

UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Biological Survey

Lake States Forest Experiment Station
University Farm, St. Paul, Minn.

January 3rd, 1934.

Mr. I. T. Bode,
State Fish & Game Warden,
Des Moines, Iowa.

Dear Sir:-

I am sending you a copy of that part of my report on the Waterfowl situation as it pertains to conditions in Iowa, together with the introduction and conclusions. I trust this material will be of some value to your Department.

I want to take this opportunity of expressing my appreciation to you and to the Wardens of the State, who so generously assisted me in this survey.

With best wishes for the New Year, I am

Very truly yours,

CMA-hf

Assistant Biologist.

Encl.

WATERFOWL SURVEY - 1933

INTRODUCTION

Because of the seriousness of the Waterfowl situation now existing in the United States and Canada, the Bureau of Biological Survey in order to get a more comprehensive and accurate view of conditions, detailed twelve of its fieldmen to make a special study of the waterfowl in their breeding grounds and flight areas in the confines of the United States. Certain pertinent facts were desired by the Bureau, of which the following are the most important:

- 1 - To what extent is baiting practiced?
- 2 - What are the methods of baiting employed?
- 3 - What is the effect of baiting on the kill?
- 4 - Is there any shortage in the natural food supply for wild fowl that would indicate the desirability or necessity of feeding the birds?
- 5 - What is the prevailing sentiment for or against baiting?
- 6 - What is the effect of other means, such as decoys, pump and automatic guns, sink boxes, open water, blinds, etc. on the kill?
- 7 - Compared with other years what is the comparative status of local ducks and their hatch?
- 8 - What is the condition of the general water levels?
- 9 - In examination of representative bags of ducks, what is the sex and age (old and young) ratio?

The Lake States Area in this survey covered, Wisconsin, Minnesota, North and South Dakota and Iowa.

The topics in the subject matter of this report are repeated for each state, and summarized as a whole unit in the conclusion.

Forty-three days were spent in the field gathering the data covered in this report. Travel was performed by automobile. The number of days spent in each state are as follows: Wisconsin, 9, - Minnesota, 14, - North Dakota 2½, - South Dakota 10½, - and Iowa 6½.

The time allotted for the waterfowl survey in the five states mentioned was entirely too short to do more than get a

general setup of conditions as they were found to exist. It was impossible to get to see but a very limited number of bags of ducks in the short time that could be allotted in each area visited. In order to offset this handicap, each Warden was asked to make observations on representative bags and to report their findings on species, sex and age of the birds represented in the bags. A few of the Wardens did this work carefully, conscientiously and promptly and it is through their co-operation that we were able to get the data on sex and age ratio of the birds shot.

IOWA

Mr. Logan J. Bennett, a graduate student in the Department of Zoology, at Ames, Iowa, earlier in the season promised to assist me in the duck survey of the State. Mr. Bennett has spent the last two years in a study of the nesting habits of the water-fowl in Iowa and has accumulated some invaluable information as to the conditions of the ducks in that State. By arrangement, I met him at Ames, and after a brief visit to Des Moines, we went into the Northcentral part of the State at Ruthven to get additional information about the fall flights of the Northern ducks.

LOCAL DUCKS

Before going to Ames, I spent a day and a half, around Storm Lake and Lake View. On the refuge site, adjacent to Storm Lake, large numbers of Mallards and Bluewinged Teal were hatched, as well as large numbers around the lakes in the vicinity of Lake View. The water levels here have held up wonderfully well in spite of the drought. The number of these ducks hatched can safely be estimated as normal.

In the counties of Clay, Palo Alto, Emmett and Dickinson, the major part of Iowa's ducks are raised. It is estimated that about 80 percent of the ducks raised come from these four counties. The hatch in 1932 and in 1933 was much better than in 1931. The 1933 hatch was no better than that of 1932. The water levels in 1932 and 1933 have held up very good.

Of the nesting ducks in the area, 56 percent are Blue-winged Teal, 31 percent Mallards, 6 percent Shovelers, 3 percent Redheads, 3 percent Ruddies, and 1 percent are Pintails.

In the face of all adverse conditions it was estimated that 50 percent of the young ducklings hatched, survived to the open hunting season.

The lakes in this region contain an abundance of sago pond weed and Wapato.

METHODS USED TO INCREASE THE EFFICIENCY OF THE KILL

Decoys

A - Live

Near Ruthven, there are not many live decoys used nor was there at any of the places I visited in the state. Block decoys are used quite commonly, although a great deal of the hunting is done in the cornfields where decoys are not extensively used.

B - Guns

The pump and automatic is the most common type of firearm used.

C - Baiting

In the main duck producing section of the state, which is also the principal hunting grounds, no baiting of waters is practiced by hunters. The aquatic duck food is very abundant in the lakes and the grain in the fields is more than adequate to attract and feed all the ducks that come into that area, even in the enormous numbers that were there this fall. Baiting would then be a useless practice. The sentiment in this northern section of the state is strongly opposed to the practice of baiting for the purpose of increasing the kill.

THE NORTHERN FLIGHT

Around Storm Lake and Lake View, the number of ducks and the hunting opportunities has not been better in the past thirteen years. The important ducks that came in were Mallards, Teal, Spoonbills and Scaups. The flight of Canvasbacks and Redheads there has been rather restricted.

In the area around Ruthven, late season hunting has not been better since 1922. Practically all the lakes froze over on November 13th, but a warm spell a few days later caused most of them to open up again. Mallards have come in exceptionally heavy this year, while the other ducks such as Bluewinged, Teal and the Scaups, are below normal.

While this is not a heavy goose flight area, more of these birds have been killed this year than for some time

past. 25 Snowy and 3 Canadians have been reported killed in the vicinity of Ruthven.

FLIGHT DATES NEAR RUTHVEN

DATES

SPECIES	First Seen	Period of Heaviest Concentration	Last Seen	Remarks
B.W. Teal	Sept.15	Sept.15-Oct.9	Nov. 6	Not heavy
Wood Ducks		" 15- " 3		About 50
Green W. Teal	Sept.28	Oct.1 - " 8	Nov. 6	Fairly good flight
Bluebills	Oct. 1	" 15-Nov.16	Nov. 25	Not heavy
Gadwall		Sept.26-Oct.6	Nov. 6	Few
Redheads		Oct. 10-Nov.5		Less than 100
Canvasbacks		" 21- " 15		About 100
Mallards	Oct.1	Nov. 1 - " 26		Greatest Flight
Hooded Mergancers		Oct. 25-Nov.7		Not more than 200
Ruddy Duck		Sept.15-Oct.3		About 500
Snowy Geese		Oct.15-Nov. 1		
Canadian Geese	Oct.14	Oct.21	Nov.6	

REPORT OF BAG EXAMINATIONS - Chart II

Species	Date	Location	Number of old	Number of Young	Total Number	Sex
Mallard	Oct.25	Rock County, Wis.			14	
"	Oct.26	Beaver Dam "	19	19	38	M-24, F-14
"	Nov.20					
"	Oct.28	Princeton "	None	2	2	F-2
"	" 29	" "	"	16	16	M-12, F-4
"	" 30	" "	"	2	2	M-2
"	" 30	Green Bay "	4	1	5	
"	" 31	Princeton "	None	4	4	F-4
"	Nov. 1	" "	1	2	3	M-2, F-1
"	" 2	Green Bay "	2		2	
"	Nov.1-	Webster "	17	28	45	M-23, F-22
"	Nov.20					
"	" 8	Moorhead, Minn.	2	3	5	
"	" 9	" "	5	1	6	
"	" 13	" "	None	3	3	
"	" 14	" "	5	2	7	

Canvasbacks	Oct.25	Beaver Dam, Wisc.	7	9	16	M-6, F-10
"	Nov.20					
"	" 28	Princeton "	1	0	1	M-1
"	Oct.30	" "	4	9	13	M-7, F-6
"	" 31	" "	5	3	8	M-6, F-2
"	Nov. 2	" "	0	2	2	F-2
"	" 8	Moorhead, Minn.	1	0	1	
"	" 14	" "	1	0	1	

Goldeneyes	Nov. 2	Greenbay, Wis.	6	16	22	
"	" 6	" "	7	4	11	
"	" 8	" "	2	5	7	
"	" 11	" "	6	11	17	
"	" 14	" "	8	3	11	

Lesser Scaups	Oct.26	Beaver Dam, Wis.	11	37	48	M-14, F-34
"	Nov.20					
"	Oct.27	" " "	1	1	2	
"	" 28	" " "				
"	" 29	Shawano, Wis.	3	2	5	M-2, F- 6
"	" 28	Princeton, "	10	28	38	M-21, F-17
"	" 29	" "	5	12	17	M-11, F- 6
"	" 30	" "	5	6	11	M- 5, F- 6
"	" 30	Greenbay "	8	9	17	

REPORT OF BAG EXAMINATIONS - Cont'd

Species	Date	Location	Number of Old	Number Of Young	Total Number	Sex
Lesser Scaups	Oct. 31	Princeton, Wis.	4	17	21	M-15, F-6
"	Nov. 2	" "	4	8	12	M-5, F-7
"	" 2	Greenbay "	8	1	9	
"	" 1	Webster "	31	45	76	M-42, F-34
"	" 4	Greenbay, Wis.	4	1	5	
"	" 8	" "	25	21	46	
"	" 11	" "	8	3	11	
"	" 14	" "	1	4	5	
"	" 8	Moorhead, Minn.	11	7	18	
"	" 9	" "	17	13	30	
"	" 13	" "	5	7	12	
Greater Scaups	Nov. 1	Webster, Wisc.	25	41	66	M-49, F-17
"	" 30					
"	Oct. 31	Princeton, "	2	0	2	M-2
Pintails	Oct. 25	Rock County, Wis.			23	
"	" 29	Princeton "	9	3	3	M-1, F-2
"	Oct. 31	" "	2	2	4	M-2, F-2
Widgeons	Oct. 25	Rock County, Wis.			7	
"	" 26	Beaver Dam "	1	1	2	M-1, F-1
"	Nov. 20					
"	Oct. 31	Princeton, "	1	5	6	M-2, F-4
Redheads	Oct. 26	Beaver Dam, Wis.	0	5	5	M-2, F-3
"	Nov. 20					
"	Oct. 28	Princeton, "	1	0	1	M-1
"	Oct. 31	" "	1	3	4	M-1, F-3
"	Nov. 2	" "	1	0	1	F-1
"	" 1	Webster "	3	3	6	M-2, F-4
"	" 20					
"	" 28	Moorhead, Minn.	1	0	1	
"	" 9	" "	1	1	2	
"	" 14	" "	1	2	3	
Gadwalls	Oct. 26	Beaver Dam, Wis.	2	4	6	M-4, F-2
"	Nov. 20					
"	" 14	Moorhead, Minn.	2	2	4	

REPORT OF BAG EXAMINATIONS - Cont'd

Species	Date	Location	Number of Old	Number of Young	Total Number	Sex
Bluewing Teal	Oct.25	Rock County, Wis.			1	

Greenwing Teal	Oct.25	Rock County, Wis.			3	
"	" 26	Beaver Dam "	6	4	10	M-3, F-7
"	Nov.20					
"	Nov. 1	Webster, Wisc.	2	0	2	F-2
"	" 20					

BAGS EXAMINED

Of the Mallards examined in Minnesota and Wisconsin to determine the relative number of old and young birds, the report showed 60 percent were young and 40 percent were old birds. When figured by states, Wisconsin bags showed 63 percent were young and 37 percent were old. In Minnesota 47 percent were old and 43 percent were young birds.

From figures taken from the report of the More Game Birds in America, in their bulletin on the Duck Decline of the Northwest, Part I, the average Mallard brood consists of 8 ducklings. Now 75 percent of these ducklings reach the flight age, then the northern flight should show 3 young birds to each old one. The figures on bags examined show that even in Wisconsin, for each old bird taken there were only one and three-fourths young ones, and in Minnesota we find for each old bird reported, only .91 of a young one. Although the number of birds examined were too few to base conclusive evidence on, never-the-less, the fact remains that something surely has interfered with the hatching and rearing of the young of the northern Mallards. Of the 110 Mallard examined in the bag, 63 were males, while 47 were female or expressed in percentage, 57 percent were males and 43 percent were females.

Forty Canvasbacks were examined, half of which were males. Of the 231 Lesser Scaups, 115 were males and 116 were females. The Redheads show a somewhat different ratio, of the 17 examined, 6 were males and 11 females.

383 Lesser Scaups were examined for age out of which 222 were considered young and 161 as old birds, or 58 percent were young and 42 percent old.

A report from Bovey, Minnesota, showed that of the Bluebills examined in the bag, about two-thirds were females while of the lot most of them were young birds. The Mallards run about 50 percent of each sex, and the lot run mostly to old birds.

The Warden from Oshkosh, Wisconsin did not segregate the ducks in his report according to species, but he said the lot examined ran about 60 percent to old birds.

Warden McKeogue from Rhinelander, Wisconsin, reported that four out of five ducks examined in the bag were young birds, most of which were Bluebills and Ringbills.

CONCLUSION

Local Ducks

The number of local Mallards and Bluewinged Teal produced in Wisconsin was probably slightly in excess of last year's crop.

In certain sections of northern Minnesota, the number of local ducks produced was greater than for last year, while in the southern, western and central parts of the state, the supply produced was well below normal. In both of the Dakotas this year's crop of local ducks was far below that of normal years and well below the previous year's hatch, while in Iowa, which is a small producing area at best, there was a normal supply of Mallards and Bluewing Teal.

Water Levels

The Lakes in Wisconsin and Iowa have suffered less shrinkage than those of any of the other states visited. There is, however, a general slow receding of their water levels.

Outside of the northeastern corner of the State, the lake levels in Minnesota have all receded. In the southern, central, western and northwestern parts, the effect of the drought has been most severe. Countless small lakes, swamps and potholes are bone-dry this year.

In the two Dakotas a greater proportion of the former lakes and swamps has probably been lost than now remains. Practically all of the potholes and even many of the smaller streams have dried up completely. In North Dakota the general water table has dropped approximately 10 feet in the last ten to twelve years.

Northern Flights

There are two main flight routes in Wisconsin, one of which enters the state in the northeast corner and the other in the northwest corner. Heavy flights of Canvasbacks and Lesser Scaups pass into the state over the former, while the Lesser Scaups are the principal ducks to come in over the latter. Canadian and Snowy Geese enter in the northeast corner and pass south over land just west of the east shore of Lake Michigan, coming to rest and feed in small numbers immediately north and south of Oshkosh and in the vicinity of Portage, but the main body of them concentrate in the neighborhood of Janesville, Edgerton, Melton, Delavan, Elkhorn and Lake Geneva in the southeast. Mallards come in over both of these routes but are not abundant on either of them.

There was one very heavy Mallard flight area in Minnesota which entered the state in the region of "Lake of the Woods", passing over Bagley, Detroit Lakes, Ottertail and Battle Lake on south to Heron Lake and into the Spirit Lake area in Iowa. The flight of Mallards over this route was exceptionally heavy this fall. It is not surprising to note this fact because in normal years this general flight area is several hundred miles in width, while this fall it was compressed into a lane of travel not to exceed fifty miles. The fact still remains that the total number of Mallards that went south was at least one-third to one-half less than last year. Bluebills came into the state over Winnebigoishish Lake and Leech Lake south to Mille Lacs Lakes and then on to the Mississippi river below the Twin Cities, in great numbers, but at other places their numbers were well below normal. Canvasbacks, Redheads and Pintails were also below normal in numbers.

In the Dakotas the flights of northern ducks were exceedingly spotty. There were no well defined heavy concentrations because of the lack of sufficient water areas capable of providing resting places and feeding grounds for them. In North Dakota it was estimated that the flight of northern ducks would only be about half that of normal years. In South Dakota there were very few northern waterfowl. At no place visited in this state were there any considerable numbers of birds. The local nesting birds provided at least 90 percent of the kill.

Eighty percent of the northern ducks killed in Iowa were shot in Dickinson, Clay, Emmett and Palo Alto Counties, where there was an abundance of feed and open water on which these birds could rest and feed. Mallards and Bluebills furnished the major portion of the birds taken in Iowa.

Sentiment against baiting of waters was strong in all areas.

In none of the states covered in this survey was there any considerable artificial feeding done.

Of the Mallards examined in the bag, there were only one and a half young for each old bird taken. Obviously this proportion is out of natural balance. Apparently something interfered with the normal hatch of ducks in their northern breeding grounds.

Sportsmen in general, realize the approaching seriousness of the decline in abundance of ducks and expressed their willingness to accept further restrictions in hunting privileges, as an immediate step in the restoration program.