other three states on Lake Michigan. We can agree reasonably well, but we couldn't deliver, because the Legislature didn't see fit to enact the regulations that affect Lake Michigan to a considerable degree because of the experience with similar problems on Lake Huron and on Superior, and Lake Erie. The result is that we haven't made much progress in trying to deal with some of those problems where the fish certainly don't recognize either the state or the international boundary lines. We are not thinking of it in Michigan in terms of uniform regulations right across the line on all five lakes, but rather that we can have uniform regulations where the conditions call for uniformity, and deal with lakes as units or with sections of a lake, if that would seem right, and there has been a good deal said about wanting to bring Lake Michigan -- giving Canada something to do with Lake Michigan. Well, now, that's a misunderstanding because the treaty doesn't do that at all. Lake Michigan specifically was brought into the problem or into the picture because of the feeling of the three or four states there was a tool that could be used and it is only the United States members of this International Commission that would have anything to say about regulations on Lake Michigan except as they might take into the overall picture. I don't know whether that has

a proper place in your group meeting here at all, but Mr. Sprecher, as I say, raised the question about it, and I sort of wanted you folks to know a bit more about how we feel in Michigan about it, because I do think it is an opportunity to accomplish something that many people have felt has been vitally necessary for a good many years. Our Michigan records will indicate that going way back to the early '80's, the problem was recognized as one that should be dealt with in some way where a semblance of uniformity might be assured. I have already talked too long. In summary, I am going to say that I think the thing we need perhaps most of all to manage our fisheries best is more information. In other words, I think we need more of the kind of work that Al Hazzard and these boys are doing. I think it was delayed too long in getting started, and it seems to me the more information we are getting out of his organization the more we'll be beginning to realize how broad the field is and how many problems there are, the answers to which haven't yet been found so I for one subscribe wholeheartedly to a broad program of investigation and study, and I don't mean to say that isn't needed, but I think in the past it has been greatly overemphasized, and that in the future we are going to do with much less planting fortunately than we did in the past.

PRESIDENT RIDER: Thank you, Mr. Westerman, and Doctor Hazzard, do you wish to express some opinions at this time?

DOCTOR HAZZARD: I think not, Mr. Rider. Later in the discussion I'll be glad to contribute if that seems to be called for.

PRESIDENT RIDER: And Mr. Wickliff, will you now present Ohio's views?

MR. WICKLIFF: I believe, Mr. Rider, the preceding speakers have outlined at least the major factors involved in the production of fish. In Ohio, we have made investigations of our lakes and streams for a period of about thirty years. We have a mass of data. We are putting it into effect, and I believe are getting results. In our streams we have worked hard, probably harder than our lakes, but I am sorry to have to admit that the work has not been fruitful from the standpoint of increasing productivity. Mr. Rider this morning mentioned that the major factors are floods and drouths, and if somebody can determine some day what to do about these two extremes, we'll be happy in Ohio. Personally speaking, I believe the Soil Conservation Districts offer the best possibilities for this type of program, and if we can unite soil and water along with wildlife, in eighty-eight county districts in Ohio (we have about sixty-six now) adequate funds are provided for technical and other services, I am firmly convinced we can do something with our streams. Mr. Rider mentioned this morning that we have 138 W. P. A. low dams in the state of Ohio. We have been checking these since 1935. Unfortunately after floods you will find that the dam washes out around one end, around two ends, under the bottom, or a big tree comes down, or something else hits it, and knocks out a chunk, and away goes your dam. If that doesn't happen over a period of years, we have the problem mentioned this morning, siltation, and they begin to fill with mud. We have worked one stream thirteen years, and several of the dams at the present time contain less water back of them than the original pools thirteen years ago. What are you going to do about it? It is unfortunate we don't have the answer in our streams, but our Commission,

and our Commissioner, has provided funds for what we think is the best answer to the problem in Ohio, that is the construction of upstream or headwater reservoirs. We are not blessed with 10,000 more or less lakes, like our neighbors, Michigan, Minnesota and Wisconsin; in fact, we have practically no natural lakes in Ohio, and we go out and admire a new fishing lake of 100 acres. We manage these headwater lakes and they provide fishing for large-mouth black bass, crappies, bullheads, bluegills, and other pan fish. Our larger state lakes are called recreational lakes, and the smaller lakes provided from hunting and fishing license funds, are fishing and hunting lakes. Our Commission does not allow motors on headwater lakes, and we believe that by putting our money in these upstream reservoirs we can provide better fishing for a smaller amount of money than we can in the streams at present. Mr. Westerman mentioned about tagging. I believe he was talking about trout in Michigan, how they stay put. Well, I wish he'd come to Ohio and show us how to do it with warm water adult fish. The beautiful smallmouth bass and rock bass you catch right out here and the nice channel cats and bullheads you catch a little farther out from shore do not stay put in a stream. Since 1930 we have purchased several hundred thousand fish tags. They have been placed on adult fish, stocked from Lake Erie and other places, and when you release these fish in a stream, they seem to do just one thing, and that is to go downstream. If you can tell us how to hold these stocked adult fish, not natives, we would like to have the answer. We have tried low dams, it doesn't work; we have tried high dams up to 60 feet, they don't work; the fish keep right on going downstream. The best system of stocking, if you

can call it a system, is to put all these fish just as far upstream as you can, and as they go downstream, the Ohio fishermen have access to them until they leave the state. We have some records as far downstream as several hundred miles. In 1946, our Commission decided to open nine lakes experimentally, with no closed seasons, no legal lengths, and no bag limits. This makes the third year. We conduct a creel census, do shore seining, operate test nets, fin clip and tag fish from these nine lakes. To date we have not found evidence of over fishing or depletion. We have a printed fish policy and it is being passed around. If you have any questions, we'll be glad to try to answer them.

PRESIDENT RIDER: Well, gentlemen, that completes all the statements, and we are now ready to go into a discussion. It is my feeling that we should have a discussion on this matter of pollution. I feel that we should thoroughly go over this matter of unrestricted fishing. I, for one, will tell you that when my Commission passed the resolution on unrestricted fishing, that I was not too much in favor of it. I was just a little timid, and when they passed a resolution to open up nine areas, I almost fell off the chair, for two reasons: I thought we were going to go to purgatory and hang pretty fast, and second I realized that to get real information on nine areas it was going to cost hundreds of thousands of dollars, and it was my wish and my hope that they would open up possibly one lake and one stream, and we then would have had to spend only ten or fifteen thousand dollars to get accurate information on test netting and creel census work. I am convinced after three years that we are definitely on the right track. I think possibly it will take another two years to convince

everybody beyond the shadow of the doubt, but there is every indication so far that we are on the right track, and nothing to indicate that we are wrong. Fishing has improved. If you watch our test netting going on, you would certainly realize no man with any number of lines and hooks could possibly, that is rod and reel fishermen, take the fish out to the place where there wouldn't be a reproductive broodstock left, so I think we need to give that a lot of consideration. I think we need to give a lot of consideration to the value of hatcheries or fish farms. I am of the opinion that we can't get rid of them all together, but I am also of the opinion that the -- except in new waters and in corrective stocking -- millions and millions and millions of fish that have been stocked in Ohio streams and lakes were of no real value insofar as making better fishing was concerned. As to pollution action, we had here about two years ago an Attorney General's opinion, which went like this, and I believe it would go for most states in the midwest if the Attorney General rules rightly. The Attorney General ruled that fish and wildlife, being the property of all the people, was the property of the state, and where fish or wildlife was illegally taken, killed, or damaged, that the Ohio Division of Conservation, which is charged with the care and protection of fish and wildlife, could ask damages and sue for damages. Since that Attorney General's ruling we have collected from the Electric Auto Lite of Toledo, Ohio, because of fish killing, some $18,000, and some couple of million of minnows. We have collected from the National Cash Register Company of Dayton, Ohio, what was it, Ed, ten, eleven or twelve thousand dollars?

MR. WICKLIFF: $12,000.

PRESIDENT RIDER: So wherever we have a killing now, we immediately go out and count the fish killed, and submit a bill to the concern that produced the pollution, or released it. We now have pending a suit against Troy, Ohio, and this will get right at a tremendous problem for us. We not only have industry polluting in Ohio, but we have municipalities, and a lot of these municipalities claim they just cannot afford to build the proper treatment facilities. We have collected from industry and we are in the act of suing the city of Troy, Ohio, to collect for a fish killing there. If we can win that suit, unless some cities of Ohio change, we are going to collect a good many hundreds of thousands of dollars, in a very short time, from these municipalities. We should discuss vegetation control, the control of rough fish, the elimination of silt, measures for stream and lake management, desirable research and many other factors. Well, let's have a good round discussion of this, gentlemen. Who wants to speak first?

MR. SPRECHER: Mr. Chairman, I'd like to ask one question.

PRESIDENT RIDER: You are recognized.

MR. SPRECHER: How much do you charge the industries or the municipalities for fish? Do you have a flat rate, or do you charge them by species?

PRESIDENT RIDER: Mr. Wickliff, will you answer that question?

MR. WICKLIFF: It is charged by species, the relative lengths, and the market value of each species.

MR. SPRECHER: You determine that?

MR. WICKLIFF: That's right, we determine that.

PRESIDENT RIDER: Now, I will say that in this matter of

collecting damages, I have never been quite certain if we really tied into them and went to court, we could make it stick, because our method of taking that count. It of course is not perfect. In the Electric Auto Lite case we had to make some adjustments in our original count. Didn't we knock out some suckers?

MR. WICKLIFF: That's right, and some coarse fish.

PRESIDENT RIDER: And finally the adjustment was made when we knocked those coarse fish off, but even then their New York counsel said that he did not believe that in the higher courts of this land we could sustain that count; he did not believe that it would be acceptable to the Supreme Court, but the proof of the pudding is they paid right through the nose, and they finally were anxious to get out of it. Likewise, with the National Cash Register of Dayton, of course, in both cases, the white heat of publicity was turned on them and they didn't like that a bit because it got pretty rough and pretty tough.

A VOICE FROM THE FLOOR: By what means do you prove that the cause of death was pollution in the stream?

PRESIDENT RIDER: Well, you see, we have a full time pollution engineering section with two very capable chemists on the job, and this Electric Auto Lite case happened to be a case with just two great concerns located on the branch of the Miami River, the Columbia Record Company upstream from the Electric Auto Lite, and we traced it immediately to an outlet of the Electric Auto Lite, and for further proof of it within twenty feet above it towards the Columbian Record they were catching fish, good fish, and below that outlet it was bad. Now, in National Cash Register case of Dayton, we checked that back and

checked it back so close on them and had them tied up so tight that finally they had to admit that they had a house cleaning of their plating plants, vats, and their mistake was made and the wrong valve was turned and it happened; they finally admitted that and were quite glad to settle. But we carry two full time pollution engineers and you must have them available to go right on out there and actually get the records and trace it out in such a fashion that it will hold in court. I might mention this one thing to you, I think we are ahead of Pennsylvania on this, Charley French called and he said, "Now, we are going to follow your example and make a collection, I think we are going to get fifteen thousand dollars. Buck, they want us to say that when we get the fifteen thousand dollars that every penny of it will be used right back in the stream in the very vicinity in which the fish were killed." He said, "Now, where in Ohio can I buy four or five thousand creelable bass?" I told him, then, we made that mistake, we committed ourselves to using this money the Electric Auto Lite paid us not in that immediate vicinity but in the stream improvement or a fish management program on the Miami River Watershed. Well, that's a terrible mistake because the truth of the matter is that very shortly after that pollution had finally cleared up, there were more fish back up that branch of the Miami than before. Now, you don't dare say that publicly but those were the actual facts, so how ridiculous it would be to go down there and stock or initiate a management program. So we now have a policy and a program that where that money is collected, it shall be used in fish and game management or pollution control as are any of the funds of the Ohio Division of Conservation. Our feeling is they

killed the fish, it is up to them to pay and, it is not their prerogative for them to say how we shall use the money.

MR. SPRECHER: May I just ask one question?

PRESIDENT RIDER: Yes, sir.

MR. SPRECHER: We have been discussing it around the edges here and that is your size limit on carp. Do you plan to remove that or do you still intend to take only the large fish that are suitable for the live market?

PRESIDENT RIDER: What do you mean in what program?

MR. SPRECHER: In your program to control coarse fish?

PRESIDENT RIDER: We take all carp. We are doing that in about three different ways. First, we drained completely an eight hundred acre lake. We got it down to a few acres of water and killed everything. We did it because this lake was built, intended to be a bass lake and it turned out to be a carp lake. Incidentally the Division did not build it. We don't know just what the effects that will have. We certainly did kill off everything and treated the bottom under good fish management practices and filled the lake back up again and stocked it. We have a research project there, a man is constantly on that project to determine the value of that sort of work. Not knowing what the value would be, we drained a four hundred acre lake, and took out the coarse fish, held the desirable fish in a hatchery holding pond and put them back in there this spring and continued right on fishing there. We have entered into a contract on Lake St. Marys up until a short time ago until the Army started building these huge impoundments, it was the largest artificial lake in the United States. We entered into a contract there with a pri-

vate individual in which he is removing coarse fish, carp, quillback, and I thought the chap was going to lose his hide because he started from scratch; he is a very enthusiastic sportsman, very enthusiastic conservationist, and had some money and was willing to go after this thing for the benefit of that lake on which he lives, and I was fearful he was going to lose his money because he had to make an investment of his boats and his nets and his crew and his trucks and so on and so forth. But he has had a fairly profitable business out of smoking those quillbacks and I can say having eaten them, I like them much better than the smoked white fish. Now, I guess he is going to do the same with carp, but the fish that he removes belong to him. They are his compensation. But we don't know just how successful that is going to be. It is my opinion that where you have habitat and biological conditions which will produce carp, you are going to continue to have carp, regardless of removing them unless somehow you can effect changes in environment. Now, we are giving consideration in building these headwater lakes to the installation of large valves for draining. We find that we have very very good fishing for one, two, three, four, maybe five years. It is excellent. Then it starts to slacken off and in about the seventh year it is what you could really call rotten fishing. Well, we are going to build those lakes in the future with the idea of a holding pond right beside them and a valve big enough in them to drain them and drain them fast. Hold the desirable fish, go on in there and take care of the bottom, the vegetation, the undesirable fish, fill it up immediately, put the desirable fish back in and let the public start fishing, and we believe that either in a

pond or a lake of the type we are building and these headwater lakes are running somewhere between forty-five and fifty acres up to some four or five hundred acres, we believe that we can keep good fishing that way by draining them possibly about every seven years, wouldn't you say, Ed, isn't that our thought?

MR. WICKLIFF: Seven to ten years.

PRESIDENT RIDER: Now, we don't know and wonder if you can give us any information on this situation, Mr. Hazzard. We know that there is just so much living space there, there is so much food. All right, as you take the coarse fish out, we are wondering, then, whether or not your desirable fish, your bass, your bluegills, or any of the rest of your desirable fish can increase fast enough to compete with coarse fish for available space. Can they compete with the coarse fish that are still left there and we are wondering whether or not as you take coarse fish out whether you shouldn't possibly make a planting of desirable fish? Now, I don't know whether anybody can answer that question. Could you enlighten us on that, Doctor Hazzard?

DOCTOR HAZZARD: I am afraid I couldn't, Mr. Rider. I would like to know that too. The only thing we have to go on in some of our lakes, where we have been transferring walleyes, for example, large sized walleyes, taken below a dam, which prevented their upstream migration, those particular lakes have stunted pan fish and apparently the transfer of a considerable number of those big walleyes year after year hasn't corrected the condition. We were rather surprised when we found that those pan fish were still stunted in spite of those rather heavy plantings that were made. We have another case where the pan fish were stunted and one of

our hatchery men, being a little bit ahead of some of the others, decided on his own that he would try to correct that condition by heavy planting of bass and he did for a period of years and apparently the pan fish are still stunted and the bass are now showing stunting, too, so we are not sure that corrective stocking our predatory species will be the answer. We don't know, frankly, what the answer is. As long as I am on my feet, Mr. Rider, I would like to comment briefly on Ohio's program on warm water fish. I think we, in Michigan, have always recognized that Ohio has definitely been in the lead in the nation in trying out, starting, a number of new progressive fish management programs. They were perhaps among the midwestern states the first to abandon wholesale planting of bass and bluegills and to restrict their plantings to their new reservoirs that they were developing following the experimental work that was referred to on tagging. That certainly helped us in Michigan in taking our step that Mr. Westerman referred to and this is going to be further help, the publication of this very finely expressed policy that appeared in your Ohio Conservation magazine last month and which I assume you are now going to distribute rather widely in the state? We have also followed your lead on minnows in the preparation of this minnow bulletin. We referred to some of your early experiments in the propagation of chubs and other minnows here in Ohio. We are especially interested, I think, in what you are finding and what you will find on your experimental lakes where you have taken off all restrictions. I feel that we can make the biggest contribution to the anglers on warm water fishing by eliminating regulations that are not needed because I think all of us realize that the crop

of warm water fish being produced is much larger than is being harvested at the present time in most of our waters. But at the same time the public still thinks that we should protect the mama bass just like the mama deer and give them every protection on the spawning grounds and the same goes for bluegills in Michigan, too. Bluegill is our number one fish in the southern part of the state, so we are going to be much interested in the results of your work and when I met with your Fish Management Section this spring, I know I got a lot of good information from the results to date on your nine lakes. We have thirteen lakes on which we are trying various things. We were a little afraid to take the lid off as you did, completely, in Ohio. I think you did have a lot of nerve to throw everything out of the window. What we did was to relax certain regulations on certain groups of lakes. That is on one group we simply opened the year around to species not protected during the closed season and another group we took the size limit off of pan fish and another the closed season protection. Our thought was that if anything happened that wasn't too good, we could then perhaps more easily identify the factor that was causing the slump in fishing but our experience so far, and we are one year behind you, we are just in our third year now, indicates that so far relaxing on none of those regulations has had any adverse effect. The fishing in those lakes has been just as good or better than it was prior to relaxing the regulations. Now, how far we can go up in Michigan in our poorer lakes, they are not as productive as your better soil lakes down here, we don't know, but we will progress until we reach the point where dropping regulations has some adverse effect, but I think you, in Ohio, are to be

commended on your progressive program and this step towards attempting to work through the Soil Conservation District, keeping the soil on the land, I think is a very important step, and Missouri, of course, has gone a long way in that work. We, in Michigan, perhaps have been a little slow. I don't think our problem is quite as acute over the state as a whole as it is in states where the slope is greater, where it is hillier and can run off faster, where the soil comes down more rapidly, but still we do recognize that that is an important problem and that we should be paying more attention to trying to keep the soil where it belongs.

PRESIDENT RIDER: Doctor Johnson?

DOCTOR JOHNSON: There are three topics I would like to mention briefly. One is the matter of good fishing that you just mentioned. It has been shared by nearly all lake states this year and in our lakes in particular, the lakes on which we have never had any form of management, have been giving just as good fishing as the lakes we have managed more intensively. We are ashamed to admit it in public. The other topic was one you asked about, the filling of the void when you remove rough fish. It seems to us now that while we may remove as many as fourteen or fifteen million pounds of rough fish from our lakes each year and a void is created presumably through their removal, that unless we can get in there with fish of the more desirable species within a very few months and put enough of them in there, that original undesirable condition will be repeated because the environmental conditions favoring rough fish haven't been altered in the slightest, and Doctor Hazzard mentioned the matter of corrective

stocking. We are very much interested in it, and we are right in the middle of a large program of trying it out. We believe that unless we can make sure that a high enough percentage of the fish in a lake are of the desirable kind, we will fail. We believe, now, that out of all the fish weight in a lake, sixty per cent must be of largemouth bass if the bass is to be the controlling fish, or forty-five per cent of the total fish weight must be of walleyes before the walleye can be the controller, or twenty-five to thirty per cent must be of northern pike before the northern pike can be the king pin, or the peak of the pyramid, you might say. That's what we are striving for. We don't know yet whether we have achieved it yet except in a few lakes.

PRESIDENT RIDER: By the way, after consultation with Mr. Westerman, of the Michigan Fish Section, we decided to stock northern pike trapped over here at the mouth of these rivers flowing into Lake Erie in one of our headwater lakes where we had at one time an excellent population of large bass and now have a tremendous population of very small bass. We are hoping that the northern pike will eat the small bass, and we are watching that very closely.

MR. WICKLIFF: On that point, Mr. Rider, I would like to ask either Mr. Westerman or Doctor Hazzard, do you still have your Pike Lake classification in Michigan?

MR. WESTERMAN: We still have it, Ed.

MR. WICKLIFF: How do the pike in those lakes compare with pan fish?

MR. WESTERMAN: Well, I don't think they really control them but the best information we had, in July, was on Houghton

Lake, which was among the early lakes, one of the first ones designated as a Pike Lake, it was about eighteen years ago, and our Commission then adopted the policy that we would not plant bluegills or bass in Pike Lakes, not because we didn't believe in it, but, frankly, to discourage the designation of so large a number of pike from more liberal regulations. Well, with non-stocking for eighteen years as far as we are able to determine, it has not resulted in any diminution of the bluegill fishing or the bass fishing on the lake, though the lake is one that has always contended it has a reputation for its walleye and northern pike fishing.

DOCTOR HAZZARD: I would like to add, Ed, that we have several lakes on record where we have stunted perch or stunted sunfish and still we have a sizable population of northern pike. Well, it is the dominant fish, I would say, in the catch, that is, northern pike particularly. The lake I have reference to is a lake on Grandiland, it is a lake of about two hundred and fifty acres and the pike are dominant there. The pike and smallmouth bass, and yet the perch have a history of always being stunted, nobody has ever caught legal sized perch out of that lake, that is a large enough size to keep. They reach six inches but not much more and when I came to study the scales, they certainly were definitely stunted and we have quite a few records in our files now of lakes containing pike. Now, maybe they didn't have enough pike to do the job but they weren't doing the job under that natural condition.

DOCTOR JOHNSON: I think we have very much of a common ground yet on which to discuss this matter but it is possible as

far as we know, too, to have a stunted perch or sunfish situation or bullhead, too, for that matter, and still have enough northerns in the lake to give you eleven or twelve for every two hundred and fifty foot gill net lift you make but that isn't enough. In all the lakes we have worked, that is only about a ten per cent level. We would like to double that and then bring it up a little higher. Now, I wasn't referring to -- when mentioning this before-- lakes in which the game fish were not abundant enough to suit the angler. The perch may not have been stunted in some of these others, I don't know.

DOCTOR HAZZARD: Mr. Chairman, I would like to ask one more question if I may of Doctor Johnson. You mentioned those percentage figures, do you actually have evidence now that you have built the population up in these lakes where you have been stocking to that level?

DOCTOR JOHNSON: No, no, that is what we are trying to do. We haven't reached it yet. Those are natural lakes. Those are the figures we have -- we believe exist in natural lakes which are in good condition as we see them now.

DOCTOR HAZZARD: In other words, I am wondering if the reason I didn't have -- didn't find more northern pike in Echo Lake on Grandiland was because the habitat limited the number of northern pike to the number actually present and if we are going to stock walleyes or bass, hoping to achieve that percentage that you mentioned, I wonder if we are going to get anywhere in the environment which presumably is already limiting the number of fish of those predatory species?

DOCTOR JOHNSON: No, I agree with you there. I don't think

we will. We will have to rely on continuous introduction to maintain them.

DOCTOR HAZZARD: Continuous stocking?

DOCTOR JOHNSON: Yes, the same as we would have to rely on continuous environmental correction on the rough fish angle, too.

DOCTOR HAZZARD: But you are assuming, then, aren't you, that you plant these fingerling walleyes or northern pike that the lake is going to grow those to legal size?

DOCTOR JOHNSON: Yes, you are assuming in your rainbow lakes that the rainbows will grow to legal size but you will have to introduce them continuously.

DOCTOR HAZZARD: Because we have what we call a vacant room there that nothing is occupying at the present time, but you are attempting to do something at a lake presumably where all the water is filled to capacity from the reproduction of the species already present?

DOCTOR JOHNSON: No, I wouldn't say that, either, because there is apparently vacant room for walleyes that isn't occupied any more than your rainbow room isn't occupied.

DOCTOR HAZZARD: Are you sure that's because of lack of sufficient natural reproduction?

DOCTOR JOHNSON: In some lakes, yes, I couldn't say for all, though, no.

PRESIDENT RIDER: Well, gentlemen, isn't this true that if we could achieve through the Soil Conservation Service, say a soil conservation plan on about fifty per cent of all the farms in this midwestern association district, isn't it true it would solve one of the great fundamental problems confronting us in the

production of both fish and game? I often wonder whether we are not making a mistake by not putting our shoulders to the wheel in a more forceful manner and demanding of the Congress and of the State Legislatures that they actually get going rather than talk and do an extension work on this soil conservation job, they actually do a job, which to me means adequate appropriations.

MR. WICKLIFF: Mr. Chairman, is it too late to make one other comment and that is that in Ohio we have not had illegal length of more species than bass. We have a legal length on trout but not very many trout. Of warm water species the only species for a number of years we have had any legal length on is the black bass.

MR. SPRECHER: What is its length?

MR. WICKLIFF: Ten inches at the present time. It has ranged all the way from nineteen, eighteen, seventeen, sixteen, it has been all the way between eleven inches and six inches since 1888.

DOCTOR JOHNSON: Would somebody bring me up to date or excuse my youth and tell me the history of the June 20th opening date for largemouth bass? Was that a part of the black bass campaign waged about twenty years ago?

MR. WICKLIFF: You mean Ohio?

DOCTOR JOHNSON: No, it is fairly universal in a good many states.

MR. WICKLIFF: Ours is June 1 to 15 on Lake Erie.

DOCTOR JOHNSON: That's the closed date?

MR. WICKLIFF: Yes.

DOCTOR JOHNSON: You open again on June 15th? We were

wondering, we saw very little reason in our waters in Minnesota why the bass was protected that late in the summer?

MR. WICKLIFF: Well, I can partially answer that question in streams. We worked one stream, Blacklick Creek in the eastern part of Franklin County, that is in central Ohio, for thirteen years and we checked on the spawning each spring during the thirteen years including this year and for nine of the thirteen years we had black bass spawning during the May 1 to June 15th date. Now, the May 1 to June 15th date was made many years before my time, 1888, who made it in Ohio in the Legislature maybe the Senator here can tell me, I don't know, but either the man who put it in the law made an awful good guess or he was a pretty good fisherman, and was a good observer, but the May 1 to June 15th date in Ohio and central Ohio in the streams is a very good closing date if you want a closing date. Once in a while the black bass will start spawning in the last week of April, more often after the 15th of June, but in most years the May 1 to June 15th is a very good date.

MR. SWENSON: Speaking of regulations, I neglected this morning to mention that Minnesota hasn't had the size limit on any fish for quite a few years. That includes trout. I don't recall exactly how many years but it must be, I would say, fifteen years, something like that, do you remember, Ray?

DOCTOR JOHNSON: It is all of that.

MR. SWENSON: Fifteen years, something like that, fifteen years or more since we took away the size limit.

PRESIDENT RIDER: Well, certainly, then, you haven't found any indication that is harmful to fish, have you, to

continue it that long?

MR. SWENSON: That is true enough. In fact, now, we look at it in this way that we have to liberalize, we should liberalize the regulations on the pan fish and possibly hold back the take of northern pike and possibly on walleyes in order to try to catch up with that overcrowded condition that we have in some places.

PRESIDENT RIDER: Gentlemen, are there any more speakers on this subject?

MR. WICKLIFF: I have just one more question.

PRESIDENT RIDER: Mr. Wickliff.

MR. WICKLIFF: Are there any midwestern states without discretionary powers? Are there any states in this midwestern section that do not have discretionary power whereby you can change the law with an order or whatever you want to call it.

DOCTOR HAZZARD: Michigan doesn't have.

MR. WESTERMAN: We have what is called a discretionary power law in Michigan but the Michigan law operates in this way, it applies to both fish and game and it can only be used by our Commission to shorten our closed seasons already established by Legislature; it can't move in any other direction to liberalize; we have to go to the Legislature for that; with one other exception that perhaps should be mentioned, and that is that two years ago, the Legislature did authorize the designation of not to exceed twenty lakes, not more than one of which would be in any county and ten streams for experimental purposes. There the Commission do have authority to liberalize in any direction they want but it is only for that purpose and limited to that extent. It is not a discretionary power act at all.

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At this stage of the proceedings, Mr. F. H. Davis was introduced by President Rider and conveyed to the convention assembled greetings and best wishes for a very successful meeting from the Honorable Dan Janzen, Regional Director of the Minneapolis office of the Federal Fish and Wildlife Service.

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PRESIDENT RIDER: Does that complete the discussion, gentlemen? Not hearing anybody, I assume it does. Now, I want to take just about five minutes to formally introduce to you the President of the League of Ohio Sportsmen; he has been here along with the Secretary and has sat in on the sessions. They are, in many ways, our best friends and beyond a doubt in every way are our severest critics. I would just like to have him say a word to this gathering after which we will recess for just about five minutes and go ahead immediately into the final business session of this conference.

SENATOR ATWOOD: Friend Buck and gentlemen, I have been interested here for this day and part of yesterday in your discussions. I don't know what I might say that would be helpful because I am not a scientist, I am a lawyer but my wife used to say that I was a lawyer only by profession and a fisherman and hunter by occupation. Probably that was mostly true.

Back in 1907, the first organization of sportsmen in Ohio was formed in Columbus and I happened to be a charter member of it. In 1909, it was conceived to have a statewide organization of individual members. That flourished with about a thousand members for two years when I was elected secretary of it in 1911 and we then liberalized or changed by saying that our organizations should

no longer have individual members but should have or should be an association of organizations. That any organization who ascribed to the objects of the League might become a member. We then started out to organize sportsmen clubs in the various counties of the state. I remained secretary of it until 1917 when I was elected President and then again went back to the secretary-ship until 1922. At that time, I gracefully retired and refused to take office, although was consecutively yearly appointed on the Board of Trustees when this year they picked me up again and said, "You have to be President." Now, our organization has all types of groups interested in the out-of-doors. All of the dog clubs of Ohio, not bench dogs but beagle hounds, field trial, pointer and setter clubs, are members or our group -- the coon hunters are -- so we have a pretty good cross-section of all Ohio sportsmen. Our organization never endorses any candidates for office, although we know and tabulate pretty closely who the candidates are for the General Assembly each year and how they have voted in the past and how they stand with regards to our group and whether they are going to be candidates again and who are going to oppose them and we know where they stand before they are candidates very long but we don't endorse. We have made it a policy never to endorse an applicant for membership on the Commission in Ohio nor never to ask for the appointment of any employee in the Division nor to ask for the removal of one. We seemingly somehow know what is going on down there with regard to activities and we strive so that we can look Buck or the Commission or anybody else in the eye and tell them to come or go as we please because they can't pay us, they can't pay us by

appointing anyone for us. In other words, if something goes wrong in game management and my friend Ed Martin there is responsible, Buck can't say, "Well, what the hell are you talking to me for, he was your man." Do you get it? They can't pay us that way, we are in a position at all times, and as Buck said, we are their severest critic. We are with the group, never publicly. We don't break into print against the Commission. If we can't back a project of the Commission, and we usually back all of them, I will say frankly, after we have fought it out or talked it out, if we can't back their movement, we say nothing about it but we privately fight it out with them. We meet with the Commission, our officers do, periodically. We listen to them and we ask them to listen to us. We, as officers, meet with their scientists and their individuals and their management and we talk to them, we try to find out what is going on, and while our organization originally consisted of men and women, we have a lot of women, too, who saw just two things, that was more game to shoot and more fish to take. I will say to you that in the past ten years, if you would attend our meetings, that is the monthly stated meeting of the trustees or the annual meetings or the quarterly meetings, you would find -- you would think that you were at some other type of meeting than sportsmen because we have finally come to this conclusion, that game and fish are an incident to a program and that program is not fish and game but that program is more water, more forest and cover, and more food. We are for more trees, better soil, and pure water and we know if we have those things, we are going to have fish, and we are going to have game, so we don't quibble or bother over the seasons. We don't discuss seasons, we didn't have

any resolution on seasons, we don't have any requests on seasons, we don't talk the details, we try to get into big fundamentals, the big fundamentals on program and policy. Our organization was responsible for the present laws of Ohio as they exist. We fought for forty years to get our group out of politics and we think we have got it pretty well out. I will say Buck is the first one, however, that has functioned in all of our fights because if the laws wouldn't come through to suit us, we would have to change them again and that would give the Governor temporary control but now Buck was selected by the Commission and Buck will say he doesn't owe his job to anybody. Well, he doesn't unless he owes it to us fellows who love the out-of-doors and we think probably he owes it to us because we created it and there wouldn't have been any position except for us, but the point I am trying to make is this, men, we are interested in the future; we are interested in the present; and we are interested in the big angles of conservation; not the little angles of conservation. I don't give a damn, personally, and I say this as I love Buck, I don't give a damn personally who the Commissioner is or who any of the wardens are or who any of the Division men are, but whoever they are, we want them to do their job, do you get it? In other words, it is like you say, a lawyer is respectable to the judge on the bench not because of the individual judge but because of the position. We respect all these positions, all of them. Ed Wickliff, I have known Ed since he started in to work, I guess, a long long time. Ed and I have learned over a long period of years to sit down and talk things out. Doctor Martin has come in rather recently but he has learned with me, and I think he comes to my office to talk

things out. These boys do come and I am glad to talk to them. We don't force ourselves on the Commission, we don't force our policies, but we do try to find out and know what is going on and if we are not sure we will just say, "Buck, we are going to have a meeting, come over." When Buck comes over we start and ask questions and find out. Isn't that right, Buck?

PRESIDENT RIDER: That's right.

SENATOR ATWOOD: And we will ask him where they stand on this and why. That's what we want to know is why, and we know there are a lot of things to be discovered in the out-of-doors and we are hopeful that some place along the line we may have a plan in discovering them. Now, we function through a president, two vice-presidents, a treasurer, elected by the general group each year, and two trustees selected from each of seven districts in Ohio. Those districts happen to be the seven districts that the Commission functions through too, on getting advice of meeting of farmers and sportsmen. Then the president appoints fourteen which makes the twenty-eight and you might be interested to know that we have an average attendance of twenty or more at our monthly meeting at Columbus, or somewhere else, where each one of those men pays his expenses at an average cost of thirty dollars per meeting, to come to the meetings and take the time and the meetings last from Saturday afternoon until Sunday night, and the next meeting is the 31st -- this may be of interest to some of you -- the 31st of July and the 1st of August. We meet over at Steubenville in the strip mine area, and along close to the Ohio River. All the organizations from there have been asked to send their officers and delegations in. We are going to have a big

program of two days. The clubs are there which we think will draw two or three thousand people. Afternoon program, fishing contests for the kiddies, that night a Jungle Cock campfire which Ham Brown is coming at our expense from Baltimore to talk and to preside, not because Ham is a good speaker but because as President of the National Outdoor Writers he is a drawing card and following that campfire, the trustees hold their trustee meeting in the open with all these clubs in attendance to listen and we never have a closed meeting. All our trustees meetings are in the open and every meeting we have visitors from various clubs in Ohio. They are all welcome to sit in and know what is going on all the time. Then Sunday we are going to have a big meeting, and trips to strip mines but this might be of interest to you, our main topic that we are going to take up at that time is this nine power State Pact and the Taft-Barkley bill on pollution. For what purpose, we are going to advise our groups then what that law is, how it is going to work, and what part the sportsmen can play in it and what our group can do in Ohio to help clean up Ohio through these laws. Now, it is going to be, it is important, and the manufacturers already know that because they are already holding meetings to know what they are going to do to clean their areas. We have municipalities in Ohio that are going to either have to enlarge or build new sewage disposal plants because of the liquid waste deleterious to fish life and human life that goes into the streams and we are going to play an important part in building sentiment and molding sentiment to help them pass their bond issues to enlarge and build these plants. So we have a big job ahead of us and we know it.

Now, gentlemen, that's about what I wanted to say to you. We sit in all these meetings that we can sit in on. We try not to be critical, we try to be helpful. If we have reasons, we ask questions and we always want the other fellow to have a reason to give back to us. We don't attempt to control, we don't want to control, we don't want to control the Commission, we don't want to control anybody under it, but we do want that personnel to do their job. We work with the various departments of the Federal Governments here, the Soil Conservation Service, we know in a friendly way, the Fish and Wildlife Service, and so on, and we are hopeful that our influence, if we have any, will help make Ohio better. We have a terrific problem here in Ohio and will continue to have and we are trying to develop a good will sentiment because we know that any organization can flourish for awhile on criticism and being against, but it can't successfully achieve any ultimate object merely through opposition. Therefore, we soft pedal opposition but we major on assistance, and the latch string is out to anybody that we can help in any way. Thank you. (Applause)

PRESIDENT RIDER: Thank you, Senator Atwood. I have always said and say just about twice a year for the benefit of everybody publicly that I am under obligation to no man, that I didn't ask for this job, that I am not a damned bit concerned how long I keep it, that I am under obligations to no party, no group in any party, no individual in any party, including the Governor of Ohio, now or in the future, I am under no obligation to any sportsmen's group, any group within the sportsmen's group or any individual in the sportsmen's group and I think one of the reasons I can say

that and do say it and it is published and printed at a couple or three meetings every year is because of the attitude of the League of Ohio Sportsmen, because they subscribe to those principles.

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And thereupon a recess was had after which the following proceedings were held.

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BUSINESS SESSION:

PRESIDENT RIDER: All right, let's come to order and now have the business meeting, the annual business meeting of the Midwestern Association.

I think you all read the proceedings of the last conference which are the minutes. Are there any changes proposed in these minutes? If not, they shall stand as read.

We will now have the report of the secretary-treasurer, Mr. Wickliff.

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1948 Report of the Secretary-Treasurer

July 14, 1948.

SECRETARY-TREASURER WICKLIFF: Mr. Chairman, members of the Association: At the 1947 Roscommon, Michigan meeting of this Association, the Secretary-Treasurer, Mr. R. C. Sparks made a progress report on dues. All twelve states have paid their 1947 dues. The check from Indiana was for five dollars. In addition Michigan paid ten dollars for 1946 dues, Illinois ten dollars for 1946 and Wisconsin thirty dollars for 1944, '45 and '46 dues.

All twelve states were billed for their 1948 dues and warrants were received from ten states. 1948 dues from North

Dakota and Nebraska should be received at any time.

PRESIDENT RIDER: Nebraska has been received; they were received yesterday by your secretary.

SECRETARY-TREASURER WICKLIFF: At present we have two hundred and seventy dollars in the bank with an additional twenty dollars vouchered. At the 1947 meeting Mr. Sparks gave me a bank book on the First National Bank of Pierre, South Dakota. It showed a balance of forty-five dollars deposited in the name of this Association. I wrote Mr. Elmer Peterson, Director, Department of Game, Fish and Parks at Pierre, South Dakota about the money and he said, "The bank does not appear to have the balance." Mr. Peterson requested the bank book and it was mailed to him. Up to the present time, I have not heard from the bank. To date we have no disbursements. I believe that is all I have on the financial situation.

PRESIDENT RIDER: Thank you, Mr. Secretary-Treasurer.

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AUDITOR'S REPORT

PRESIDENT RIDER: Has the Auditing and Finance Committee audited this report and the books, Mr. Sparks?

MR. SPARKS: Yes sir, I have a copy of the very words that Mr. Wickliff just now spoke about; I also have the bank book here from Pierre, South Dakota -- no, this is from Grove City, Ohio, and we have here two hundred and seventy-five dollars, and I for one would like to make a motion now that we accept the report of the Secretary as made.

PRESIDENT RIDER: You have heard the motion that we accept the report of the Secretary-Treasurer as made. Do I hear a second?

MR. RUHL: I second the motion.

PRESIDENT RIDER: Motion has been made and seconded that the report of the Secretary-Treasurer be approved as made. Is there any discussion? Does anybody want to speak to this motion to approve the Secretary-Treasurer's report? If not, all in favor of such motion signify by saying, "aye", contrary, "no". The report is accepted.

N E W B U S I N E S S

PRESIDENT RIDER: Now, we come to new business. Is there anybody here who has new business to present to the organization?

MR. WICKLIFF: Mr. Chairman, I don't know whether it is new business, it is at least something. For the past year, I have spent considerable time trying to wade through what records I have received through the courtesy of Mr. Sparks and others and, unfortunately, I find I am very far behind in the history of this organization. If it hadn't been for Ernie Swift of Wisconsin writing you a letter, I would know very little for sure about the past history of the setup starting in 1934. Ernie outlined it to the best of his knowledge and ability and it was very good and we have copies here at this meeting of his letter to Commissioner Rider, and also the latest edition of the constitution and bylaws as I could find them and revise them with the information available. They are not up to date, I know, because they were published in 1942. They say the dues are five dollars and they are ten. I have tried to collect ten dollars except from Indiana and since the constitution and bylaws says five dollars, and they told me ten dollars, what I could do about Indiana, I don't know, and it also mentioned about the United States Bureau

of Biological Survey and they have not been in existence for several years so on that point I know we are out of date and it seemed to me something should be done about the future status of this organization. I have a stack of records here for the new secretary about so high. He can spend a lot of time doing research work on reading them like I have done, it has been a pleasure to look them over, but personally I haven't gotten very far, I will admit, as secretary-treasurer, although through Mr. Sparks' cooperation we did collect the money for 1947 and '48 and we have made a start in the right direction.

PRESIDENT RIDER: The Chair suggests that the Secretary-Treasurer make a motion covering his statement.

MR. WICKLIFF: I so move.

PRESIDENT RIDER: Will you please state the motion?

MR. WICKLIFF: I will make a motion, it may be amended in any way you see fit, that the Board of Directors and the President and the Secretary-Treasurer for the coming year constitute a committee of one to check into the bylaws and the constitution of this Midwest organization and to write a new constitution or do whatever they see fit relative to the future of the organization.

PRESIDENT RIDER: You have heard the motion. Do we hear a second to it?

MR. SPARKS: I will second the motion.

PRESIDENT RIDER: Mr. Sparks seconded the motion. Is there any discussion on that motion? Do I understand that you are appointing the officers and the Board of Directors to study the constitution and if, in their judgment, it needs revision, revise it, also study the bylaws and if in their judgment they need

revision, revise them, is that it?

MR. WICKLIFF: That's right.

PRESIDENT RIDER: Any discussion of that motion?

MR. RUHL: Mr. President.

PRESIDENT RIDER: Mr. Ruhl.

MR. RUHL: That is a big committee. Sometimes the work can best be done by one or two.

PRESIDENT RIDER: It will be again.

MR. RUHL: That is just a suggestion. I am perfectly in accord with the revision.

PRESIDENT RIDER: Do you wish to amend that motion, Mr. Ruhl?

MR. RUHL: No.

PRESIDENT RIDER: Any further discussion on the motion? If not, all in favor of the motion signify by saying, "aye". Opposed to same? Motion carried.

I have a matter that I think should come up for some discussion here. I feel that Kentucky would possibly like to be a member of this organization if they are eligible. I am also quite sure that Ontario would like to become a member of this organization if they are eligible. Has anybody got any thoughts along that line?

MR. WICKLIFF: Mr. Chairman, this is a midwest organization and if they are in the middle west, it would seem to me they should become members. Ohio didn't become a member, I don't believe, until 1945, and I noticed in the 1942 map, Michigan was not a member. Harry, do you remember when you became a member?

MR. RUHL: At the Fox Lake meeting.

PRESIDENT RIDER: Was Kentucky ever a member, do you remember, Harry?

MR. RUHL: Not that I know of.

MR. OSBORNE: I move the admission of Kentucky and Ontario to this organization.

PRESIDENT RIDER: You have heard the motion by Director Osborne to admit Kentucky and Ontario as eligible to this organization. Can I hear a second to that motion?

MR. STEEN: I second it.

PRESIDENT RIDER: Mel has seconded the motion. Any discussion regarding that motion?

MR. HUSTON: Mr. Chairman?

PRESIDENT RIDER: Mr. Huston.

MR. HUSTON: In view of the fact that you are extending an invitation to Ontario and Kentucky, why not also extend an invitation to Manitoba? Manitoba is just as close to the Dakotas and Minnesota as Ontario is to you people here.

PRESIDENT RIDER: Well, is there a possibility that Manitoba and Saskatchewan could be considered midwest provinces?

MR. HUSTON: I think so.

PRESIDENT RIDER: Would you amend the motion that they be considered eligible?

MR. HUSTON: Saskatchewan might be outside but I make a motion that an invitation be extended to Ballihur, the Director of Manitoba to become a Director of this group.

PRESIDENT RIDER: You have heard the amendment to the original motion. Do we have a second to it?

MR. STEEN: I second it.

PRESIDENT RIDER: Mel seconded it. Is there any discussion on the amendment?

MR. WICKLIFF: Mr. Chairman?

PRESIDENT RIDER: Mr. Wickliff.

MR. WICKLIFF: Article II says membership shall be by states. We will probably have to add, "And provinces".

PRESIDENT RIDER: That is a matter that could be taken care of in these revised bylaws.

MR. RUHL: We can suspend the constitution a little longer, can't we?

MR. STEEN: I think the official interpretation here is that states includes the Canadian provinces.

PRESIDENT RIDER: The Chair will so interpret the bylaw. No discussion on that amendment? All in favor signify by saying, "aye". Opposed, "no". The amendment is carried.

Now, the question, the motion is amended. Any discussion? If not, all in favor signify by saying, "aye". Opposed, "no". Motion carried.

If there is no other new business, and I know of no unfinished business, I believe that we should move on to the resolutions committee. Is the chairman of the resolutions committee ready to submit resolutions?

REPORT OF THE RESOLUTIONS COMMITTEE

MR. STEEN: The Midwest Association of Game, Fish and Conservation Commissioners in annual convention assembled at Put-in-Bay, Ohio, this 17th day of July, 1948, reaffirms the basic principle that the wealth and strength of America are built upon and supported by her natural resources, and restates the admoni-

tion of a great American President who warned us many years ago that the greatest problem confronting the American people is the conservation of America's natural resources; that unless this problem is met and solved all other efforts must eventually be in vain.

Whereas this basic principle must always be Americans' first concern, now therefore: Be it Resolved:

That the Congress of the United States and all other public servants within the Government of the people, for the people, by the people are urged to give to the conservation of America's natural resources, and especially her renewable natural resources, in consideration, time and public effort these basic resources merit and have not been accorded in the past.

And Be it Further Resolved:

That we recognize the intimate relationship between the objectives of the various private and public agencies devoting their efforts to the conservation of soil, water and related natural resources, and we especially commend the work of the United States Soil Conservation Service,of local Soil Conservation Districts and related agencies in protecting and perpetuating the national economy and increasing the recreational facilities of the Nation through the conservation of soil and its products.

And Be it Further Resolved:

That we are opposed to the present provisions H. R. 6054, known as the Hope Bill, on the grounds that the proposed consolidation of various Federal agencies will not be of help to any one of them, but on the other hand will be detrimental to the best interests of conservation.

And Be it Further Resolved:

That we are opposed to the enactment of S. 2097 on the grounds that it is unnecessary since present laws provide ample authority for flyway management of waterfowl, and in our opinion provide better methods of accomplishing such management.

And Be it Further Resolved:

That we are opposed to the enactment of H. R. 6577 and S. 2098 on the grounds that the provisions of these bills complicate the administration of the affairs of the United States Fish and Wildlife Service and increase the cost thereof; further that they will serve to reduce rather than increase the efficiency of the public agency and will detract from rather than add to the services rendered by this agency to the people of the United States.

And Be it Further Resolved:

That we are opposed to the enactment of H. R. 5989 on the grounds that it is inequitable in that it will serve to meet a situation of very limited occurrence at the expense of all the rest of the nation; and we believe this situation should be corrected by and within the state that may be issuing free permits rather than by the Congress of the United States.

Now, therefore, be it resolved that copies of these resolutions be forwarded to their Congressional representatives by all the member states of this Association with the urgent request that such representatives lend their efforts to the defeat of these Bills.

And Be it Further Resolved:

That we favor increasing the duck stamp from one dollar to two dollars and recommend the enactment of S. 2482 or similar

legislation.

And Be it Further Resolved:

That we favor the enactment of H. R. 6320 or similar legislation to provide for the allocation to the states, in five equal installments of all the accumulated reserves in the Pittman-Robertson funds, in order that the states may launch urgently needed restoration projects.

And Be it Further Resolved:

That we favor the enactment of H. R. 1693 or similar legislation for the use of the Federal excise tax on fishing tackle for fisheries management and restoration, believing that such legislation is equitable, desirable and urgent.

Now, therefore, Be it Resolved:

That copies of these resolutions be forwarded to their Congressional representatives by all the member states of this Association with the urgent request that such representatives lend their efforts to the introduction and enactment of such legislation.

And Be it Further Resolved:

That we are opposed to the leasing for private use of lands suitable for public use and acquired by the Federal Government at public expense for flowage purposes in connection with navigation, flood control and related public projects; and urge the transfer of administration of such lands to the United States Fish and Wildlife Service for use in public conservation developments and projects.

Now, I can't help noting here, Mr. President, that the next three resolutions were written by a member of the committee

at the request of the balance of the committee. That particular member is the official poet of this Association, that master of the spoken and written word, Sir Livingston Osborne of Illinois. He says, And, whereas, our span of life is not determined by us but by our Almighty Creator, who, in His infinite wisdom, takes to His home those of His people whose work on this earth is done and,

Whereas, we who remain know not the reason, nor do we question why our friends, our loved ones, and those engaged in a great and noble work are thus suddenly taken from our midst.

Whereas, since our last annual conference, the cause of conservation has suffered a great loss in the passing of that nationally known scientist Aldo Leopold, who gave all of his working years to the conserving of those natural things of life so necessary to the happiness of our people and the preservation of our country;

Thereupon, Be it Resolved:

That the Midwest Association of Game, Fish and Conservation Commissioners do express our appreciation of the great accomplishments of Aldo Leopold, and of his friendship and sincere efforts; and do express our deep regret and sorrow at his passing; and do instruct our security. That a copy of this resolution be spread on the minutes of this convention and made a part of its permanent records.

That a copy of this resolution be sent to the members of his family as an expression of our sincere sympathy.

And Be it Further Resolved:

That we realize the great value and service of the Press

in the distribution of correct and useful information to the public, and especially in the distribution of the information on the accomplishments and recommendations of this conference; and we extend our thanks and appreciation to the Press and to its representative who has so ably assisted us in our work.

And Be it Finally Resolved:

That we, the members and guests of the Midwest Association of Game, Fish and Conservation Commissioners, being deeply appreciative of the wonderful hospitality extended to us by the personnel of the Ohio Division of Conservation, and specifically by that official host of the state of Ohio and prince of all good fellows, H. A. Rider, do hereby elect "Buck" Rider to our Hall of Fame; and do resolve, that since one good turn deserves another, we hope that Buck will again, in the near future, invite us to break bread with him, to sleep in his beds, to drink his stimulating tonics, and to bask in the sunshine of his inspiring personality.

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The Chairman moves the adoption of the resolutions as recorded herein.

PRESIDENT RIDER: Do we have a second of that motion?

MR. OSBORNE: I second it.

PRESIDENT RIDER: Mr. Osborne seconded it. You heard the resolutions and the motion to adopt them. Are there any comments? If not, all in favor signify by saying, "aye". Those opposed, "no". The resolutions are adopted. Now, I will say that those sections of the resolutions that cover legislation, we will not only, of course, mimeograph all the resolutions and send them on to you but those sections which deal particularly with legislation. If you let me know how many each state will need to circulate among the members of its Legislature or Congress, we will cut the stencils and have them in your hands within the next ten or fifteen days, so if you will give to the retiring Secretary-Treasurer, Mr. Wickliff, the number you will need, we will see that you receive them in short order.

REPORT OF THE NOMINATING COMMITTEE.

PRESIDENT RIDER: Now, we come to the nominating committee. Mr. Ruhl, are you ready to report?

MR. RUHL: The nominating committee thought they had the job all done but they got a copy of the constitution and we were a little confused. For example, I will read this section. It says, "The officers of the Association shall be a president, vice-president, secretary-treasurer and the board of directors composed of the president, secretary and treasurer of the Association and one representative from each state not represented

by the officers of the Association." You see, that sentence contradicts itself, and the practice that was, as I understood it, was that the secretary-treasurer was one individual and the committee so considered him. I am bringing it up so if you want to change it, you can do so. Then there was another question, on the previous slate, they had one representative of each state in addition to the officers, so that I think that we will just move one of each state not represented in the president, vice-president, and secretary-treasurer, you can add the other two if you wish. So this is the slate recommended by your committee. You remember in the rotation of the meetings, Nebraska is the next one and Mr. Gilbert sent through Mr. Vance an invitation to meet there; he would like to entertain us; he insists he will be on the job next year to do it, so in naming the place, Nebraska, the president recommendation is Paul Gilbert, vice-president Ernest Swift, of Wisconsin because it has been the custom for the vice-president to be the anticipated host state, representing the host state to have the meeting next year, so he will have a little background and experience; secretary-treasurer, L. P. Vance of Nebraska, so that the president and secretary and treasurer will be in one state for convenience.

Board of Directors for the other states, Melvin O. Steen of Missouri, D. R. Hughes, of Indiana, H. D. Ruhl, of Michigan, Dave Leahy of Kansas, Bruce F. Stiles, of Iowa, H. A. Morgan of North Dakota, Elmer Peterson, of South Dakota, Chester Wilson of Minnesota, H. A. Rider of Ohio, and Livingston Osborne of Illinois.

PRESIDENT RIDER: You have heard the report of the nominating committee. Are there any nominations which you desire to make

from the floor? If not, what is your disposition toward this report?

MR. OSBORNE: Move its approval.

PRESIDENT RIDER: Mr. Osborne moves its approval.

MR. SPRECHER: Second the motion.

PRESIDENT RIDER: Motion has been seconded. All in favor signify by saying, "aye". Opposed, "no". They are so elected.

Well, now, if Mr. Gilbert was here, I would turn this gavel right over to him.

MR. RUHL: Why can't you give it to the secretary and treasurer and let him work right now?

MR. VANCE: Give it to the vice-president, he is not here either.

PRESIDENT RIDER: The vice-president is Ernie Swift, he is not here. Will the secretary-treasurer come forward and act as the president to adjourn this meeting and receive this gavel?

Mr. Vance came forward.

PRESIDENT RIDER: Mr. Vance and gentlemen of the Midwest Association it has been a pleasure and a privilege to serve as your president during the past year. Mr. Vance please convey my congratulations and greetings to Mr. Gilbert along with this gavel. Inform him to feel free to call upon me for any service I may be able to render at any time. In the future should any of your paths cross Ohio just remember the latch string is always out.

SECRETARY-TREASURER VANCE: The conference now stands adjourned.