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Proceedings

of the

Third Annual Conference

The Association of Midwest Fish and Game Commissioners

E. J. Van

State Capitol

Madison, Wisconsin

June 16-17, 1936

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Third Annual Meeting

of

THE ASSOCIATION OF MIDWEST FISH AND GAME

COMMISSIONERS

State Capitol
Madison, Wisconsin
June 16-17, 1936

* * *

The meeting was opened at 9:45 a.m. by President H. W. MacKenzie.

Roll call was taken and the following members responded:

Illinois
Mr. Charles F. Thompson
Mr. Thomas McCafferty

Iowa
Mrs. Henry Frankel
Mr. A. E. Rapp
Mr. Logan Blizzard
Mr. R. E. Stewart
Mr. F. T. Schwob
Mr. M. L. Hutton
Mr. W. A. Burhans

Minnesota
Mr. John R. Foley
Mr. E. V. Willard
Mr. Charles W. McFarlane
Dr. T. A. Surber
Mr. George Weaver

Missouri
Mr. H. L. Blakey (not a member)

Nebraska
Dr. M. M. Sullivan
Mr. Frank Haskin
Mr. Frank B. O'Connell

North Dakota
Mr. Arthur L. Peterson

South Dakota
Mr. George F. Walters
Mr. O. H. Johnson
Mr. A. M. McKay
Mr. Burt Horton

Wisconsin
Mr. R. B. Goodman
Mr. Louis Hobbins
Mr. H. W. MacKenzie
Mr. Barney Devine
Mr. Wm. F. Grimmer
Mr. W. T. Calhoun
Mr. B. O. Webster
Mr. Robert A. Gray
Mr. C. L. Harrington
Mr. F. G. Wilson
Mr. Edward N. Hein
Mr. Ernest F. Swift
Mr. H. B. Kellogg, Jr.
Dr. E. F. Graves

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Guests
Mr. Haskell Noyes, Milwaukee
Mr. Wm. Mauthe, Fond du Lac
Mr. Clarence Allen, Milwaukee
Mr. Adolph Kanneberg, Madison
Mr. Gordon MacQuarrie, Milwaukee Journal, Milwaukee
Mr. Leslie Bean, U. S. Forest Service, Milwaukee
Mr. Alfred Rice, Tribune and Leader Press, La Crosse
Mr. Baxter, temporary chm. Wild Life Cons. Dept., Del.
Mr. Wm. E. Clow, Jr., Chicago
Mr. W. J. P. Aberg, Madison
Mr. Thomas J. Watters, Iowa
Mr. Ray Steele, Winona, Minn.
Mr. Lyle F. Watts, Regional Forester, Milwaukee
Mr. Hill, U. S. Forest Service Milwaukee
Mr. K. M. Patterson, Chicago (Cincinnati & Louisville newspapers)
Mr. A. D. Aldrich, Tulsa, Okla.

Mr. Theodore Dammann, Secretary of State for Wisconsin, gave the address of welcome in the absence of Governor Philip F. LaFollette.

DISCUSSION BY MEMBERS OF ALL STATES ON REGULATIONS FOR TAKING OF MIGRATORY WATERFOWL FOR THE SEASON 1937

Mr. Johnson: I should like to say a few words regarding hatching conditions in South Dakota. I haven't been in North Dakota, but Commissioner Peterson is here, and I believe the conditions are somewhat similar. We had slightly more than normal precipitation from January 1 on until about March 20. We had a vast amount of snow and we were extremely optimistic, as we confidently believed that all our sloughs, marshes etc. would be probably not entirely restored as to water elevations, but at least partially restored. Melting of the snow occurred over a period of almost two weeks and there was no run-off with the result that very few of our sloughs and marshes were benefited, which was a good thing for the soil, but the ducks didn't like it. But we have had no rain since April to speak of and our lakes, sloughs and marshes are drying up. Whether they will dry up before this year's hatching of ducks occurs remains to be seen. Many of them won't. I am positive of that.

I also know that many of these ducks moved immediately to more permanent areas. There has been a migration of ducks immediately after they are hatched, often travelling a distance of ten miles to the nearest water. If these ducks remain where they are for two or three or ten weeks after they are hatched they are poisoned by the alkali.

Under these conditions, our opinion of this year's production of ducks so far as the prairie area is concerned is that it is not going to be much better than it was in 1935. We may have hatched many more ducks, and the nesting ducks have increased. The largest increase was in pintails. Mallards are more or less conspicuous by their absence. The greatest population is in the northern areas. We in South Dakota have made our decision regarding a recommendation before we came here. Virtually, we have agreed among ourselves what we think conditions in our state would justify, but we would like to have the opinions of some of the representatives of other states and then call on members as repeaters.

Mr. Grimmer: The spring flight of birds through Wisconsin was below normal through eastern and central water areas, particularly on diving ducks both scaup ring necks, canvas backs and redheads, although the flight was good up the Wisconsin and Mississippi rivers. There was very little increase in nesting of ducks this year over the spring of 1935. Nesting areas still have water and I doubt that we have very much to worry about in Wisconsin. It is, of course, not a breeding center. Our nesting ducks are primarily mallards, blue-winged teal in central and southern Wisconsin, coot and redhead and scaup. Hunters were generally satisfied with the 1935 season.

(Mr. Grimmer also brought out the question of prohibiting the use of live decoys and the actual value of prohibiting shooting hours until 7 o'clock in the morning. He included a short resume of the Wisconsin laws.)

Mr. MacFarlane: The nesting conditions in Minnesota have been more favorable because of more water. I doubt whether actual hatching conditions will be better than in 1935 or 1934. It is true that nesting conditions do seem more favorable, but whether hatching conditions will be greater, there is still some doubt. The spring flight this year from general observation it is found seemed to be a little increased, particularly scaup, pin-tail, and wood ducks. A unified expression from the sportsmen of Minnesota would seem to be that the proper thing to do would be to advocate a closed season for 1936. There are more bluebills in certain areas than ever before, but conditions last year were not conducive to building up the migratory waterfowl population generally, and Minnesota this year feels that the season should be closed. We did not permit people to shoot on open water and baiting has not been permitted for two years. We don't believe prohibiting live decoys would save in a large measure, a goodly number of ducks. We haven't permitted open water shooting or baiting of ducks, we have shortened the season, increased prohibitive measures as laid down by the Secretary of Agriculture, and using live decoys wouldn't make for a reduced kill of diving ducks.

Mr. Johnson: Since Commissioner Peterson of North Dakota will present a paper on this later on, we will pass up his state now and call on Nebraska. I would like to get an expression of where there is an appreciable production of ducks.

Mr. O'Connell: The outlook in Nebraska is much better than last year. I was very much surprised to learn that South Dakota is rather dry. We have had a great deal of rain. A large number of birds have nested, and we are far enough along now with the water we have that we will go through all right with a very good hatch. Most of the birds seem to be mallards and pintails. Diving ducks are very scarce. We had a large number of mallards that wintered with us in spite of exceedingly cold weather over a long period of time. Preserves and sanctuaries might be causing them to stay. Our experience last fall on live decoys I feel is very much like Mr. McFarlane's of Minnesota, that it doesn't make a great deal of difference in saving any birds. We feel so far as the big hunters in the heavy hunting area are concerned, it doesn't make any difference, but the little fellows are penalized, as they really need a few to get any birds at all. Especially in the goose situation I feel in Nebraska it is rather difficult to get any without live decoys. As far as I can understand it, the goose situation is not critical and there is no reason why we should not have live decoys for goose shooting. Closing time in the afternoon is ideal, but it should open earlier in the morning. Opening a little earlier, the ducks would be milling around to some extent and helping some of the men on small bodies of water.

We saw something very interesting last week, and I am wondering if anybody has had the same experience. We have a gun club in our state which won second place in the national contest for More Game Birds in America, for sanctuaries, and last week we visited that sanctuary and they have been having some difficulty with wild mallards killing little ducks. Three weeks ago a mallard hen came off with five little ducks, and an old Canadian goose immediately adopted the family and is working day and night guarding the duck family and even

tries to decoy you away from the family. It may be the geese felt that the situation was critical and have decided to come to the rescue, so with the help of the geese, maybe we will get some place.

Mr. Blizzard: Iowa is not what you would consider a duck breeding state. We do not raise a large percentage of ducks. Where I live on the Mississippi River, a check of the flight this spring showed a decided increase in the area from McGregor north, which seems to be quite a stopping place for migratory waterfowl. There were possibly more this year than in a good many years. We feel from a careful analysis of people, sportsmen and conservationists that the regulations in general by the Biological Survey last year were correct. In other words we believe it is a start toward an ideal condition if it can be created.

We don't think that it would make a great deal of difference as to whether you opened the morning shooting at 7 o'clock or earlier. We feel it is a better regulation to leave it at 7 o'clock. We don't think that decoys make a great deal of difference. In large bodies where shooting is heavy it doesn't make any difference, except in some spots on the Mississippi. In general, the regulations as laid down in 1935 by the Bureau of Biological Survey suited us very well.

Mr. Johnson: Regarding the closing hour I just want to say a word. We discovered, and the criticism we had in the 4 o'clock closing by our field men, was that it was just about two hours too late or at least an hour. It should have closed at 3 o'clock, or better still, at 2. The reason is that by 4 o'clock in fall the evening movement of ducks just gets under way enough so the man who has been in the blinds all day begins to get a little shooting and it's pretty tough to get out - it's a temptation. And we all know it's difficult for a warden to go before a court with a man who has gone fifteen minutes beyond the limit. It's a peanut arrest, and he doesn't hope to get a conviction, but still the thing is before him all the time. In my opinion so far as the average shooting a person might get on normal days it might just as well close at 11 o'clock in the morning, as there is very little movement between 11 and 3 or 4. Personally, I was disappointed when they said 4 o'clock instead of 2. There is no shooting anyhow, and it's just an aggravation. I would like to see an earlier closing hour and I know the hunters of our state also feel that way. In regard to the use of live decoys, we have never had the live decoys used extensively in South Dakota, particularly the mallard or English caller. We had no complaint when decoys were banned but goose hunters objected. Possibly 10% of those who hunted geese had live goose decoys and possibly another 15 or 20% had friends with live decoys so it is safe to say that 30% of all the goose hunters in South Dakota shot with live decoys and they squawked terribly.

I am inclined to agree with Mr. O'Connell of Nebraska that so long as the condition of the Canada goose isn't as critical as with some of our ducks I would favor letting the average sportsmen know that when our waterfowl are at least partially restored the live decoys might again come into vogue with proper safeguards. The redhead is the bright spot in the horizon in South Dakota this year. There was a very marked increase in the redheads nesting this year. There was an increase of at least 500% over 1935 and 1934, and the redhead is the one that has been in greatest danger of extinction. We had almost normal rainfall last year and a luxurious growth of grass.

Mr. Thompson: Illinois is not a duck breeding state. Even in its early days not very many ducks nested in Illinois. We depend entirely upon migratory birds for shooting. As far as regulations for last year were concerned, I don't think hunters as a rule objected to some of the regulations. I know they didn't to bag limit, and as far as hours, there wasn't very much objection to that. We closed at 3 o'clock last year, if I am not mistaken. One thing they didn't take to, and I don't think it did any particular good, was the possession limit. It is hardly fair to ask a limit of 10 ducks a day. In Illinois most of the sportsmen who shoot waterfowl have to travel a considerable distance, and it isn't fair to have them go down there and shoot ten ducks a day and take home ten ducks. We made a poor sport out of a good sport. I don't see where there's any conservation there. We in Illinois know it is possible to evade the law by shipping ducks home--sometimes they are given away, and sometimes left in the marsh. Men are not going to travel 200 or 300 miles and spend $150 to go home with 10 ducks, and I don't see any damage by increasing the possession limit for two or three days shooting. I think sportsmen in Illinois would be very well satisfied with these regulations if possession limits were increased.

As to the decoy proposition, in most places in Illinois it didn't make any difference. So far as marsh duck shooting is concerned it is just as well without the use of live decoys. It is on the Mississippi and Illinois rivers for diving ducks, that deep water duck shooting is very poor without live decoys.

One of the largest sanctuaries we have in Illinois is Horseshoe Island, near Cairo. 60,000 or 75,000 ducks use that sanctuary, and every year the goose population is being increased. Shooting in that neighborhood comes from geese working out of the sanctuary to surrounding country for food and exercise. Goose shooters claim that they cannot shoot geese without live decoys.

Every year the population of geese at Horseshoe Island is building up. Either old ones are bringing in new ones, or there is an actual increase. Anyhow there are more geese there every year.

The state operates a very fine farm to take care of geese in winter. We put in 600 acres of winter wheat on which geese grazed all winter. We also put in over 100 acres of mixed feed, corn, peas, beans, etc, and we've had sufficient feed to hold geese and practically none of them ever go much farther south. When the shooting season closes the geese go north farther and are not subjected to further gunfire, but go back farther north to the breeding grounds, so we feel we are doing some work in conserving that species of waterfowl. The question of baiting ducks is to be discussed later.

I personally don't think any harm would be done by restoring live decoys and would like very much to see the possession limit increased to two and possibly three days. As I said, Illinois is not a breeding state.

For some years we have had reports from Canada, and still have them from Saskatchewan and other Canadian provinces, and those reports indicate 65% of the mallard hatch now off the nest and 85% of the pintail hatch. Conditions seem to be the best since 1925. The hatches

are large and the birds are strong. There are twice as many birds coming down this fall as last year. There was less depradation by the crow by reason of more grass and ducks had a chance to hide their nests better. Saskatchewan is also carrying on a crow campaign and doing their part in that work so I see a much brighter picture than we have seen for three or four years.

Mr. Johnson: After we have had an expression from the state of Missouri, since the discussion so far has been confined to conditions, I believe we can go on with the printed program.

Mr. Blakey: As a research investigator spending most of my time in the field, I have found one mallard nest, two wood duck nests and one Canada goose nest, so you will see Missouri doesn't contribute materially to breeding grounds. We hope we may be able to wipe that veil of shame off our face and come back to our own in developing waterfowl refuges. As for the result of the decoy system last year, I didn't observe that it has been very effective. In Missouri where hunting is purely a decoy system on the river, we found very good cooperation, whether they liked it or not. Most of the sportsmen agreed that it was a good conservation method limit.

Mr. Johnson: I believe that is as far as we want to go with this feature of the ducks.

* * *

DISCUSSION AS TO NUMBERS OF WATERFOWL TO BE FOUND IN NORTHWEST NESTING AREA.....Arthur I. Peterson, North Dakota

Mr. MacKenzie: We shall now hear from Mr. Peterson of North Dakota on conditions as he has found them in the Northwest. If you will come to the front of the room, Mr. Peterson, we will appreciate it very much.

Mr. Peterson: Our conditions are a good deal different in North Dakota than other states that belong to the association. Conditions in North Dakota were very favorable. There has been a good deal of publicity about the drought, but since that publicity we have had some rain. It is dry in about one-fourth of the state and that happens to be the southwest corner where we do not have so many ducks. To mention one thing about live decoys, we do not use them much in North Dakota, and I personally am much against live decoys. We should match our wits with birds and not use other methods to gain our kill. As I am the only representative of North Dakota and we have no commission formed in our state, I go direct to the North Dakota Wild Life Association for their viewpoints, and as to what kind of season they want. I had a meeting with them about two weeks ago and they were not in favor of a closed season. We would not like to see a closed season in North Dakota. We do not believe in it. We feel we would have a number of violations during the closed season and perhaps take just as many ducks out of the state as in a restricted season. We are in favor of a continued restricted season until the ducks are brought back and we feel that we can bring the ducks back that way.

I want to take friendly issue with Mr. Thompson in regard to the possession limit. In North Dakota we do not believe in possession limit. Sportsmen are beginning to look at it differently. We feel in the case of hunting hours from sunrise to sunset that a man can go out in the morning and take his possession limit in the morning. Say if the bag limit is 10 birds, he can go out and kill 20 birds and if the wardens don't run across him until evening he can say that 10 birds were his previous day's kill. The birds shot in the morning would be stiffened and cooled off and would resemble birds killed the previous day. We feel that a possession limit is nothing more than a bag limit. If 10 birds a day are not enough, raise the bag limit, and kill possession limit. I have prepared a report on the ducks in North Dakota and I think I will just read that report.

Report on Duck Conditions, North Dakota

The duck conditions in North Dakota are far better this year than last due to the large amount of snow the past winter. The water from this melting snow this spring having filled all sloughs and ponds. In addition to these natural prairie sloughs, we have in the neighborhood of four hundred newly created bodies of water, acquired through dam construction. There is sufficient water backed up by these dams to insure against the loss of duck life during the nesting and rearing period.

The prairie sloughs have an abundance of natural duck foods, and the Department has sponsored a food planting project for the planting of the newly created bodies of water, thus making them suitable for ducks. The plantings this year consist of bullrushes, duck millet, and other natural foods such as wild celery, sago pondweed exist in these coulees that are dammed up, and the seeds float down to the main body of impounded water and readily take root.

We have witnessed one of the largest migrations of waterfowl through the State this year that we have seen in several years. This is no doubt due to the increase of water as above stated and the concentration of the duck flight through the Middle States. Included in this migration were ducks, swans, geese and various species of shorebirds.

In gathering information regarding the status of ducks nesting in the state, we solicited the services of about two hundred fifty men. These men were qualified for this work, having assisted with the survey made last year by the More Game Birds in America Foundation. They were instructed to be very conservative in their estimate.

The following report covers the thirty-nine counties lying east of the Missouri River, excluding the acquisition and easement projects of the Bureau of Biological Survey. While the fourteen counties lying west of the Missouri R iver have some ducks, they cannot compare as a duck country with that part of North Dakota which lies east of the river. In the following report we find the Pintails predominating, the status being as follows:

Pintails	60,730
Mallards	36,868
Spoonbills	28,016
Blue-winged Teal	25,126
Gadwalls	24,546
Baldpates	12,096
Canvasback	8,010
Redheads	6,922
Scaup	6,234
Green-winged Teal	5,208
Ruddies	3,356
TOTAL	217,112

Several pairs of Golden-eyes, Buffle-heads and Wood ducks have been observed along the Sheyenne River, Turtle Mountains and along wooded streams in parts of Ramsey County where the environment is inviting to these tree nesting ducks.

The following is a report of the nesting ducks on the preserves under Federal supervision, including the acquisition and easements projects of the Bureau of Biological Survey, the acquisition projects contain approximately 132,413.43 acres while the easement projects are comprised of approximately 74,000 acres:

Acquisition Projects:

LOWER SOURIS MIGRATORY WATERFOWL REFUGE

There are approximately 250,000 ducks on this area comprised of 47,609.02 acres. The predominating species are as follows:

1. Pintail
2. Shovelers
3. Blue-winged Teal
4. Baldpates
5. Gadwall
6. Canvasback
7. Redheads
8. Mallards
9. Scaups
10. Green-winged Teal
11. American Golden-eyes
12. Hooded Mergansers
13. Ruddy Ducks

UPPER SOURIS MIGRATORY WATERFOWL REFUGE

There are approximately 5,772 ducks of various species nesting on this area comprised of approximately 30,740.09 acres. The predominating species observed are as follows:

1.	Pintails	1876
2.	Gadwall	616
3.	Blue-winged Teal	457
4.	Baldpate	451
5.	Lesser Scaup	297
6.	Shovelers	294
7.	Ruddy Duck	152
8.	Mallard Duck	100
9.	Canvasback	65
10.	Green-winged Teal	23
11.	Redheads	246

DES LACS MIGRATORY WATERFOWL REFUGE

There are approximately 2,214 ducks on this area, comprised of about 14,126.02 acres. The predominating species observed are as follows:

1.	Gadwall (Gray Duck)	536
2.	Shovelers	511
3.	Ruddy Duck	277
4.	Pintail	275
5.	Lesser Scaup	183
6.	Baldpate	99
7.	Blue-winged Teal	55
8.	Redheads	47
9.	Canvasback	28
10.	Green-winged Teal	6
11.	Mallards	38

LOSTWOOD MIGRATORY WATERFOWL REFUGE

The predominating species on this reserve, comprised of approximately 23,556.85 acres are as follows:

1. Mallards
2. Gadwall
3. Baldpate
4. Blue-winged Teal
5. Green-winged Teal
6. Ruddy Duck
7. Lesser Scaup
8. Redheads
9. Canvasback

NOTE: Shovelers were omitted by mistake and belong in with the second and third class, in numbers.

PIPESTEM AND JAMES RIVER LYING WITHIN
STUTSMAN COUNTY AND ARROWOOD, JIM AND MUD LAKES

1.	Shovelers	263 Pr.
2.	Pintail	242 Pr.
3.	Ruddy	87 Pr.
4.	Mallard	168 Pr.
5.	Green-winged Teal	17 Pr.
6.	Blue-winged Teal	28 Pr.
7.	Lesser Scaup	25 Pr.
8.	Canvasback	30 Pr.
9.	Redheads	15 Pr.

Total.....875 Pr.

EASEMENT PROJECTS

The count made on the easement projects which are comprised of 74,000 acres, approximately was put at 250,000 nesting ducks, and in the report we received were not segregated as to species.

The counts on both the acquisition and easement projects were made by men connected with the U. S. Bureau of Biological Survey. Taking into consideration the large number of nesting ducks observed on these comparatively small areas, the indication would be that the survey carried on by this Department would fall far short of the number of ducks there actually are. At least, we feel that if some of the reports are estimates, that if anything the estimate is low rather than an over-estimate.

Since this data has been gathered, some of the nesting ducks have hatched their young, and the number in each brood ranges from six to eleven young, which is very encouraging.

This survey would indicate that the ducks in the State at this time far out-number those in the State at the time of the Survey last summer, as shown by the tabulated report of the More Game Birds Foundation, the last year's count being 355,716. The survey at that time was made after the young had hatched, and the young were included in last year's count.

In commenting on the increase of ducks, I will say that in the year 1935, during the time of the migration of the birds north, there was no water in the state outside of the natural lakes and streams. The ducks passed over the State to nest in Canada, so with the favorable conditions as they were this year, we did expect that there would be a large amount of ducks nesting within the State.

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We are generally well fixed on the amount of ducks in North Dakota and have the most we have had in many years. I was born and raised in North Dakota on one of the best fly-ways in the United States. Of course ducks and geese do not nearly compare with the amount I have

seen there in the early days. We are very well pleased with the outlook in the state this year and do not want to see a closed season. Some of the sportsmen were talking for a whole day of hunting every day. I told them it would be foolish to go after anything like that because chances are we couldn't get it. Personally, I would like to see it from 7 o'clock in the morning and, as Oscar Johnson stated, to 2 o'clock in the afternoon. I think that would be mighty fine because we find the same conditions exist up there during the hunting season. There is one thing we would like to see and that is that the season opens a little earlier than it did last year. We had practically a closed season last year. If the season opens as late as it did last year we could have a snowstorm and all the ducks would be gone before we got a chance to shoot any. We feel we are raising a lot of ducks and should have a little hunting. We thought the season should open October 1 and continue for one month. Some of the sportsmen would like to see it opened October 1 and have a staggered season, with two days of rest each week. Personally, I am not in favor of it because it is too hard to enforce.

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EXPERIENCES OF FEEDING OR BAITING DUCKS AND GEESE. IS IT BENEFICIAL OR DETRIMENTAL?..C.F.Thompson, Wm.E.Clow, Jr.....Illinois

Mr. MacKenzie: The next on the program is the experiences of feeding or baiting ducks and geese. The first speaker on that subject is Director Thompson of the Illinois Commission.

Mr. Thompson: I haven't any prepared address on this subject because the gentleman following me will take up most of the time. However, I would like to make a few introductory remarks. One of them is that a good many years ago I was shooting ducks not very far from Madison, Wisconsin. One of the greatest duck grounds ever known was the Horicon Marsh, a wild-rice marsh of six or seven thousand acres. Shot there for a great many years and followed duck hunting down. In the first place I was a lumberman in Wisconsin before most of you were born, up in the Ashland region, so I am pretty well acquainted with the hunting and fishing in the state of Wisconsin. Mr. Goodman and I have met at a good many lumber conferences and it is a little peculiar that we should be here now at a conservation meeting.

Following the thought of Horicon, after the ducks came down from the north the first place they hit, of course, would be the upper feeding grounds, Lake Winnebago, Green Lake, Lake Koshkonong and Puckaway and you know today what has happened to those places. They turned Horicon Marsh into a drainage district and found they could raise nothing. Today it is restored, thank God. Lakes Winnebago and Koshkonong are polluted and there is no duck feed. In Illinois in those same days, just around the bend in Lake Michigan was Telloefson Marsh and the Kankakee Marsh, and other marshes in Indiana and Illinois, all offering feed and perfect refuges for ducks.

Going on down in Illinois, the Illinois river was all sloughs and marshes on the side. Today it is a canal--all the sloughs and marshes are drainage districts and bankrupt.

Now what's the duck going to do. He starts out from Canada only in fair condition on his long flight. In those days he stopped over maybe a week or ten days at a time and there were plenty of places to go and lots to eat. Those same birds come through, most of them today, into Illinois waters to such refuges as we have left. The birds are very thin when they first arrive in the fall. If they had to go on down south with no rest and no feed, half of them would not survive. That is one of the reasons why we believe in Illinois it is necessary to feed.

The stories that are told about feeding in Illinois are terribly exaggerated and misrepresented. They have not been true and have not been facts. Some of them have occurred occasionally, but they are not the practice. This administration of the conservation department has cleaned up a lot of practices and law violations. I have never understood yet why the Biological Survey cannot put into its regulations that waterfowl shall not be killed on water or land. All of that can be stopped by a very simple regulation, and only once have they done it.

Regarding the question of the staggered season. In 1935 when we had the opportunity of selecting our own time, Illinois selected a staggered season of two days a week and I didn't know whether I'd have to move out of the state or not. Ding Darling nearly took the skin off my back. Everyone thought it was terrible. I didn't do it strictly from a conservation movement, but because of the problem we have of three distinct duck seasons. Shooters in northern Illinois would have either all the hunting or none, and the duck and goose hunters of the southern part would have had either all or none. The season had to be spread over, since we have three climatic zones in Illinois.

The result of the staggered season in Illinois was that Illinois killed one-third of the amount of ducks ordinarily killed under that program, and as Mr. Darling afterward told me, it was the best conservation program they had in the United States, so we needn't be afraid of a staggered season. Practically, we shot one day a week.

I have told you what has happened with our feeding. The Illinois River and the old marshes we had had wild rice and plenty of food. We have carp in the Illinois River and what little vegetation we have left the carp and buffalo are rooting out. It is almost impossible to restore rice in any waters until we clean them up. Now I would like to give way to Mr. Clow and let him tell the rest of the story.

Mr. MacKenzie: We will now hear from the second speaker on the subject, Mr. Clow.

A Defense of Artificial Feeding of Migratory Fowl

Mr. Clow: I want to ask an attitude of sympathetic understanding on the part of you gentlemen toward what has become a real problem to your fellow sportsmen in Illinois. This problem is created by what appears to be a growing resentment on the part of sportsmen in neighboring states - plus the ignorant criticism of pure sentimentalists - toward our policy of artificial feeding of migratory water fowl - or more particularly ducks and geese. Hereafter I shall refer

quite often to ducks and duck shooting, but it is to be understood that what I say in connection with ducks also applies to geese.

I have no hesitancy in saying that such sentiment and criticism as exist against artificial feeding are based very largely on lack of knowledge of just what is done in Illinois or on pure sentimentalism based on wholly exaggerated reports of unsportsmanlike methods employed by Illinois shooters. It should be self evident to you gentlemen that the sportsmen of Illinois are on the average no different from the sportsmen of any other state, and 98% of the duck shooting in Illinois is just as sportsmanlike as is the case in any other state, and our methods should not be criticised on account of a few flagrant abuses which do not in any sense represent the practices of the great body of sportsmen, which abuses are universally condemned by Illinois sportsmen who have attempted to cooperate in every way with the federal and state authorities to correct and punish them.

I have shot ducks in the Illinois River bottoms now for nearly thirty-nine years and the actual conditions of duck shooting today are not very different from what they were thirty-nine years ago. Nor do I find much difference in the number of ducks. You will encounter a certain number of "old timers" who say that there are not as many ducks as there used to be. You will find an equal number who say that there are more than ever. But after all the Biological Survey estimated that some ten million ducks stopped in the Illinois River bottoms during the fall migration and with such a tremendous number, a million or two either way would be hardly noticeable. Speaking from my own thirty nine years of experience, I can see little difference except for the fact that in the last few years there has been a noticeable difference in the number of bluebills and other deep water ducks. We never had many canvasbacks and redheads in the fall of the year, and speaking for the last five or six years, I can only remember one small flock of canvasbacks on our grounds. From the shooter's standpoint, there is practically no change. In the old days if a man had a good place to shoot he could always get the limit and the same is true today. The only difference is that today he gets it in less time because the limits are smaller.

The Illinois River bottoms are, roughly, 200 miles long. In the old days these bottoms consisted of a series of large lakes which served as resting grounds or rest lakes, and around whose shores and in whose bays were great fields of wild rice and other natural feed, plus an innumerable number of small ponds, sloughs and bayous also full of rice and natural food, to say nothing of the pin oak ridges in the swamps which attracted the ducks to feed on the acorns. In addition to this the Illinois River flows through the heart of the corn country of Illinois. The corn fields stretch for miles on either side of the river as far as you can see and such feed as was not supplied by the natural feed was obtained by the ducks in the neighboring corn fields.

In the old days artificial feeding of ducks in the bottom lands was unknown. The duck shooter placed his blind at some appropriate place near a stand of rice or other natural feed back in the ponds, sloughs and swamps, set out his decoys and shot the ducks when they left the rest lakes in search of feed.

Today the condition is approximately the same, except for the fact that artificial feed is used to lure the ducks in place of the natural feed which used to be the lure. Because with the coming of the drainage canal, a gradual transformation took place in the bottoms, the natural feed was killed, as well as the pin oaks, and Illinois sportsmen were faced with the necessity of supplying artificial feed in place of the natural feed or losing their duck shooting. It might be well to explain here that the drainage canal primarily killed off the natural feed by high water and by causing continual and rapidly changing levels of water in the bottomlands - to say nothing of the fact that after the drainage canal was in operation the entire bottomlands became infested with carp. The carp is a great vegetable feeder and lives on the seed of vegetation as well as the young and tender roots in the spring. They likewise root up the bottom of a marsh, just like a hog, and in that way destroy a great deal of vegetation. They have practically eliminated wild rice in all waters in which you find them. Therefore, as stated above, it became necessary to supply artificial feed in place of the natural feed that was destroyed.

To hear the sentimentalists and ignoramuses argue you might think that ducks in search of food actually fly differently when approaching artificial feed than when approaching natural feed. Naturally this absurd notion could not apply to you gentlemen, because you all know better, but it is an impression that the sentimentalists try to create, although as you gentlemen fully realize, the habits of the duck are the same whether he is seeking artificial or natural feed. Roughly speaking, the habits of a duck are as follows. He makes his home on a rest lake where he feels secure and where, as you gentlemen know, you can see thousands and thousands of ducks floating on the water and basking in the sun. Periodically he and some of his fellows rise from the rest lake headed for some particular spot where they intend to feed, but they approach this particular spot just as cautiously regardless of the type of feed. It makes no difference whether they are approaching a slough or a pond or going to a corn field, the average flock of ducks circles and circles the prospective feeding ground to make sure that everything is right, and this action is the same regardless of feeding methods, and you gentlemen know that this statement is true.

Another cry of the sentimentalists was to attempt to make one believe that ducks coming to artificial feed are easier to shoot than ducks coming to natural feed or to decoys. You gentlemen must recognize the absurdity of such a conclusion. I am looking right at a good friend of mine - Director of Conservation of a neighboring state - and he knows throughout our long acquaintanceship I have regularly made suggestions to him for game regulations, all tending to make the shooting of game and the catching of fish more difficult - in other words, to give the game a greater sporting chance. And I say to you gentlemen from thirty-nine years experience in shooting ducks in every conceivable kind of a way that I know of no sportier shooting than Illinois River duck shooting if you take them as they come. Believe it or not, when I was a boy I stood on a pass shooting canvasbacks and saw an "old timer" make forty-five straight kills without a miss - a record which I have never seen equalled on the Illinois River, and I have hunted with many crack shots, including two winners of the "Grand American Handicap".

And yet the sentimentalists would have us believe that the attracting of ducks by means of artificial feed works some magic on the habits of these wary birds so that they lose all sense of caution and wild instinct and permit themselves to be potted on the water. Such bosh turns the stomach of any real sportsman who knows the conditions, and he can only pity the misguided ignorance of the sentimentalists.

Now let me say right here there are times when duck shooting of any kind is easy. You gentlemen have seen the canvasbacks and bluebills when they would come to decoys and knock your hat off if you were standing bolt upright in the blind, and there are times when duck shooting on the Illinois River is relatively easy, but on the average there is very little difference to choose between the wariness or habits of ducks coming to decoys - natural feed - or artificial feed.

Two things are obvious about duck shooting if it is to be successful. First, there must be ducks and, secondly, there must be some means of luring them within range of the shooter's gun. We in the Illinois River use artificial feed because our natural feed is gone, but - as I have tried to explain and as I am sure you gentlemen will appreciate - the kind of lure used has no influence on the natural wariness and habits of the ducks.

One further cry of the sentimentalists is the so-called slaughter of ducks by means of artificial feeding. I will agree that if a man considers it sport to carefully conceal himself until a large quantity of ducks have covered some small pond lured by either artificial or natural feed that he can then pot and kill a lot of ducks sitting on the water or ground, but I ask you gentlemen to use your imaginations and figure out whether a great body of sportsmen would spend the time, effort and money necessary to promote duck shooting for any such poor sport as this. Ninety-eight percent of the sportsmen of the Illinois River Valley shoot for fun and shoot in just as sportsmanlike a manner as do the sportsmen of any other state, and while occasionally abuses and potting of ducks occur by the use of artificial feeding, such practices are the exception that prove the rule and are frowned on by all of the sportsmen who are ever ready to cooperate with the authorities to prevent them. For example, the sportsmen of Illinois welcomed the federal regulation requiring birds to be shot on the wing if approaching artificial feed, and - as stated previously - ninety eight percent of the shooting in Illinois is wing shooting and sporty wing shooting at that. As I have tried to point out to you gentlemen, the only reason we use artificial feed in Illinois is because our natural feed is gone. The sportsmen of Illinois did not undertake an expense for feeding that runs into millions of dollars just because they wanted to. They did it because they had to.

Now let's consider the practical side of the question. The Illinois River bottoms - every acre of which practically is under the control of sportsmen - comprises, roughly speaking, probably some million or more acres of suitable duck shooting land. As stated above, this land is all under private control, not by just a few large wealthy clubs but by literally thousands of small groups of men who have a few acres under control and who are interested in the sport as sportsmen. Within this area the laws are obeyed and conservation is

practised - at least as well as in any other duck shooting area. Throughout this entire area artificial feeding is practised. As I mentioned above, these bottom lands extend for some 200 miles through the heart of Illinois's corn country.

Let us assume for a minute that all artificial feeding stopped. Here is exactly what would happen, and anyone who knows the conditions will verify this statement. The ducks as usual would come in their fall migration. In no time they would clean up what little natural feed exists in the bottom lands and from then on they would feed back in the corn fields and completely away from the control of the sportsmen who respect the laws. Even today with artificial feeding, a goodly portion of the ducks go to the corn fields to supplement what the clubs do for them and generally speaking it is back in these self same corn fields that the "abuses" of which the sentimentalists complain take place.

And let us carry this thought one step further. All of you gentlemen are acquainted with the fact that - ahead of all game and conservation laws - is the basic law that a farmer can defend his crops against any wild game. Bearing this in mind, let us assume that a farmer has a small pond or depression in one of his corn fields, and incidentally, there is such a low spot on almost every Illinois farm or, if not, one can be readily made. Assume the farmer lets his corn lie on the ground presumably for his hogs and perhaps judiciously sprinkles a little corn along the edge of the pond to make it easier for a few of his tame ducks to feed. In a short time that farmer will have the ducks - which cannot live in the bottom lands without artificial feeding - flocking to his pond. He will then with certain of his friends defend his crops against the marauders, and no jury will fine him for so doing. From his point of view "theoretically" the ducks are no more than crows and he has just as much right to kill them as have the rice farmers of the south who hire men to keep ducks from destroying their crops. This being the case - and what I have stated is an actual fact - just let your imaginations consider how this "defense of the crops" will be abused.

In other words, if the ducks cannot be fed by the sportsmen right in the bottoms where they are looked after and where the laws are obeyed, they will be driven inland into the corn fields to be either pests to the farmers or a source of revenue to many in the manner indicated above, and no kind of law enforcement can stop it.

Illinois sportsmen know these conditions. They know that the ducks have got to be fed in the bottom lands themselves or that they will go to the corn fields. Please do not get the impression from anything I have said that the average Illinois farmer is a lawless individual eager to take advantage of this situation. To the average farmer the ducks would be pests, whereas now the average farmer can sell his grain at a profit to sportsmen who will undertake the expense for the sake of the fun they get out of it. Certainly it is far more logical to handle the matter in this way than to cause trouble and loss to the conscientious farmer, and at the same time giving opportunity to many to get around any game laws that could be passed. If the season were to be closed in 1936 hundreds of thousands of ducks would still be killed back in the corn fields with no way of stopping it, and the same would be true if artificial feeding were banned in any open season.

So why agitate to rob thousands of Illinois sportsmen of their present good sport? Isn't the future of our ducks safer in the hands of the sportsmen than any place else? As stated above, Illinois sportsmen understand this situation thoroughly and they further appreciate very definitely that duck shooting among the sportsmen of Illinois is over if artificial feeding is banned by law. They understand it so well that every legal effort will be made to prevent its being banned by law even if it comes to fighting the matter out in the Supreme Court on the basis of states rights - a course which Illinois sportsmen would regret very much having forced on them. Illinois sportsmen will cooperate 100% in any conservation movement. If it seems wise to close the season we will cheerfully support such a program, but you cannot ask us to cooperate to the extent of committing suicide, and when you ask us to abandon artificial feeding you ask us to end our duck shooting. We have a sport which is enjoyed by thousands of Illinois citizens and which gives employment to other thousands during the duck season, to say nothing of millions of bushels of grain bought from Illinois farmers, and we do not propose to give up this sport without a fight.

There is one point especially which I would like to clear up in your minds. Many who do not know the conditions hold Illinois responsible, or partially so, for the present alarming shortage among deep water ducks, such as canvasbacks, redheads, bluebills, etc. This is in no sense the case. Ninety-nine and a half percent at least of all ducks killed in the Illinois River Valley are mallards, pintails, and black ducks; in other words, surface feeding ducks. While on this subject it is interesting to note that in the reduction in our duck population the three species of ducks which have best survived are these three species that are most generally artificially fed - namely, mallards, pintails, and black ducks. These three species of ducks can only be lured within the reach of the sportsman's gun by feed. Unlike the canvasback or bluebill they are far too wary to be lured by a stool of decoys on the shore of a rest lake. One or two shots on the shore of such a lake and countless thousands of these ducks will sit out in the center and not one of them swing near the decoys, which is not true of deep water ducks. Any good duck shooter knows the truth of the above statement. But I am digressing - because the real purpose of this paragraph was to convince you gentlemen that we in Illinois are in no sense responsible for the present acute shortage of deep water ducks.

We in Illinois believe that artificial feeding of ducks everywhere is a good thing. To answer the complaints of some of our sister states, who sometimes are inclined to feel that Illinois has more than its share of ducks on account of artificial feeding, we suggest that they take up artificial feeding themselves. In fact, I can think of nothing that would be better for the great body of ducks than to have competition among states to see which state could feed the ducks the most, because it is a well known fact that abundant food is a vital factor in the preservation and increase of any kind of wild life. The very fact that mallards, pintails and black ducks - which are most generally artificially fed - are the three species which have thrived the best during the past ten years, supports the above statement.

We in Illinois feel sincerely that artificial feeding is good for our ducks. We know that they arrive in poor condition and leave in fine condition, and we also know that we kill but a very small percentage of the total amount of ducks that are fed. Therefore, the big percentage leaves for the South better fed and better calculated to sustain the hardships of the winter and spring migrations. We sincerely and heartily recommend artificial feeding to all of our sister states.

And finally I should like to make it clear that Illinois's vast share of the fall migration of ducks has nothing to do with artificial feeding. The ducks would come to Illinois whether artificial feeding was practised in the bottom lands or not, simply for the reason that the 200 odd miles of bottom lands furnish a natural flyway and excellent resting grounds, and the miles of corn fields on either side of the bottom lands would furnish feed for the ducks even if they could not find feed in the bottom lands themselves. The proposition simply resolves itself into whether a large majority of the ducks shall be held in the bottom lands by artificial feed - thus keeping the sport in the hands of the sportsmen who buy licenses, support the game laws and promote conservation in every way - or whether they shall be allowed to flock into the millions of acres of corn land right adjacent to the bottoms, to be pests to the farmers - many of whom will kill them in self defense - or a prey to hunters who in the main won't take out game licenses and who have no particular interest in conservation. As long as Illinois's corn lands remain where they are the ducks will come to Illinois - it's merely a question of whether the sportsmen - or others - get the shooting.

I should like to leave one more thought with you gentlemen, which is perhaps not altogether relative to the chief topic of this address. When we suddenly became aware of the fact that unless we took aggressive action to defend our position we would lose our magnificent duck shooting and all that it means to the State of Illinois, we sportsmen of Illinois organized a fine aggressive organization known as the Illinois Sportsmen's Association, the chief purpose of which is to look after Illinois's interests as far as migratory fowl are concerned. This organization is also devoting its energy to one other object and that is to eliminate the present rank discrimination against this country as compared to Canada as far as migratory water fowl are concerned. Theoretically, the two countries are supposed to work together, but the real facts are that we are getting all the conservation and Canada is getting all the shooting - in face of the Biological Survey's own figures that the annual legal kill of the United States is 6,000,000 ducks, whereas the annual legal kill in Canada is 3,000,000 ducks with one-twelfth of our population - or, roughly speaking, six ducks per man for the Canadian to one for the American, and this can be well understood when you realize that in the various provinces of Canada they are still killing from 15 to 25 ducks per day with seasons ranging from 45 to 90 days. I do not have to tell this body of men that such discriminations as this cannot be permitted to continue, and the Illinois Sportsmen's Association proposes to do something about it and solicits the cooperation of you gentlemen representing other states.

On behalf of the sportsmen of Illinois, I want to thank all of you gentlemen very much for the courtesy extended to me and for the opportunity given to me to present these facts before you.

Mr. O'Connell: Do diving ducks still come through your state in spring?

Mr. Thompson: The spring flight of ducks spread over the state and some of them stayed in the state almost a month and got plenty of feed because they were all over the country. Not very many diving ducks come through.

Mr. MacKenzie: Do you feed in spring as well as in fall?

Mr. Clow: No, we haven't been.

Mr. MacKenzie: How long do you feed in fall?

Mr. Clow: That varies. We have found it very hard to finance this past year.

I might also say we believe in live decoys in Illinois. The bag limit is not fair to people going long distances. The possession limit is much better. One of the serious losses of our population is the ducks that are crippled. I maintain that if you are going to let a man shoot ducks, what is the difference in the way he kills them? The most important thing is to have him kill those ten ducks without crippling ten more. I favor live decoys for the reason that for the average duck hunter I would rather have him get his ducks in close and have him kill them dead and not cripple them.

We think the migratory bird thing is not being handled right. Canada is getting all the shooting and we are getting all the conservation. The legal kill in Canada is much greater than in the United States, and they have longer shooting seasons. We believe that Canada and the United States should cooperate, but the main features in your game laws, seasons, daily bag limits, and possession limits should be equal in the two countries, and otherwise things would be equal too.

Mr. MacKenzie: It's getting close to noon. Voting will be taken up immediately after dinner. A motion is in order to adjourn.

The motion was made and carried that the meeting be adjourned until 1:30 p.m.

* * *

The afternoon session was called to order at 1:50 by the president, Mr. MacKenzie.

Mr. MacKenzie: The duck season will now be discussed, and the secretary will take over the chair. Mr. O'Connell.

Mr. O'Connell: Mr. Foley, the floor is yours, if you wish.

Mr. Foley: I listened with much interest to our friend from Illinois. He referred to sentimentalists opposed to baiting of ducks. I think I know a little something about hunting ducks. I am not a golfer, I am a poor fisherman, and I don't care much about hunting upland game birds, but when it comes to ducks I want them by the millions and I don't want anyone there but me. It is the only sport that gives me all of the thrills and complete satisfaction that a lover of the outdoors could possibly hope for.

I know its joys and its terrible tragedies. I know what it is to go out in the marsh with sons and hunting companions. I know the joys of setting out a block of decoys, of getting wet and coming into camp after a day spent in the marsh. I have done it since I was thirteen years of age and hope to be able to continue. I know the tragedies of duck hunting. Two years ago my hunting companion of fifteen years lay dead beside me in the blind.

For the past thirty-three years I have enjoyed all of the various types of duck shooting with the exception of the larger waters on the eastern coast. I look at the duck situation not from the standpoint of the scientist or sentimentalist, although I confess there is something in it. If it is sentiment to go out into the marsh to hunt with your hunting companions; if it is sentiment to come into camp with your day's kill; if it is sentiment to want your sons to enjoy some of that sport - then I am a sentimentalist.

But there is another picture I see in this. I have nine youngsters--five boys. I want them to know something of the thrills I have had. I want them to understand as the years go on that there are going to be ducks for them to shoot, for them to enjoy, for them to bring home to their kids when they grow up. If that's sentiment, I'm a sentimentalist.

I do not belong to the practical duck shooters, but I've done it all my life - it's the only sport I know. I have live decoys now. I'm raising them and have raised them for fifteen years, because I know what you can do with live decoys. I know how wild ducks come in to live decoys. It lures them in because I've done it for many, many years. I know what feeding is. It's a very fine term. I've used it myself. I have fed ducks.

The group I went hunting with for many years controlled part of a marsh, the southern part of which was controlled by another group. There was an ample quantity of natural food, but the group in the southern part started feeding or baiting. They got the hunting and I understand that all over the marsh there was ample natural food and I think for ten years I went into that marsh year after year, week after week, and I think for a period of ten years the annual kill that I made on that marsh didn't exceed three ducks.

I have gone hunting, when the season opened on September 16, every day until December 5. Now I don't believe I can be classed very well as a sentimentalist. Rain or shine I pursued the wary duck. We have a growing feeling in Minnesota that the baiting of ducks is nothing more or less than a successful way of bringing them to the gun. There isn't any question on it, because it has been my experience on a marsh of ample food. Baiting men got hunting, while we just got wet.

I listened with very much interest to the statements this morning by the gentleman from Chicago with reference to the attitude and feeling of the sportsmen of Illinois and I have yet been unable to discover one sound argument in favor of Illinois' ideas. Let's see what he said.

They say that the possession limit of ducks is too small, that the sportsmen come from 250 to 300 miles to get ten ducks which isn't fair. For pheasant hunting we travel 250 to 300 miles to get six pheasants and nobody kicks, because we're interested in knowing tomorrow there are going to be pheasants to shoot.

They say that the regulations of the federal government prohibiting the use of live decoys is not sound. I tell you from practical experience of thirty-four years that I can take live decoys, and bring in any number of ducks, and I know that the use of live decoys is just one more effort on the part of, not unsportsmanlike sportsmen, but on the part of short-sighted sportsmen, to get their mess of ducks and get them easy.

To quote from Mr. Clow's report, 'Finally, I should like to make it clear that Illinois's vast share of the fall migration of ducks has nothing to do with artificial feeding. The ducks would come to Illinois whether artificial feeding was practiced in the bottom lands or not, simply for the reason that the 200 odd miles of bottom lands furnish a natural fly-way and excellent resting grounds, and the miles of corn fields on either side of the bottom lands would furnish feed for the ducks even if they could not find feed in the bottom lands themselves.'

So it isn't a question of feeding ducks which concerns Illinois sportsmen. It is apparently a question of getting the ducks, because there is ample feed according to their own statement, to take care of the fall migration. 'The proposition simply resolves itself into whether a large majority of the ducks shall be held in the bottom lands by artificial feed - thus keeping the sport in the hands of the sportsmen who buy licenses, who support the game laws and promote conservation in every way - or whether they shall be allowed to flock into the millions of acres of corn lands right adjacent to the bottoms, to be pests to the farmers - many of whom will kill them in self-defense - or a prey to hunters who in the main won't take out game licenses and who have no particular interest in conservation.'

Why isn't it possible to hunt in the cornfields of Illinois? One of the most desirable ways of getting ducks is in the cornfields.

'We know ducks arrive in poor condition.' The ducks, when they come to Minnesota and leave Minnesota, are, with rare exception, in good condition. I find ducks leaving North Dakota are in good condition, and the same is true of South Dakota. They leave Iowa in good condition. Now just what is it about the atmosphere of Illinois that the moment they leave Minnesota in good condition, the moment they leave Iowa, they immediately become emaciated and starved. I am afraid to my way of thinking at least the belief of our Illinois sportsmen is not sound.

If they are interested solely in the welfare of the ducks, and I think that's what we're concerned with here, rather than the welfare of the hunter, I think the time has come and has been here for some

considerable time, where the sportsmen should be more concerned with the welfare of the duck, rather than the welfare of the duck hunter.

Let me read to you the tragedy of Minnesota. In 1919 Minnesota shot 1,800,000 ducks. That dropped down to 1,000,000 in 1921. In 1922 there were 1,300,000 and the same until 1926 when it shot up to 2,200,000 ducks, and then dropped down in one year from 2,000,000 to 1,300,000 in 1927 and the same about until 1929, until 1930 it again went up to 2,000,000 ducks and then took the most precipitious drop of all. From 2,000,000 in 1930, it dropped way down to 500,000 in 1931! It went up in 1932 to 800,000, in 1933 to 500,000, and in 1934 dropped to 300,000 ducks. A drop from 2,200,000!! How long are we going to kill ducks, if one state like Minnesota with all of its waters kills only the same amount as the nesting ducks in North Dakota? I think it will be the tragedy of our country, if we are going to be so forgetful of the duck that we are formulating regulations solely for the benefit of the duck hunter.

We can't have our cake and eat it. I want some of that cake. I believe some of us want that cake too, for future years. Without taking up a lot of time, I want to summarize: In Minnesota we aren't convinced at all that the condition of the duck justifies an open season in the United States. We have had expressions of the hatch in North Dakota and in Canada and elsewhere, but how accurate those surveys are no one yet knows, but we do know that the kill in Minnesota has dropped from 2,200,000 to 300,000. That is one of the best evidences of the condition of the ducks.

I believe that there should be a national closed season on migratory waterfowl in 1936 and that is the attitude of the Minnesota conservation department. Any state that has had as good a kill and is willing to forego their season, I think that they are due some consideration. I move you that it is the sense of the association of midwest fish and game commissioners that the federal government shall order a closed season for migratory waterfowl in 1936, the form of resolution to be drawn by a resolution committee. I thank you very much.

Mr. Walters: I should like to amend that to include 1936 and 1937.

The motion was seconded.

Mr. O'Connell: The motion is now open for discussion.

Mr. Peterson: I enjoyed Mr. Foley's talk very much. While we have a lot of ducks in North Dakota, to me it seems that perhaps that's the only state that has got them. I don't know just how many ducks were killed in North Dakota this past year. I haven't had a chance to make a record of that yet, but even with the large amount of ducks we have in that state and the kill Mr. Foley has reported in Minnesota the past few years and the drop that it has taken, it surely goes to show that there is a shortage of ducks.

At a meeting I had with the directors at home, they stated that they would not be in favor of a more open season than last year, and if anything, they wanted more restrictions. Now in knowing the facts as they were at that time, the conditions we had, and the ducks we had,

they didn't feel that they should go out and demand an open season with big bag limits and long days. They instructed me, when I came down here to ask for just such a season, but at the same time I am satisfied that the sportsmen of North Dakota would shoot 100% on a closed season. I know very well that they realize that if we do have a closed season it is going to mean more ducks in years to come and assure us that they aren't going to be completely exterminated. With the report Mr. Foley gave of the kill in Minnesota - that's something to take into consideration, when they drop from 2,200,000 to 300,000, which is less, as was stated, than we have nesting in North Dakota.

Some of the members have asked about the totals of the birds nesting in North Dakota. We have totaled this and arrived at the figure of 725,973, as the total number of ducks nesting in North Dakota.

I think a closed season this year and possibly next year would be a mighty fine thing, and I'd like to see this conference go on record stating that.

Mr. O'Connell: - Mr. Rapp.

Mr. Rapp: In looking over the preamble of the constitution I just wondered if the motion as stated, is in order.

Mr. O'Connell: (The chair ruled that it was.)

Mr. Walters: We fully concur in the ideas as set forth by our good fellow commissioner, Mr. Foley. There is no use to go back into ancient history, but I should like to make a few remarks, that unless something is done, our boys are not even going to get a shot at ducks tomorrow. Someone has to call a halt. We have seen the disappearing bird life. We have crowded the antelope off the plains of Nebraska. We have gone through to restricted seasons and I think we can all see benefits derived from it, but I don't believe there have been the benefits we should have gotten.

I think if Ding Darling would have said, two years ago, "Boys, you're all washed up for two or three years," we'd have liked it and patted him on the back, but so long as we can argue about it, we are going to voice ourselves that way.

At an official meeting of the Izaak Walton League in Aberdeen on Saturday, they passed a resolution asking the game and fish department of South Dakota to support this movement. I'll just read the telegram I have here: "Resolved, that we strongly urge a closed season in 1936 on migratory waterfowl." by Alfred M. Parker, State Secretary, Izaak Walton League. We came with the idea that we were going to support this movement and I want you to know that we are going to support it.

We have one of the most important fly-ways in the United States for migratory waterfowl, but I can assure you whatever action is taken by this body will receive the prompt response and support of the South Dakota sportsmen in its entirety. South Dakota will consequently go on record as supporting this movement for a closed season for the next two years. Thank you.

Mrs. Frankel: May I speak for Iowa? It is very difficult to talk after Mr. Foley has presented such a splendid argument and we all realize our interest is in ducks. We are with the Biological Survey to that extent.

I think though, we are not taking into consideration what has happened. It has been acknowledged that there has been a great improvement. At least there has been improvement in the duck situation. The Biological Survey is looking over the situation not only from the United States, but from the point of view of Canada. We haven't had their figures presented, but I have found there were only a third as many ducks taken last fall as there were in previous years.

At our meeting last year the whole argument was that the South was shooting the ducks and that we were not getting them in the North. The fact is that the largest killing during the last season was in Minnesota and Illinois.

We know that North Dakota suffered and had practically no shooting, and it is very generous of them to be in favor now of a completely closed season. But the Biological Survey has been setting up a much more scientific way and progress has definitely been made.

If you close your season now for two years, we are going to have to face opening it again in a new way, with new regulations. I believe a restricted season will give good restoration. You will not destroy the organization already set up in scientific work and you will not destroy the enforcement work already set up and the Iowa delegation is in favor of following the Biological Survey's Rules and Regulations.

Mr. O'Connell:- Mr. Haskin.

Mr. Haskin: According to the voice from Canada, the fly-way of the ducks, I believe, is missing Minnesota more than it used to. They come more through the central part of the United States. We have them with us twelve months of the year--the same mallards that don't go south and don't go north. Minnesota never saw them. Statistics show that last year the ducks had increased in the United States and Canada. We had more ducks than we have had since 1929.

This year, what reports we have had, indicate a big hatch, both in Canada and in the United States and I cannot understand why with that ratio, we should recommend a closed season. I think we are justly entitled to a thirty-day open season this year, thirty minutes before sunrise until four p.m. in the afternoon. Did the other gentleman's motion have a second?

Mr. O'Connell: Yes.

Mr. Haskin: A closed season will not increase the ducks. A home for them will do it. We bought 70,000 acres of the finest breeding and hatching grounds in the United States and they are there. I am not in favor of a closed season so much - let all these gentlemen who shot ducks for so long, shoot a couple more. We are going to have plenty of ducks if we give them homes.

Mr. O'Connell: If there is no further discussion, we will then be ready for the question. We will vote by each state casting its vote.

Roll was called:

Illinois	No
Iowa	No
Minnesota	Aye
Missouri	Passed (Not officially represented)
Nebraska	No
North Dakota	Aye
South Dakota	Aye
Wisconsin	Aye

4 ayes and 3 noes - motion carried.

Mr. Foley: May I move that a committee of three be appointed to prepare a formal resolution.

The motion was seconded and carried.

Mr. Mackenzie: I believe that even in the face of the fact that this resolution has passed, we do not know what the Bureau of Biological Survey is going to do relative to the duck season. If they go along with our recommendation, well and good, but if they don't, and the states are given an open season on ducks, or in fact on migratory waterfowl, it would seem to me that we should be prepared with some recommendation for regulations if there is an open season, contrary to our wishes, or to the wishes of this association. That is just merely a thought. I would like to have an indication from the members here of what they think about it.

Mr. Foley: Either we mean what we said or we don't mean it. Any modification of that resolution is a definite weakening of the resolution. I believe any proposal we make we should back to the limit and to my way of thinking not be taking the attitude that while we want a closed season it is only half-hearted. I believe that would be inconsistent.

Mr. MacKenzie: I do not believe in a modification of the resolution.

Mr. Foley: Any proposal which would suggest to the Biological Survey any recommendation would, to my way of thinking, be taken as the attitude of this gathering. While we say we want a closed season, I do not believe this association should go on record as making any further suggestion.

Mr. Peterson: There is a lot of truth in what Mr. Foley says, but at the same time, as long as the vote was as close as it was, I don't see any harm in making recommendations for some kind of a restricted season. I do not believe it would hurt. I hate to have us go on record demanding a closed season when a number feel differently about it.

Mr. Haskin: I do not believe that we will see a closed season on ducks, but we will cooperate with the Biological Survey 100%. If there is a closed season where are we going to get money to buy homes for the ducks? The dollar duck stamp should be used for this purpose. I am willing to depend on the Biological Survey's judgment. They are surveying the duck situation.

Mr. Mackenzie: It is my thought, gentlemen that since there are only four states here who have voted for the closed season, I think we should entertain a motion relative to find out just exactly what the opinion of the several states will be at this time relative to further action on this question dealing with regulations in the event there is an open season. Does anyone wish to make a motion, or leave it as it is?

Mr. Johnson: I advanced the same argument last year. There are two or three ways in which this minority report might be conveyed to the Chief of the Biological Survey. The first is that the conference might approve a minority report, calling attention to the views of three of the seven votes. Another is that the resolution should guarantee the support of every state here present in the enforcement of such regulations as the Biological Survey prescribes. It is a fine thing to advocate a closed season and expect the Bureau of Biological Survey to enforce it. I do think we have an obligation and we should let Chief Gabrielson know that we stand ready to help him enforce the closed season. Many states will be handicapped through loss of duck hunting licenses, but we are assuming almost the full responsibility of the enforcement.

Mr. Foley: Last year the resolution that went to Washington carried with it a statement that we were urging additional federal funds in carrying out the regulations, and pledging the cooperation of the several states. Perhaps the judicious appointment of a committee might solve this thing. I think I understand Mr. Johnson's thoughts on the matter.

Mr. MacKenzie: Do you wish it appointed by the chair, or do you---

Mr. Foley: By the chair.

Mr. Mackenzie: All right, then I'll appoint: Mr. Hutton of Iowa, Mr. Foley of Minnesota and Mr. Thompson of Illinois. They will prepare the resolution to be heard later.

* * *

CONTROL OF HUNTING ADJACENT TO

SANCTUARIES.....Dr. M. M. Sullivan, Nebraska

Mr. Mackenzie: The first topic on the program is the control of hunting adjacent to sanctuaries, and I believe in Mr. Guy R. Spencer's absence, Dr. M. M. Sullivan has consented to lead this discussion for us.

Dr. Sullivan: Mr. Chairman, fellow members. I knew it would be my misfortune to have to say something to you after an orator. I am taking another man's place on the program, Mr. Spencer. I think perhaps most of you are acquainted with him. He is the Ding Darling of Nebraska; he is a cartoonist with one of our big papers. I will try to say a few words about hunting close to reserves.

There is not so much to be said about it, but there are quite a few things we have in common, or I believe in common. The government has either fortunately or unffortunately come into Nebraska and taken up 70,000 acres of land. We prided ourselves on having a real fishing and hunting state, and this 70,000 acres is taken out of the heart of our real fishing and hunting territory. The commission tried and thought we could save something for the state of Nebraska. We thought we could possibly save the fishing rights in this district. It has come to the question now whether we are going to save them or not.

You people without reserves do not realize the hardship it is to a state like Nebraska where we pride ourselves on our hunting and fishing and thought we had a regular paradise. Now the government comes in and takes 70,000 acres right out of the heart of it and shuts off hunting and fishing both. It is a game preserve for the propagation of wild life and shuts off any hunting. It is unnecessary to shut off fishing. But the imperial edict of the government shuts us out from anything.

It is a real hardship on the state leaving them without any enjoyment out of what we used to have. The people that live in Nebraska invited their neighbors in and had a pride in having a real hunting and fishing country and so we are not so sure whether this making a reserve there is fortunate or unfortunate. But anyway we have one.

The commission in Nebraska has a problem, of reserve rights to the state. We have another reserve of something like 40,000 or 50,000 acres in the western part of the state, the Platte River reserve, where hunting is forbidden. It takes out quite a little of the wild life of Nebraska. We have already spent something like $20,000 in making new lakes. One project has nine sections in it of a lake and right down below it has six sections. The states are making those reserves and it takes out of the ducks and geese and wildfowl that come through Nebraska, because they have so many places to stay where they are protected that it makes it a real problem for the fish and game commission to go ahead and still keep up a semblance of having a good state to fish and hunt in.

On the problem of shooting near the reserves, of course that is not a problem at all. Once a duck finds out that he has a home, he is going there to protect himself. He is wary when he goes out in the morning, but he knows the protection of the home place and he comes back so that as far as shooting around refuges is concerned it has no influence on duck life. There are just a few of them on small lakes and hunters generally find out they may get ducks up there and pass them around a bit or they may get caught, but it doesn't hold true as far as taking a large preserve and shooting close to it, because ducks know it is their home and they are not going to get up and get away.

I have heard it said if you allow shooting near a preserve you are going to have trouble. You can get ducks twenty-five miles away as easily as you can near a preserve. When they come back, they know just exactly the line they are being protected and they don't circle around to see if anyone is there or not.

Along that line we get a thought in our head once in a while - they were talking of feeding ducks. I have been taught since I was a boy to help feed ducks. We sow wild rice in our ponds at home. Conservationists used to tell us to furnish feed to them, but of late years another word has come in use--baiting ducks--and that's where the crime comes in.

This resolution that just passed--sometimes we have a bright idea and sometimes we don't. Two years ago, in 1934, the Nebraska commission was the only one in the United States that was really conservative. We had our own idea, when the government, through its own mistake, allowed the states to fix their own shooting hours. We in Nebraska had conservatism preached to us so much we sat down and said, "We'll be as conservative as any sportsmen want to be and just take the thirty days of shooting."

We found afterward it took, as the gentleman from South Dakota said, intestinal fortitude to live up to it. Illinois voted for a staggered season and South Dakota, North Dakota, Missouri and Iowa, in place of saying that we'll take a straight season to conserve the duck flock - in place of that they drew their seasons out as high as two or three months and Nebraska to be really conservative, and we were guided by the wisdom of our secretary, who is your secretary now--guided by him, we resolved to be as conservative as we could, and then when we come in today to hear the resolution passed that we are going to shut off the duck season, I am glad it has to go to a higher authority.

Two years ago, in place of having long seasons, they could have had shorter seasons, and finally after doing the damage, they want a closed season. I am not saying this because Nebraska was in the minority, but Nebraska had a real conservative program two years ago and if other states had followed it, they might have helped to preserve it.

When you talk about feeding ducks, I do think that everybody is against baiting ducks and taking a scattered season at the finish--baiting ducks for five days and then come in and shoot and slaughter them the next two days--that's not feeding ducks, that's baiting. Nobody is against feeding ducks--that's been taught all of us, and there isn't a single one in this gathering today that would disagree, but when you come to that other term, "baiting", and scattered season, making a reserve out of it and then shooting the next day or two, I think that's the crime everybody asks the Lord to punish them for.

The preserve system we have in Nebraska, as Mr. O'Connell has told you, brought a million ducks in Nebraska last year. They knew they had a home and stayed there. I rather think that saved more ducks than any closed season we'll have in Nebraska. If the duck has no place to go, he isn't going to stay. If we can make a sanctuary in Nebraska where we're going to keep a million or two million ducks over winter, we're going to save them. Then when you pass a resolution

that we're not going to shoot them this year, you're simply sending more ducks south to be slaughtered, and I don't think any real sportsman has it in his mind that he wants to shut out the sportsmen today from hunting. I had it in my mind if the gentlemen had said in 1950 we would have a closed season, I'd have said all right, but we want hunting and fishing for those that are living.

It is all right to say,"I want this for my children," but I'm not sorry that I didn't live to shoot elk, buffalo and deer, and if I can help to preserve game, to carry it along, it is my intention. We do not want to shoot ourselves out of any pleasure, but to carry game along so we will have pleasure out of it and hand it down as long as we can.

I do not think we are going to have one-third of the ducks with a closed season. They would be killed anyway. If the farmers and sportsmen are going to raise the birds, feed them and carry them along, they are going to at least have some of them. They are not going to try to protect the duck and not get any pleasure out of it. We are making the fun of hunting so hard that you are taking the sport out of it.

I do not like to be arguing, but I still think that we have not looked at this at the right angle and I hope that no serious results will come from it and will not be taken too seriously when it gets where it is going. I thank you kindly for listening to what I have said.

Mr. Johnson: I should like to ask a question about a proposition which confronts us. Do you have any complaints about damage being done to crops by ducks near refuges?

Dr. Sullivan: We have had no complaints on that score. They don't damage the crops like the geese do. We do have complaints on the geese though.

Mr. Johnson: It has been our experience where refuges are established in agricultural sections that within a quarter to a half a mile these ducks, during the last of July and early August, will thresh about two-thirds of the small grain crop.

Dr. Sullivan: We have had no complaints as yet, but it is possible we may have them later on.

Mr. Blizzard: The hardships that might be worked on the state wherein the government has acquired a preserve are a very vital thing. The different departments ought to look into it very closely at the time the government is acquiring them. When the Upper Mississippi Wild Life Refuge was created on the Mississippi River, Iowa refused to accede to the national government the fishing rights in the refuge. I believe Wisconsin did too.

The Biological Survey than makes rules and regulations which provide that during the open season on migratory birds no one can be permitted to go through the different sloughs and lakes without permission from the department. That simply means that they shut out fishing during the best time on the Mississippi River. The best

fishing time is shut out. It is something that should be watched very carefully in those areas where two conflicting governmental bodies have control. It is quite right that they want to protect migratory fowl, but it does destroy the thing that Iowa reserved, which was the fishing rights on the river.

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EXPERIENCES WITH AND POSSIBILITIES OF ESTABLISHING THE WILD TURKEY AS A GAME BIRD.....Harold Blakey, Missouri

Mr. President, Members of the Midwest Game and Fish Commissioners Association, Conservationists: Conservation of the wild turkey has been the focus of so much attention in Missouri over the past ten years that I am appreciative of this opportunity to discuss with you the trend of these activities and the work that the Research Division of the Biological Survey is doing in the life history and management studies of the bird in Missouri and adjoining States.

It became apparent in Missouri some ten years ago that the wild turkey, like the ruffed grouse and upland plover, would soon be reduced in numbers until it would exist only in a few isolated individuals or pairs and might become entirely extinct on the Missouri Ozarks range.

The distribution charts of the Biological Survey show the natural range of the species formerly extending as far north as the southern portion of Minnesota, Wisconsin, and Michigan. Today the turkey has been killed out and crowded out by land development until the remaining natural range of the species in these mid-western States is limited to the Ozarks Region of Missouri. It is probable that the next ten years would have witnessed the complete elimination of the turkey from the huntable resources of the State, if the economic exploitation of range and other factors responsible for the reduction of turkey populations had been permitted to continue without the intervention of conservation interests. The success of these recent conservation developments is yet to be determined.

As has been the case in conservation of other species, practical measures based on trial and error methods have preceeded fundamental research and study of management practices suitable to the needs. Organization of an efficient program will depend upon the research program now in effect. The multiple problems that have confronted the program in early attempts to recover wild turkey populations as a huntable resource clearly indicate the necessity of research as a directing factor.

Some conservationists have contended that the wild turkey stock on the Missouri range is contaminated by an intermixture of domestic blood inferior in quality as compared with the original bird as a result of the restocking program. The exact nature and extent of such breeding and its effect upon the native stock is yet to be determined in the field. The figures showing the number of birds produced and liberated would tend to support this contention, but the effect of these liberations on native stock is still a problem for

further investigation. Mortality among these liberations is excessively high, resulting in complete extermination in a high percentage of cases within the short period of forty-eight hours to twelve months following liberation, and before any interbreeding takes place. If my study of the Missouri bird may contribute to information in that field, permit me to dispell the idea that no pure strain native wild turkey remain in Missouri. My observations of collected specimens and birds in the field demonstrate to me that splendid specimens of the so called "moss head", "blue-head", "swamp", "little black" or "hill" turkey of the northeastern species, Meleagris gallapavo sylvestris, still exist in numbers that would surprise the casual observer on the Missouri range where the stock has been reduced to very meager proportions of former abundance. How many -- I do not know. No satisfactory method of taking a census of turkey population has been worked out, but I do know that by living with the birds, one can determine numbers using a township of range. Intensive study shows 15 birds brood stock on a single township of used range at the beginning of the breeding season in 1936, or approximately one bird per 3 sections, in the best turkey range of the southeast Missouri uplift.

In spite of such scarcity, this area supports an annual hunting season and the usual high percentage of illegal take. In the more heavily populated area of southwest Missouri, in Taney County, approximately 100 birds were killed during the 30 day open season in the south half of that county. This would equal the kill on similar areas in the more heavily populated turkey range of West Virginia and Pennsylvania. However, these figures are local, and will not justify a total range estimate. The present turkey research program will be extended until we have a complete picture.

It is essential that we have a clear idea of what native stock is available to work with, as difficulties experienced with turkey restocking and its limitations indicate the greater desirability of management of the native wild bird.

This discussion brings up the questions, what makes a wild bird wild, and what are the requirements or standards for the desirable wild turkey specimen produced artificially or naturally in the wild? I think it has been demonstrated that wildness is a parental education, plus a reaction experience gained from environment and association with others of the kind. Newly hatched poults of both wild and confined wild type birds demonstrate similar reactions. This parental training may be a vital basis for difference between native and planted stock, but the success of some experimental procedures indicate that these wild characteristics may be acquired to a certain degree later in life. It is well known that the young turkey gobbler learns a large portion of his wild habits during his second year or later, under the leadership of an older gobbler. The characteristics of a wild turkey should be defined in three catagories: 1. Reaction to environment perpetuating the race in the wild in good physical condition; 2. Reaction to man and beast making a desirable hunting resource; 3. Conformity to the physical qualities of the trophy specimen of tradition.

I find the desirable physical characteristics of the wild bird to be represented in light build, fusiform body, upright carriage, slender legs pink in color, definitely dark brown tipped and barred

rump and tail feathers, evenly black and white barred wing primaries and mottled black and white secondaries, pronounced bronze effect to the body feathers reflecting more of the red rays in their metallic illumination, a minimum size to the dulap and wattle in both male and female. Although some very desirable birds are being produced, breeders are yet confronted with the problem of producing the trophy type specimen comparable with the bird in the wild.

The foundation for the present work in Missouri was laid in 1925 when the State began a restocking program with liberation of a few domestic hens on the basis of farm-yard experience with domestic hens going wild. This procedure graduated into a program of mass production and liberation of artificially propagated wild stock. Great improvement in stock has been secured in recent years by holding select wild bred hens in isolated wild turkey range for mating with native wild gobblers. The culmination of this program is the production and liberation of a limited quantity of quality birds as broodstock under managed conditions, correlated with an intensive research investigation of the problems of management and study of life history of the species.

The liberation program has had its place in the conservation movement and filled a need for arousing and sustaining a public interest. The present restocking program under the direction of the research investigation may serve both research and public relation purposes. As frustrating as it may be at times, you know that funds for management of wildlife resources as property of the people of the State, are essentially a contribution from the sportsmen of the State. These same sportsmen in their impulsive nature are generally unwilling to contribute funds for a program without visible evidence of results in hope of realizing fruits of their contribution in years to come. For this reason, the artificial restocking program has been continued in a limited way in the foreground on the basis of information already available, while in the background, the research and administrative agencies are turning the greater portion of their efforts to fundamental research essential to the solution of problems in hand.

The program in Missouri has resulted in liberation of many thousands of birds under many conditions, but has met with little success in earlier years, due to the absence of necessary field management, protection for liberated stock, and research upon which efficient management would depend.

The State Game and Fish Department realized the essential nature of research on the turkey problem, and in 1932 appointed a game bird investigator. The program was still confronted with the absence of proper facilities for field management of large areas.

With the advent of the National Forests in Missouri evolving approximately three and one-half million acres of land all within the natural turkey range, Commissioner Buford has taken full advantage of the extensive facilities of the Federal Government for conservation development by lending his support to thorough cooperation between the State and the Forest Service.

These facilities for operation and cooperation have made research essential and opened the way for the Biological Survey to cooperate with both the State and the Forest Service in supplying a thorough

going research investigation for the benefit of turkey conservation within the State and elsewhere. A research station has been established at St. Louis in connection with the U. S. Forest Service headquarters, with personnel supplied by the Research Division of the Biological Survey. The Forest Service is cooperating with the investigation by furnishing office headquarters, transportation, and assistance in the field. The State is cooperating by furnishing material for operation and experimental areas under State ownership and supervision. Research areas have been established on State Game Refuges and State Forests and within the National Forests for intensive study of life history of the turkey, results of restocking activities, and practical measures for management of native wild stock. Initial studies are being made of distribution, food habits, reproduction, and limiting factors, including the effect of fire, grazing, predators, and annual kill. The investigation has not progressed far enough to outline many practical features of a management program, but possibly you would be interested in a few of the problems confronted and preliminary indications of results to be expected from practices now in force.

As far as the various factors of the range are concerned, there is every indication of highly desirable conditions for supporting a reasonable concentration of wild turkeys. The topography is ideally suited to the versatile characteristics of the bird for feeding, scaling escape flight, gobbling and roosting grounds, and cover for nesting properly located. Water, as the turkey uses and needs it, is thoroughly adequate, even in the driest seasons. The open and cut-over condition of the entire Ozarks affords an ideal dispersion of cover and open areas, and encourages a diversification of food supply that would not exist under heavily forested conditions. The annual mast crop far exceeds possible use; choice varieties of fleshy fruits much used by turkeys are abundant; and repeated firing of the range has developed a leguminous flora that is exceedingly rich.

The turkey shows no signs of cyclic fluctuations from any causes and seems to be little effected by disease as a limiting factor.

Under such conditions it would appear that turkeys would thrive, were it not for the extensive and serious nature of the evident limiting factors. The Ozarks are inhabited by a shifting squatter population, and agriculturally inclined resident population. No single section of land, no matter how isolated, is free of the native instinct of these hill people to live off of the land and kill game at will as an inviclable inherited personal right. One or more families or individuals in each community are usually responsible for keeping the turkey population down, or wiping it out within the radius of his travel on foot or horse. This rural population when added to the same character population of numerous small community centers scattered through the range, show an average of 10 people per section in direct contact with the range, which far exceeds the turkey population of the same range. To enter this domain of the ancestral hunter, who lived off of the game resources of the country, and effect conservation measures, is a slow matter of public education. Under these conditions, you can visualize the difficulties of protection and enforcement of law which is generally held in disregard by tradition in a country where personal liberties are virtually supreme.

The season of winter snows, gobbling season of spring, brooding season of mid-summer, and any happenstance of opportunity take a far heavier toll of turkey over a large part of this country than the legal open seasons of the month of December. Kill by man is probably the greatest limiting factor to turkey population in Missouri.

The major portion of the Ozarks turkey range is subject to free range stock law, jealously preserved as an inheritance of the people which results in over-grazing by a high population of all classes of live stock, including sheep, goats, cattle, horses, and hogs.

The present spring burning season is one of the best examples of possible devastation of range by fire. On less than two million acres of National Forest land where fire prevention and protection has been carried on intensively for two years, over 1200 fires burning from 10 acres to more than 3500 acres each have occurred between January 1 and June 1 of the present year, reaching a peak during the nesting season. Without the protection afforded on this area, one can visualize the almost total burns of years past. The destruction wrought on turkey reproduction is evidenced by burned nests and eggs found on the ground.

Predators known to affect the turkey at some stage in its existence are numerous. Snakes abound and take a heavy toll of eggs. The opposum is common and one of the worst of egg poachers sometimes responsible for taking grown birds off of the roost. Bobcats, foxes, and wolves are numerous; Cooper's sharp-shinned, and red-tailed hawks and great-horned, short-eared, and long-eared owls take their toll of birds. Ground hogs and other rodents destroying eggs and nests are common. Dogs and house cats are exceedingly numerous in the wild. The sum total of the effects of these predators and their influence in the restoration of the species are yet to be determined.

Over the past two years, restocking activities have been carried on under different conditions and systems of field management until it has been demonstrated that some satisfactory results may be produced by the restocking method. However, the degree of this success is somewhat clouded and made difficult to evaluate by the problem of protection to birds so managed. These experiments are being countered at the present time by establishment of protection areas for study of the management of the native stock for producing an increase of native birds under natural conditions of reproduction and survival.

Any solution of the intimate details of cause of loss and study of other factors of survival of the species will be confronted with the need for cooperation from every source to bring about education of the resident public to conservation thinking, rational use of natural resources, and protection of the range. As government ownership and forest management are established on the vast areas in the Federal Forests and like areas under State management are developed within the turkey range, a material improvement in range conditions will be experiences and the way prepared for carrying out a comprehensive wild turkey restoration program which is the major objective of the research investigations now being conducted.

It is hoped that the activities of the Research Division of the Biological Survey, in its cooperation with various State and Federal agencies, may be made more effective by opportunities such as this to discuss the wildlife research program of the Survey in the various states.

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FARMER-SPORTSMAN RELATIONS AND EXPERIENCES WITH FEE-SHOOTING SYSTEM.....F. T. Schwob, Iowa

Because 95.6% of the total area of Iowa is farm land, privately owned and most of it intensively developed for agricultural purposes, the farmer-sportsmen relationship is very important in Iowa.

The Iowa Game Survey made in 1932 and 1933 disclosed that the range for game birds and animals was out of balance; that there was an excess of food and a dearth of cover; that unless and until the elements of a suitable environment were provided, tears and laws were simply beside the point. In other words, they told us that the all important thing first of all was to provide a suitable home for our game if we expected to have it.

Iowa's game policy rests on the principals of game management; namely, providing suitable homes, which includes food, cover and water, etc. Then the planting of seed stocks if they are not present, and finally, the management and control of the land to limit the take of game to its productive capacity, the control of predators, etc., so that game and hunting can be perpetuated for all time to come.

With this setup, it is at once apparent that farmer-sportsmen relationship becomes very important. For instance, if the farmer decides he does not like the sportsman and does not want him on the farm, hunting in Iowa will be a thing of the past because of the small amount of publicly-owned land.

The former Fish and Game Commission had legislation passed to assist the farmer in controlling the trespassing on his farm. The law provided that where farmers practiced game management under regulations set up by the Commission, it was a misdemeanor to trespass on these areas without permission of the landholder.

Under this plan, 279 game management areas containing 859,000 acres were set up and posted with signs from 1932 to July 1, 1935. The principal idea was to work out a plan that would be satisfactory to the farmer, provide enough incentive so he would want to produce an annual game crop and allow good sportsmen to take off the annual surplus. As this work was going on, we carried on with the help of our field force, an educational program to educate the sportsmen so that they would understand the problem and would cooperate with the farmer to bring about the desired results. Cooperative areas sponsored by sportsmen's groups were set up where sportsmen promised to help farmers make improvements and to cooperate generally.

Immediately after the consolidation of the former Fish and Game Commission and Board of Conservation into the present State Conservation Commission, we made an investigation to find out whether or not we were actually accomplishing the desired results. We had been receiving complaints from hunters that the farmers were not allowing them to hunt on areas that were open to hunting and that had a surplus of game; that the best hunting territory in the State was in game areas and therefore, the plan had in fact reduced hunting instead of increasing it. During the 1935 hunting season, our field men kept a close check on these things and after we compiled the reports we found that in fact, a large percentage of the farmers on our game areas had been primarily interested in having their land in an area not to increase its carrying capacity so it would provide more hunting, but to keep all the hunters off their farms. The plan was very effective in controlling trespassing, but had not produced more game.

In interviewing these farmers, there was one fact which constantly came up. We had failed to provide sufficient incentive to the farmer.

In Iowa, the majority of our farmers are good business men. They farm because they make money or at least a livelihood. We had been asking him to utilize the waste areas or marginal land on his farm to produce game, fence out the live stock, plant the proper grasses and shrubs to provide game cover and food, and supervise the hunting during open seasons for the trespass protection he received from being in a game area along with the promise from sportsmen that they would help him. It is our conclusion that this, in most cases, is not enough incentive; at least the majority of farmers have not made the improvements and the sportsmen's cooperation, in most cases, has proven to be mostly promises.

We found on our areas about three types of farmers--the farmer sportsman interested in his own sport. This farmer we need not worry about because just as fast as he finds out how and what to do for game, he does it because he is a sportsman. After he has his game population built up so that he has a surplus to take off, he and his own friends from surrounding towns get the hunting on his farm.

The second type is the farmer nature lover. He wants birds and animals on the farm for the good they do and because he likes to see them. He never wants or allows any hunting. We are not so concerned about this type of farmer because they are not numerous. So long as he leaves environment for game and protects it, his farm will always be a sanctuary and each year will supply seed stocks for surrounding territory that may be shot too close.

The third type of farmer and we believe he is in the majority, is the business man farmer. He farms because he makes money and all the things he does on the farm he does with that idea in mind. He would be pleased if he had no game because if he has, he is bothered with hunters and all he gets out of it is trouble and bother. In our opinion, this farmer must receive from some source enough revenue to pay him for the time, material and labor expended by himself in producing and managing the game crop or he will not do it.

We have tried several pay-shooting areas in Iowa. To date, the returns have not been sufficient to create much interest on the part of

the farmer. For instance, on one farm containing 980 acres, the farmer received $24.50 for three days hunting privileges, or about 2½¢ per acre. In checking up, we found that he allowed friends to hunt without pay and that only about one-half of his farm was producing game because of lack of environment, and he could, in all probability, double the amount of hunting by making proper improvements which would increase his revenue to about 5¢ per acre. This amount, say $50.00 per year on 980 acres of land will not pay the taxes on the waste land on this farm and leave money to pay the farmer for his three-day time in supervising the hunters. He charges hunters 50¢ per bird for each bird taken, or pay for any improvements he makes during the year.

On another area that was set up primarily to compensate farmers for the crop damage caused by pheasants during the spring, we found that the farmers did not charge the hunters in a single case. In talking to these farmers, they reported that the hunters who hunted on their farms were such fine fellows that they did not charge them for hunting. I personally checked the farmer who had made the most complaint regarding damage and he told me that six hunters had hunted each day on his far; that they had come to the house to get their permission, had purchased $2.00 worth of sandwiches and coffee from his wife, had invited him to hunt with them, and that he had never known before that it was so much fun to hunt and that when the hunters all had their limits and wanted to pay for their shooting, he told them there was no charge and invited them back the next year. Since that time, this farmer has not complained about crop damage and the same group of hunters hunt his farm each year. The farmer has tried ever since to have as many pheasants as possible when the open season comes and he looks forward with pleasure to the time when these sportsmen friends return. This is one example where farmer and sportsmen have worked out the problem.

At the present time, we have five experimental areas on which we are, in addition to carrying on studies in game management, trying to work out the pay or economic angle of game management. On two of these areas, we are paying the farmer a lease or rental fee for the right to improve the area and for the hunting privilege,--the farmer to cooperate and supervise the hunting during open season for the lease fee.

On two other areas, we are expecting the farmers to receive their compensation from the hunters during open hunting season. On a fifth area, we are trying to work out the problem as the area is developed and as the necessity arises.

Now for our experience with sportsmen and sportsmen's organizations. Generally we find them long on talk and short on action. However, we do have outstanding examples of farmer sportsmen groups who are actually doing constructive work. In almost every case, we find that the groups who are actively working on a constructive program are in territories where we have conservation officers who have the knowledge and ability to provide the proper advice and leadership. In fact, it is our opinion that the field men in our department have the most important work to do. If proper farmer-sportsmen relationships are to be established, the Conservation Officer must have the qualification to do the job. Our experience has shown that where we have active sportsmen's groups that have not been working with our field man, that in many cases, they decide on a program that is not

practical and usually decide on a program that is almost impossible to accomplish. For instance, they decide to introduce California Quail when they haven't properly provided for their native Bob-white and demonstrated that they can increase and perpetuate this fine game bird.

It is our opinion that if the Conservation Officer has the proper training and ability to organize and lead that proper farmer-sportsmen relationships can be built up and good hunting provided.

With the experience we have had to date, we feel that the ultimate answer will be not one, but several plans of management.

1- The farmer-sportsman has his incentive by producing hunting for himself and friends. We are urging our field men to get as many farmers interested in hunting as they possibly can. Many times, sportsmen are able to get farmers interested and make hunters out of them.

2- The farmer nature lover we must work with so that he will know how and what to do to keep producing surpluses which will spread to surrounding territory. Usually, his love for birds is enough incentive.

3- The business man farmer who is not a hunter we believe must receive cash from the hunter or from the department in sufficient amount to compensate him for the time and material spent in producing the crop and supervising the hunting. We hope to find at least a partial answer to this problem on the experimental areas we have set up at this time.

4- We believe the program now being developed for proper land use will be of great benefit to our game program. Farmers generally in Iowa are coming to realize that erosion control must be a part of their farm practice. When farmers practice erosion control, they also create environment for game birds and animals. If we can show the farmer that by proper erosion control, he will bring about suitable conditions for game birds and animals, if properly handled and managed, and that each year, he will have a fur crop as well as a game crop to harvest; that this will furnish additional revenue from the fur crop and the game crop and will supply needed recreation for he and his friends or cash from hunters who desire to hunt on his farm, it is our opinion that we can, with this program, work out a more satisfactory program than with any other setup.

However, just what the final answer will be we do not know at this time.

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POSSIBILITIES OF AERATION OF LAKES IN CONNECTION WITH FREEZING OUT OF FISH DURING WINTER MONTHS..Dr. T. A. Surber, Minnesota

Last year we had a long, hard, drawn out season, and for that reason have had this apparatus developed, and I must say that apparatus has been developed by one of the warden force who is a natural-born mechanic, and a skillful mechanic, and we provided him with funds to go ahead.

We have two types of machines that we use, and I will show you by passing around some photographs in a few minutes so you can gain some idea not only of that phase of development but other things I would like to speak of in connection.

I think we must concede that air doesn't consist wholly of oxygen. I believe one part of atmospheric air is oxygen to four parts of something else, mostly nitrate. This would vary no doubt with altitude of our lakes and immediate environment, where it might be polluted to a great extent and have its chemical action modified.

We had an extra severe winter. Ice formed under out lakes, even under snow, in some cases to a thickness of 44 inches in numerous instances in the southern parts of our state. Snow varied in depth from two to four or five feet. This snow has a decided effect upon our lakes. In the southern Minnesota lakes, carp infested as they are, there is a very little vegetation. Vegetation, so long as it is clean and growing, and as long as the sun can penetrate, as long as it is covered with comparatively thin ice, gives off oxygen during daylight hours, and is particularly active in generating oxygen while the sun is shining. If the weather is cloudy, the amount of oxygen developed by these living plants correspondingly drops. Inasmuch as ice is only on our lakes during the shortest days of our year, we naturally have a comparatively small oxygen development. As soon as this ice becomes covered with a blanket of snow, the oxygen action ceases as much in the day time as night.

In some of our lakes where there is a vast quantity of large carp, oxygen must be consumed very rapidly, although it is conceded that carp probably do not consume oxygen as rapidly as other fish. Personally, I believe that those fishes such as bass which may in certain cases hybernate, consume very little oxygen. Apparently the first fish to feel the effects of the lack of oxygen are small fish, particularly minnows.

When openings are made in the ice during the winter, the fish immediately congregate and if they are not supplied with sufficient oxygen, the result is that they rapidly consume what little is in the water, and being conjested in areas die much more rapidly than they would if spread out over the lake.

In pumping experiments we have found lakes in which experiments indicated the supply was very low. It is the opinion of fish culturists and biologists that four parts per million of oxygen is necessary to maintain fish life, but we have information where three-tenths part per million had not caused any serious trouble, but do we know what is under the ice in that entire area of water? Are we sure that there are not certain areas in the lake which are not properly super-saturated with oxygen as about twelve to twenty-two parts per million?

A few years ago we carried on a series of experiments in one of the badly polluted lakes in southern Minnesota, Lake Albert Lee. Domestic sewage and some from a large packing plant were polluting this lake. Fish were dying there in the summer. We could find no trace of disease and naturally assumed it to be pollution, but why was this pollution killing them?

I was instrumental in getting a man down there to carry on investigations. At four o'clock in the afternoon this water might be supersaturated with oxygen, but at four o'clock the next morning, there was practically no trace of oxygen left. In other words, the pollution of this lake, coupled with the rapid disintegration of the vast quantity of dying vegetable matter in it consumed the oxygen so rapidly during the hours of darkness in midsummer that it absolutely neutralized the long period of daylight.

So what can we expect to happen under the ice during the long winter. That period this winter extended from December until the first of April at least, in southern Minnesota. With no plant life existent in the carp infested lakes, it could readily be seen what the damage would be. Now I'll take a report on one lake to show what we have done with a machine which I do not regard as being perfected by any means. This is Hyde's lake near Waconia, Minnesota

Report on Investigation of Dissolved Oxygen
in Hyde Lake, Waconia, Minnesota
January 28 and 30, and
February 6 and 13, 1936

Location	Dissolved Oxygen p.p.m.
January 28	
South of center	0.3
East of center	0.3
January 30 (After aerating machine had been put into operation)	
At machine outlet	4.2
300 feet from machine and in line of flow	2.1
200 feet from machine to one side of line of flow	0.9
East bay-to one side and out of sphere of influence of machine	0.30

Following January 30, inclement weather prevented much effective aeration. Sub-zero temperatures and snow storms made operation difficult, and, as a result, the oxygen concentration continued dropping, as demonstrated by samples taken on later dates. However, some fishes, primarily bullheads, were still alive on February 13 when only a trace of oxygen remained.

Location	Dissolved Oxygen p.p.m.
February 6	
South portion north bay	0.05
West portion north bay	0.30
Center portion north bay	0.10
East end	0.0
South side	0.05

Location	Dissolved Oxygen p.p.m.
February 13	
Center of Lake	0.05
East end	0.20
South portion, north bay	0.10

Theodore A. Olson,
Associate Biologist

Approved:
H. A. Whittaker, Director

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Evidently some fish have survived in that lake, where, as I said before, we exploded the old theory that fish would not live in water with a lower oxygen content than four or four and one-half per million.

Now there are other lakes that had certain quantities of living plants, that in the early part of the season showed a high oxygen content, where the fish were dying notwithstanding. They were not polluted - that is, through domestic sources - but merely certain areas of comparatively shallow lakes had such a quantity of decaying vegetable matter and it was destroying the oxygen faster than the living plants could generate it, purely because sunlight was excluded for a long period of time. Now in one lake, which is about four miles or better in length, on January 7, it at various stations showed - our readings were in parts per million - from as low as 5.9 to as high as 12.2. This we found to be in all probability due to the fact that certain pockets in sections of the lake had entrapped under the comparatively heavy ice - it was twenty-four to twenty-six inches thick - large numbers of fish in these comparatively shallow pockets, excluding them from the main body of the lake. This was clear evidence in our minds of the over-crowded condition of these areas because the oxygen was consumed. In these areas later on in February and March, the greatest loss occurred.

That's true of every lake in Southern Minnesota, where because of the lowering of the lakes there have been innumerable bays left with shallow channels leading to the lake. If it didn't freeze solid to the bottom through these channels, it did freeze so near the bottom the fish could not get out and the result is that severe losses occur in those areas.

I am mentioning that because it shows the necessity for reaching certain portions, or every portion of the lake, where we have reason to believe fish are living.

No doubt all of you have had requests from sportsmen's organizations and we have had innumerable ones for permits to open the ice. I am opposed to winter fishing, because while we have all of these 10,000 lakes in Minnesota and every two years stock fifteen hundred lakes with pike alone, they can't last forever and unfortunately the

big pickerel, which people from other states appreciate, are going to be exterminated first, and while sportsmen will tell you they don't take bass out of their fishing houses in winter, they will do it anyway, when the warden is not around.

The snow was so heavy last winter it weighted down the ice so it forced the water upward and in many cases covered ice to a depth of eight to ten inches, which freezes later on, but hadn't frozen before in some lakes, the fish had come out and were fishing among great tracks plowed through the snow, and became frozen in it. That was caused by holes left in the ice by the winter fishermen who were fishing through ice houses or fishing with hook and line in the open. Needless to say there was a tremendous loss.

Now a word about the machines. That machine in particular has several air pumps connected with it and in some cases we have with that a smaller machine to force current a total of 600 feet or more under ice. The whole purpose has been, not to get the oxygen under or to get air under ice containing oxygen, but to scatter that oxygen over a wider area under the ice to keep fish from concentrating at one point and dying. As long as fish are scattered over the lake a very small quantity of oxygen is required for sustaining life. That has been our big problem, and we think we have solved that to a great extent.

How can we get in sufficient oxygen to maintain it over a long period, so spring thaws will take care of the balance? Many of us have no doubt seen the ease with which oxygen can be gotten into a limited area and melting snow after it rains, but when it gets down in the water it doesn't scatter over this distance, so that has been our big problem.

In the case of a small lake we can carry a current out of here for six hundred feet, move the machine and pick it up and start again, eventually carrying it around the entire lake if it is a small lake, but we haven't yet been able to determine to our satisfaction just how long we are going to be required to pump to maintain fish life because the fish life in that lake is an unknown quantity, and the quantity of oxygen necessary to sustain life for those fish for any length of time must be based upon a determination of the number of fish to be supplied with that life-giving gas. I hope that I have said enough to give you an idea of what we are trying to do.

We suffer an annual loss, as our sister states do, on account of the lowering water supplies and levels. In our northern lakes, while we have difficulty in oxygen depletion in those lakes due to hot weather and no winds, they haven't been serious in those lakes, but in our southern lakes it has been so serious that in a few cases at least our loss has been almost 100%, but when we shall be able to carry on and have enough money to put a machine on each lake, I think we will solve the problem, and not before then.

Mr. Hutton: Have you made any tabulations as to the cost of operating this machine?

Dr. Surber: In most cases it takes them two days to get to a lake, you have to include the cost of shoveling snow for two days to get in, and sometimes hire a team to pull them in and it is a difficult matter to arrive at any figures which would be of any value.

Mr. Hutton: What would be the size of the lake you mentioned could be completely aerated?

Dr. Surber: Perhaps two and one-half by four miles. It is infested with carp and has a sandy bottom. Here is a danger we have had in shallow lakes, because operations of our machine stirs up bottom and aids to depletion of air.

(Further discussion followed at this point)

Mr. Peterson: Dr. Surber, do you consider this practical?

Dr. Surber: Yes, if you can get to your lakes in an average winter, it would probably be O.K. It is rather expensive, costing about $25 per day. Our cost last year was about $700.00

Mr. Peterson: Couldn't you restock fish in your lakes quicker and cheaper?

Dr. Surber: Yes, but the sportsmen wouldn't be satisfied.

(Dr. Surber and Mr. Peterson carried on further discussion on this subject)

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IS THE PHEASANT AN ECONOMIC ASSET OR LIABILITY?...Arthur Peterson, North Dakota; O. H. Johnson, South Dakota

Mr. Mackenzie: The next topic on the program is the discussion on the pheasant.

Mr. Peterson: North Dakota is not a pheasant state, and I believe you should allow Mr. Johnson to lead this topic. If it is all right with him, I think I will just turn over the discussion to him.

Mr. Johnson: This subject was assigned to the States of North and South Dakota and through an arrangement with Commissioner Peterson of North Dakota it was agreed that I should make the presentation. In assembling and preparing the material for this paper, I have of necessity stuck to practical rather than scientific facts and data. None of us are vitally concerned about the economic value nor the scientific names of the bugs and insects consumed, in season, by the pheasant, nor do we concern ourselves greatly about the pheasant's ability to consume the seeds of noxious weeds in sufficient quantity so that he may be regarded as an important element in weed control. What we do wish to know is, more about his feeding habits, the type of range that produces his choicest food in sufficient abundance to carry a bird population capable of providing a reasonable annual

gunning season for the sportsmen and, so far as possible, the farmers' "grounds for complaint."

An omnivorous feeder, the pheasant, like most humans and unlike most species of North American bird life, follows the course of least resistance in his quest for food. To his everlasting credit, is the known fact that his meal invariably consists of the material at hand and thus he becomes a valuable ally to the farmer in the control of insects in season and during periodic cycles.

In support of the above conclusion, reports on two investigations made in South Dakota provide some interesting comparisons on the pheasant's consumption of insects. In the fall of 1935 Verne E. Davison, associated with the Federal Soil Conservation Service in South Dakota, posted 78 pheasants and in the food tracts of these birds was found more than 500 "stink-bugs" of a variety highly injurious to wheat "in the dough" and new to South Dakota; while only 15 of this family of bugs were found in 285 birds posted in an investigation made in 1929. Birds posted in 1935 also had consumed large quantities of "red-legged grasshoppers", a small but extremely harmful variety, and but few of these "hoppers" were present in the food tract of birds taken in the 1929 investigations. 1929 was a normal year so far as hoppers and other insects were concerned, while in 1935 they were a distinct menace to agriculture.

On the other hand, his feeding habits result in a great variation in his economic status in different agricultural areas. For example: In the truck farming or garden areas of Colorado, investigations have revealed that he is rather a distinct liability because of his destructiveness to many varieties of ripening fruits and vegetables. In the more intensely farmed sections of the Mississippi Valley where he has been introduced, his economic status is more or less "in the balance." Such areas, however, will never become densely populated with pheasants, in that "too clean farming" makes both food and cover a limiting factor.

In the Dakots, parts of Nebraska and of Western Minnesota where the pheasant has given the best account of himself, we have large areas where intensive farming is <u>not the general practice</u>. Modern machinery has made possible farming on a large scale with its attendant waste; each year large tracts of cultivated land lie "fallow" with the result that nesting cover and food of all varieties is a more or less general condition. In seasons of normal rainfall, the fertility of the soil within that area is capable of producing and maturing a crop of foxtail or pigeon grass (wild millet) in cornfields after the corn is "laid by," a most excellent food and one that forms the principal diet of young pheasants during the early fall. We cannot, however, build up our defense of the pheasant on the grounds that he does consume weed seeds in great quantities so long as there still remain weed seeds in sufficient quantities to produce another crop. We do claim for him some measure of credit as an ally.

In general farming areas where corn is a major crop, the pheasant is accused of serious depredations to newly sprouted corn. It is claimed that he will follow a planter row and scratch out every hill in search of the sprouted kernel. Some even go as far as to claim that where corn is check-rowed and the plant still not up, he will

accurately pace off the distance between hills. Many hundreds of complaints of this character have been investigated by representatives of the South Dakota Game and Fish Department during the past 10 or 15 years and we have convinced ourselves and a majority of those filing complaints, that when a pheasant does dig out newly planted corn, it is not the germinated kernel nor any part of the plant he seeks; it's the cutworm or wireworm which he knows, if the field is infested with such worms will be found just below the surface of the ground next to the young plant.

Unfortunately, in seeking the morsel which has a particular appeal to him early in the spring after he has been on a dry seed and cereal diet all winter, he often destroys a hill of corn. We also know that because this depredation can be proven against the pheasant, he carries the sins of all other offenders such as mice, ground squirrels and crows. I shall make no attempt to explain in detail the results of investigations made by us of this damage, except to state that less than 1/10 of 1 per cent. of the hundreds of birds posted have had seed corn in their food tract. Nearly all have had cutworms and where corn was found it was invariably waste kernels from the tips and butts of seed-ears or the remains of some field mouse's cache turned up by the plow in preparing the field for planting. The waste of small grain or corn which occurs either in planting or harvesting, usually makes these varieties of food available in sufficient quantities so that a pheasant need not dig for individual kernels.

The Conservation Department of the State of Michigan conducted some rather exhaustive investigations of this subject some years ago and I have a copy of the report prepared by Dr. Paul D. Dalke, under whose direction the investigation was conducted.

Among other things, this report covers feeding experiments conducted during the investigation and revealed the fact that under favorable weather conditions an adult pheasant would consume an average of 10.8 ounces of food per week. This seems like an extremely small quantity of food to meet the requirements of a bird as active as a pheasant. However, we are not in position to dispute the figures and for the purpose of making certain computations, we shall use them.

Statistics gathered by the Agricultural Extension Service in South Dakota reveal that there is lost during corn harvesting 1.322 bushels per acre where hand picking is employed and 4.1336 bushels per acre where the husking machine is used. In hand picking operations, approximately 90 lbs. of corn per acre is wasted, sufficient to provide food for one pheasant for a period of 30 months and where machine picking is resorted to, the waste is sufficient to support three pheasants for the same period of time.

Statistics further reveal that harvesting losses of small grain for South Dakota range from 2.3% where the combine method of harvesting is employed to 3.7% where the binder and separator method is used. The U. S. Department of Agriculture places losses for the Great Plains Region at 4.5% for the combine method and 7.2 % for the binder and separator method. Reducing these percentages to pounds per acre, we have an ample food supply to support from one to two pheasants per acre during the entire year.

I merely refer to these figures to illustrate that it is safe to assume that corn and small grain usually found in the crop of a pheasant is waste and of no economic value to the farmer. There of course are many other species of birds and also animals, that compete for this food supply. These perhaps are mainly field mice and ground squirrels and in the case of the former, merely the germ from the seed is consumed, leaving the kernel of corn intact and just as attractive to the pheasant as though the germ had not been removed.

The Michigan report also deals at length with the carrying capacity of the range where only such foods are available as are produced on uncultivated and marginal agricultural lands. Had the investigation been made in some of the cornfields of South Dakota, they no doubt would have found foxtail seed available in sufficient quantity to support an unlimited pheasant population.

So far perhaps I have advanced no conclusive arguments regarding the economic status of the pheasant but in arriving at conclusions we should not confine our observations to the food habits of the bird. We should take into account his contribution to the support of the general Conservation program. Inasmuch as the entire Conservation structure of most states is supported by the dollars paid by the sportsmen for the privilege of hunting, and in view of the further fact that most functions of a Conservation Department are of general economic value to the public at large, it is our contention that a game bird capable of reproducing his kind in the more or less densely populated agricultural areas and which can withstand the intensive hunting of the present day, is a distinct asset.

The "dyed-in-the-wool" sportsmen, who represent possibly 25% of the total number of our people to whom feathered game hunting is attractive, are not greatly interested in pheasant hunting as a sport, due to the fact that these birds do not "lie" well for a dog, nor do they represent as sporty a target as the quail hunter or the "pass shooting" duck hunter craves; but from the standpoint of revenue, so essential to a Conservation Department, the license dollar is worth just so much, regardless of its source, and the interest of the 75% to whom pheasant hunting is a thrill and an attraction, could not be retained through the hunting of any other species of upland game bird known to us.

During the past ten years we have interviewed thousands of farmers, not only in response to complaints but at random, for the purpose of getting their opinion of the value of the pheasant. Of the general run of farmers, not to exceed 10% will condemn the bird as a distinct menace. Another 10% will defend him just as ardently as the other group will condemn him. The remaining 80% want the birds preserved, but kept within reasonable numbers. Most of them are satisfied that the pheasant, through his feeding habits, is more beneficial than destructive. While this cannot be proven, many farmers contend that the pheasant has entirely eliminated potato beetles in South Dakota. As proof of this they point to the fact that as soon as the pheasants became numerous 12 years ago in Eastern South Dakota, in some sections of which potatoes constitute an important crop, the use of poison in the control of potato bugs or beetles, has been unnecessary. Definite credit for this cannot be given the pheasant, but in the absence of a better explanation, the average farmer is willing to accept the theory as a fact.

We have found that the pheasant suffers loss of popularity with the rank and file of farmers, more because of the conduct of hunters than through depredations by the birds. This does not always mean that hunters commit acts of vandalism, but pheasant hunting, occurring as it does during the height of the corn harvesting season, means that an average cornfield where harvesting is often being performed by the use of a machine picker drawn by six horses, is invaded several times each day by groups of hunters, much to the distrubance and disgust of the farmer and not infrequently, carelessness on the part of the hunters results in a runaway and the smashing of wagons and machinery.

As one means of reducing these complaints, the Commission in South Dakota has instituted a policy of permitting afternoon hunting only and this is proving intensely popular with farmers, as it gives them an opportunity to arrange their fall work so as to reduce to a minimum the annoyance incident to the hunting season.

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EXPERIENCES WITH ROUGH FISH REMOVAL OPERATIONS...George Weaver, Minnesota; Robert A. Gray, Wisconsin

Mr. MacKenzie: I believe Mr. Weaver is our first speaker on this subject, so we will now give Mr. Weaver the floor.

Mr. Weaver: When I was instructed by the boss to attend this meeting, I was furnished with a copy of this program and I noticed that we were on here to discuss my experience in connection with the removal of rough fish. That is quite an order. I do not believe that I would be expected to divulge all the secrets. I am going to make my talk pretty short.

I would like to say in behalf of our state I believe that we have today the best system ever adopted by any state for the removal of rough fish and lake improvement. The reason I say that and feel it is a success is because it has succeeded. First, we have been able to control the carp to a certain extent in most of our inland lakes and accumulate sufficient revenue from our operations to pay the expense of all such operations. We happen to be the only branch of our division that is entirely self-sustaining. In addition to that, we are able to assist the other departments in their efforts to carry on in the way of revenue, such as assisting the propagation department, the burying of dead fish, fish rescue work, and a number of different kinds of work that the department is called upon to take care of which must be paid for out of some funds. That is why I claim that out plan of operation is a success.

We also assist in the way of pollution surveys to the extent of about $10,000 a year to the university for that purpose. There are some drawbacks of course to the present plan of operation and I believe that if some changes were made in it, some amendment to the present law, it would possibly help some. The greatest drawback we have now, I believe, is a lack of confidence in our plan of operation. We go into a territory where lakes that we know require our attention, that we can improve by removal of rough fish, and we meet with some

opposition, usually from the local people, who at some time or other have been engaged in commercial fishing themselves, possibly under a license or possibly under contract. That of course, is purely personal. It is supposition on their part. They know as well as we do that the lake should be worked, the carp should be removed because it is generally agreed and understood that lakes may be improved by the removal of rough fish, especially carp, but it makes no difference with those people because they expect to get a dollar out of it and in that we are handicapped.

I believe we could improve the present system somewhat if we were to require the investigation to be made by some other agency except the fisheries. It may remove that feeling that exists with some that the fisheries, or the management of the fisheries, are encouraging that sort of work. I do not know just how that could be done, possibly through the university or some scientific body that had the confidence of the people, and then when a lake was determined by them to be in a condition that required our attention, that we would get instructions to go in there and work.

There are some people who not only in our state but in others that feel that our plan of operation is not the proper one and that the state itself ought to do this work. Well, I don't know just how they would expect to improve it. Our law now provides that we may handle this work either by day labor or by contract, but in any event whatever we determine to do, it must be done under the direct supervision of our director, that means that we draw up a contract with a fisherman after he has been investigated, if he qualified as to special equipment, etc. and then he is directly under our supervision. He can't make a move unless it is authorized by our supervisor so that in any case where we operate, one way or the other our department is responsible if a good job isn't being done and not the contractor.

I don't know why I should say too much about that now. I will say that those same people that object to our fishing in inland waters haven't a word to say in opposition to our own plan of commercial fishing under licenses. They don't even want warden supervision. I don't know why that is, but in inland fishing we do have supervised fishing. We watch it very closely, not only the removal of fish, but the disposition of fish. Every pound of fish is carefully checked, weighed and disposed of with the highest possible price available at the time.

Most of our work is being done in the winter time. The main reason is, I believe, that we feel we can operate more successfully from a financial standpoint than we can in the summer time. Possibly we could operate the year around if we had ponds constructed to hold our catch during the months when there was no demand for that grade of fish. I believe in the state of Wisconsin you do have them, and I would like now to be excused and I will let the rest of the discussion go on with Mr. Gray.

Mr. Gray: It's getting along pretty close to 5 o'clock. The day's been a warm afternoon and George's talk I think covered the general set-up as far as both states are concerned and I won't take very much of your time. I imagine all of you would like to get out and stretch.

I was just thinking this afternoon during the discussion with reference to saving of ducks, and everybody so vitally interested in seeing them increase,--just thought how nice it would be if carp were as close to being exterminated as ducks are in the southern part of Wisconsin.

Of course, as you all know, the carp were introduced into this country by the U. S. Bureau of Fisheries and distributed throughout the various congressional districts with the idea in mind that they would be a great asset to the country. Some people still retain that idea. They regard them purely as a commercial fish and feel that they should be propagated and disposed of and the revenue derived from their sale used to further conservation work.

Particularly in Wisconsin, this idea is gradually becoming extinct as far as the sportsmen are concerned. The sportsmen in Wisconsin want to see all of the carp removed from each and every lake, immediately, due to the fact that in the past we have had a closed season on carp in many of our lakes and they have been allowed to grow to a size wherein they have become marketable and have spread to practically all southern Wisconsin waters. Because there was a certain amount of money involved in the taking or the sale of the fish, there have been many difficulties.

When these fish were first introduced in the state of Wisconsin in 1885 it was heralded by each and every individual as a great boom to the state, in fact the records of the conservation department will show that petitions have been passed to the legislature requesting that further efforts be used by the legislators in getting more of these fish into this area and asking that a bounty be placed on black bass and pickerel.

Now in 1912 the first contracts for rough fish removal were issued by the conservation department. We have been operating in the inland waters of the state of Wisconsin under what is known as the contract system, which Mr. Weaver spoke to you about. However, this system really isn't accomplishing what the people in this particular section of the country want and that is practically an extermination of these fish in our small lakes, particularly the lakes that have a large tourist population in the summer months--the lakes that have an industry of their own as far as tourists are concerned. It hasn't worked out just as it should.

The reason for that is that only the marketable fish have been taken by the commercial fishermen. They have been allowed to use a large mesh the small ones have escaped with the result that we have had a gradual crop coming on year after year. True enough, when a lake becomes infested with carp, the reproduction of the small fish is not as fast as when there are only a few thousand pounds of adult fish left in the lake. Why this is true, I don't know, but it seems to be the case.

Now, just to show you what a few years will do to populating a lake, the legislature in the state of Wisconsin closed the fishing operations and prohibited the conservation commission from issuing contracts in Lake Koshkonong in 1913. This lake was closed for a period of ten years to commercial fishing operations. At the end of

that time, in 1923, they had destroyed practically all of the game fish in that lake. It was originally classed as the greatest duck hunting marsh in the middle west. At the end of ten years no ducks were seen on the lake, with but very few exceptions, and game fishing was practically extinct. By that time the people began to realize something should be done about it and so during the legislature of 1923 these particular restrictions were lifted.

The result was that there were seven contract fishermen who were awarded contracts and removed in 1924, some four million pounds of fish in this lake. You would naturally think that it would take a lake quite a while to come back, but such was not the case. Within three years the vegetation became plentiful again, ducks returned, and there was good game fishing. There were still fish left in the lake.

In the fall, I presume, there were probably 15,000 or 20,000 deep water ducks on this lake, and the commercial fishermen who had contracts pulled out a lot of vegetation. The ducks immediately moved out in the center of the lake so the boys didn't get any shooting. They immediately stormed the conservation commission saying, "Stop - no more seining until the duck season is over." The commission at that time thought that perhaps was the advisable thing to do, so operations at that particular time of the year were stopped for the time being. This gradually went on from year to year. There was no seining during the duck season and no seining during the spawning season, and at the present time there is no more vegetation in the lake--the ducks are gone again, and there are millions of carp--they are small and not marketable.

People in that section of the country right now are demanding that the conservation commission do something immediately to remedy the situation. We have had three crews operating in this lake since 1932, whenever they could successfully operate. Since 1932 we removed approximately 2,800,000 pounds. Just the other day an organization was formed in the town of Koshkonong called the anti-carp club, and they want these fish taken out and right away.

That is what we're up against in the State of Wisconsin right now. We don't have to beg to get in this section of the country now. Our trouble is to stall them off until we can get someone to operate, because these fish have increased so within the last five or six years.

I believe that the time has come in the southern part of the state of Wisconsin, or the central part to the southern boundary, when we have to class the carp just as we class the forest fire. We have to class it as a detriment to wild fowl and to fish, and we must go out and remove this fish by funds which the legislature supplies, either from sportsmen or taxpayers, and use this fish either as a fertilizer or bury it.

It is a known fact that carp is a food and no one likes to see food destroyed, but I don't believe we can continue to commercialize the carp at the expense of the sportsmen in this section of the country.

The Great Lakes are producing a marketable carp, and by the way, I believe you always have to treat the Great Lakes from a commercial standpoint. I believe it is perfectly proper to allow a large mesh in

the Great Lakes--to market this fish, because I don't believe you can ever exterminate them or cut them down to any population wherein they won't be detrimental. But our inland lakes--we have many of them that have a population of out-of-state people in the summer time and also residents of the state who come out to spend their vacations and summer months, and I don't believe we can figure on commercializing any more in these areas.

The last Wisconsin legislature passed a law appropriating $150,000 our department for the removal of rough fish with our own crews, by that I mean state-owned equipment and state employed help. There is a clause in that which says this money is eventually to be paid back to the general fund and we are more or less obliged to do that. This means of course we will have to proceed along commercial lines until this $150,000 is paid. What we hope to do is to make enough money from some of our areas to offset the losses in other areas which we know are going to occur. We are going in and remove fish, large and small. If they won't take them, we're going to bury them or give them to farmers for fertilizer, and I believe it won't take very many years to convince the people that the removal of rough fish should be a division which should not be self-supporting as far as making it pay.

Just to show you what we can do by removing small fish--with two small traps a year ago this spring, we removed 40,000 pounds of small carp without any serious loss to game fish, 40,000 carp which weighed eight fish to the pound. If you multiply 4 by 8 you have 320,000 fish. If you multiply that by five or four, I am assuming a carp would be allowed to grow until he obtained a large size, you have over a million pounds of fish at practically no expense, and we are away from a lot of grief.

I sincerely believe this can be done and I believe it is the only solution to the control of rough fish. We have to forget all about commercializing, the money derived, and take them out of our lakes to give our game fish a chance and have some vegetation so the duck hunters will get a little shooting and after all it is the sportsmen we are interested in and we are endeavoring to do that very thing.

We are starting state operations. At the present time we have about ten contract fishermen. From 1912 up to the present time they have been removing from inland waters a little over sixty million pounds of carp. This has been going on since 1912. Our big year was 1924 when there were about six million five hundred thousand pounds removed. In 1934-35 we removed six million pounds. From October 1 last up to the present we have removed a little over five million of which we have about one million five hundred pounds at the present time. With this procedure carried out year after year, we still have plenty of carp and I presume we always will have. We can go into a lake, remove fish, and in a few years do the same thing all over again. I believe we must go right in and clean them out and give the sportsmen an even break. We haven't been doing that. I don't believe that our department or commission have been to blame for it. We have to ask the people instead of having them ask us. The time will come, George, when they will plead with you, and they will demand of you, to come into their areas to seine, summer, winter, spring or fall.

I don't believe I have bery much more to add. It is after five now, and I believe most of us are about ready to adjourn.

Meeting adjourned at 5:15 until 9:30 in the morning.

Wednesday - June 17

The meeting was opened at 9:45 by Mr. MacKenzie, President.

CONTROL OF FISH, GAME, LAKES AND STREAMS IN THE VARIOUS STATES BY FEDERAL AGENCIES....E. V. Willard, Minnesota; Ernest Swift, Wisconsin

Mr. MacKenzie: Our first subject on the program this morning is the control of fish, game, lakes and streams in the various states by federal agencies, and Mr. E. V. Willard of Minnesota will begin the discussion.

Mr. Willard: The large number of projects which are being financed by the federal government as a means of furnishing unemployment relief, the extensive areas of lands purchased by federal agencies for national forests, migratory fowl breeding grounds and sanctuaries, expansion of Indian Reservations, land resettlement projects and other purposes, and the machinery being set up for the future management of these areas, consciously or unconsciously is making federal influences in fields heretofore viewed as belonging exclusively under the jurisdiction of state agencies, more and more pronounced.

Meritorious as are the immediate purposes to be accomplished by these extensive federal operations, there are those concerned with the states' future place in the conservation picture who see in these activities implications and possibilities which may seriously affect state and local government prerogatives and functions, as well as adversely affect the normal sources of income from which the states' conservation programs at present derive their chief support.

Apprehension over what may happen to the jurisdiction of the states in the management of their wild life resources doubtless inspired the program committee to assign the subject of this paper for consideration and discussion as a part of the deliberations of this association.

That there is ample reason for the states represented here to look askance on every movement that may result in the federal government sharing with the states, jurisdiction over wild life, becomes evident to everyone who realizes the part that incomes derived from wild life management play in the support of state conservation programs.

The total annual turnover within the Department of Conservation of Minnesota is approximately one million dollars. This represents funds made available by the legislature for the management of forests, parks, waters, lands, minerals, and tourist advertising, and from revenues received from the management of game and fish. Of this amount more than one-half comes from the latter source. I have not taken the time to make a factual analysis of the sources from which the other states represented here derive support for their conservation activities but I dare say that the dependence of most of them on game and fish revenues is as critical as it is in Minnesota.

I stated that the states should look askance on every trend or move towards the federal government sharing with the states, wild life management. I emphasize sharing as I am convinced the time is remote when the game and fish resources of this nation in their entirety will be made subject to federal authority to the exclusion of state jurisdiction. The fixing of the seasons for the taking of upland game, often by counties as units; the feeding of birds in scattered areas during severe weather conditions; the closing of certain lakes or portions of lakes for the protection of spawning grounds and the opening up of others to angling; fixing of bag and creel limits; removal of rough fish and the enforcement of laws and regulations dealing with these and numerous other problems, even when confined to a single state, are tasks which try the ingenuity of state organizations in intimate touch with local conditions and who sense local public opinion and possible reactions. To attempt to administer all of the needs and expectations of the peoples of 48 states in all of these matters and delegate authority to do this to the federal bureaus who now have or claim to have some kind of jurisdiction or other over wild life, would present an impossible situation from the outset. Such a complete federalization of wild life management would in all probability not be suggested by even the most ardent believer in the superiority of federal over state governmental capabilities.

Even if the administration in whole, of our wild life, by the federal government, would be practicable, there is little in the records of past performances in attempted federal administration of wild life to lend support to an extension of this authority as a means of coordinating, unifying and making more simple, wild life administration practices.

The National Forest Service, National Park Service, U. S. Biological Survey, Soil Erosion Service, Bureau of Fisheries and the Bureau of Indian Affairs, are all attempting to deal with game or fish, or both. President Hoover, in his message to Congress on December 2, 1929, had this to say about the confusion of authority within the federal set-up.

> "The conservation of natural resources is spread among eight agencies in five departments. They suffer from conflict and over-lapping. There is no proper development and adherance to broad national policies and no central point where the searchlight of public opinion may concentrate itself."

Coordination of federal activities as urged by President Hoover has been attempted in some form or other for a number of years. The fact remains however, that such coordination has not yet taken place and is probably no nearer to realization to-day than when first proposed. The confusion to which he then referred is the confusion of to-day.

If it is true that placing of complete jurisdiction over wild life resources under federal control is impracticable, it would appear that the surrender of partial jurisdiction by the states has even less to offer in its defense. Divided responsibility never adds to efficient management of any enterprise. The creation of dual organizations

to manage wild life will not only add to the burden of the sportsmen of the states involved but will seriously disorganize and curtail the states' own conservation programs and at the same time yield insufficient revenues to federal agencies to enable them to effectively exercise control. It will mean diffusion and dissipation of resources and a breakdown of state organizations developed and trained by the states from early pionnering times, organizations which are capable of sensing the problems and needs of their respective states more intimately and are more directly responsive to public opinion than can be expected from the most perfectly developed federal organization functioning from Washington. The responsibility for the administration of our wild life resources, except as it applies to migratory species, to be most efficient, must not be divided.

What then are the trends that imply a tendency on the part of federal agencies towards instituting wild life management plans of their own to compromise or supersede state jurisdiction and which have inspired this discussion? There is not sufficient time to brief authentically, even in the tersest language, all of the references to wild life and its place in federal bureaus and departments, contained in laws which have been enacted by Congress through the years, nor am I qualified to make such a brief. It is sufficient to state however, that while most of the laws dealing with the jurisdiction by federal agencies over wild life are conservative in their language as regards interference with the states' prerogatives in the same field, broad references to the subject contained in many of them are nevertheless significant in their implications.

To illustrate, under the so-called Weeks Act, the President of the United States is authorized to designate - "Such areas on any lands purchased by the United States under the provisions of Sections 513 to 519 and 521 of this Title, as should in his opinion be set aside for the protection of game animals, birds or fish."

The Act of March 4th, 1907, declares -

> "All money received by or on account of the Forest Service for timber, or from any other source of national forest revenue, including moneys received from sale of products from or use of lands in National Forests created under Section 471 B of this Title, and moneys received on account of permits for hunting, fishing, or camping on lands acquired under authority of Sections 513 to 517 and 521 of this Title, shall be covered into the Treasury of the United States as a miscellaneous receipt, and except as provided in Sections 500 and 501 of this Title, there is appropriated and made available as the Secretary of Agriculture may direct out of any funds in the Treasury not otherwise appropriated."

If a speaker of the legal profession had been assigned this discussion he doubtless would have dwelt at length on the provisions of a large number of Congressional Acts and court opinions dealing with federal control over wild life. I cite the one act above referred to, to illustrate that wild life management is given a decided federal status in some of these acts. It is not the language of the

statutes themselves however that has been the cause of so much alarm. It is the rules and regulations that these statutes have inspired in the minds of federal officials with vested prerogatives and suppressed ambitions, to whom the administration of these laws have been delegated, that merit the attention of states and state conservation officials.

One such regulation which has perhaps caused more wide-spread speculation among the states' conservation agencies as to the degree to which the U. S. Forest Service plans to invade the field of wild life management is the one issued by the Secretary of Agriculture under date of March 29, 1934 known as Regulation G-20 A. Doubtless most of those present have read and are acquainted with this famous regulation but it will be quoted to refresh your minds as it embodies a bold statement of what the U. S. Forest Service doubtless considers its legal rights as regards the control of wild life resources within National Forests. Following is the regulation:

> "Reg. G-20 A. When the Secretary shall determine upon consideration of data and recommendations of the Forester that the regulation on the prohibition for a specified period of hunting and fishing upon any National Forest or portion thereof is necessary for the accomplishment of the purposes above set forth, he shall designate such National Forest or portion thereof, establish hunting and fishing seasons therefor, fix bag and creel limits, specify the sex of animals to be killed, fix the fees to be paid for permits, designate the authorized official to whom application for permit shall be made, and describe the terms and conditions under which hunting and fishing shall be conducted with a view of carrying out the purpose of this regulation. Public notice of such designation shall be given by such means as the Forester shall deem adequate for the purpose. Carcasses of animals or fish taken under permit shall be marked or tagged for identification as directed by the Forester."

The protest to this regulation written by Mr. J. I. Farley, Executive Officer of the Game and Fish Commission of California, and the opinion of the Attorney General of that state holding that the authority for such regulation, except as it applies to migratory birds, is lacking in law, as well as the rejoinder defending the same, by Hon. R. G. Tugwell, Acting Secretary of the U. S. Department of Agriculture, are undoubtedly familiar to most of you.

In Mr. Farley's letter he emphasizes 1) that the condition which seemed to have prompted the issuance of the regulations, was failure of the Fish and Game Commission and the Legislature of California to have properly protected and managed wild life, in refutation of which he cites the close cooperation and harmonious relationships which had existed between the U. S. Forest Service and the state Fish and Game Commission in the management of wild life within national forests in that state; 2) the effect on state revenues and the added burden on sportsmen that would be imposed by any federal plan of setting up special fees for hunting and fishing privileges on federally owned lands; 3) the creation of future conflicts and dissensions between

state and federal wild life management organizations in face of what had been friendly cooperation between the Commission of Game and Fish and the National Forest Service in the past, and 4) the diffusion of revenues between national and state agencies and as a result the curtailment of the work of the state.

In his opinion holding that the jurisdiction of the National Forest Service within national forests does not extend to the management of game and fish, Hon. U. S. Webb, Attorney General of the state of California, cites among several other federal and state legal authorities Section 480 of Title XVI dealing with national forests.

> "The jurisdiction, both civil and criminal, over persons within national forests shall not be affected or changed by reason of their existence except so far as the punishment of offenses against the U. S. therein is concerned; the intent and meaning of this provision being that the state wherein any such national forest is situated shall not, by reason of the establishment thereof, lose its jurisdiction, nor the inhabitants thereof their rights and privileges as citizens, or be absolved from their duties as citizens of the state."

In an analysis of regulation G-20 A made by the Attorney General of the State of Minnesota at the request of the speaker, he similarly points out the lack of legal justification for the issuance of such a regulation. He cites a statute from Minnesota which has been the foundation on which the state has premised its authority with respect to wild life management and which is well known to everyone within Minnesota who has to do with this phase of conservation which reads:

> "The ownership of wild animals, so far as they are capable of ownership, is hereby declared to be in the state, not as proprietor but in its sovereign capacity as the representative and for the benefit of all of the people in common."

This statue was enacted by the Legislature of 1919. In his analysis he uses in part the following language:

> "The writer, (Mr. A. D. Brattland, Asst. Atty. General in charge of Conservation matters in the state of Minnesota) is without sufficient imagination to conceive of any sound or serious reason for the enactment of such regulations in face of the fact that control and sovereign ownership of all wild life, with the exception of migratory fowl, has been concededly within the province of the individual states for a great number of years."

> "To divide the authority of control in such a vital subject to the citizens of Minnesota would serve only to raise havoc with the years of constant endeavor towards educating the people within the state in being conservation conscious."

In his rejoinder to the protests made by the officials of the state of California, Asst. Secretary Tugwell, denies any intent under Regulation G-20A to interfere with the normal functions of state conservation organizations in the management of their wild life resources. I suggest that those who have not already done so read all of Asst. Secretary Tugwell's letter dated May 23rd, 1934 and directed to Mr. J. I. Farley. I will not quote it in full in this discussion. The substance of the communication however attempts to justify the regulation in order to give the National Forest Service the right and authority to effect control over wild life within national forests when the states fail to do so. His letter in part states:

"There are cases where cooperative effort has failed to provide a sensible system of managing a forest or part thereof in the interest of wild life production. This failure is not due as a rule to a lack of cooperativeness on the part of officials in charge nor is it due to the inadequate knowledge of conditions prevailing and the action required. It is due largely to inadequate and inelastic state laws or other circumstances over which officials have no control. This results in some areas being depleted of wild life, while other areas become overstocked."

Later on in the communication, after further explanations of the purposes of the National Forest Service under this regulation he makes the following statement:

"In this way it (Regulation G-20A) becomes an effective instrument for the accomplishment of a definite goal and it would appear that the question of jurisdiction should be subordinated to the paramount issue of getting the greatest net public benefit from the public property."

Still further on - "The point should be emphasized however that the regulation will be applied to specific cases where cooperation has failed * * * * * * * "

The significant thing about regulation G-20A and other regulations under which the National Forest Service in part functions, is that in no case, so far as I have been able to ascertain, is any reference made to the state or the states' authority to control wild life. If indeed as Mr. Tugwell suggests, authority by the states to control its wild life resources is recognized, it would seem that regulations like G-20A to guide local forest supervisors and other federal representatives in the management of the forests might impress or certainly imply an attitude on their part not to undertake any wild life control programs except where it has been clearly shown that the states have failed or refused to aid in the kind of control needed by the National Forest Service for the purposes of the fullest development of the forest resources within the areas affected.

Of course the outstanding impression left by federal officials who defend the promulgation of federal regulations affecting wild life on the grounds that they are needed where states fail to do their part, is that in these cases the federal agency involved is not only the complainant and the complainant's witness but reserves to itself the right to be the judge and the jury as well. This to the minds of

apprehensive state conservation officials and organizations can be made to justify expansion of federal authorities to any degree desired by such authorities, a condition which is far from comforting or reassuring to the stabilization or permanency of state plans.

Not only should state conservation organizations be concerned over enactments by Congress extending broad jurisdiction over wild life to federal agencies, but the acts of the states themselves in voluntarily surrendering their own rights and prerogatives in the field within areas proposed to be acquired by the federal government for various uses, constitute an equal if not a greater menace to continued undivided and unimpaired state control. The tendency of state legislatures to act on requests by federal agencies to cede over the management of wild life within proposed national forests and national parks, or to surrender such jurisdiction on the states' own initiative as an inducement to secure the establishment of such areas, is a practice which slowly but surely disintegrates state conservation organizations and sources of revenue. Such surrender of wild life control in return for the benefits, real or fancied, to accrue to the states from federal land purchase projects for various and sundry purposes, seems to the average legislator such a small price to pay in return for the many advantages and blessings which are pictured as coming to the state because of such federal projects. Singly these requests do not appear as important but in the aggregate states may and probably will discover that through the releasing of state jurisdiction over a large number of such federal enterprises they have lost jurisdiction over a natural resource more treasured by the mass of citizens than any other and of basic economic importance.

Many of the states have ceded authority to the United States to administer game and fish within national forests. Georgia, by Act approved August 15th, 1922, North Carolina by Act approved March 9th, 1915, and Tennessee by Act of March 28th, 1917, have consented to the making by the Congress of the United States or under its authority, of all such rules and regulations as the federal government shall determine to be needed in respect to wild animals, game and non-game birds and fish, on such lands as shall have been or may hereafter be purchased by the United States, under Act of March 1st, 1911. Arkansas by Act of February 9th, 1925 consented to the same federal control of game animals, game and non game birds and fish as did Georgia, North Caroline and Tennessee but limited it to specific counties.

The Pisgah National Forest was created by proclamation of the President, October 17th, 1916 from the Vanderbilt estate. The state of North Carolina, in order to encourage the federal government to create this as a national forest, ceded sole control of game within the forest to the federal government, authorizing the U. S. Forest Service to make and administer rules and regulations relative to game birds and fish, designate areas that should be set aside for their protection, and provided a penalty for trespassers. A paragraph in the game management plan for this national forest reads -

> "Outstanding values as to natural resources of timber, lumber, water and soil, characterize the Pisgah district of the national forest of the same name. The wild life resources and their management and development are an integral unit

of the successful administration of the forest and preserve, which are co-estensive. This fact makes it imperative that the wild life plan be closely harmonized with other plans and objectives."

As already indicated, the surrender of states' rights to the management of wild life, by the legislatures, as a means of encouraging the adoption of federal land purchase programs and other federal activities within the states, seems to the average legislator a small price to be paid for the benefits, real or apparent, to accure to the state by reason of these developments. Very seldom does the question develop into a statewide issue of sufficient scope to bring it to general public attention. Warning of its ultimate effects upon the states' own wild life conservation programs must come from representatives of state conservation administrative groups concerned with such programs. Be it said in passing, that leadership is espousing states' rights or opposing federal expansion in state fields while the money bags of a generous and affluent Uncle Sam are being dangled before the eyes of owners of tax delinquent marginal lands, to tempt the promotion of extensive land purchase projects within areas which long since have become a burden to its owners, is far from a popular pastime and should not be expected to be received with popular approval or acclaim.

Refferring to my own state of Minnesota, I believe I can best emphasize the affects that divided jurisdiction would have upon the states' interest in game and fish, and recreation. Looking at the map before you the areas in green are now included within purchase units actually approved for purchase by the National Forest Reservations Commission and the National Forest Service, within which the federal government already has or will actually acquire the lands. You will note that in the northeastern corner of the state the Superior National Forest embraces all of the attractive lake and wilderness areas along the International Boundary for a distance of more than 200 miles. It includes almost all of the state's scenic waterfalls and cascades along the North Shore of Lake Superior. Much of this land is conceded as not being especially valuable for forestry purposes but it is recognized as one of the state's most attractive play grounds and the most prolific source of big game and fur bearers, as well as of the forest species of upland game and waterfowl. It includes the mecca towards which the fishermen of Minnesota all wend their way at the opening of the trout season in the spring and on through the summer as the seasons for other species open. They are the areas that sell most of the state's resident and non-resident big game licenses.

The Chippewa National Forest in the north central portion, likewise includes the most attractive bodies of water found in this section. On the completion of the purchase units already approved for this forest, the National Government will own and control most of the lands surrounding such lakes as Leech, Winnibigoshish, Cass, and a large number of smaller lakes adjacent to these larger bodies which are cherished by every Minnesotan as a priceless source of recreation for camping, fishing and hunting. Needless to say, any divided jurisdiction between state and federal agencies, over the control of the wild life resources of these areas would mean a serious disorganization of the present state wild life conservation programs.

Anyone reading such regulations as those contained in the Secretary of Agriculture's recent G-20A, cannot help but conjecture on how much farther the management of national forests can be made to restrict the states' control of wild life. Originally, the development of national and state forests was promoted principally, if not solely, for the purpose of producing forest products. Experience is proving that the public, from whom support for forestry development must come, places as great or greater value on the recreational opportunities offered by a forest, than on the number of board feet of timber or cords of pulp-wood per acre it can produce. Modern forestry practices therefore, recognize and stress to the limit of laws and regulations, such facilities as picnicking, camping, hunting and fishing and to a degree where timber production has been compromised, if not forgotten. Recreation and wild life lands are sought with a zeal and management plans perfected with a view to emphasizing such facilities.

With this change in the evaluation of lands, particularly within national forests, those concerned with maintaining the states' part in the conservation program, naturally wonder what rights the states may be able to retain in the management of any of the natural resources within these areas, for any purpose. It is of little avail for instance, for the states to proclaim jurisdiction over its waters and the fish and fowl in them, if ingress and egress to such waters are subject to such rigid federal regulation as to prevent or even materially interfere with the sportsmen reaching them. In other words, the purposes to which the shore lands are subscribed, even though the state may claim jurisdiction over the waters on which they border, can be made to effectively control the latter's use and enjoyment by the public. While it is doubtful that public opinion will ever subscribe to such rigid federal regulations as will completely exclude jurisdiction of the states over the use of public waters for purposes of wild life management, there is sufficient authority, real and implied, in present federal stipulations, under which enough partial control can be exercised so as to constitute a real and constant threat against the rights of the states in this field.

I have emphasized in this discussion potential possibilities of the federal government invading the field of wild life management and control by pointing to menacing federal requirements applicable to nationally owned areas which threaten to compromise state jurisdiction without reference to the states' responsibilities to assume and solve the problems which perhaps have inspired to a considerable degree the moves for federal invasion of the field of wild life control. But this issue is by no means one-sided. The states themselves have a decided responsibility in over-coming and removing tendencies which actually interfere with the efficient operation of federal projects and which may be seized upon by federal agencies as justification for introducing federal control. It is readily conceivable that where a state has completely failed or refused to cooperate with federal agencies in the control of wild life, such as rodent control, feeding starving deer, adoption of joint regulations where two or more states are affected, etc., within federally owned areas, that such a state would be decidedly on the defensive in protesting federal attention to these matters.

Furthermore, public opinion would favor federal jurisdiction under such circumstances. It, therefore, behooves the states to acquire an intimate and sympathetic knowledge of the manner in which wild life management may affect federal aims and purposes and show a disposition to do everything in their power to remove the causes which are unsatisfactory. This means that all intrastate problems must be assumed and managed intelligently and effectively by each of the individual states concerned. It means also that bordering states must assume responsibility in the joint management of wild life problems to the end that objectives common not only to the states affected but to federal agencies as well, may be attained in harmony and friendly cooperation.

Successful application of joint administration of wild life by bordering states is the best demonstration of the sincerity and ability of states to function and removes one of the chief sources of friction which call for or is being seized upon to justify federal assumption of control. While some notable progress has been made by states to coordinate their fishing and hunting regulations there is much yet to be accomplished. By a recognition of the fair and reasonable expectations and needs of federal agencies by state conservation officials and a general disposition to meet these needs as they develop, all just grounds for federal interference with the states' wild life administration and control should be largely removed.

I will conclude my paper by a few summary reflections:

1. Present federal laws and regulations promulgated from such laws contain sufficiently broad provisions giving federal jurisdiction over wild life within federally owned areas as to constitute a challenge to exclusive state control.

2. Increased efficiency and more harmonious relationships between state and federal agencies in wild life management, cannot come through divided responsibility. Control vested exclusively in the states has everything in its favor. If it fails it will probably be due to the states' own neglect to properly exercise their duties and prerogatives.

3. Federally owned areas have been multiplied many times during the past three or four years by the expansion of national forests, national parks, Indian Reservations, and resettlement projects. The added burden on public funds to properly maintain and operate these areas after present emergency unemployment measures will have been abandoned and federal expenditures have been curtailed so as to bring them within normal receipts is even now a matter of grave concern to bureaus intrusted with these tasks. Where will federal agencies look for funds to take care of these areas so as to meet public expectations and demands? Will not the revenues that may be derived from the sale of fishing and hunting privileges and permits within such areas be seized upon as a means of financing in part the cost of managing these extensive areas, and thus invade the states' jurisdiction and sources of wild life revenues?

4. The laws of the state of Minnesota declare that the ownership of game and fish in so far as they are capable of ownership is vested in the state "not as a proprietor but in its sovereign capacity

as the representative and for the benefit of all of the people in common". If this is a declaration of a fundamental law, has the legislature authority to surrender such rights or the federal government power to assume even partial jurisdiction over these resources? There are those who question seriously the authority of the legislature to delegate to any one any of its duties as a trustee of these natural resources, except by a vote of the people.

5. Federal bureaus and departments are more extensively engaged in wild life studies within federally owned areas at the present time than ever before. How long will they continue this work without the hope of returns?

Mr. MacKenzie: Mr. Swift of Wisconsin will now speak on that subject.

Mr. Swift: The subject for discussion which has been assigned to Director Willard of Minnesota and myself is that of control of fish, game, lakes, and streams in the various states by federal agencies.

A very cursory investigation has led me to believe that it is a subject for the most profound cogitation and study of constitutional attorneys. The knowledge I possess is much too limited to permit a learned discourse on my part, so that my remarks, I might say, are more or less mere surface scratchings of a subject which has already embroiled the several states and our federal government in a goodly number of legal affrays since the adoption of the constitution.

In giving some thought to the natural resources under discussion, I feel that the control of waters by the states is fundamentally the most important. The basis of this conclusion has been reached from two lines of reasoning: first, that if the states cannot have control of their lakes and streams, then control of the fish and those species of game animals and birds which inhabit them is greatly impaired; the other that the original 13 colonies emphasized state rights with regard to navigation by delegating such rights to the old Northwest Territory in the Ordinance of 1787 and by reserving the jurisdiction over lakes and streams to themselves with the exception that the federal government has a right to improve navigation within the states where it deals with interstate commerce.

The power to improve and regulate navigation, however, by the federal government, was a provision surrendered to the federal government by the states and does not include the authority to regulate game or fish. This is true with one exception - the control of migratory birds. The United States supreme court has frequently held that states have police power over the regulations of their wild life and the power of the federal government to regulate taking of migrtory birds within the state was invalid until a treaty was consummated with Great Britain and Canada regarding this matter. The federal government received this power through its rights to make treaties.

Although my following remarks diverge somewhat from the ideas of conservation as we are speaking of it, I have attempted in them to give an idea of what powers the early colonies felt should be retained by the states and what the courts have held in various instances.

They have more to do with conservation from the water power and navigation angle, but both of these subjects are becoming more closely allied to the conservation of fish and game.

The Ordinance of 1787 has been the foundation for both the United States supreme court and several state supreme courts in sustaining the jurisdiction of the states over the waters within their boundaries.

All of America was originally claimed by the Crown of England. The Crown issued grants of public land by charter or patent to governments or individuals. Such grants from the King included the ownership or dominion of lands under tide waters and other such lands of the same character as they had been theretofore held by the Crown. After the American Revolution, the people of each state became sovereign and as such held title to and the absolute right in all navigable waters and the beds under them for common use. They still possess this title, subject only to those rights surrendered to their general government.

Even before the Declaration of Independence, a confederation of states was advocated. This was not adopted until 1781, because of the lands lying west of the original colonies. Virginia claimed what afterwards became West Virginia, Kentucky, and a greater part of Ohio, Indiana, Illinois, Michigan, Wisconsin, and Minnesota. However, in 1786 Virginia relinquished her rights to this territory with the stipulation that in being divided by Congress, there should be made not more than five and not less than three republican states. Virginia also insisted that such states should thereafter become members of the federal Union and have the same rights of sovereignty, freedom, and independence as the original states.

These provisions were incorporated into what is commonly known as the Ordinance of 1787 by the Continental Congress and constitutes the basic law for the government of the Northwest Territory, of which Wisconsin and several other states represented here today are a part.

The first Congress under the new constitution confirmed the Ordinance in August, 1789. Wisconsin, in drawing up her constitution, borrowed from the Ordinance of 1787 to further insure to the people the common privilege of navigation and the incidents thereto. Article IX of the Wisconsin constitution reads as follows:

"Section 1. The state shall have concurrent jurisdiction on all rivers and lakes bordering on this state so far as such rivers or lakes shall form a common boundary to the state and any other state or territory now or hereafter to be formed and bounded by the same and the river Mississippi and the navigable waters leading into the Mississippi and the St. Lawrence, and the carrying places between the same shall be common highways and forever free, as well to the inhabitants of the state as to the citizens of the United States without tax, impost, or duty therefor." That part relating to the Mississippi and the St. Lawrence and the carrying places between the same being common highways and forever free was taken in body from the Ordinance of 1787.

Since that time courts have held that hunting and fishing are incidents to the rights of navigation.

Those states which were a part of the old Northwest Territory were given sovereignty over the waters and the beds thereof within their boundaries by the Ordinance of 1787. When new states were brought into the Union, other than those carved out of the Northwest Territory, Congress attempted in some instances to impose new conditions which were not granted by the original 13 colonies, or the Ordinance of 1787, to the federal government. After Alabama was admitted to statehood, the United States government attempted to grant private persons land covered by tidal waters in Mobile Bay. The United States supreme court held that the title of these lands were no longer in the federal government and that the title to such lands had passed to Alabama upon its admission to the Union. The court further held that new states have the same rights, interests, and sovereignty of soil and navigable waters as had the original states. This was further brought out in the case of St. Anthony Falls Water Power Company vs. St. Paul Water Company, 168 U. S. 349, wherein the court held that the rights of the riparian owner of land situated on navigable streams are measured by the rules and decisions of the court of the state in which the land is situated, whether it is one of the original states or a state admitted after the adoption of the federal constitution.

The United States never held title to the beds of navigable waters in the Northwest Territory except in trust to hold the same for the new states to be formed in such Territory. Therefore, a United States patent does not convey navigable waters or the beds under them. No general rule was ever laid down by the federal government to guide the states in their control over such waters and the soils under them, but on the contrary, it has been held that it was for the several states themselves to determine what waters and to what extent the prerogative of the state shall be exercised in the regulation and control of such waters and the beds thereunder.

The fact is therefore definitely established that the United States owning lands in that territory covered by the Ordinance of 1787 or the original 13 colonies has no greater rights with respect to navigable waters thereon than an ordinary proprietor has in waters on his lands in the state. Improvement for interstate navigation is the exception.

The opinion is still expressed, however, that the power has been left to Congress to impose new conditions on the admission of new states other than the Northwest Territory, in spite of the supreme court decisions, which have denied such an assumption. All powers expressly delegated to the federal government and not prohibited to the states remain inherent in the states as separate sovereign governments, subject then to such rights of the federal government over navigable waters as are delegated to it by the federal constitution. Each state in its sovereign capacity makes its own rules or laws governing the respective rights of the public and the riparian owner of navigable water. The state therefore defines the test to be applied in determining whether waters are navigable or non-navigable. Its own laws determine whether the soil under navigable waters remains

vested in the state or whether it becomes vested with the upland in the riparian owner.

After a state has once determined, however, what are the rights of a riparian owner on navigable waters, such determination becomes a rule of property and private rights becoming vested thereunder come under the protection of both federal and state constitutions. Because each state has the power to establish in accordance with its individual policies its own laws with respect to waters, it comes to pass that such laws vary widely in different states. The humid states, or those in the eastern half of the United States, generally have adopted with more or less modification, the English common law of riparian rights. The arid states of the west, on the other hand, generally have followed the rule of prior appropriation of the Roman-Spanish law, which is directly contrary to the rule of common law. The basic rule of the common law is that each riparian proprietor has the right to have the stream come down to him with its quality unimpaired and with the quantity undiminished.

Becausing of changing conditions, however, the rule has been somewhat modified. Under the rule of prior appropriation, on the other hand, the person who first appropriates water from a stream flowing through the public domain and applies it to a beneficial use, such as irrigation, mining, power, or other private uses, becomes entitled to the exclusive use of the water to the extent of his appropriation. He may lead it over government land and divert it into another watershed, regardless of riparian owners. So long as the first user continues to use it, he will be protected in his right of prior use. This rule was deemed essential in the development of the arid west, since the principal industries, when those states were first settled and developed, were mining and agriculture.

These last remarks may possibly seem somewhat out of line with the topic of discussion. Nevertheless, they show a wide difference in the establishment of laws for the use of water in the individual states. The fact still remains and is definitely established, that the states have a sovereign right over the waters within their boundaries, and such rights seem doubly insured in the original 13 colonies and the old Northwest Territory.

As I stated in the beginning, it seems to me of paramount importance that the states possess a sovereignty over waters within their boundaries if they are to continue with an undisputed control over fish, game, and birds which inhabit them.

In the last four years the question of state jurisdiction over wild life within its borders has come into considerable prominence. It has become a moot question for the reason that many states are now being affected by federal agencies, where in the past, as in the famous Kaibab case, practically no other state than Arizona at that time was brought into the picture. It is the result of federal agencies stepping in and assuming the management of wild life without due consideration to those state departments previously exercising such powers.

My observations are limited to Wisconsin, but my contacts with the personnel of the conservation departments of other states leads me

to believe that it is a problem which has more or less worried or irritated a great many states within the past four years. Since 1930, five federal agencies - the United States Forest Service, the National Park Service, the Biological Survey, the Soil Conservation Service, and the Resettlement Administration - have descended upon Wisconsin and informed the conservation department and the people at large that they are ready, willing, and capable of taking over the management of its wild life in certain areas. In some instances, one or more of these agencies have been rather insistent that certain prerogatives have been delegated them, because of their federal origin and have been irked by what they apparently considered the restrictive interference of a more or less horse-and-buggy state conservation department.

Apparently, we have not been capable of grasping the significance of a futuristic wild life program, as some of the personnel of these alphabetical agencies have envisioned it. This was true for several years, but I am happy to say that at the present time the conservation department of Wisconsin and the aforenamed federal agencies carrying on programs within the state which have to do with natural resources, have come to a very definite understanding. Their grand manner has been discarded for more co-operative understanding.

One of the difficulties in the past was the fact that these five federal agencies, each making more or less of a bid to manage Wisconsin's wild life, were in no way connected with each other. Although of federal origin, they worked entirely independent and in one instance, at odds with each other. Therefore, an harmonious working agreement with one did not necessarily mean an understanding with the other four. It followed therefore that regulations which all federal agencies would have to follow must be promulgated by the Wisconsin Conservation Commission, or its department would be a poor relation on the outside looking in.

Such regulations were drafted and adopted, and since that time many misunderstandings have been erased and a better spirit of co-operation developed between the field forces of the various federal departments and the Wisconsin Conservation Department. These regulations cover wild life management with respect to rodent control, deer, beaver, the taking of any wild life for scientific purposes, lake and stream improvement, and fish distribution. Under these regulations, any person, persons, or agency which deems it necessary to control the number of any species of rodents on lands owned or under their legal control by lease or contract, comprising forest plantations, wild or cultivated, or similar crops, shall first apply in writing to the Wisconsin Conservation Department for a permit to practice such control. Such application shall state the purpose for which control is believed necessary, the county and land description by section, township, and range, and by forty if areas are smaller than a section of land, of the areas for which a permit to control rodents is desired.

On receipt of this application, a permanent member of the department personnel is designated to make the necessary investigation. Upon his approval, and the approval of the superintendent of game, and the conservation director, a permit is issued which states among other things the time which such control can be practiced, the areas, and

the methods which may be used.

In cases where it is necessary to remove deer because of damage or other reasons, the matter rests exclusively with the conservation department, upon proper investigation.

Beaver control work, such as the removal of beaver and the destruction of their dams, is carried on entirely by the personnel of the conservation department.

Lake and stream improvement by persons or agencies other than the conservation department is carried on by permit through application and subsequent investigation by the department.

Very strict accounting is held of persons wishing to collect game, game birds, or fish for scientific purposes. Such permits are held at a minimum and any person desiring to make such collections, regardless of his status, must first obtain such a permit.

The planting of fish and fish distribution is under the direct supervision of the personnel of the Wisconsin Conservation Department at all times.

An order of the Wisconsin Conservation Commission reads in part as follows:

"It shall be unlawful for any person or persons to introduce, place, plant, or release or cause to be introduced, placed, planted, or released in any manner in the publicly owned or controlled inland waters of the state of Wisconsin any fish, fish fingerlings, fish fry, or fish spawn unless such releases or plantings are supervised or authorized or permitted by a written permit of the State Conservation Commission of Wisconsin, its duly authorized agents, or representatives."

This applies to the federal bureau of fisheries as well as other federal departments.

The laws of the state creating the conservation department of Wisconsin specifically vested in it the responsibility of protecting and developing the forests, fish, game, lakes, streams, plant life, and other outdoor resources of the state.

The parallel of responsibilities was most clearly set forth to representatives of the United States Forest Service by our director, Mr. MacKenzie, at a meeting where some of these questions were most forcefully being discussed. Mr. MacKenzie pointed out to the members of the Forest Service that the state, in receiving aid through the Clarke-McNary Act and through ECW, must in all instances comply with the requirements of the federal forest service and subject itself and its records to their investigations. Such was the responsibility and authority of the United States Forest Service through the federal government.

On the other hand, the Wisconsin Conservation Commission, by the state legislature, was vested with the responsibility and authority of developing and protecting the natural resources of the state, an

obligation which it could not avoid and which it did not seek to avoid. Therefore, in carrying out the duties of that responsibility, federal agencies entering Wisconsin and attempting to manage wild life and other resources would have to comply with the regulations set forth by the Wisconsin legislature and the Wisconsin Conservation Commission.

An order signed by the United States Secretary of Agriculture, and numbered G-20A, has been something of a source of irritation to state departments, even though it has not been enforced in most instances. This was incorporated in an omnibus forestry bill, and later withdrawn.

"That in order to bring about the effective development and management of the wild life resources of the national forests, including the keeping of wild life population within the carrying capacity of each national forest, or part thereof, and coordinating such development, management, and population with the protection and management of other national forest resources, the Secretary of Agriculture is hereby authorized and directed to formulate plans for the development of the wild life resources, to provide for carrying them out, and to prescribe and enforce such rules and regulations as in his judgment are necessary to this end, which rules and regulations may fix bag and creel limits, specify the sex of the animals that may be killed and the period during which hunting, trapping, and fishing on any national forest, or part thereof, shall be permitted, designate the forest officers to whom application shall be made for hunting, trapping, and fishing permits and fix the fee to be paid therefor, indicate the manner in which carcasses of animals or fish taken under permit shall be disposed of and marked or tagged for identification, and impose such other conditions and requirements as he may deem necessary for the protection and promotion of the public interests; and whoever shall violate any rule or regulation prescribed by the Secretary of Agriculture, or any condition or requirement of a hunting, trapping, or fishing permit issued by his authority, pursuant to the provisions of this section shall be fined not more than $500, or imprisoned not more than one year, or both..." This order, I have been informed, although I will not vouch for the truth of it, was issued on the assumption that the decision of the Kaibab deer case gave the Department of Agriculture such authority.

Mr. MacKenzie, our conservation director, Mr. Wilson, superintendent of co-operative forestry, and I had the pleasure of some discussion with a Mr. Thompson, an attorney of the Department of Justice, who played a part in the prosecution for the government in this case. He told us very frankly that where there was no damage done by wild animals to government property, the state had entire jurisdiction and that the proof of damage would have to be forthcoming before a federal agency could arbitrarily destroy wild life. He also told us that he did not want to become mixed up with any case like the Kaibab case, and that only a last resort would bring anything of its kind into court again.

My curiosity led me to write the U. S. Forest Service at Washington, and ask them the number of states which had conceded the administration of game to the federal forest service on national forest areas within their boundaries. The following have given this concession: North Carolina, Tennessee, Oklahoma, and Pennsylvania.

I also inquired as to whether the regulation G-20A was being applied in any state at the present time, and was informed that this regulation was being enforced in the Dixie National Forest in Utah. Therefore G-20A is being enforced in at least one state in the Union on a national forest where the state has not conceded jurisdiction of game to the United States Forest Service.

I would like to make mention of one instance where the United States Forest Service advocated a measure in which this department felt it could not concur, and in which our findings were far different from theirs. They advocated the killing, during the months of last December and January, of 14,000 bucks, does, and fawns in parts of two counties, an area comprising about 600,000 acres, their theory being that deer were too plentiful to carry through the winter on the amount of food available. The conservation department did not listen to this. Close observation during the past winter has proved that there was no starvation of deer in this area, nor was there any damage done by them to any of the tree plantations. It is also a known fact that the deer have been more plentiful in this area in times past and with the exception of an extremely hard winter, there was no deer starvation.

It is also the consensus of opinion among the wardens and the rangers of the Wisconsin Conservation Department that the numerous and uncontrolled fire lanes on federal units have a very damaging effect upon wild life. We do not deny the necessity and advantage of necessary fire lanes. However, those fire lanes built by this department are gated, and a conservation order prohibits travel except by permit, and prosecution of people illegally traveling them.

The number of fire lanes built by the federal government in Wisconsin for the size of the area involved, far exceeds the number built by the state and the fact that none of them are gated has increased the duties of the law enforcement division many fold. They are an incentive for the venison bootlegger to carry on his operations on even a larger scale. The accessibility they afford to what was once wilderness areas by the legitimate hunter may have a marked effect on the deer population in federal forest areas if something is not done to regulate the use of fire lanes by the public.

Widespread is the belief that the voters have only two choices, one to support a program of conservation with all authority centered at Washington, or to have no conservation. This is not true. The national government has access to large funds not available to state agencies and no one discounts the essential need of money in financing conservation work. Few states have sufficient funds to carry forward the conservation program to the extent which they would like. It does not follow, however, that the federal government, because of its easier access to taxpayers' pockets, should allocate to itself all the authority for administering all of the conservation functions of the United States.

Is it not possible that more could be accomplished by using federal funds, if they <u>are</u> to be used for conservation purposes, to stimulate state initiative rather than attempting to do the whole job by a centralized federal control? Co-operation must rest on a firmer

and broader basis than the docile acceptance by the states of federal demands to regulate their wild life and other natural resources.

I thank you.

(At this point Mr. Watts, Regional Forester, asked whether there would be opportunity to discuss this subject, and was informed that, if time permitted, such provisions would be made, but for the time being it would be advisable to complete the printed program first.)

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SUGGESTIONS FOR UNIFORM FISH AND GAME REGULATIONS...Frank Cundill, South Dakota

(Since Mr. Cundill was not present at the meeting, and no one has been delegated from that state to carry on the discussion, the next topic on the program was considered.)

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STREAM IMPROVEMENT AND THE RELATION OF SOIL EROSION TO FISH LIFE.....Mr. M. L. Hutton, Iowa

Mr. Hutton: In beginning this discussion, I would like to start out with an analogy to provide the approach to the subject of "Stream Improvement and Relation of Soil Erosion to Fish Life".

The word "improvement" suggests that there is something lacking or something that could be better. In fact, it might be like the following dialogue:

"How's your wife getting along with her driving?"

"She took a turn for the worse last week."

That indicates that there might have been some improvement in that particular lady's driving.

Again, a man may not be feeling well. He may have certain symptoms and not be functioning as he normally should. In such case the natural thing for him to do would be for him to consult a doctor. Upon such consultation the doctor might immediately prescribe something. However, unless it was a very simple case, the doctor, if he had not been familiar with the man's medical history for some time, and if he followed the procedure of many modern doctors, would prepare a case history in the first instance to make sure he was taking into account all the factors that might be affecting the man's condition. It appears to me that, in discussing this subject, we might approach it from the angle of first trying to determine what is wrong with the stream and what factors are prevalent that make further improvement of the stream necessary for fish life. In other words, what symptoms, diseases or ills may a stream have that make it unfavorable to fish life? We might enumerate some of these as follows:

I. Polluted Waters. Waters, as you know, may be polluted from a number of different sources, among which we mention the following:

1. Barn yard and field runoff.
2. Stock standing in streams.
3. Dead and decaying animal life.
4. Sewage effluent.
5. Chemical or other elements in the soil.
6. Industrial wastes.

A good many of the above sources of pollution may be readily evident by simple observations. However, certain chemical tests may be needed to discover others.

II. Foreign Substances. These foreign substances in the water may cause pollution but would not be classed with the items last above mentioned. For example, the following foreign substances detrimental to fish life may be prevalent:

1. Waste from gravel washing plants, in or along the river.
2. City dump grounds, which are frequently in stream beds or on the banks thereof, or, at least, in the stream valley.
3. Debris, such as logs and fallen trees, which eventually in many instances create islands and cause silt deposits and sedimentation, which are very unfavorable to fish life.
4. Soil eroded from the watershed.
5. Soil eroded from the stream banks.
6. In rare cases perhaps, oil drippings from passing automobiles that go through fords.

III. Extremely Fluctuating Water Levels. Extreme fluctuation in water levels, as you all know, may be very detrimental to fish life. In spawning grounds any mechanical action it may have is directly upon the fish themselves or upon their environment. It may catch fish in shallow bayous or recesses, or even on dry land when the water goes down. It may with a sudden rise batter the fish against stones or boulders, or with stones or boulders. I will not attempt to mention all the possibilities of ill effects from extreme fluctuation in water levels, but would like to mention the following as causes:

1. Drawing Down of Mill Pond. As you know, if a pond is drawn down in an extreme degree suddenly, the effects mentioned above may readily occur. The effect may be in the mill pond itself upstream in leaving barren ground and perhaps spawning areas exposed, or it might be downstream with the extreme rush of water caused by the sudden release of water from the pond itself.

2. Rapid Runoff From a Denuded Watershed. Naturally if the precipitation runs rapidly off soon after it falls, we will have a very fluctuating stream. This rapid runoff may be due to the lack of proper vegetative cover, due to farming operations or to other things.

3. Rapid Runoff Due to the Installation of Drainage Ditches, Particularly Open Drainage Ditches. These are intended to quickly discharge precipitation, and may have the ill effects accompanying extreme fluctuation in water levels.

IV. Abnormal Temperature Changes. Abnormal temperature changes in the water naturally have an adverse effect on most kinds of fish life. These may be due to a number of different things among which we mention the following:

1. Fluctuating levels described previously.
2. Lack of natural shade or proper shade.
3. Muddied waters caused by erosion.

V. Lack of Proper Food For Fish Life. Naturally fish, like humans, have to have the proper food. If they cannot have it, they cannot hope to survive or, at least, to propagate and grow like they should. This also is due to the following, among other things:

1. Silting over of food beds.
2. Obnoxious fish, such as carp, that destroy aquatic vegetation and the things that go with that.
3. Lack of balance of the types of aquatic life in the variour types of fishes, a number of which serve as food for others.

VI. Lack of Proper Protection for Fish. Obviously if fish life does not have the proper protection, it will deteriorate. I would like to mention, among other factors, the following that pertain to this phase of the matter:

1. Lack of natural cover, such as overhanging ledges, boulders, tree roots, and things of that kind.
2. Lack of aquatic plants that afford protection as well as food and places for spawning.
3. Lack of deep holes for protection from predators and natural enemies; also, for protection from mechanical action due to floods and sudden fluctuation in the water level.
4. Lack of marginal vegetation which affords both cover, shade and shelter.

Looking at all the foregoing symptoms of ills or diseases of streams, we may summarize them as follows:

1. Pollution.
2. Foreign Substances.
3. Too Much Fluctuation in Water Levels.
4. Too Much Fluctuation in Temperature.
5. Lack of Proper Food.
6. Lack of Proper Protection or Shelter.

From the foregoing we have then at least a half-dozen symptoms or "ills" in this diagnosis of stream trouble. With this analysis we may then proceed to see what to prescribe for the streams. The streams may have all of these symptoms or only some of them, and all to a more

or less varying degree, and the prescription must be in accordance with the diagnosis and the analysis. It may be that a stream will be almost hopeless, and the stream will be "incurable" or, at least, incapable of further improvement under the conditions that do and may continue to prevail. We will assume, however, that there will be enough "life" or spark of vitality left in the stream so that certain measures will be beneficial.

You will note from the foregoing that much of the trouble is not in the stream itself but in the watershed that contributes to the stream, and tracing this trouble to its origin, most of it will be found to originate with mankind in the stripping of watersheds of their natural vegetative covering, in the abuse of nature in the valleys of the stream, or, to put it in a few words, "the unwise and improper use of land and water", which is the very antithesis of the definition of Conservation as the "wise use of land and water for the benefit of mankind".

Stream improvement is commonly thought of as the provision of deflectors, low dams, deep pools and, to some degree, bank protection, the providing of rafts, shelters and covers of various kinds and degrees of permanency; in other words, attention has been in reality centered on the symptoms, and not on the disease itself.

Would it not be much better first to promote and encourage the wise use of the land outside of the streams in the watershed itself by seeing that the proper use is made of it in the way of farming, forestry, pasturing and grazing, of course, not forgetting the removal of pollution from sewers due to municipalities or the pollution from barnyards, etc., as much as possible, and the keeping of cattle away from the streams unless it should be at intervals where necessary for them to use it for drinking purposes.

Even the planting of certain kinds of vegetative cover, such as certain kinds of grasses, as crops would have a large effect on soil erosion and, therefore, on the stream itself.

We in Iowa realize that we should improve the watershed about the stream, but this is generally privately owned. In that case, not much can actually be done except where there should be Soil Conservation Work Service Camps or other agencies of a similar nature. However, it will have to be a long process of education which at the present time might reach fertile ground due to the immediate consciousness of all the people in conservation in all its phases.

In Iowa we have a different condition perhaps than other states. Our streams are subject to sudden runoffs and silting and erosion. Iowa is an agricultural state, and a large percentage--in fact, over 95%--is used for agricultural purposes. It would almost seem folly, therefore, to attempt to simply do work in the stream itself when the next heavy rain would destroy all the benefits that might have been provided by the work that had been done.

Since 1933 approximately a total of forty miles of water course in disconnected sections and in some eight streams have been so-called "improved" with wing dams deflectors, rafts, overfalls, etc. Probably

of the forty miles total, some fifteen miles were really a worthwhile improvement.

Even the planting of trees along a stream would be better, in my judgment, than some of the work we have previously done, in that it would provide shade, would retard certain erosion, and would be one step, at least, in the proper use of the land itself.

There are certain streams, of course, where there may be rock bottoms rock crags where the creation of deflectors and small-head dams may provide pools that will better preserve fish at all seasons of the year. There are other places where the same thing would simply provide silting ponds and, while pools might be washed out immediately below them, the general effect on the stream would be worse than if it had never been touched.

Summing this up I wish to sound a note of warning that stream improvement should start at the seat of the evil, that progress should be slow and systematic, and that all factors should be studied before any great undertaking is inaugurated.

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At this time I will also read some information submitted by W. W. Aitken, Iowa State Biologist.

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In Iowa the character of the streams have gone through a series of changes, beginning with the first clearing of the hillsides for pasture and the breaking of the prairie sod for corn. The metamorphosis extends through an era of intensive and extensive agricultural activity until today the state presents a topography of denuded hillsides, heavily silted valleys, crumbling river banks, and shifting channels.

The citizens of Iowa and the Federal Government are fully aware of these conditions and that erosional elements, if permitted unchecked sway, will defeat the practices attendant to good farming methods.

For these reasons a tremendous effort is being made to control soil erosion by CCC camps, under the direction of the Soil Erosion Service. The installation of devices and the mechanical change of hill slopes by terracing, coupled with tree planting, to control erosion is augmented by a program of crop uses to save soil.

The gradual change in the stream environment caused by erosion has brought about a gradual change in the fish fauna of Iowa. Where once abounded those types of fish that preferred cold, clear water, today are found those forms that are able to live in warm, turbid and, oftentimes, polluted areas. With the commendable efforts now being made to eliminate pollution of the streams of city and industrial wastes additional improvement will come to the streams when state-wide effort is made to control erosion. The program now under way to control erosion <u>will be a major factor in the improvement of fisheries</u>.

Finally, as a further aid to bring streams back to a semblance of their former environmental condition stream improvement devices may be installed. However, it must be kept in mind that soil erosion is a paramount issue in stream improvement as stream devices cannot eliminate turbidity, siltation, and other conditions that have a deleterious effect on fish life.

The distribution of fish roughly divides the streams of Iowa into four groups. This grouping is here outlined to show the correlation between the fish fauna and the character of the streams, the relation the topography has to their drainage basins and the extent to which soil erosion has taken place in these areas.

In group number one, located in northeast Iowa, in those counties lying in the drainage area of the Upper Iowa, Turkey, Yellow, and Maquoketa Rivers and their tributaries, 25% to 50% of the original soil has eroded. In this area are found the major share of our trout streams. Trout require cool, clear water that can be a possibility in Iowa only where the area is heavily timbered, where little turbidity exists and where the rainfall is checked enough to prevent sudden floods which eliminate the fish life at periodical times. Other factors, of course, influence trout environment but the ones mentioned are fundamental and basic in their effect on the life habits of these fish.

As seen in the accompanying map the drainage basin of the Upper Iowa River and nearly all of the Turkey River basin has more than 25% of the soil eroded. The lower portion of the Turkey River watershed lying in the south half of Clayton County has more than 50% eroded, and here the river and its tributaries afford little trout environment, definite evidence that erosion and siltation effect particular species of fish. So, in an area of spring branches, erosion of an appreciable degree will change the fish environment. To show how other groups of fish are effected by erosion attention is called to group number two.

In this area that lies between the western limits of the above described territory and the eastern side of the Des Moines River drainage basin that extends down from the west side of Kossuth County, diagonally through Wright County and the eastern side of Hamilton County, thence east along the southern boundary of Hardin, Grundy, Black Hawk, and Delaware counties, less than 25% of the original soil has been washed away. Here are the areas of the Wapsipinicon, Shellrock, Cedar and Iowa rivers. Over the limestone ledges in this particular region is found a large portion of the small-mouthed bass territory of the state. Here again soil erosion has closely effected the life of a particular group of fishes belong in this territory. Chief among these fishes is the gamey, small-mouthed black bass. Many of the darters and minnows belonging to this region are still numerous and observations bear out the assertion that mud-loving species do not increase to an alarming degree in this region. Their natural food is not abundant, neither are their particular spawning areas available.

It is interesting to note the correlation between the distribution of particular species of fish and the limits defined by the extent of erosion. In this region stream improvement devices installed where erosion effects have been greatest quickly restore the streams to something approaching a natural medium for the native species.

The third area which is occupied by the upper half of the Des Moines River basin has suffered the least erosion of any part of the state and in this area are found in abundance more species of fish native to Iowa than in any other portion of the state and here the small-mouthed bass is found in even greater abundance than in the area lying to the east. The reason, of course, is quite obvious for here natural conditions in the streams have changed less than in other parts of the state and fishes indigenous to this territory have not been eliminated by changing environment.

The fourth grouping of streams are streams tributary to the Missouri River, the smaller tributaries in southern Iowa, such as the Nodaway, Grand, Middle, and Chariton, the lower half of the Des Moines, the Skunk, and the Iowa rivers. These streams flow through a region that has eroded from 50% to 75%, and in some places even nearly 100%, of the original soil has eroded; a region that exhibits serious gullying throughout. If fish are found here they are those species known as soft, or rough fish, quillback, carp, gar, etc., and the mud-loving forms of the catfish tribe. The environment produced in an area of heavy soil erosion creates muddy streams, silty bottoms, and wide stretches of warm, shallow water that will naturally have forms that can live in such a habitat; these forms are a poor substitute for game fish. Authentic records are at hand to prove that this area once supported fish that are found in less eroded areas. Call, in 1887, in a survey of the fishes of the Des Moines River basin, made comments on the abundance of certain species of fish that today cannot be found except with difficulty even though these same species of fish have been replenished in the area in recent years by stocking. This is conclusive proof that silty, muddy streams, caused by heavy erosion, directly effects fish life.

The southwest portion of the state once enjoyed fair fishing in the Nishabtha, Nodaway, and other streams of the southwest corner of the state. However, the continued clearing of the loess hills and the straightening of the streams by drainage ditches to accelerate run-off, hastened erosion, resulting in almost total elimination of fish life in this area. In fact, there is scarcely any fish except "runt" bullheads.

Farther east, in southern Iowa, fish environment is little better, and then in only a few places on portions of the Grand and Chariton rivers where erosion has been less severe.

This entire fourth area comprises nearly one-half of the state and for this reason erosion control measures will improve for fishing a large portion of the state which has little or no fishing territory at this time.

It is, therefore, evident that good farming practices, or better farm management, is directly correlated with fish management. If soil is saved by mechanical means and crop conserving methods, fisheries in Iowa will be improved. The wise management and conservation of Iowa soil will be a long step toward the improvement of fishing in Iowa.

* * *

THAT PART THAT EDUCATION PLAYS IN CONSERVATION

ACTIVITIES.....G. W. Friedrich, Minnesota

(Inasmuch as it was not possible for Mr. Friedrich to be present at the meeting this topic was cancelled)

* * *

At this point there was still some time left in the morning program, and Mr. Watts was given the opportunity of opening the discussion on the control of fish, game, lakes and streams in the various states by federal agencies.

Mr. Watts: There is a saying "between the devil and the deep blue sea," and I feel like I'm representing the first part of that saying.

You people know I am new to this region to discuss the local propositions with which you are struggling here at this meeting. I am not too new at this meeting to appreciate the fact that in the management of our forest lands one of the major problems we have has to do with the protection of wild life. That resource is a major resource to be taken into consideration, and with that in mind one of the first things I did when I came here to this region was to ask the forester, Mr. Silcox, for permission immediately to give that resource a coordinated place with timber management in this region. That request was granted and I secured Mr. Hill to act as assistant regional forester to act in charge of that particular activity. Now so that you may know that it is not with any intention of usurping your place or position in wild life management. That is said with all sincerity. The idea is that the national forests are dedicated to the type of administration that recognizes all of the resources that flow from our lands. The only way that we can make sure that wild life is not being the step-child in that family is to give it a coordinated place so that we ourselves will know we are doing the right thing for wild life. Take the question of timber standing. It would be very easy for us to handle our timber stands in such a way as would be generally detrimental to the production of wild life. We would have ample authority to practice timber stand improvement in that way, but we want the kind of timber stand improvement that will give us greatest benefit to the people of these states. In that our objectives must be absolutely comparable with yours. That's the sort of administration I want to represent. I was trained by Dick Rutledge and his theory is through cooperation, and that is the kind that I want to give you.

Frankly, the way I would like to handle national forests--certainly I am a federal employee and have some differences of opinion with you people and we must recognize that--the way I would like to handle it is this: With each one of you state commissions or whatever organization handles wild life, I would like to have a forest service representative from this region sit down and work out a series of principles and objectives toward which we can both subscribe, and then each year we will prepare our program of work for that year in considerable detail, setting out the things we propose to do, and we will

put that each year down on the table with you folks and go over the idea with you so that when we go ahead with the development it will not be our program, but your program in cooperation with ours.

I hate to get into an argument as to legal phases of wild life measures. That isn't the way we want to manage this thing. After all we didn't come into any of these states solely on an ambition basis, but rather, to a considerable extent, at the invitation of the states.

I have noticed that we want to manage the wild resources of Wisconsin. We want to play our part in cooperation with you people. The wild life resource is yours and that is the way we want it to be. We want to carry our part of the load. The way to do it correctly, is the way I am suggesting, to sit down around a table, agree on principles and objectives and then sit down at the table with our plan of work for the year and plan a joint program which we propose to carry through.

In regard to G-20A I perhaps ought to know a little about it. I was an employee of region 4 when the Kaibab case simmered and boiled. I saw the Kaibab country nearly ruined from the standpoint of deer protection. I saw what happened to that. I suppose it was the Kaibab case that gave rise to G-20A. Since then I have been in region 1, and to cite an instance I will mention the Sun River elk herd. The game department there has been quite helpless because their laws do not permit them to reduce numbers that they know must be done. G-20A was not applied in that case. I hope that it never will have to be. I hope that the legislature will give the game department authority.

I suppose the case in Utah is just a little slop-over from the Kaibab. I do not have any idea about whether we are having very serious criticism from the Utah people. I suppose they are. Mr. Rutledge has always worked with the state department for the development of wild life. I appreciate the position that we are all in. There is a lack of coordination in federal agencies. We all know that. Graft and politics--we suffer under it perhaps as much as you do and so does the other federal agency. I wish we might have coordination, but let us look at it after we have criticized each one of those individual features, more or less from a standpoint of the state. After all, it was about the only way that we could get done things that people in the state wanted done--perhaps it was the only way under the urgency of the situation that we could accomplish our aim. To be sure, there have been differences of opinion in the state.

Personally, from the standpoint of the organization which I represent, it is just pretty hard to think that you people and our people can't sit down around the table and in a thoroughly common sense, friendly cooperative sort of way work out any of the problems that confront us. I would hate to see us, gentlemen and ladies, proceed on the basis that legal lines prescribe what you will do and what we will do. We do not want to take charge of the wild life resources in Minnesota or Wisconsin or any of these states or the western states. We want to do the things that you want to do and that is maintain and improve the wild life resources for the use and benefit of our people. That is the common objective which we have with you, and I sincerely hope that we can work it out on that basis, and surely we can do that

without loss of any precedent or any of the functions of the state department. That is the hope that I bring to you.

Mr. MacKenzie: Thank you very much, Mr. Watts. I, representing the state of Wisconsin am very much pleased to have this change in policy. I am going to tell you frankly that it was necessary to resort to law to protect what we have and what we are custodians for and I want to get this across to the people here, that Wisconsin is on the spot.

It is our experience that wherein any activity dealing with the forest service, such as ECW or any program connected with your department, wherein we cooperate with you and you have control, you demand of us a report of the plans previous to the time we go ahead with the work and after we complete the work you send inspectors around to check and see that it has been done that way. Now it would seem to me that wherein the state of Wisconsin, Minnesota or Iowa are custodians of fish, lakes, streams and forests and wherever you are entering into the picture that you should come to us and lay out those same plans in the same manner and provide us the same services you expect us to provide you.

Mr. Watts: That's my idea.

Mr. MacKenzie: My point is that it hasn't been done in the past. I am not going to bring this question into the meeting, but I do want you to know, Mr. Watts, because you are a stranger in our midst, we don't assume a militant attitude toward you people at all. If you come to us and work with us harmoniously as you say you intend to, from every angle, I assure you, you are going to receive every consideration. But if you assume the attitude that you are going to do as you damn please, then you're going to run into a tough lot, and we're going to be here to greet you along those same grounds.

(Considerable discussion followed on this point along the following lines)

1. Mr. Foley questioned the constitutionality of Order G-20A and suggested that a subject be placed on the agenda for next year which would require that a study be made of the constitution of each state in the United States to determine the rights of the federal government to control game, fish and waters of the states which belong to them in their sovereign capacity, unless the citizens of each state concerned are first provided with an opportunity to express their views on the question by a referendum vote.

2. Mr. Willard emphasized the fact that G-20A declares the authority of the secretary of agriculture to regulate wild life.

3. Mr. Watts brought out the point that the Kaibab case was settled without G-20A, and stated it was their plan to cooperate without enforcing those regulations, and went on to say it shouldn't be necessary to be concerned about the order.

4. Mr. Willard mentioned that, notwithstanding, the order was on record, without any amplifications, and wondered why modifications couldn't have been included which would have taken the sting or

threat out of the order.

5. Mr. Watts said he was not in a position to answer that question but he did know the order would not be enforced except as a last resort.

6. Mr. Foley stated that they were interested in the development of the state forest program in Minnesota, Wisconsin and other areas. He further questioned the legality of the national forest reservation commission desiring to purchase land already set aside by the state for a state forest purchase area.

7. Mr. Wilson explained the Wisconsin enabling act in this connection.

8. Mr. MacKenzie inquired in just what instances G-20A would be applied in regard to fish and game.

9. Mr. Watts said he didn't know how far the question might put him on the spot, but went on to say that he didn't see why agreements couldn't be reached without that order, and only if repeated efforts were made and there was a difference of opinion that couldn't be worked out and there was conclusive proof that the wild life on an area was seriously damaged, it might be used as a last resort.

10. Mr. MacKenzie: I agree with you that under the so-called Kaibab case that in the event you can prove conclusively that destruction has been occurring, that you have a right to protect your plants. But you rather indicated when you mentioned this order a few moments ago that if you couldn't secure the cooperation in connection with fish and game matters, that after awhile you might have to apply that ordinance.

11. Mr. Watts: Really, off-hand I can't say where we would apply that with fish and game. Certainly I think the planting of fish ought to head up absolutely in your department, to prevent such things as have happened in other instances. When we plant fish it ought to be with very definite approval of your department. The same pretty much holds true, and I think we could well sit down around the table and decide when the federal government spends $5.00 to $10.00 per acre to planting the cut-over lands which we are buying in these states that we could well agree as a general principle that those plants would have to be protected for a few years to reach a certain size. If you were to crowd the thing and we would see we were making these plants and the rabbits were damaging, and I can't conceive, why we couldn't, if the state department would refuse us the right, to apply G-20A.

12. Mr. Willard: Don't you think that the publicity of G-20A was the source of greater unrest and uncertainty and irritation going on continuously than that which would result in a federal court?

13. Mr. Watts: That might be true.

14. Mr. MacKenzie mentioned the rules the Wisconsin Department had adopted relative to the introduction of wild life by federal agencies. which had been promulgated as self-defense measures.

15. Mr. Culler went on to say that plans were underway to work out fish distribution in a cooperative way, and that it would be done in entire accord with the department's wishes.

* * *

Mr. MacKenzie: I believe that the members of the association here should know about a telegram received this morning by Mr. Blakey from Commissioner Buford of Missouri. The statement is this: "I oppose any closed season on waterfowl, am for staggered thirty day season." Directly after luncheon the resolution committee on that subject can have the resolution prepared and it can be taken up the first thing on our program this afternoon.

Mr. Foley: Our committee had prepared two forms of resolutions, but would like further time in the hope that we could reconcile our differences.

The meeting adjourned at 12:00 until 1:30 p.m.

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The meeting opened at 1:35 p.m. by Mr. MacKenzie, President.

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POSSIBLE AND PRACTICABLE TRAPPING REGULATIONS FOR THE TAKING OF SMALLER FUR BEARING ANIMALS....Arthur I. Peterson, North Dakota

Mr. Peterson: I thought I had been assigned only the one topic on the report of ducks in North Dakota, but in looking over the program I found that I was also listed for this subject. I would have had to correspond with the states that belong to the association, and did not have the proper time to do that, so I did not prepare a report on this subject at all. I did not want to give a report on a subject of this kind just knowing the conditions of the state of North Dakota, because it seems that really the laws applying to our state would not be suitable to those in other states and this would call for correspondence with other states to perhaps work out some kind of general program, so I had talked with Mr. MacKenzie in regard to this and I told him I would be willing to take this topic for another year.

I don't feel I could do justice to it now. I don't believe it will take away from the program which Mr. MacKenzie has prepared for this convention. I believe it is a mighty fine program and feel that by the time we get through here this afternoon it will be plenty late enough, so if it's O.K. I will gladly pass this up until next year.

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SMALL PONDS AND WATER AREAS ON FARMS, THEIR CONSTRUCTION, BENEFITS, ETC., IN CONNECTION WITH FISH AND GAME BIRDS.....Frank B. O'Connell, Nebraska

Mr. MacKenzie: All right, Mr. Peterson, if it's agreeable to the rest of the members, then we'll proceed to the next number on our program by Mr. Frank O'Connell on "Small ponds and water areas on farms, their construction, benefits, etc., in connection with fish and game birds.

Mr. O'Connell: This subject will deal primarily with agricultural districts. I don't know how important it would be in northern states where you have larger bodies of water, but we have been fairly successful in Nebraska and I think the same thing would be applicable to Iowa and parts of South Dakota and Missouri.

The first thing we felt would be worthwhile would be the educational value--in other words, to get the farmers interested in building small ponds in order to get them conservation minded. We started with the idea of getting them interested in raising fish with the idea that the state would be able to buy these fish and supplement production from our hatcheries. It went over very nicely. In fact, we had last year, more fish offered than we had funds to purchase and we supplemented bass production last year by 20% from the output of these ponds and our trout production 30% and our blue gill production about 70%. It just happened that last year was an exceptionally good year for blue gills in these ponds. There are opportunities in supplementing hatchery production in this way and I believe they can do it, if it is managed right at an overhead which will make some of our hatchery superintendents sit up and take notice.

We finally felt that in order to protect ourselves we had to require them to deliver fish of a larger size, so we passed a regulation that fish we might buy from private ponds would have to be a fairly good size.

Then we carried on another small pond project which doesn't have to do with the production for the state, but rather to get the boys and girls on farms interested in possibilities in increase of their education along conservation lines. We have been doing that somewhat through the 4-H clubs, and I presume most of you are familiar with the 4-H club set-up which is a rural boys and girls club throughout agricultural districts and we have been helping them even to the extent of giving them a little financial aid and giving them a camp each summer. That is coming along very nicely and more counties are constantly being interested. While it isn't anything on a big scale production basis of fish it is worth while in getting boys and girls interested in the sportsman's point of view.

Another thing we found last year was that a number of these little ponds, no matter how small they were, attracted ducks. We were very much surprised to know that even on the smallest ponds there would be a half dozen birds stopping in those ponds, which gave a larger spread

throughout the agricultural district, and this spring we are having a much larger territory where ducks are hatching than ever before. Of course that is not due entirely to that reason, but it was of some help.

One thing, of course, which should be done if you are going to incorporate building small ponds, is to get some good information to put out. We have considerable difficulty with soil erosion and flood conditions and a lot of ponds have been built in the wrong way and washed out or they have had difficulty, and the complaints come back to the commission, unless they are given correct information. Several states have put out good information along this line. Ohio has several pamphlets available and supplementing these by blue prints. This service is free to farmer boys or girls who want to put in a small pond.

I think that just about covers this subject. It isn't a problem of very many ramifications, but rather a problem of education in our state and is along the right lines of getting farm people more conservation minded, and if you look at it from that point of view I believe you would find it worthwhile and applicable.

Mr. Blizzard: Just how small are these ponds?

Mr. O'Connell: Anything under five acres.

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PROGRESS IN STATE EXPERIMENTAL GAME AND FUR FARM

OPERATIONS.....Wm. F. Grimmer, Horace B. Kellogg, Jr., Wisconsin

Mr. Grimmer: I have made my discussion this afternoon extemporaneous because we are preparing at the present time a guide book of the state experimental game and fur farm at Poynette that is in the hands of the printers at this time and will be out in a few days, and I know that Director MacKenzie will be glad to send copies to all members of the Association.

We have at Poynette, on our combination farm, really two farms. They are run under separate budgets. Consequently, this afternoon I am going to tell you a little bit about the purposes of the conservation department in establishing the farm and a few of the high points in our experimental and production work up there, while Mr. Kellogg, the manager of the farm, will give you a discussion on the fur bearing and game animals and functions of the laboratory in connection with the fur breeders of the state.

To go back into history in the establishment of this farm, Wisconsin has based its game administration program on seven things. The first, and the one which we consider most important, is adequate law enforcement, and we certainly agree with Mr. Schwob of Iowa yesterday when he said that your good field men are the backbone of your department. We realize that.

Second, we must have in Wisconsin adequate forest fire protection

and prevention. And we believe that that is second in importance. We feel in Wisconsin that we have such an organization at the present time.

Third, our sane hunting and trapping regulations sufficiently simple so that the average man can read them and understand them and established so that we can actually utilize our surplus game.

Fourth, the development of a public hunting ground system sufficient to take care of our needs and a campaign to better farmer-sportsman relationships. Wisconsin is open minded on the question of fee shooting. We have a licensed shooting preserve law. We have some seventy preserves in the state covering about 40,000 or 60,000 acres of some of our best pheasant cover in southern Wisconsin. We feel, however, that we have a great deal to learn on the practical side of fee shooting before we definitely take a stand and attempt to encourage it.

Fifth, a comprehensive and adequate winter feeding program. Last year, we estimate that we had some 35,000 official winter feeding stations in Wisconsin. If it hadn't been for these, we wouldn't have come through in as good shape as we did.

Sixth, an adequate stocking program. Wisconsin was a little bit tardy in beginning her stocking efforts. We did not begin until 1928. Many of you had an open season long before that time. We feel in Wisconsin, too, that with the great number of exotic species that there are - over one hundred varieties of pheasants and over fifty of partridge - that we can find a bird that is adaptable for our different types of terrain and cover and consequently we have been working on a small scale for several years along that line.

Seventh, a general educational program outlining to the people of the state the problems of the game division and how we can best correlate those problems and how the department can best serve the sportsmen of the state.

With all those things in view, the Poynette farm was established as a game headquarters for the state. Eventually we hope to see most of the game administration, the administration of the public hunting grounds and the preserve system, and our winter feeding program center at Poynette. From the farm our men make--our farm, by the way, is quite centrally located twenty-five miles north of Madison--our contact men, many of them specialists in certain phases of game work, contact sportsmen and individuals throughout the state.

We call the farm an experimental farm because after all is said and done on this game business, it is not very much that we know, whether it be propagation or some phase of management. Consequently, we have been doing a great deal of work for the past year in the experimental housing, feeding, hatching, and brooding of the exotic birds. We have a division set aside at the farm that within another two weeks will handle ten thousand growing birds, reared entirely by electric brooders.

We have spent six years in feeding work and finally consolidated

on three commercial brands. The particular feed that we use I will discuss a little later on.

We have spent six years in the designing of the brooder that in our mind will produce far better pheasants than the old hen will. It took us a long time to go and to get to that stage where we could produce a bird at about one-half of the cost. If the plan is successful and works out well, there is no question but what all states, and I know that many other states have been working on this, will want to try it, and it will revolutionize the pheasant production program.

At Poynette for the past two years we have produced in excess of 125,000 pheasant eggs of several species. This year we are distributing about 110,000 eggs. We know the fault of the egg program as well as you do, but until we have found something better to take its place, we have continued and we feel now that we are on the road to finding something to take the place of the egg program.

This year Wisconsin is sending out 6,000 day-old chicks. We have sent our contact men out to a dozen clubs who built small brooder houses of the same type as are used at the farm. Clubs have purchased the simple electric brooders and have built the runs and yards at their own expense. The state furnishes day-old chicks, 250 to 1,000, and feed to rear the birds to eight or nine weeks of age. We have had such a tremendous demand for them that we have had to limit the number of clubs and these chicks are delivered by our own field force of trained game men, who put them in the brooders, stay over night, and get co-operators well started before leaving. The feed we use is fool proof. There is no grit, no green food, and it is fed from a hopper after the birds have learned to eat it, which takes about two days. In all of our years of rearing work - and I personally have been at it about twelve years, I have never seen better birds. There is no cannibalism, no feather pulling, and they are twenty per cent ahead of field reared birds, and the cost has been reduced almost thirty per cent. We are able to produce up there with the brooders about ninety-one or ninety-two per cent of all chicks put in the brooder.

Wisconsin stocks each year in addition to the egg distribution program, from 10,000 to 12,000 pheasants. These are stocked at the age of nine weeks or are held over the winter there at Poynette for stocking in the spring. This year we are penning some 5,000 breeders held over the winter and those will be stocked in July, immediately after the laying season and the young crop this year will be saved over the winter at the farm and the cocks stocked next spring in time for the breeding season, the hens held to produce chicks or eggs. We are hopeful that the chick program will be so successful that next year we can send out 20,000 or 30,000 chicks and cut the egg distribution plan in half.

The location of Poynette is such that, strange to say, we have with just a very few exceptions, every variety of native game within a radius of ten or twelve miles of the farm, that we have in the state. Not black bear, of course, but wild deer that come up to our game farm fence; cottontail and jackrabbit; the goose prairie at Lodi is only a few miles away, and the Wisconsin river bottoms with most varieties of ducks; quail are plentiful and ruffed grouse may be found just a mile from the farm, also prairie chicken. All in all we have a splendid

place to carry on any demonstration work that we wish to carry on or any experimental stocking, because we have men at the farm who are qualified to follow up this work.

Consequently, as soon as the farm is developed the way we want it to be, we intend to carry on a few demonstrations and we have already been active for two years in our experimental stocking work. It will interest you to know that we try not to leave anything unturned in this stocking work. Our present interest in finding exotic birds suitable as game birds in Wisconsin is based on two things. First, we have a lot of good grouse country. They, as you know, are affected by cyclic fluctuations and out of each nine or ten years, we must close possibly one, two, or three. Second, you gentlemen who have been working with cover restoration know of the complications and the cost, and in view of the fact that in the event we may not be able to put back cover for certain varieties of game, (we certainly can't put back prairie chicken cover in southern Wisconsin) but we have found that Hungarian partridge does very well without any cover.

Consequently, we are digging into new varieties of partridge and pheasants that are being imported, trying to rear a few in the hope that we can find a bird adaptable to our southern area, adaptable to other thousands of square miles of prairie lands in central and northern Wisconsin, and possibly in the northern part of the state. If we can find just one bird and the state of Wisconsin spends a lot of money doing it, it will be well worthwhile because in a lot of that prairie land, the area is good for nothing but wild life.

We have at the farm in addition to the above, an experimental nursery and food patch planting area. Over at the fur farm, which I am not going to touch on, Dr. Graves and his laboratory takes care of all dead game sent in from throughout the state. Autopsies are conducted and a report sent to the field man or the individual sending in the game. The second most important function of the laboratory, as far as birds are concerned is at the farm itself. Third, the benefit of the laboratory to the commercial game breeders of the state.

In addition to the above, we feel in Wisconsin much this way. There is an old proverb that "one picture is worth ten thousand words", and we feel that in this particular thing we have something that the public can see. We were very much surprised to know that a lot of people do not know the difference between a drake and a mallard duck. Consequently, we are building up a zoological exhibit with a pair of every species of native game that we have in this state, waterfowl, geese, some of the birds that are slowly disappearing such as sandhill crane for instance and some of the grouse, birds going gradually downhill in Wisconsin. There is an exhibit of some twenty or thirty varieties of exotic pheasants displayed, or those used for stocking, and the same with partridge. We feel that this exhibit, which will contain over one hundred pens, will be one of the finest things for the youngsters of this state that we could do and it is our hope that through the federal agency, WPA, that we can have that zoological exhibit constructed and operation by next year. Already at the farm we have a great many varieties of birds and animals that are on display there at the present time.

In addition to all of the above, the farm acts as a clearing house for all confiscated game. Thirty fawns last year went through. We hold them, feed them on a bottle, rear them, and dispose of them to commercial deer farms or municipal parks. There were also fourteen bears, several raccoon and other animals.

The last factor in the value of the farm is the educational factor. It may surprise you to know that our employees at the farm are taking through the farm each week from 1200 to 1600 or 1800 people. Due to the fact that the farm is only two years old, we haven't progressed to the point where we are really in shape to show visitors around, and we are very much pleased with the interest that is being shown.

Relative to the progress that the farm is making, we will be in a position in another year to get down to a considerable number of experimental projects. Wisconsin has developed a strain of Mongolian pheasant which we prize very highly. As you gentlemen will be given a chance to go to the farm, we hope to show you several thousand of these birds. We are very proud of them. They are, as you know, a better rocketer, a better flusher than the ring-neck. We are stocking this bird in the rolling country in the western part of our state, and it works out very well.

Another bird which we are stocking is the Formosan pheasant. He is as large as the Mongolian and is very light in color. We are attempting to stock him in the river bottom country.

The English blackneck is being stocked in the southeastern counties in concentrated hunting areas. He is a bird very hard to flush and you can almost walk on him to make him get up. There is a great deal of interest in him and a lot of hunting, but not much killing.

I know that the brooding work at the farm will interest you also. At the present time we have just a few birds - 650 wild turkeys, and a few thousand pheasants, and a few partridge, but I know that you will be interested in seeing this in operation, although they are still young and don't show off to very good advantage.

Next year at this time we will have our own incubators in a very complete cellar, and do our own hatching. Our hatching is done by commercial hatcheries now.

Wisconsin has kept up with the attempted breeding of the Hungarian partridge, but we haven't done much. We have found that we can't force-mate them and get results, and have gone back to the old French system. We are attempting to rear them by electricity. I think this year we will be able to do something. With Chukar partridge, it is the same. Whether he is going to work out as a game bird, we do not know. Most of our difficulty so far has been to rear them. We can't rear them with bantams, but is very easy by electric brooders. We are following that out this year as they have in the east and in California the last few years and I would not be at all surprised to see Chukar partridge grab hold and eventually be a factor in Wisconsin's game bird crop.

One other bird is the wild turkey. We have a stretch of country

called the Baraboo hill region. It is thirty-five miles long and five to seven miles wide with no farms to speak of. It is heavily timbered with oak. The sportsmen of Sauk county have co-operated to the extent of securing the passage by the county board of a bounty on gray fox. Several hundred have been killed.

We are stocking 300 to 500 turkeys in that area each year on a five-year program. We think that with our previous experience, we have been experimenting with the turkey for the last five years, that we are going to make this work. We hope so.

The farm, in our own mind, is still in the rough. We have done a lot of building. I am not going into the building program. I hope, however, that all of the members of this Association who are interested will try and get up to see it because we feel that it is a unique place and well worth the seeing.

If there is anyone who is not able to go up tomorrow or the next day, you can still visit the farm this afternoon or this evening; if they will see me, I shall be very glad to make transportation facilities available so that you can at least check us over briefly. I thank you.

Mr. MacKenzie: Mr. Kellogg will talk on the other phase of our experimental farm-the fur farm operations. Mr. Kellogg.

Mr. Kellogg: The fur unit of the state game and experimental fur farm is rather new in construction and experimentation and production, but we have gone a rather long ways toward realizing the aims and ambitions that prompted the fur farmers. As you probably know, Wisconsin is a big producer of fur. The approximate income from fur breeders amounted to twenty million dollars last year. While we're only two years old, in our experimental section, which includes Dr. Graves' laboratory on disease control, we have had at least ten thousand cases go through our laboratory. Coming from a fur ranch as I do, I know exactly what the fur ranchers are up against in the matter of disease of Wisconsin ranches as well as other fur sections of the United States. Some of them have been in existence just long enough to acquire a good share of disease, mostly because of contaminated ground. Perhaps because most of them have constructed their ranches with the idea of permanency, and of course raising the same animals on the same ground brought a lot of disease, with the result that the money lost in fur ranches each year has been enormous.

Our program is well defined at the game farm. We have a production unit with the idea of liberating wild animals. We have an experimental section where we are experimenting with food, as well as disease and of course we act as a clearing house for the conservation department.

As you know the Wisconsin conservation department has taken on a program of liberation of black raccoon and we are raising black raccoon only for the simple reason that the black, crossed with our native grey gives a very fine fur. Our ambition is to reach at least one thousand raccoon a year. This year we were able to liberate between six and seven hundred black raccoon, which were placed by our cooperators under the supervision of conservation wardens.

The raccoon will be liberated in those sections of the state where conditions are right, and where we have food, shelter and water. Last year the raccoon placed out did very well.

While we have this big raccoon section on our farm, at the present time, we do have a fine section of foxes, red, blue, silver and crosses and also a nice section of Yukon mink. The Yukon mink was added last fall and we plan to put in more. With the mink and fox on our main ranch, we will, as time goes on, have the opportunity to experiment with food in connection with the betterment of fur and with the increase of young, and to find exactly the cheapest food a farmer can feed and still get by. Secluded from our main ranch we have a disease ranch on which we also have fox and mink. This is under the supervision of Dr. Graves and there we will run experiments under actual ranch conditions on the hook-worm, lungworm, and on other diseases. So far we haven't had the opportunity to start those experiments. However, within the next month or so our disease ranch will be under way.

On our main ranch, besides our fox and mink, of course we are working particularly with fox and mink,--because Wisconsin raises an enormous amount of fox. I imagine Wisconsin is producing between 40 and 50% of fox and mink for the market, so we are working particularly with fox and mink as far as disease is concerned. Dr. Graves has a fine disease control program. The process is this. The commercial fur farmer has disease on his ranch. He sends his animals in to Dr. Graves, or he can send them in for observation. When the animal is received the cause of the disease is found and Dr. Graves notifies the rancher and if there is any serious condition he asks Dr. Graves to come directly to the ranch, and renders every aid he can. This service is entirely free, and has been responsible for saving thousands of dollars to the fur breeders of the state.

As we go on, our disease ranch will no doubt give us a chance to secure valuable information to give fur breeders. In this state the small breeder is really the important thing. We have a few large, real important ones, but the majority of the trade is made up with small farmers at a small investment, and he can't carry on research or experiments and take chances of losing animals, and therefore we feel the fur industry ought to get a chance to get the benefit of real authentic information.

Our ranch, however, has to do with animals besides foxes and raccoon. We have fisher, marten, deer, otter, beaver and many other animals. Our karakul sheep are a new addition to the family. We have been experimenting with these because we want to know whether the karakul sheep is the sort of animal to tell our Wisconsin farmers to raise, because the karakul sheep is a fur bearer.

While our facilities have been limited up to the present time, nevertheless, we have a fine set-up. We were fortunate inasmuch as we were able to get WPA to do some of the construction for us. We have the opportunity now of building a fine lecture hall to take care of the fur breeders associations who might want to come in for various meetings. We often have meetings from eight to one hundred people who come in for a day's schooling, and talk over disease problems with our

doctor. We now have that set-up and regard it as a matter of education. That hall will be open to any conservation organization.

We also had an opportunity to build a good many pens this year. We have a fine slaughter house refrigeration plant and kitchen under construction, as well as a barn to take care of grain crops and house the karakul sheep. We feel rather fortunate that WPA has done a very fine job for us.

We have found that the farm has been a matter of great interest to the public. We sometimes have 1500 people on a Sunday who come in to see us and no doubt that number will grow as we go on. As a unique addition to our program, and one which will mean much to us as we go along, WPA has given us an opportunity to build a zoo to house game birds and fur bearing animals to educate people of this state as to what birds and animals there are. That will take care of people just interested in coming to see the fur and game and will give us an opportunity to carry on our business in connection with the fur and game breeding.

We are now equipped to take care of a much larger business than we have in the past and I feel certain this coming year we will have at least one thousand raccoon for the wild. So, as we go along I believe we will be able to accomplish much more, but we are on the road to doing something to bring the wild life back in our state and liberate a great many animals.

I hope you will all have the opportunity to come over and see what our work actually is. See our laboratory section--it's hard to tell you just what goes on, and without doubt you will be surprised to find out just exactly what we do.

There is nothing more to tell you except that we are in a growing stage, having been in existence only two years. We will be very glad to have you come and see us, and I personally will be glad to show you around--we also have a very fine guide system, so I am sure you can all be taken care of.

* * *

Mr. MacKenzie: I believe that finishes our program. The next business to be taken care of is the resolution, and I will call on Mr. Hutton to present this to us.

Mr. Hutton: The following resolution has been prepared by this committee and is being submitted for your approval:

WHEREAS certain elements have combined to threaten the extinction of certain species of migratory waterfowl and create a hazardous reduction in the population of all species of migratory waterfowl, and

WHEREAS the shooting of migratory waterfowl is a controllable factor in their decimation, and

WHEREAS the United States Biological Survey, in the hunting season of 1935, made praiseworthy efforts in formulation of rules and

regulations and the execution thereof, to give consideration to all factors without undue hardship to any worthy phases, and

WHEREAS, such regulations did not attain the ultimate result desired or hoped for, and

WHEREAS the Association of Midwest Fish and Game Commissioners consider it desirable to make certain recommendations relative to migratory waterfowl,

NOW, THEREFORE, BE IT RESOLVED that the Association of Midwest Fish and Game Commissioners, in the third annual conference assembled at Madison, Wisconsin this 17th day of June, 1936, do herewith recommend that in the event there should be an open season on migratory waterfowl during 1936 that the regulations of the United States Biological Survey be not more liberal than those in effect in 1935;

BE IT FURTHER RESOLVED THAT we recommend the providing of adequate federal funds to the United States Bureau of Biological Survey for enforcement of its regulations;

BE IT FURTHER RESOLVED THAT we pledge our co-operation to the United States Bureau of Biological Survey and its program, and we pledge fullest co-operation with the Biological Survey for enforcement of hunting regulations pertaining to migratory waterfowl;

BE IT FINALLY RESOLVED that copies of this resolution be submitted to the Honorable Franklin D. Roosevelt, President of the United States, the Honorable Henry Wallace, Secretary of Agriculture, the Honorable Ira N. Gabrielson, Chief of the Bureau of Biological Survey, and the senators and members of Congress of the states belonging to the Association, and that this resolution be entered in the official transactions of this conference for permanent record.

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The motion was made, seconded and carried that the resolution be adopted as read.

Mr. Foley: A statement was made this morning that there was no intention on the part of the federal government to assume control of fish and game life in the various states. In my judgment, these statements notwithstanding, the important fact remains that regulation G-20A is still in force and effect, so in order to relieve the situation, I move the adoption of the following resolution:

WHEREAS the Department of Agriculture has made a regulation known as G-20A and

WHEREAS such regulation is in the judgment of this organization, an attempt to take away from the various states rights guaranteed them by the Constitution of the United States, and

WHEREAS widespread opposition to such regulation is evidenced in the various states, and

WHEREAS representatives of the Department of Agriculture have from time to time stated that the making of such regulation does not evidence the desire on the part of the federal government to assume control over the game and fish life in any state, and

WHEREAS notwithstanding such protestations on the part of the various representatives of the Department of Agriculture, the members of this organization have not been convinced that such is not the desire of the Department of Agriculture, and

WHEREAS it is desired that a clear and definite expression that the federal government does not desire to assume any control over the game and fish life of the various states except migratory birds be made,

NOW, THEREFORE, BE IT RESOLVED that in order to convince the various states that the United States government has no intention of assuming control over the game and fish life of the various states except migratory birds, in violation of state rights, that such regulation, G-20A, be rescinded.

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A vote was taken on the resolution which resulted in unanimous approval.

* * *

BUSINESS MEETING

Mr. MacKenzie: The first order of business will be the approval of minutes of the last meeting. I believe you have all received your copies, and a motion of approval is now in order.

The motion was made and carried that the minutes be approved as written.

Mr. O'Connell, Secretary-Treasurer, submitted the following financial report.

Balance on hand, 1935, received from Mr. I.T. Bode, Sec.-Treas.		$24.54	
Dues 1935-1936, received from the following states:			
South Dakota - - - -	$ 5.00		
Wisconsin - - - - -	5.00		
North Dakota - - - -	5.00		
Minnesota - - - - - -	5.00		
Iowa - - - - - - - -	5.00		
Illinois - - - - - -	5.00		
Nebraska - - - - - -	5.00	35.00	
Total Receipts			$59.54
Disbursements:			
500 Letterheads & Envelopes			10.50
Balance on hand			$49.04

The report was accepted as read.

Mr. MacKenzie: The next business before the meeting is the assignment of topics for the next meeting. I believe we should appoint a committee to assign topics.

It was moved, seconded and carried that the chair select the committee.

Mr. MacKenzie stated that inasmuch as a new president was about to be elected, the appointment of such a committee should probably be delegated to him.

Mr. MacKenzie: Election of officers for the coming year is now in order.

Mr. Foley nominated Oscar Johnson of South Dakota as president of the organization for next year. A motion to that effect was made, seconded and carried. A second motion was made, seconded and carried that the nominations for president be closed, and the secretary be instructed to cast a unanimous vote for Mr. Johnson as President.

Mr. Oscar Johnson - President

Mr. Walters nominated Frank O'Connell of Nebraska as vice-president. The motion was made, seconded and carried. Mr. Foley moved that the nominations be closed and that the secretary be instructed to cast a unanimous vote for Mr. O'Connell as Vice-President. The motion was seconded and carried.

Mr. Frank O'Connell - Vice-President

A motion was made to nominate Mr. John R. Foley as secretary-treasurer, seconded and carried. It was further moved, seconded and carried, that the nominations be closed and that the secretary be instructed to cast a unanimous vote for Mr. Foley.

Mr. John R. Foley - Secretary-treasurer.

At this point Mr. MacKenzie turned the chair over to Mr. Johnson, who presided for the balance of the meeting.

Mr. Mauthe: I should like to make a brief comment at this time on what I have seen here at the convention. In 1928 I attended a similar convention in the Black Hills--the state of Oscar Johnson. There are in attendance here Mr. Johnson who was there, Mr. O'Connell and I saw Mr. Weaver here too, who were also in attendance. The rest of you are nearly all new men in the conservation department and what I want to say is to express my observations of the two different conventions.

I sat here and listened with astonishment at the conclusions drawn by those who presented papers at this convention. They were outstanding as compared with what they were in 1928. You may have had hard times. You may have gone through a depression, but you certainly did improve in intellect.

I just want to comment to say the technical information we received at this convention has so much outshone that information which we received at the Black Hills and we had almost as large a crowd as we have here. We had papers, we had addresses, we had the federal government represented at that time just as we have now. They talked about cooperation at that time just as they are talking about it here, and I dare say that at that time there was only about one-fourth as much cooperation between the state and federal groups as there is now. In other words you have all made progress but you are so close to the picture that you don't see that progress and I, as chairman of the Wisconsin conservation commission in 1928--I left the commission because I had too much business that needed attention during the depression, and because of illness I had to remain off the commission,--but it gave me the opportunity you did not have, namely to see yourselves as you are, that you have made wonderful improvement in science and technical knowledge, in information about various departments and how they should be run and in your cooperation with the federal government. Now I merely want to say this: Keep on with the good work. You are on the right road. You will improve within the next twelve months and I hope I will have an invitation next year as I have this year. I shall attend if I possibly can. Keep up your good work. It is splendid and wonderful.

Mr. Johnson: It is encouraging to hear a statement like that from someone who has served actively in conservation work.

I should like to nominate the committee at this time to prepare the list of topics to be assigned at the next meeting, and also the states to whom they are to be assigned:

I will appoint: Mr. B. O. Webster of Wisconsin
Mr. E. V. Willard of Minnesota
and Mr. Frank O'Connell of Nebraska.

I would like to have Ray Steele sit in, in an advisory capacity, as least as I believe he should be conferred with in preparing our program and help to cover matters in which the Biological Survey should be reflected. Suggestions may be made at this time, which might be of aid to the committee.

Mr. Willard: The thought came to me that the committee might better function through correspondence with the various states to solicit suggestions as to the subject matters which might probably be discussed.

Mr. Johnson: The suggestion is a very good one. Perhaps some states have some particular subject they would like to suggest and if that's the sense of the convention that this committee not file its final report for another thirty or sixty days, we will agree to that.

Mr. O'Connell: I think that's a much better arrangement because there will very likely be important matters coming up at a later date which we do not anticipate at this time.

I should like to make the suggestion however, if there is anyone here who would like to bring up a topic, they can suggest it at this

time. I believe Mr. Foley mentioned a matter yesterday.

Mr. Johnson: I am going to suggest that someone be assigned the subject of checking up and presenting to this group next year--not because we can do much about it, but from a standpoint of interest--"The Failure of Washington Officials to Coordinate Their Activities Under the Coordination Act Passed Two Years Ago." I say that with all fairness to the men present, I think it is extremely unfortunate that a branch of federal service like the Forestry Service which was organized ten or fifteen years ago has had a different constructive long time program, and I think it is unfortunate that the personnel of that organization must suffer because of the things they do down there in Washington. I know this is a rather broad subject, but it is my thought that by holding these facts up for public scrutiny we might get results.

Mrs. Frankel: I would like to make the suggestion then that another topic be presented on the "Failure of the States to Coordinate Their Activities with the Various States".

Mr. Johnson: The next subject to be discussed will be the place of meeting for next year.

Mr. Walters: As a representative of South Dakota I want to extend an invitation to this group that you meet with us at Sioux Falls next year. It is on the eastern boundary of our state and centrally located to all of you. I wish to cordially extend to you an invitation to meet at Sioux Falls, South Dakota next year and I want to assure you you don't have to bring your own can of water--we'll produce plenty of good drinking water, plenty to eat, and I assure you we will give you a nice time.

Mr. Foley: I move that the invitation to South Dakota be accepted.

The motion was made and seconded.

Mr. Johnson: We will be very proud to entertain this group in our largest city in South Dakota, which is a city that has an organization of some twelve hundred sportsmen.

Mr. Blizzard: I would like to suggest as a topic for next year that someone prepare a paper on the closer cooperation between the conservation commissions and the sportsmen's organizations to endeavor to do away with law violations. It seems that it has been neglected and I should like to see a paper next year on that question.

Mr. Walters: I would like to suggest that a paper on the "After Effect of the Educational Youth Organization Program" also be discussed at the next meeting, to see if we are getting any place on that subject.

A motion was made, seconded and carried that the meeting be adjourned--3:30 p.m.

(Field tours were arranged for various parties, which included some of the state's hatcheries, parks, nurseries, forest protection headquarters, experimental game and fur farm, and other points.)

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Officers for 1936-1937

President.....Mr. Oscar Johnson, Pierre, South Dakota
Vice-President.....Mr. Frank O'Connell, Lincoln, Nebraska
Secretary-treasurer.....Mr. John R. Foley, Wabasha, Minnesota

Directors for 1936-1937

Mr. C. F. Thompson, Springfield, Illinois
Mr. Arthur Peterson, Bismarck, North Dakota
Mr. Wilbur C. Buford, Jefferson City, Missouri
Mrs. Margo K. Frankel, Des Moines, Iowa
Mr. H. W. MacKenzie, Madison, Wisconsin

* * *

Prepared by

Wisconsin Conservation Department
Madison, Wisconsin

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7-1-36

Excerpts from Proceedings of the Third Annual Conference

The Association of Midwest Fish and Game Commissioners

June 16-17, 1936

CONTROL OF FISH, GAME, LAKES AND STREAMS IN THE VARIOUS STATES BY FEDERAL AGENCIES - - E. V. Willard, Minnesota; Ernest Swift, Wisconsin

Mr. Willard: The large number of projects which are being financed by the federal government as a means of furnishing unemployment relief, the extensive areas of lands purchased by federal agencies for national forests, migratory fowl breeding grounds and sanctuaries, expansion of Indian Reservations, land resettlement projects and other purposes, and the machinery being set up for the future management of these areas, consciously or unconsciously is making federal influences in fields heretofore viewed as belonging exculsively under the jurisdiction of state agencies, more and more pronounced.

Meritorious as are the immediate purposes to be accomplished by these extensive federal operations, there are those concerned with the states' future place in the conservation picture who see in these activities implications and possibilities which may seriously affect state and local government prerogatives and functions, as well as adversely affect the normal sources of income from which the states' conservation programs at present derive their chief support.

Apprehension over what may happen to the jurisdiction of the states in the management of their wild life resources doubtless inspired the program committee to assign the subject of this paper for consideration and discussion as a part of the deliberations of this association.

That there is ample reason for the states represented here to look askance on every movement that may result in the federal government sharing with the states, jurisdiction over wild life, becomes evident to everyone who realizes the part that incomes derived from wild life management play in the support of state conservation programs.

The total annual turnover within the Department of Conservation of Minnesota is approximately one million dollars. This represents funds made available by the legislature for the management of forests, parks, waters, lands, minerals, and tourist advertising, and from revenues received from the management of game and fish. Of this amount more than one-half comes fromthe latter source. I have not taken the time to make a factual analysis of the sources from which the other states represented here derive support for their conservation activities but I dare say that the dependence of most of them on game and fish revenues is as critical as it is in Minnesota.

I stated that the states should look askance on every trend or move towards the federal government sharing with the states, wild life management. I emphasize sharing as I am convinced the time is remote when the game and fish resources of this nation in their entirety will be made subject to federal authority to the exclusion of state jurisdiction. The fixing of the seasons for the taking of upland game, often by counties as units; the feeding of birds in scattered areas during severe weather conditions; the closing of certain lakes or portions of lakes for the protection of spawning grounds and the opening up of others to angling; fixing of bag and creel limits; removal of rough fish and the enforcement of laws and regulations dealing with these and numerous other problems, even when confined to a single state, are tasks which try the ingenuity of state organizations in intimate touch with local conditions and who sense local public opinion and possible reactions. To attempt to administer all of the needs and expectations of the peoples of 48 states in all of these matters and delegate authority to do this to the federal bureaus who now have or claim to have some kind of jurisdiction or other over wild life, would present an impossible situation from the outset. Such a complete federalization of wild life management would in all probability not be suggested by even the most ardent believer in the superiority of federal over state governmental capabilities.

Even if the administration in whole, of our wild life, by the federal government, would be practicable, there is little in the records of past performances in attempted federal administration of wild life to lend support to an extension of this authority as a means of coordinating, unifying and making more simple, wild life administration practices.

The National Forest Service, National Park Service, U. S. Biological Survey, Soil Erosion Service, Bureau of Fisheries and the Bureau of Indian Affairs, are all attempting to deal with game or fish, or both. President Hoover, in his message to Congress on December 2, 1929, had this to say about the confusion of authority within the federal set-up.

> "The conservation of natural resources is spread among eight agencies in five departments. They suffer from conflict and over-lapping. There is no proper development and adherance to broad national policies and no central point where the searchlight of public opinion may concentrate itself."

Coordination of federal activities as urged by President Hoover has been attempted in some form or other for a number of years. The fact remains however, that such coordination has not yet taken place and is probably no nearer to realization to-day than when first proposed. The confusion to which he then referred is the confusion of to-day.

If it is true that placing of complete jurisdiction over wild life resources under federal control is impracticable, it would appear that the surrender of partial jurisdiction by the states has even less to offer in its defense. Divided responsibility never adds to efficient management of any enterprise. The creation of dual organizations to manage wild life will not only add to the burden of the sportsmen of the states involved but will seriously disorganize and curtail the states' own conservation programs and at the same time yield insufficient revenues to federal agencies to enable them to effectively exercise control. It will mean diffusion and dissipation of resources and a breakdown of state organizations developed and trained by the states from early pionnering times, organizations which are capable of sensing the problems and needs of their respective states more intimately and are more directly responsive to public opinion than can be expected from the most perfectly developed federal organization functioning from Washington. The responsibliity for the administration of our wild life resources, except as it applies to migratory species, to be most efficient, must not be divided.

What then are the trends that imply a tendency on the part of federal agencies towards instituting wild life management plans of their own to compromise or supersede state jurisdiction and which have inspired this discussion? There is not sufficient time to brief authentically, even in the tersest language, all of the references to wild life and its place in federal bureaus and departments, contained in laws which have been enacted by Congress through the years, nor am I qualified to make such a brief. It is sufficient to state however, that while most of the laws dealing with the jurisdiction by federal agencies over wild life are conservative in their language as regards interference with the states' prerogatives in the same field, broad references to the subject contained in many of them are nevertheless significant in their implications.

To illustrate, under the so-called Weeks Act, the President of the United States is authorized to designate - "Such areas on any lands purchased by the United States under the provisions of Sections 513 to 519 and 521 of this Title, as should in his opinion be set aside for the protection of game animals, birds or fish."

The Act of March 4th, 1907, declares

"All money received by or on account of the Forest Service for timber, or from any other source of national forest revenue, including moneys received from sale of products from the use of lands in National Forests created under Section 471 B of this Title, and moneys received on account of permits for hunting, fishing, or camping on lands acquired under authority of Sections 513 to 517 and 521 of this Title, shall be covered into the Treasury of the United States as a miscellaneous receipt, and except as provided in Sections 500 and 501 of this Title, there is appropriated and made available as the Secretary of Agriculture may direct out of any funds in the Treasury not otherwise appropriated."

If a speaker of the legal profession had been assigned this discussion he doubtless would have dwelt at length on the provisions of a large number of Congressional Acts and court opinions dealing with federal control over wild life. I cite the one act above referred to, to illustrate that wild life management is given a decided federal status in some of these acts. It is not the language of the statutes themselves however that has been the cause of so much alarm. It is the rules and regulations that these statutes have inspired in the minds of federal officials with vested prerogatives and suppressed ambitions, to whom the administration of these laws have been delegated, that merit the attention of states and state conservation officials.

One such regulation which has perhaps caused more wide-spread speculation among the states' conservation agencies as to the degree to which the U. S. Forest Service plans to invade the field of wild life management is the one issued by the Secretary of Agriculture under date of March 29, 1934 known as Regulation G-20 A. Doubtless most of those present have read and are acquainted with this famous regulation but it will be quoted to refresh your minds as it embodies a bold statement of what the U. S. Forest Service doubtless considers its legal rights as regards the control of wild life resources within National Forests. Following is the regulation:

> "Reg. G-20 A. When the Secretary shall determine upon consideration of data and recommendations of the Forester that the regulation on the prohibition for a specified period of hunting and fishing upon any National Forest or portion thereof is necessary for the accomplishment of the purposes above set forth, he shall designate such National Forest or portion thereof, establish hunting and fishing seasons therefor, fix bag and creel limits, specify the sex of animals to be killed, fix the fees to be paid for permits, designate the authorized official to whom application for permit shall be made, and describe the terms and conditions under which hunting and fishing shall be conducted with a view of carrying out the purpose of this regulation. Public notice of such designation shall be given by such means as the Forester shall deem adequate for the purpose. Carcasses of animals or fish taken under permit shall be marked or tagged for identification as directed by the Forester."

The protest to this regulation written by Mr. J. I. Farley, Executive Officer of the Game and Fish Commission of California, and the opinion of the Attorney General of that state holding that the authority for such regulation, except as it applies to migratory birds, is lacking in law, as well as the rejoinder defending the same, by Hon. R. G. Tugwell, Acting Secretary of the U. S. Department of Agriculture, are undoubtedly familiar to most of you.

In Mr. Farley's letter he emphasizes 1) that the condition which seemed to have prompted the issuance of the regulations, was failure of the Fish and Game Commission and the Legislature of California to have properly protected and managed wild life, in refutation of which he cites the close cooperation and harmonious relationships which had existed between the U. S. Forest Service and the state Fish and Game Commission in the management of wild life within national forests in that state; 2) the effect on state revenues and the added burden on sportsmen that would be imposed by any federal plan of setting up special fees for hunting and fishing privileges on federally owned lands; 3) the creation of future conflicts and dissensions between state and federal wild life management organizations in face of what had been friendly cooperation between the Commission of Game and Fish and the National Forest Service in the past, and 4) the diffusion of revenues between national and state agencies and as a result the curtailment of the work of the state.

In his opinion holding that the jurisdiction of the National Forest Service within national forest does not extend to the management of game and fish, Hon. U. S. Webb, Attorney General of the state of California, cites among several other federal and state legal authorities Section 480 of Title XVI dealing with national forests.

> "The jurisdiction, both civil and criminal, over persons within national forests shall not be affected or changed by reason of their existence except so far as the punishment of offenses against the U. S. therein is concerned; the intent and meaning of this provision being that the state wherein any such national forest is situated shall not, by reason of the establishment thereof, lose its jurisdiction, nor the inhabitants thereof their rights and privileges as citizens, or be absolved from their duties as citizens of the state."

In an analysis of regulation G-20 A made by the Attorney General of the State of Minnesota at the request of the speaker, he similarly points out the lack of legal justification for the issuance of such a regulation. He cites a statute from Minnesota which has been the foundation on which the state has promised its authority with respect to wild life management and which is well known to everyone within Minnesota who has to do with this phase of conservation which reads:

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"The writer, (Mr. A. D. Brattland, Asst. Atty. General in charge of Conservation matters in the state of Minnesota) is without sufficient imagination to conceive of any sound or serious reason for the enactment of such regulations in face of the fact that control and sovereign ownership of all wild life, with the exception of migratory fowl, has been concededly within the province of the individual states for a great number of years."

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Not only should state conservation organizations be concerned over enactments by Congress extending broad jurisdiction over wild life to federal agencies, but the acts of the states themselves in voluntarily surrendering their own rights and prerogatives in the field within areas proposed to be acquired by the federal government for various uses, constitute an equal if not a greater menace to continued undivided and unimpaired state control. The tendency of state legislatures to act on requests by federal agencies to cede over the management of wild life within proposed national forests and national parks, or to surrender such jurisdiction on the states' own initiative as an inducement to secure the establishment of such areas, is a practice which slowly but surely disintegrates state conservation organizations and sources of revenue. Such surrender of wild life control in return for the benefits, real or fancied, to accrue to the states from federal land purchase projects for various and sundry purposes, seems to the average legislator such a small price to pay in return for the many advantages and blessings which are pictured as coming to the state because of such federal projects. Singly these requests do not appear as important but in the aggregate states may and probably will discover that through the releasing of state jurisdiction over a large number of such federal enterprises they have lost jurisdiction over a natural resource more treasured by the mass of citizens than any other and of basic encomomic importance.

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As already indicated, the surrender of states' rights to the management of wild life, by the legislatures, as a means of encouraging the adoption of federal land purchase programs and other federal activities within the states, seems to the average legislator a small price to be paid for the benefits, real or apparent, to accrue to the state by reason of these developments. Very seldom does the question develop into a statewide issue of sufficient scope to bring it to general public attention. Warning of its ultimate effects upon the states' own wild life conservation programs must come from representatives of state conservation administrative groups concerned with such programs. Be it said in passing, that leadership is espousing states' rights or opposing federal expansion in state fields while the money bags of a generous and affluent Uncle Sam are being dangled before the eyes of owners of tax delinquent marginal lands, to tempt the promotion of extensive land purchase projects within areas which long since have become a burden to its owners, is far from a popular pastime and should not be expected to be received with popular approval or acclaim.

Referring to my own state of Minnesota, I believe I can best emphasize the effects that divided jurisdiction would have upon the states' interest in game and fish, and recreation. Looking at the map before you the areas in green are now included within purchase units actually approved for purchase by the National Forest Reservations Commission and the National Forest Service, within which the

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federal government already has or will actually acquire the lands. You will note that in the northeastern corner of the state the Superior National Forest embraces all of the attractive lake and wilderness areas along the International Boundary for a distance of more than 200 miles. It includes almost all of the state's scenic waterfalls and cascades along the North Shore of Lake Superior. Much of this land is conceded as not being especially valuable for forestry purposes but it is recognized as one of the state's most attractive play grounds and the most prolific source of big game and fur bearers, as well as of the forest species of upland game and waterfowl. It includes the mecca towards which the fishermen of Minnesota all wend their way at the opening of the trout season in the spring and on through the summer as the seasons for other species open. They are the areas that sell most of the state's resident and non-resident big game licenses.

The Chippewa National Forest in the north central portion, likewise includes the most attractive bodies of water found in this section. On the completion of the purchase units already approved for this forest, the National Government will own and control most of the lands surrounding such lakes as Leech, Winnibigoshish, Cass, and a large number of smaller lakes adjacent to those larger bodies which are cherished by every Minnesotan as a priceless source of recreation for camping, fishing and hunting. Needless to say, any divided jurisdiction between state and federal agencies, over the control of the wild life resources of those areas would mean a serious disorganization of the present state wild life conservation programs.

Anyone reading such regulations as those contained in the Secretary of Agriculture's recent G-20A, cannot help but conjecture on how much farther the management of national forests can be made to restrict the states' control of wild life. Originally, the development of national and state forests was promoted principally, if not solely, for the purpose of producing forest products. Experience is proving that the public, from whom support for forestry development must come, places as great or greater value on the recreational opportunities offered by a forest, than on the number of board feet of timber or cords of pulp-wood per acre it can produce. Modern forestry practices therefore, recognize and stress to the limit of laws and regulations, such facilities as picnicking, camping, hunting and fishing and to a degree where timber production has been compromised, if not forgotten. Recreation and wild life lands are sought with a zeal and management plans perfected with a view to emphasizing such facilities.

With this change in the evaluation of lands, particularly within national forests, those concerned with maintaining the states' part in the conservation program, naturally wonder what rights the states may be able to retain in the management of any of the natural resources within these areas, for any purpose. It is of little avail for instance, for the states to proclaim jurisdiction over its waters and the fish and fowl in them, if ingress and egress to such waters are subject to such rigid federal regulation as to prevent or even materially interfere with the sportsmen reaching them. In other words, the purposes to which the shore lands are subscribed, even though the

state may claim jurisdiction over the waters on which they border, can be made to effectively control the latter's use and enjoyment by the public. While it is doubtful that public opinion will ever subscribe to such rigid federal regulations as will completely exclude jurisdiction of the states over the use of public waters for purposes of wild life management, there is sufficient authority, real and implied, in present federal stipulations, under which enough partial control can be exercised so as to constitute a real and constant threat against the rights of the states in this field.

I have emphasized in this discussion potential possibilities of the federal government invading the field of wild life management and control by pointing to menacing federal requirements applicable to nationally owned areas which threaten to compromise state jurisdiction without reference to the states' responsibilities to assume and solve the problems which perhaps have inspired to a considerable degree the moves for federal invasion of the field of wild life control. But this issue is by no means one-sided. The states themselves have a decided responsibility in over-coming and removing tendencies which actually interfere with the efficient operation of federal projects and which may be seized upon by federal agencies as justification for introducing federal control. It is readily conceivable that where a state has completely failed or refused to cooperate with federal agencies in the control of wild life, such as rodent control, feeding starving deer, adoption of joint regulations where two or more states are affected, etc., within federally owned areas, that such a state would be decidedly on the defensive in protesting federal attention to these matters.

Furthermore, public opinion would favor federal jurisdiction under such circumstances. It, therefore, behooves the states to acquire an intimate and sympathetic knowledge of the manner in which wild life management may affect federal aims and purposes and show a disposition to do everything in their power to remove the causes which are unsatisfactory. This means that all intra-state problems must be assumed and managed intelligently and effectively by each of the individual states concerned. It means also that bordering states must assume responsibility in the joint management of wild life problems to the end that objectives common not only to the states affected but to federal agencies as well, may be attained in harmony and friendly cooperation.

Successful application of joint administration of wild life by bordering states is the best demonstration of the sincerity and ability of states to function and removes one of the chief sources of friction which call for or is being seized upon to justify federal assumption of control. While some notable progress has been made by states to coordinate their fishing and hunting regulations there is much yet to be accomplished. By a recognition of the fair and reasonable expectations and needs of federal agencies by state conservation officials and a general disposition to meet these needs as they develop, all just grounds for federal interference with the states' wild life administration and control should be largely removed.

I will conclude my paper by a few summary reflections:

1. Present federal laws and regulations promulgated from such laws contain sufficiently broad provisions giving federal jurisdiction over wild life within federally owned areas as to constitute a challenge to exclusive state control.

2. Increased efficiency and more harmonious relationships between state and federal agencies in wild life management, cannot come through divided responsibility. Control vested exclusively in the states has everything in its favor. If it fails it will probably be due to the states' own neglect to properly exercise their duties and prerogatives.

3. Federally owned areas have been multiplied many times during the past three or four years by the expansion of national forests, national parks, Indian Reservations, and resettlement projects. The added burden on public funds to properly maintain and operate these areas after present emergency unemployment measures will have been abandoned and federal expenditures have been curtailed so as to bring them within normal receipts is even now a matter of grave concern to bureaus intrusted with these tasks. Where will federal agencies look for funds to take care of these areas so as to meet public expectations and demands? Will not the revenues that may be derived from the sale of fishing and hunting privileges and permits within such areas be seized upon as a means of financing in part the cost of managing these extensive areas, and thus invade the states' jurisdiction and sources of wild life revenues?

4. The laws of the state of Minnesota declare that the ownership of game and fish in so far as they are capable of ownership is vested in the state "not as a proprietor but in its sovereign capacity as the representative and for the benefit of all of the people in common." If this is a declaration of a fundamental law, has the legislature authority to surrender such rights or the federal government power to assume even partial jurisdiction over these resources? There are those who question seriously the authority of the legislature to delegate to any one any of its duties as a trustee of these natural resources, except by a vote of the people.

5. Federal bureaus and departments are more extensively engaged in wild life studies within federally owned areas at the present time than ever before. How long will they continue this work without the hope of returns?

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Excerpts from Proceedings of the Third Annual Conference

The Association of Midwest Fish and Game Commissioners

June 16-17, 1936

CONTROL OF FISH, GAME, LAKES AND STREAMS IN THE VARIOUS STATES BY FEDERAL AGENCIES - - E. V. Willard, Minnesota; Ernest Swift, Wisconsin

Mr. Willard: The large number of projects which are being financed by the federal government as a means of furnishing unemployment relief, the extensive areas of lands purchased by federal agencies for national forests, migratory fowl breeding grounds and sanctuaries, expansion of Indian Reservations, land resettlement projects and other purposes, and the machinery being set up for the future management of these areas, consciously or unconsciously is making federal influences in fields heretofore viewed as belonging exculsively under the jurisdiction of state agencies, more and more pronounced.

Meritorious as are the immediate purposes to be accomplished by these extensive federal operations, there are those concerned with the states' future place in the conservation picture who see in these activities implications and possibilities which may seriously affect state and local government prerogatives and functions, as well as adversely affect the normal sources of income from which the states' conservation programs at present derive their chief support.

Apprehension over what may happen to the jurisdiction of the states in the management of their wild life resources doubtless inspired the program committee to assign the subject of this paper for consideration and discussion as a part of the deliberations of this association.

That there is ample reason for the states represented here to look askance on every movement that may result in the federal government sharing with the states, jurisdiction over wild life, becomes evident to everyone who realizes the part that incomes derived from wild life management play in the support of state conservation programs.

The total annual turnover within the Department of Conservation of Minnesota is approximately one million dollars. This represents funds made available by the legislature for the management of forests, parks, waters, lands, minerals, and tourist advertising, and from revenues received from the management of game and fish. Of this amount more than one-half comes fromthe latter source. I have not taken the time to make a factual analysis of the sources from which the other states represented here derive support for their conservation activities but I dare say that the dependence of most of them on game and fish revenues is as critical as it is in Minnesota.

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I stated that the states should look askance on every trend or move towards the federal government sharing with the states, wild life management. I emphasize sharing as I am convinced the time is remote when the game and fish resources of this nation in their entirety will be made subject to federal authority to the exclusion of state jurisdiction. The fixing of the seasons for the taking of upland game, often by counties as units; the feeding of birds in scattered areas during severe weather conditions; the closing of certain lakes or portions of lakes for the protection of spawning grounds and the opening up of others to angling; fixing of bag and creel limits; removal of rough fish and the enforcement of laws and regulations dealing with these and numerous other problems, even when confined to a single state, are tasks which try the ingenuity of state organizations in intimate touch with local conditions and who sense local public opinion and possible reactions. To attempt to administer all of the needs and expectations of the peoples of 48 states in all of these matters and delegate authority to do this to the federal bureaus who now have or claim to have some kind of jurisdiction or other over wild life, would present an impossible situation from the outset.. Such a complete federalization of wild life management would in all probability not be suggested by even the most ardent believer in the superiority of federal over state governmental capabilities.

Even if the administration in whole, of our wild life, by the federal government, would be practicable, there is little in the records of past performances in attempted federal administration of wild life to lend support to an extension of this authority as a means of coordinating, unifying and making more simple, wild life administration practices.

The National Forest Service, National Park Service, U. S. Biological Survey, Soil Erosion Service, Bureau of Fisheries and the Bureau of Indian Affairs, are all attempting to deal with game or fish, or both. President Hoover, in his message to Congress on December 2, 1929, had this to say about the confusion of authority within the federal set-up.

> "The conservation of natural resources is spread among eight agencies in five departments. They suffer from conflict and over-lapping. There is no proper development and adherence to broad national policies and no central point where the searchlight of public opinion may concentrate itself."

Coordination of federal activities as urged by President Hoover has been attempted in some form or other for a number of years. The fact remains however, that such coordination has not yet taken place and is probably no nearer to realization to-day than when first proposed. The confusion to which he then referred is the confusion of to-day.

If it is true that placing of complete jurisdiction over wild life resources under federal control is impracticable, it would appear that the surrender of partial jurisdiction by the states has even less to offer in its defense. Divided responsibility never adds to efficient management of any enterprise. The creation of dual organizations to manage wild life will not only add to the burden of the sportsmen of the states involved but will seriously disorganize and curtail the states' own conservation programs and at the same time yield insufficient revenues to federal agencies to enable them to effectively exercise control. It will mean diffusion and dissipation of resources and a breakdown of state organizations developed and trained by the states from early pionnering times, organizations which are capable of sensing the problems and needs of their respective states more intimately and are more directly responsive to public opinion than can be expected from the most perfectly developed federal organization functioning from Washington. The responsiblility for the administration of our wild life resources, except as it applies to migratory species, to be most efficient, must not be divided.

What then are the trends that imply a tendency on the part of federal agencies towards instituting wild life management plans of their own to compromise or supersede state jurisdiction and which have inspired this discussion? There is not sufficient time to brief authentically, even in the tersest language, all of the references to wild life and its place in federal bureaus and departments, contained in laws which have been enacted by Congress through the years, nor am I qualified to make such a brief. It is sufficient to state however, that while most of the laws dealing with the jurisdiction by federal agencies over wild life are conservative in their language as regards interference with the states' prerogatives in the same field, broad references to the subject contained in many of them are nevertheless significant in their implications.

To illustrate, under the so-called Weeks Act, the President of the United States is authorized to designate - "Such areas on any lands purchased by the United States under the provisions of Sections 513 to 519 and 521 of this Title, as should in his opinion be set aside for the protection of game animals, birds or fish."

The Act of March 4th, 1907, declares

"All money received by or on account of the Forest Service for timber, or from any other source of national forest revenue, including moneys received from sale of products from the use of lands in National Forests created under Section 471 B of this Title, and moneys received on account of permits for hunting, fishing, or camping on lands acquired under authority of Sections 513 to 517 and 521 of this Title, shall be covered into the Treasury of the United States as a miscellaneous receipt, and except as provided in Sections 500 and 501 of this Title, there is appropriated and made available as the Secretary of Agriculture may direct out of any funds in the Treasury not otherwise appropriated."

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If a speaker of the legal profession had been assigned this discussion he doubtless would have dwelt at length on the provisions of a large number of Congressional Acts and court opinions dealing with federal control over wild life. I cite the one act above referred to, to illustrate that wild life management is given a decided federal status in some of these acts. It is not the language of the statutes themselves however that has been the cause of so much alarm. It is the rules and regulations that these statutes have inspired in the minds of federal officials with vested prerogatives and suppressed ambitions, to whom the administration of these laws have been delegated, that merit the attention of states and state conservation officials.

One such regulation which has perhaps caused more wide-spread speculation among the states' conservation agencies as to the degree to which the U. S. Forest Service plans to invade the field of wild life management is the one issued by the Secretary of Agriculture under date of March 29, 1934 known as Regulation G-20 A. Doubtless most of those present have read and are acquainted with this famous regulation but it will be quoted to refresh your minds as it embodies a bold statement of what the U. S. Forest Service doubtless considers its legal rights as regards the control of wild life resources within National Forests. Following is the regulation:

> "Reg. G-20 A. When the Secretary shall determine upon consideration of data and recommendations of the Forester that the regulation on the prohibition for a specified period ofhunting and fishing upon any National Forest or portion thereof is necessary for the accomplishment of the purposes above set forth, he shall designate such National Forest or portion thereof, establish hunting and fishing seasons therefor, fix bag and creel limits, specify the sex of animals to be killed, fix the fees to be paid for permits, designate the authorized official to whom application for permit shall be made, and describe the terms and conditions under which hunting and fishing shall be conducted with a view of carrying out the purpose of this regulation. Public notice of such designation shall be given by such means as the Forester shall deem adequate for the purpose. Carcasses of animals or fish taken under permit shall be marked or tagged for identification as directed by the Forester."

The protest to this regulation written by Mr. J. I. Farley, Executive Officer of the Game and Fish Commission of California, and the opinion of the Attorney General of that state holding that the authority for such regulation, except as it applies to migratory birds, is lacking in law, as well as the rejoinder defending the same, by Hon. R. G. Tugwell, Acting Secretary of the U. S. Department of Agriculture, are undoubtedly familiar to most of you.

In Mr. Farley's letter he emphasizes 1) that the condition which seemed to have prompted the issuance of the regulations, was failure of the Fish and Game Commission and the Legislature of California to have properly protected and managed wild life, in refutation of which he cites the close cooperation and harmonious relationships which had existed between the U. S. Forest Service and the state Fish and Game Commission in the management of wild life within national forests in that state; 2) the effect on state revenues and the added burden on sportsmen that would be imposed by any federal plan of setting up special fees for hunting and fishing privileges on federally owned lands; 3) the creation of future conflicts and dissensions between state and federal wild life management organizations in face of what had been friendly cooperation between the Commission of Game and Fish and the National Forest Service in the past, and 4) the diffusion of revenues between national and state agencies and as a result the curtailment of the work of the state.

In his opinion holding that the jurisdiction of the National Forest Service within national forest does not extend to the management of game and fish, Hon. U. S. Webb, Attorney General of the state of California, cites among several other federal and state legal authorities Section 480 of Title XVI dealing with national forests.

> "The jurisdiction, both civil and criminal, over persons within national forests shall not be affected or changed by reason of their existence except so far as the punishment of offenses against the U. S. therein is concerned; the intent and meaning of this provision being that the state wherein any such national forest is situated shall not, by reason of the establishment thereof, lose its jurisdiction, nor the inhabitants thereof their rights and privileges as citizens, or be absolved from their duties as citizens of the state."

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> "Outstanding values as to natural resources of timber, lumber, water and soil, characterize the Pisgah district of the national forest of the same name. The wild life resources and their management and development are an integral unit of the successful administration of the forest and preserve, which are co-extensive. This fact make it imperative that the wild life plan be closely harmonized with other plans and objectives."

As already indicated, the surrender of states' rights to the management of wild life, by the legislatures, as a means of encouraging the adoption of federal land purchase programs and other federal activities within the states, seems to the average legislator a small price to be paid for the benefits, real or apparent, to accrue to the state by reason of these developments. Very seldom does the question develop into a statewide issue of sufficient scope to bring it to general public attention. Warning of its ultimate effects upon the states' own wild life conservation programs must come from representatives of state conservation administrative groups concerned with such programs. Be it said in passing, that leadership is espousing states' rights or opposing federal expansion in state fields while the money bags of a generous and affluent Uncle Sam are being dangled before the eyes of owners of tax delinquent marginal lands, to tempt the promotion of extensive land purchase projects within areas which long since have become a burden to its owners, is far from a popular pastime and should not be expected to be received with popular approval or acclaim.

Referring to my own state of Minnesota, I believe I can best emphasize the effects that divided jurisdiction would have upon the states' interest in game and fish, and recreation. Looking at the map before you the areas in green are now included within purchase units actually approved for purchase by the National Forest Reservations Commission and the National Forest Service, within which the

federal government already has or will actually acquire the lands. You will note that in the northeastern corner of the state the Superior National Forest embraces all of the attractive lake and wilderness areas along the International Boundary for a distance of more than 200 miles. It includes almost all of the state's scenic waterfalls and cascades along the North Shore of Lake Superior. Much of this land is conceded as not being especially valuable for forestry purposes but it is recognized as one of the state's most attractive play grounds and the most prolific source of big game and fur bearers, as well as of the forest species of upland game and waterfowl. It includes the mecca towards which the fishermen of Minnesota all wend their way at the opening of the trout season in the spring and on through the summer as the seasons for other species open. They are the areas that sell most of the state's resident and non-resident big game licenses.

The Chippewa National Forest in the north central portion, likewise includes the most attractive bodies of water found in this section. On the completion of the purchase units already approved for this forest, the National Government will own and control most of the lands surrounding such lakes as Leech, Winnibigoshish, Cass, and a large number of smaller lakes adjacent to those larger bodies which are cherished by every Minnesotan as a priceless source of recreation for camping, fishing and hunting. Needless to say, any divided jurisdiction between state and federal agencies, over the control of the wild life resources of those areas would mean a serious disorganization of the present state wild life conservation programs.

Anyone reading such regulations as those contained in the Secretary of Agriculture's recent G-20A, cannot help but conjecture on how much farther the management of national forests can be made to restrict the states' control of wild life. Originally, the development of national and state forests was promoted principally, if not solely, for the purpose of producing forest products. Experience is proving that the public, from whom support for forestry development must come, places as great or greater value on the recreational opportunities offered by a forest, than on the number of board feet of timber or cords of pulp-wood per acre it can produce. Modern forestry practices therefore, recognize and stress to the limit of laws and regulations, such facilities as picnicking, camping, hunting and fishing and to a degree where timber production has been compromised, if not forgotten. Recreation and wild life lands are sought with a zeal and management plans perfected with a view to emphasizing such facilities.

With this change in the evaluation of lands, particularly within national forests, those concerned with maintaining the states' part in the conservation program, naturally wonder what rights the states may be able to retain in the management of any of the natural resources within these areas, for any purpose. It is of little avail for instance, for the states to proclaim jurisdiction over its waters and the fish and fowl in them, if ingress and egress to such waters are subject to such rigid federal regulation as to prevent or even materially interfere with the sportsmen reaching them. In other words, the purposes to which the shore lands are subscribed, even though the

state may claim jurisdiction over the waters on which they border, can be made to effectively control the latter's use and enjoyment by the public. While it is doubtful that public opinion will ever subscribe to such rigid federal regulations as will completely exclude jurisdiction of the states over the use of public waters for purposes of wild life management, there is sufficient authority, real and implied, in present federal stipulations, under which enough partial control can be exercised so as to constitute a real and constant threat against the rights of the states in this field.

I have emphasized in this discussion potential possibilities of the federal government invading the field of wild life management and control by pointing to menacing federal requirements applicable to nationally owned areas which threaten to compromise state jurisdiction without reference to the states' responsibilities to assume and solve the problems which perhaps have inspired to a considerable degree the moves for federal invasion of the field of wild life control. But this issue is by no means one-sided. The states themselves have a decided responsibility in over-coming and removing tendencies which actually interfere with the efficient operation of federal projects and which may be seized upon by federal agencies as justification for introducing federal control. It is readily conceivable that where a state has completely failed or refused to cooperate with federal agencies in the control of wild life, such as rodent control, feeding starving deer, adoption of joint regulations where two or more states are affected, etc., within federally owned areas, that such a state would be decidedly on the defensive in protesting federal attention to these matters.

Furthermore, public opinion would favor federal jurisdiction under such circumstances. It, therefore, behooves the states to acquire an intimate and sympathetic knowledge of the manner in which wild life management may affect federal aims and purposes and show a disposition to do everything in their power to remove the causes which are unsatisfactory. This means that all intra-state problems must be assumed and managed intelligently and effectively by each of the individual states concerned. It means also that bordering states must assume responsibility in the joint management of wild life problems to the end that objectives common not only to the states affected but to federal agencies as well, may be attained in harmony and friendly cooperation.

Successful application of joint administration of wild life by bordering states is the best demonstration of the sincerity and ability of states to function and removes one of the chief sources of friction which call for or is being seized upon to justify federal assumption of control. While some notable progress has been made by states to coordinate their fishing and hunting regulations there is much yet to be accomplished. By a recognition of the fair and reasonable expectations and needs of federal agencies by state conservation officials and a general disposition to meet these needs as they develop, all just grounds for federal interference with the states' wild life administration and control should be largely removed.

E. V. Willard -

I will conclude my paper by a few summary reflections:

1. Present federal laws and regulations promulgated from such laws contain sufficiently broad provisions giving federal jurisdiction over wild life within federally owned areas as to constitute a challenge to exclusive state control.

2. Increased efficiency and more harmonious relationships between state and federal agencies in wild life management, cannot come through divided responsibility. Control vested exclusively in the states has everything in its favor. If it fails it will probably be due to the states' own neglect to properly exercise their duties and prerogatives.

3. Federally owned areas have been multiplied many times during the past three or four years by the expansion of national forests, national parks, Indian Reservations, and resettlement projects. The added burden on public funds to properly maintain andoperate these areas after present emergency unemployment measures will have been abandoned and federal expenditures have been curtailed so as to bring them within normal receipts is even now a matter of grave concern to bureaus intrusted with these tasks. Where will federal agencies look for funds to take care of these areas so as to meet public expectations and demands? Will not the revenues that may be derived from the sale of fishing and hunting privileges and permits within such areas be seized upon as a means of financing in part the cost of managing these extensive areas, and thus invade the states' jurisdiction and sources of wild life revenues?

4. The laws of the state of Minnesota declare that the ownership of game and fish in so far as they are capable of ownership is vested in the state "not as a proprietor but in its sovereign capacity as the representative and for the benefit of all of the people in common." If this is a declaration of a fundamental law, has the legislature authority to surrender such rights or the federal government power to assume even partial jurisdiction over these resources? There are those who question seriously the authority of the legislature to delegate to any one any of its duties as a trustee of these natural resources, except by a vote of the people.

5. Federal bureaus and departments are more extensively engaged in wild life studies within federally owned areas at the present time than ever before. How long will they continue this work without the hope of returns?

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Excerpts from Proceedings of the Third Annual Conference

The Association of Midwest Fish and Game Commissioners

June 16-17, 1936

CONTROL OF FISH, GAME, LAKES, AND STREAMS IN THE VARIOUS STATES BY FEDERAL AGENCIES - E. V. Willard, Minnesota; Ernest Swift, Wisconsin

Mr. Swift: The subject for discussion which has been assigned to Director Willard of Minnesota and myself is that of control of fish, game, lakes, and streams in the various states by federal agencies.

A very cursory investigation has led me to believe that it is a subject for the most profound cogitation and study of constitutional attorneys. The knowledge I possess is much too limited to permit a learned discourse on my part, so that my remarks, I might say, are more or less mere surface scratchings of a subject which has already embroiled the several states and our federal government in a goodly number of legal affrays since the adoption of the constitution.

In giving some thought to the natural resources under discussion, I feel that the control of waters by the states is fundamentally the most important. The basis of this conclusion has been reached from two lines of reasoning: first, that if the states cannot have control of their lakes and streams, then control of the fish and those species of game animals and birds which inhabit them is greatly impaired; the other that the original 13 colonies emphasized state rights with regard to navigation by delegating such rights to the old Northwest Territory in the Ordinance of 1787 and by reserving the jurisdiction over lakes and streams to themselves with the exception that the federal government has a right to improve navigation within the states where it deals with interstate commerce.

The power to improve and regulate navigation, however, by the federal government, was a provision surrendered to the federal government by the states and does not include the authority to regulate game or fish. This is true with one exception - the control of migratory birds. The United States supreme court has frequently held that states have police power over the regulations of their wild life and the power of the federal government to regulate taking of migratory birds within the state was invalid until a treaty was consummated with Great Britain and Canada regarding this matter. The federal government received this power through its rights to make treaties.

Although my following remarks diverge somewhat from the ideas of conservation as we are speaking of it, I have attempted in them to give an idea of what powers the early colonies felt should be retained by the states and what the courts have held in various instances. They have more to do with conservation from the water power and navigation angle, but both of these subjects are becoming more closely allied to the conservation of fish and game.

The Ordinance of 1787 has been the foundation for both the United States supreme court and several state supreme courts in sustaining the jurisdiction of the states over the waters within their boundaries.

All of America was orginally claimed by the Crown of England. The Crown issued grants of public land by charter or patent to governments or individuals. Such grants from the King included the ownership or dominion of lands under tide waters and other such lands of the same character as they had been theretofore held by the Crown. After the American Revolution, the people of each state became sovereign and as such held title to and the absolute right in all navigable waters and the beds under them for common use. They still possess this title, subject only to those rights surrendered to their general government.

Even before the Declaration of Independence, a confederation of states was advocated. This was not adopted until 1781, because of the lands lying west of the original colonies. Virginia claimed what afterwards became West Virginia, Kentucky, and a greater part of Ohio, Indiana, Illinois, Michigan, Wisconsin, and Minnesota. However, in 1786 Virginia relinquished her rights to this territory with the stipulation that in being divided by Congress, there should be made not more than five and not less than three republican states. Virginia also insisted that such states should thereafter become members of the federal Union and have the same rights of sovereignty, freedom, and independence as the original states.

These provisions were incorporated into what is commonly known as the Ordinance of 1787 by the Continental Congress and constitutes the basic law for the government of the Northwest Territory, of which Wisconsin and several other states represented here today are a part.

The first Congress under the new constitution confirmed the Ordinance in August, 1789. Wisconsin, in drawing up her constitution, borrowed from the Ordinance of 1787 to further insure to the people the common privilege of navigation and the incidents thereto. Article IX of the Wisconsin constitution reads as follows:

"Section 1. The state shall have concurrent jurisdiction on all rivers and lakes bordering on this state so far as such rivers or lakes shall form a common boundary to the state and any other state or territory now or hereafter to be formed and bounded by the same and the river Mississippi and the navigable waters leading into the Mississippi and the St. Lawrence, and the carrying places between the same shall be common highways and forever free, as well to the inhabitants of the state as to the citizens of the United States without tax, impost, or duty therefor." That part relating to the Mississippi and the St. Lawrence and the carrying places between the same being common highways and forever free was taken in body from the Ordinance of 1787.

Since that time courts have held that hunting and fishing are incidents to the rights of navigation.

Those states which were a part of the old Northwest Territory were given sovereignty over the waters and the beds thereof within their boundaries by the Ordinance of 1787. When new states were brought into the Union, other than those carved out of the Northwest Territory, Congress attempted in some instances to impose new conditions which were not granted by the original 13 colonies, or the Ordinance of 1787, to the federal government. After Alabamawas admitted to statehood, the United States government attempted to grant private persons land covered by tidal waters in Mobile Bay. The United States supreme court held that the title of these lands were no longer in the federal government and that the title to such lands had passed to Alabama upon its admission to the Union. The court further held that new states have the same rights, interests, and sovereignty of soil and navigable waters as had the original states. This was further brought out in the case of St. Anthony Falls Water Power Company vs. St. Paul Water Company, 168 U. S. 349, wherein the court held that the rights of the riparian owner of land situated on navigable streams are measured by the rules and decisions of the court of the state in which the land is situated, whether it is one of the original states or a state admitted after the adoption of the federal constitution.

The United States never held title to the beds of navigable waters in the Northwest Territory except in trust to hold the same for the new states to be formed in such Territory. Therefore, a United States patent does not convey navigable waters or the beds under them. No general rule was ever laid down by the federal government to guide the states in their control over such waters and the soils under them, but on the contrary, it has been held that it was for the several states themselves to determine what waters and to what extent the prerogative of the state shall be exercised in the regulation and control of such waters and the beds thereunder.

The fact is therefore definitely established that the United States owning lands in that territory covered by the Ordinance of 1787 or the original 13 colonies has no greater rights with respect to navigable waters thereon than an ordinary proprietor has in waters on his lands in the state. Improvement for interstate navigation is the exception.

The opinion is still expressed, however, that the power has been left to Congress to impose new conditions on the admission of new states other than the Northwest Territory, in spite of the supreme court decisions, which have denied such an assumption. All powers expressly delegated to the federal government and not prohibited to the states remain inherent in the states as separate sovereign governments, subject then to such rights of the federal government over navigable waters as are delegated to it by the federal constitution. Each state in its sovereign capacity makes its own rules or laws governing the respective rights of the public and the riparian owner of navigable water. The state therefore defines the test to be applied in determining whether waters are navigable or non-navigable. Its own laws determine whether the soil under navigable waters remains

vested in the state or whether it becomes vested with the upland in the riparian owner.

After a state has once determined, however, what are the rights of a riparian owner on navigable waters, such determination becomes a rule of property and private rights becoming vested thereunder come under the protection of both federal and state constitutions. Because each state has the power to establish in accordance with its individual policies its own laws with respect to waters, it comes to pass that such laws vary widely in different states. The humid states, or those in the eastern half of the United States, generally have adopted with more or less modification, the English common law of riparian rights. The arid states of the west, on the other hand, generally have followed the rule of prior appropriation of the Roman-Spanish law, which is directly contrary to the rule of common law. The basic rule of the common law is that each riparian proprietor has the right to have the stream come down to him with its quality unimpaired and with the quantity undiminished.

Because of changing conditions, however, the rule has been somewhat modified. Under the rule of prior appropriation, on the other hand, the person who first appropriates water from a stream flowing through the public domain and applies it to a beneficial use, such as irrigation, mining, power, or other private uses, becomes entitled to the exclusive use of the water to the extent of his appropriation. He may lead it over government land and divert it into another watershed, regardless of riparian owners. So long as the first user continues to use it, he will be protected in his right of prior use. This rule was deemed essential in the development of the arid west, since the principal industries, when those states were first settled and developed, were mining and agriculture.

These last remarks may possibly seem somewhat out of line with the topic of discussion. Nevertheless, they show a wide difference in the establishment of laws for the use of water in the individual states. The fact still remains and is definitely established, that the states have a sovereign right over the waters within their boundaries, and such rights seem doubly insured in the original 13 colonies and the old Northwest Territory.

As I stated in the beginning, it seems to me of paramount importance that the states possess a sovereignty over waters within their boundaries if they are to continue with an undisputed control over fish, game, and birds which inhabit them.

In the last four years the question of state jurisdiction over wild life within its borders has come into considerable prominence. It has become a moot question for the reason that many states are now being affected by federal agencies, where in the past, as in the famous Kaibab case, practically no other state than Arizona at that time was brought into the picture. It is the result of federal agencies stepping in and assuming the management of wild life without due consideration to those state departments previously exercising such powers.

My observations are limited to Wisconsin, but my contacts with the personnel of the conservation departments of other states leads me to believe that it is a problem which has more or less worried or irritated a great many states within the past four years. Since 1930, five federal agencies - the United States Forest Service, the National Park Service, the Biological Survey, the Soil Conservation Service, and the Resettlement Administration - have descended upon Wisconsin and informed the conservation department and the people at large that they are ready, willing, and capable of taking over the management of its wild life in certain areas. In some instances, one or more of these agencies have been rather insistent that certain prerogatives have been delegated them, because of their federal origin and have been irked by what they apparently considered the restrictive interference of a more or less horse-and-buggy state conservation department.

Apparently, we have not been capable of grasping the significance of a futuristic wild life program, as some of the personnel of these alphabetical agencies have envisioned it. This was true for several years, but I am happy to say that at the present time the conservation department of Wisconsin and the aforenamed federal agencies carrying on programs within the state which have to do with natural resources, have come to a very definite understanding. Their grand manner has been discarded for more co-operative understanding.

One of the difficulties in the past was the fact that these five federal agencies, each making more or less of a bid to manage Wisconsin's wild life, were in no way connected with each other. Although of federal origin, they worked entirely independent and in one instance, at odds with each other. Therefore, an harmonious working agreement with one did not necessarily mean an understanding with the other four. It followed therefore that regulations which all federal agencies would have to follow must be promulgated by the Wisconsin Conservation Commission, or its department would be a poor relation on the outside looking in.

Such regulations were drafted and adopted, and since that time many misunderstandings have been erased and a better spirit of co-operation developed between the field forces of the various federal departments and the Wisconsin Conservation Department. These regulations cover wild life management with respect to rodent control, deer, beaver, the taking of any wild life for scientific purposes, lake and stream improvement, and fish distribution. Under these regulations, any person, persons, or agency which deems it necessary to control the number of any species of rodents on lands owned or under their legal control by lease or contract, comprising forest plantations, wild or cultivated, or similar crops, shall first apply in writing to the Wisconsin Conservation Department for a permit to practice such control. Such application shall state the purpose for which control is believed necessary, the county and land description by section, township, and range, and by forty if areas are smaller than a section of land, of the areas for which a permit to control rodents is desired.

On receipt of this application, a permanent member of the department personnel is designated to make the necessary investigation. Upon his approval, and the approval of the superintendent of game, and the conservation director, a permit is issued which states among other things the time which such control can be practiced, the areas, and the methods which may be used.

In cases where it is necessary to remove deer because of damage or other reasons, the matter rests exclusively with the conservation department, upon proper investigation.

Beaver control work, such as the removal of beaver and the destruction of their dams, is carried on entirely by the personnel of the conservation department.

Lake and stream improvement by persons or agencies other than the conservation department is carried on by permit through application and subsequent investigation by the department.

Very strict accounting is held of persons wishing to collect game, game birds, or fish for scientific purposes. Such permits are held at a minimum and any person desiring to make such collections, regardless of his status, must first obtain such a permit.

The planting of fish and fish distribution is under the direct supervision of the personnel of the Wisconsin Conservation Department at all times.

An order of the Wisconsin Conservation Commission reads in part as follows:

"It shall be unlawful for any person or persons to introduce, place, plant, or release or cause to be introduced, placed, planted, or released in any manner in the publicly owned or controlled inland waters of the state of Wisconsin any fish, fish fingerlings, fish fry, or fish spawn unless such releases or plantings are supervised or authorized or permitted by a written permit of the State Conservation Commission of Wisconsin, its duly authorized agents, or representatives."

This applies to the federal bureau of fisheries as well as other federal departments.

The laws of the state creating the conservation department of Wisconsin specifically vested in it the responsibility of protecting and developing the forests, fish, game, lakes, streams, plant life, and other outdoor resources of the state.

The parallel of responsibilities was most clearly set forth to representatives of the United States Forest Service by our director, Mr. MacKenzie, at a meeting where some of these questions were most forcefully being discussed. Mr. MacKenzie pointed out to the members of the Forest Service that the state, in receiving aid through the

Clarke-McNary Act and through ECW, must in all instances comply with the requirements of the federal forest service and subject itself and its records to their investigations. Such was the responsibility and authority of the United States Forest Service through the federal government.

On the other hand, the Wisconsin Conservation Commission, by the state legislature, was vested with the responsibility and authority of developing and protecting the natural resources of the state, an obligation which it could not avoid and which it did not seek to avoid. Therefore, in carrying out the duties of that responsibility, federal agencies entering Wisconsin and attempting to manage wild life and other resources would have to comply with the regulations set forth by the Wisconsin legislature and the Wisconsin Conservation Commission.

An order signed by the United States Secretary of Agriculture, and numbered G-20A, has been something of a source of irritation to state-departments, even though it has not been enforced in most instances. This was incorporated in an omnibus forestry bill, and later withdrawn.

"That in order to bring about the effective development and management of the wild life resources of the national forests, including the keeping of wild life population within the carrying capacity of each national forest, or part thereof, and coordinating such development, management, and population with the protection and management of other national forest resources, the Secretary of Agriculture is hereby authorized and directed to formulate plans for the development of the wild life resources, to provide for carrying them out, and to prescribe and enforce such rules and regulations as in his judgment are necessary to this end, which rules and regulations may fix bag and creel limits, specify the sex of the animals they may be killed and the period during which hunting, trapping, and fishing on any national forest, or part thereof, shall be permitted, designate the forest officers to whom application shall be made for hunting, trapping, and fishing permits and fix the fee to be paid therefor, indicate the manner in which carcasses of animals or fish taken under permit shall be disposed of and marked or tagged for identification, and impose such other conditions and requirements as he may deem necessary for the protection and promotion of the public interests; and whoever shall violate any rule or regulation prescribed by the Secretary of Agriculture, or any condition or requirement of a hunting, trapping, or fishing permit issued by his authority, pursuant to the provisions of this section shall be fined not more than $500, or imprisoned not more than one year, or both...." This order, I have been informed, although I will not vouch for the truth of it, was issued on the assumption that the decision of the Kaibab deer case gave the Department of Agriculture such authority.

Mr. MacKenzie, our conservation director, Mr. Wilson, superintendent of co-operative forestry, and I had the pleasure of some discussion with a Mr. Thompson, an attorney of the Department of Justice, who played a part in the prosecution for the government in this case. He told us very frankly that where there was no damage

done by wild animals to government property, the state had entire jurisdiction and that the proof of damage would have to be forthcoming before a federal agency could arbitrarily destroy wild life. He also told us that he did not want to become mixed up with any case like the Kaibab case, and that only a last resort would bring anything of its kind into court again.

My curiosity led me to write the U. S. Forest Service at Washington, and ask them the number of states which had conceded the administration of game to the federal forest service on national forest areas within their boundaries. The following have given this concession: North Carolina, Tennessee, Oklahoma, and Pennsylvania.

I also enquired as to whether the regulation G-20A was being applied in any state at the present time, and was informed that this regulation was being enforced in the Dixie National Forest in Utah. Therefore G-20A is being enforced in at least one state in the Union on a national forest where the state has not conceded jurisdiction of game to the United States Forest Service.

I would like to make mention of one instance where the United States Forest Service advocated a measure in which this department felt it could not concur, and in which our findings were far different from theirs. They advocated the killing, during the months of last December and January, of 14,000 bucks, does, and fawns in parts of two counties, an area comprising about 600,000 acres, their theory being that deer were too plentiful to carry through the winter on the amount of food available. The conservation department did not listen to this. Close observation during the past winter has proved that there was no starvation of deer in this area, nor was there any damage done by them to any of the tree plantations. It is also a known fact that the deer have been more plentiful in this area in times past and with the exception of an extremely hard winter, there was no deer starvation.

It is also the consensus of opinion among the wardens and the rangers of the Wisconsin Conservation Department that the numerous and uncontrolled fire lanes on federal units have a very damaging effect upon wild life. We do not deny the necessity and advantage of necessary fire lanes. However, those fire lanes built by this department are gated, and a conservation order prohibits travel except by permit, and prosecution of people illegally traveling them.

The number of fire lanes built by the federal government in Wisconsin for the size of the area involved, far exceeds the number built by the state and the fact that none of them are gated has increased the duties of the law enforcement division many fold. They are an incentive for the venison bootlegger to carry on his operations on even a larger scale. The accessibility they afford to what was once wilderness areas by the legitimate hunter may have a marked effect on the deer population in federal forest areas if something is not done to regulate the use of fire lanes by the public.

Widespread is the belief that the voters have only two choices, one to support a program of conservation with all authority centered

at Washington, or to have no conservation. This is not true. The national government has access to large funds not available to state agencies and no one discounts the essential need of money in financing conservation work. Few states have sufficient funds to carry forward the conservation program to the extent which they would like. It does not follow, however, that the federal government, because of its easier access to taxpayers' pockets, should allocate to itself all the authority for administering all of the conservation functions of the United States.

Is it not possible that more could be accomplished by using federal funds, if they are to be used for conservation purposes, to stimulate state initiative rather than attempting to do the whole job by a centralized federal control? Co-operation must rest on a firmer and broader basis than the docile acceptance by the states of federal demands to regulate their wild life and other natural resources.

I thank you.

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CONTROL OF FISH, GAME, LAKES, AND STREAMS IN THE VARIOUS STATES BY FEDERAL AGENCIES - E. V. Willard, Minnesota; Ernest Swift, Wisconsin

Mr. Swift: The subject for discussion which has been assigned to Director Willard of Minnesota and myself is that of control of fish, game, lakes, and streams in the various states by federal agencies.

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In giving some thought to the natural resources under discussion, I feel that the control of waters by the states is fundamentally the most important. The basis of this conclusion has been reached from two lines of reasoning: first, that if the states cannot have control of their lakes and streams, then control of the fish and those species of game animals and birds which inhabit them is greatly impaired; the other that the original 13 colonies emphasized state rights with regard to navigation by delegating such rights to the old Northwest Territory in the Ordinance of 1787 and by reserving the jurisdiction over lakes and streams to themselves with the exception that the federal government has a right to improve navigation within the states where it deals with interstate commerce.

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"Section 1. The state shall have concurrent jurisdiction on all rivers and lakes bordering on this state so far as such rivers or lakes shall form a common boundary to the state and any other state or territory now or hereafter to be formed and bounded by the same and the river Mississippi and the navigable waters leading into the Mississippi and the St. Lawrence, and the carrying places between the same shall be common highways and forever free, as well to the inhabitants of the state as to the citizens of the United States without tax, impost, or duty therefor." That part relating to the Mississippi and the St. Lawrence and the carrying places between the same being common highways and forever free was taken in body from the Ordinance of 1787.

Since that time courts have held that hunting and fishing are incidents to the rights of navigation.

Those states which were a part of the old Northwest Territory were given sovereignty over the waters and the beds thereof within their boundaries by the Ordinance of 1787. When new states were brought into the Union, other than those carved out of the Northwest Territory, Congress attempted in some instances to impose new conditions which were not granted by the original 13 colonies, or the Ordinance of 1787, to the federal government. After Alabama was admitted to statehood, the United States government attempted to grant private persons land covered by tidal waters in Mobile Bay. The United States supreme court held that the title of these lands were no longer in the federal government and that the title to such lands had passed to Alabama upon its admission to the Union. The court further held that new states have the same rights, interests, and sovereignty of soil and navigable waters as had the original states. This was further brought out in the case of St. Anthony Falls Water Power Company vs. St. Paul Water Company, 168 U. S. 349, wherein the court held that the rights of the riparian owner of land situated on navigable streams are measured by the rules and decisions of the court of the state in which the land is situated, whether it is one of the original states or a state admitted after the adoption of the federal constitution.

The United States never held title to the beds of navigable waters in the Northwest Territory except in trust to hold the same for the new states to be formed in such Territory. Therefore, a United States patent does not convey navigable waters or the beds under them. No general rule was ever laid down by the federal government to guide the states in their control over such waters and the soils under them, but on the contrary, it has been held that it was for the several states themselves to determine what waters and to what extent the prerogative of the state shall be exercised in the regulation and control of such waters and the beds thereunder.

The fact is therefore definitely established that the United States owning lands in that territory covered by the Ordinance of 1787 or the original 13 colonies has no greater rights with respect to navigable waters thereon than an ordinary proprietor has in waters on his lands in the state. Improvement for interstate navigation is the exception.

The opinion is still expressed, however, that the power has been left to Congress to impose new conditions on the admission of new states other than the Northwest Territory, in spite of the supreme court decisions, which have denied such an assumption. All powers expressly delegated to the federal government and not prohibited to the states remain inherent in the states as separate sovereign governments, subject then to such rights of the federal government over navigable waters as are delegated to it by the federal constitution. Each state in its sovereign capacity makes its own rules or laws governing the respective rights of the public and the riparian owner of navigable water. The state therefore defines the test to be applied in determining whether waters are navigable or non-navigable. Its own laws determine whether the soil under navigable waters remains

vested in the state or whether it becomes vested with the upland in the riparian owner.

After a state has once determined, however, what are the rights of a riparian owner on navigable waters, such determination becomes a rule of property and private rights becoming vested thereunder come under the protection of both federal and state constitutions. Because each state has the power to establish in accordance with its individual policies its own laws with respect to waters, it comes to pass that such laws vary widely in different states. The humid states, or those in the eastern half of the United States, generally have adopted with more or less modification, the English common law of riparian rights. The arid states of the west, on the other hand, generally have followed the rule of prior appropriation of the Roman-Spanish law, which is directly contrary to the rule of common law. The basic rule of the common law is that each riparian proprietor has the right to have the stream come down to him with its quality unimpaired and with the quantity undiminished.

Because of changing conditions, however, the rule has been somewhat modified. Under the rule of prior appropriation, on the other hand, the person who first appropriates water from a stream flowing through the public domain and applies it to a beneficial use, such as irrigation, mining, power, or other private uses, becomes entitled to the exclusive use of the water to the extent of his appropriation. He may lead it over government land and divert it into another watershed, regardless of riparian owners. So long as the first user continues to use it, he will be protected in his right of prior use. This rule was deemed essential in the development of the arid west, since the principal industries, when those states were first settled and developed, were mining and agriculture.

These last remarks may possibly seem somewhat out of line with the topic of discussion. Nevertheless, they show a wide difference in the establishment of laws for the use of water in the individual states. The fact still remains and is definitely established, that the states have a sovereign right over the waters within their boundaries, and such rights seem doubly insured in the original 13 colonies and the old Northwest Territory.

As I stated in the beginning, it seems to me of paramount importance that the states possess a sovereignty over waters within their boundaries if they are to continue with an undisputed control over fish, game, and birds which inhabit them.

In the last four years the question of state jurisdiction over wild life within its borders has come into considerable prominence. It has become a moot question for the reason that many states are now being affected by federal agencies, where in the past, as in the famous Kaibab case, practically no other state than Arizona at that time was brought into the picture. It is the result of federal agencies stepping in and assuming the management of wild life without due consideration to those state departments previously exercising such powers.

My observations are limited to Wisconsin, but my contacts with the personnel of the conservation departments of other states leads me to believe that it is a problem which has more or less worried or irritated a great many states within the past four years. Since 1930, five federal agencies - the United States Forest Service, the National Park Service, the Biological Survey, the Soil Conservation Service, and the Resettlement Administration - have descended upon Wisconsin and informed the conservation department and the people at large that they are ready, willing, and capable of taking over the management of its wild life in certain areas. In some instances, one or more of these agencies have been rather insistent that certain prerogatives have been delegated them, because of their federal origin and have been irked by what they apparently considered the restrictive interference of a more or less horse-and-buggy state conservation department.

Apparently, we have not been capable of grasping the significance of a futuristic wild life program, as some of the personnel of these alphabetical agencies have envisioned it. This was true for several years, but I am happy to say that at the present time the conservation department of Wisconsin and the aforenamed federal agencies carrying on programs within the state which have to do with natural resources, have come to a very definite understanding. Their grand manner has been discarded for more co-operative understanding.

One of the difficulties in the past was the fact that these five federal agencies, each making more or less of a bid to manage Wisconsin's wild life, were in no way connected with each other. Although of federal origin, they worked entirely independent and in one instance, at odds with each other. Therefore, an harmonious working agreement with one did not necessarily mean an understanding with the other four. It followed therefore that regulations which all federal agencies would have to follow must be promulgated by the Wisconsin Conservation Commission, or its department would be a poor relation on the outside looking in.

Such regulations were drafted and adopted, and since that time many misunderstandings have been erased and a better spirit of co-operation developed between the field forces of the various federal departments and the Wisconsin Conservation Department. These regulations cover wild life management with respect to rodent control, deer, beaver, the taking of any wild life for scientific purposes, lake and stream improvement, and fish distribution. Under these regulations, any person, persons, or agency which deems it necessary to control the number of any species of rodents on lands owned or under their legal control by lease or contract, comprising forest plantations, wild or cultivated, or similar crops, shall first apply in writing to the Wisconsin Conservation Department for a permit to practice such control. Such application shall state the purpose for which control is believed necessary, the county and land description by section, township, and range, and by forty if areas are smaller than a section of land, of the areas for which a permit to control rodents is desired.

On receipt of this application, a permanent member of the department personnel is designated to make the necessary investigation. Upon his approval, and the approval of the superintendent of game, and the conservation director, a permit is issued which states among other things the time which such control can be practiced, the areas, and the methods which may be used.

In cases where it is necessary to remove deer because of damage or other reasons, the matter rests exclusively with the conservation department, upon proper investigation.

Beaver control work, such as the removal of beaver and the destruction of their dams, is carried on entirely by the personnel of the conservation department.

Lake and stream improvement by persons or agencies other than the conservation department is carried on by permit through application and subsequent investigation by the department.

Very strict accounting is held of persons wishing to collect game, game birds, or fish for scientific purposes. Such permits are held at a minimum and any person desiring to make such collections, regardless of his status, must first obtain such a permit.

The planting of fish and fish distribution is under the direct supervision of the personnel of the Wisconsin Conservation Department at all times.

An order of the Wisconsin Conservation Commission reads in part as follows:

"It shall be unlawful for any person or persons to introduce, place, plant, or release or cause to be introduced, placed, planted, or released in any manner in the publicly owned or controlled inland waters of the state of Wisconsin any fish, fish fingerlings, fish fry, or fish spawn unless such releases or plantings are supervised or authorized or permitted by a written permit of the State Conservation Commission of Wisconsin, its duly authorized agents, or representatives."

This applies to the federal bureau of fisheries as well as other federal departments.

The laws of the state creating the conservation department of Wisconsin specifically vested in it the responsibility of protecting and developing the forests, fish, game, lakes, streams, plant life, and other outdoor resources of the state.

The parallel of responsibilities was most clearly set forth to representatives of the United States Forest Service by our director, Mr. MacKenzie, at a meeting where some of these questions were most forcefully being discussed. Mr. MacKenzie pointed out to the members of the Forest Service that the state, in receiving aid through the

Clarke-McNary Act and through ECW, must in all instances comply with the requirements of the federal forest service and subject itself and its records to their investigations. Such was the responsibility and authority of the United States Forest Service through the federal government.

On the other hand, the Wisconsin Conservation Commission, by the state legislature, was vested with the responsibility and authority of developing and protecting the natural resources of the state, an obligation which it could not avoid and which it did not seek to avoid. Therefore, in carrying out the duties of that responsibility, federal agencies entering Wisconsin and attempting to manage wild life and other resources would have to comply with the regulations set forth by the Wisconsin legislature and the Wisconsin Conservation Commission.

An order signed by the United States Secretary of Agriculture, and numbered G-20A, has been something of a source of irritation to state-departments, even though it has not been enforced in most instances. This was incorporated in an omnibus forestry bill, and later withdrawn.

"That in order to bring about the effective development and management of the wild life resources of the national forests, including the keeping of wild life population within the carrying capacity of each national forest, or part thereof, and coordinating such development, management, and population with the protection and management of other national forest resources, the Secretary of Agriculture is hereby authorized and directed to formulate plans for the development of the wild life resources, to provide for carrying them out, and to prescribe and enforce such rules and regulations as in his judgment are necessary to this end, which rules and regulations may fix bag and creel limits, specify the sex of the animals they may be killed and the period during which hunting, trapping, and fishing on any national forest, or part thereof, shall be permitted, designate the forest officers to whom application shall be made for hunting, trapping, and fishing permits and fix the fee to be paid therefor, indicate the manner in which carcasses of animals or fish taken under permit shall be disposed of and marked or tagged for identification, and impose such other conditions and requirements as he may deem necessary for the protection and promotion of the public interests; and whoever shall violate any rule or regulation prescribed by the Secretary of Agriculture, or any condition or requirement of a hunting, trapping, or fishing permit issued by his authority, pursuant to the provisions of this section shall be fined not more than $500, or imprisoned not more than one year, or both...." This order, I have been informed, although I will not vouch for the truth of it, was issued on the assumption that the decision of the Kaibab deer case gave the Department of Agriculture such authority.

Mr. MacKenzie, our conservation director, Mr. Wilson, superintendent of co-operative forestry, and I had the pleasure of some discussion with a Mr. Thompson, an attorney of the Department of Justice, who played a part in the prosecution for the government in this case. He told us very frankly that where there was no damage

done by wild animals to government property, the state had entire jurisdiction and that the proof of damage would have to be forthcoming before a federal agency could arbitrarily destroy wild life. He also told us that he did not want to become mixed up with any case like the Kaibab case, and that only a last resort would bring anything of its kind into court again.

My curiosity led me to write the U. S. Forest Service at Washington, and ask them the number of states which had conceded the administration of game to the federal forest service on national forest areas within their boundaries. The following have given this concession: North Carolina, Tennessee, Oklahoma, and Pennsylvania.

I also enquired as to whether the regulation G-20A was being applied in any state at the present time, and was informed that this regulation was being enforced in the Dixie National Forest in Utah. Therefore G-20A is being enforced in at least one state in the Union on a national forest where the state has not conceded jurisdiction of game to the United States Forest Service.

I would like to make mention of one instance where the United States Forest Service advocated a measure in which this department felt it could not concur, and in which our findings were far different from theirs. They advocated the killing, during the months of last December and January, of 14,000 bucks, does, and fawns in parts of two counties, an area comprising about 600,000 acres, their theory being that deer were too plentiful to carry through the winter on the amount of food available. The conservation department did not listen to this. Close observation during the past winter has proved that there was no starvation of deer in this area, nor was there any damage done by them to any of the tree plantations. It is also a known fact that the deer have been more plentiful in this area in times past and with the exception of an extremely hard winter, there was no deer starvation.

It is also the consensus of opinion among the wardens and the rangers of the Wisconsin Conservation Department that the numerous and uncontrolled fire lanes on federal units have a very damaging effect upon wild life. We do not deny the necessity and advantage of necessary fire lanes. However, those fire lanes built by this department are gated, and a conservation order prohibits travel except by permit, and prosecution of people illegally traveling them.

The number of fire lanes built by the federal government in Wisconsin for the size of the area involved, far exceeds the number built by the state and the fact that none of them are gated has increased the duties of the law enforcement division many fold. They are an incentive for the venison bootlegger to carry on his operations on even a larger scale. The accessibility they afford to what was once wilderness areas by the legitimate hunter may have a marked effect on the deer population in federal forest areas if something is not done to regulate the use of fire lanes by the public.

Widespread is the belief that the voters have only two choices, one to support a program of conservation with all authority centered

at Washington, or to have no conservation. This is not true. The national government has access to large funds not available to state agencies and no one discounts the essential need of money in financing conservation work. Few states have sufficient funds to carry forward the conservation program to the extent which they would like. It does not follow, however, that the federal government, because of its easier access to taxpayers' pockets, should allocate to itself all the authority for administering all of the conservation functions of the United States.

Is it not possible that more could be accomplished by using federal funds, if they are to be used for conservation purposes, to stimulate state initiative rather than attempting to do the whole job by a centralized federal control? Co-operation must rest on a firmer and broader basis than the docile acceptance by the states of federal demands to regulate their wild life and other natural resources.

I thank you.

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