

ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: January 22, 1947

MR. SALYER

SECTION OF HABITAT IMPROVEMENT:

MR. ELMER

Mr. Griffith

~~MR. ELMER~~

Dr. Bourn

~~MR. ELMER~~

PAO 2/18

Miss Cook

SECTION OF OPERATIONS:

SECTION OF LAND MANAGEMENT:

Mr. Regan

~~Mr. Ball~~

Miss Baum

~~Mr. Ball~~

~~Mr. Ball~~

SECTION OF STRUCTURES:

STENOGRAPHERS:

Mr. Taylor

WV 3/19

REMARKS:

CHAUTAUQUA NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

SEPTEMBER - DECEMBER 1946.

Return to:

CHAUTAUQUA NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT - SEPTEMBER - OCTOBER - NOVEMBER and DECEMBER 1946



1. General

- A. Weather Conditions. The weather data is recorded from the records of the Official Weather Bureau Station located eight (8) miles Southwest of the Refuge, at Havana, Illinois.

	<u>Precipitation</u>		<u>Temperatures</u>	
	<u>snow</u>	<u>rain</u>	<u>Maximum</u>	<u>Minimum</u>
September	-	1.68	92	39
October	-	4.89	89	28
November	T	6.49	64	21
December	3.06	1.80	67	5
Totals	3.06	14.86	Extremes 92	5

The average mean temperatures were 3.1° above normal for September; 3.9° above normal for October, 0.9° below normal for November and 4.8° below normal for December. A higher maximum temperature was recorded during the same period of 1945 than this period while a lower minimum of -6° was recorded in 1945 as compared to 5° minimum recording for this period.

We had 1.11 inches more rainfall this period than the same period of 1945. While we had greater snowfall in 1945, by 8.15 inches than we had this period. The combined snow and rain fall for 1945 was 24.96 inches or 7.04 inches more than the combined total of 17.92 inches for the same period of 1946.

Our first killing frost occurred on October 12, this period as compared to the first killing frost on October 26, 1945. Our first trace of snow this period was on November 25, as compared to the first trace on November 21, 1945. Our first measurable snowfall this period was on December 21, as compared to the first measurable on November 23, 1945, approximately one month later. Our first freeze this period in which ice formed on our pool was on December 18, as compared to our first freezing of pool waters on November 21, 1945.

Our pool froze over solid on December 20 this period and has been that way since that time. At this writing the ice is covered with a good 8 inches of snow.

- B. Water Conditions. Our pool levels varied from readings at headquarters of 4.60 on September 1 to a low reading of 4.48 on October 12 and a high reading of 5.70 on December 31, 1946. This compares to a low reading of 4.22 September 4, 1945 and a high reading of 5.50 on December 25, 1945.

- C. Fires. No fires occurred, nor were any reported this period.

MIGRATORY BIRDS

Refuge Chautauqua Months of September to December, 1946

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Pied-Billed Grebe	26	11-1									26
Double-Crested Cormorant	28	9-25	10-1	1500	10-10	4	12-14				1500
Great Blue Heron	5	10-1	10-6	110	10-16	2	11-30				110
American Egrets	10	7-10	7-18	185	8-3	6	10-10				185
Canada Goose	130	10-8	10-26	300	10-30						380
Snow Goose	60	10-14	10-30	600	11-23	40	12-14				600
Blue Goose	90	10-14	10-28	800	11-1	75	12-14				800
Mallards	50	8-20	8-31	200,000	12-5						225,000
Black Duck	2	8-23	9-2	10,000	12-5						10,000
Gadwall	3	10-28	11-9	150	11-18	6	11-30				150
Baldpate	2	10-24	11-2	95	11-10	2	11-22				100
Pintail	16	10-2	10-18	300	11-12	2	11-23				300
Green-Winged Teal	8	10-10	10-22	1000	11-29	5	12-9				1000
Blue-Winged Teal	25	8-10	8-30	2000	9-30	15	10-16				2000
Shoveler	8	10-16	10-27	60	11-4						60
Wood Duck	10	9-17	9-28	50	10-16						50
Red Head	4	10-22	10-30	30	10-30	2	11-6				30
Ring-Necked Duck	3	10-17	10-28	500	11-11	2	11-30				500
Canvas-Back	10	10-20	10-30	230	11-23	3	12-4				230
Lesser Scaup	16	10-4	10-19	3000	10-28	18	12-2				3000
American Golden-Eye	8	11-11	11-11	11	11-18						11

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based upon observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact are to be omitted.
- (7) TOTAL: Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

* Only columns applicable to the period covered should be used.

MIGRATORY BIRDS

Refuge Chautauqua Months of September to December, 1946

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Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Buffle Head	2	11-19	11-26	30	12-10	8	12-14				30
White Winged Scoter	6	10-28	11-6	10	11-6	1	11-18				10
Ruddy	16	10-12	10-20	300	11-20	6	11-30				300
Hooded Merganser	4	11-19	11-28	16	11-30	8	12-2				16
Bald Eagle	2	8-20	10-14	13	11-16						13
Coot	8	7-27	9-20	3000	10-11						3000

REMARKS: (Pertinent information not specifically requested)

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II WILDLIFE

A. Migratory Birds:

1. Populations and Behaviors:

a. Waterfowl: As a whole we did not have any birds to speak of, this being true of most of this Valley. Up to November 14, our peak concentration was 15,864 birds. This increased to 88,184 birds on November 23, 176, 184 on November 29, reaching a peak concentration of 211,600 birds on December 5 and dropping down to 23,438 birds on December 14. At this writing we still have some 13,000 birds resting on the open waters of Quiver Creek.

The harvesting of the largest corn crop produced in Mason County during the past 26 years, was slow getting started and most of the farmers were from 2 to 3 weeks late in this operation. Most of their crops are mechanically picked and abundant food supply is available for the ducks. One particular observation this season was the intelligence displayed by the birds in their feeding habits. The fourth day after the Season opened the birds quit feeding in the day time and continued this habit until a week after the Season closed. They would leave the Refuge regularly between 4:15 to 4:45 P. M., coming back before morning, this habit continued daily, regardless of clear or dark nights. Since the season closed the birds can be seen working and feeding in the corn fields any and all hours of the day.

b. Other Waterbirds: ^{Answer} ~~White~~ Egrets were the first to appear this season with 10 being observed on July 10. On October 10, at 3 P.M. we observed a flight of Egrets coming over the lake from the Northeast and we noticed our Egrets take off and join this flight. The next day only two Egrets were seen on the Refuge and adjoining Quiver Creek and Lake. The Egret, Blue Heron, Gulls and Cormorant populations were about the same as previous years, with the Cormorant being the most numerous.

c. Shorebirds: Few of this species use the Refuge although a considerable increase was observed feeding on the Quiver Lake area, adjacent to the South Levee of the Refuge. Due to the low waters, Quiver Lake was 70 per cent dry during June, July, August and September.

2. Food and Cover: The Aquatic plant acreage, though not large, was the same as last year. We did have a small increase in Smart Weed growth in front of the Survey's Laboratory, this being in the area that we had a stand of Lotus and which had been destroyed after being sprayed with Sherwin-Williams Formula No. 1, Differential Weed Killer, on August 24, 1945. Sago Pond Weed made an appearance in early Summer, but seemed to rot at the base and was all destroyed by wave action. No Duck Potato or Wild Rice were

Refuge ChautauquaMonths of September to December, 1946

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'd.	Estimated Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Bob-White Quail	Hardwoods and Brush-250 acres	4.48	2	16					56	3 covies observed and fed mixed grain and sand during the past 10 days of crusted snow and ice.
Pheasants	" "	125	0	0					2	

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

observed on the Refuge.

No new stands of Lotus were observed this past summer. We have not used our Hockney Weed Cutter, having treated our Lotus with chemicals. The Lotus treated with Sherwin-Williams Formula, appear to be under control, whereas those treated with the Daw chemical this year did not show any effects of being sprayed, unless their growth will show the effects this coming season.

B. Upland Game Birds: Few of these species populate this area as the adjacent farms offer little food-cover or water. Three covies of Quail are known to stay adjacent to and on the Refuge, while only one pair of Pheasants have been observed.

Deer is 100% effective if applied in proper concentration as shown above in 1945 REG

C. Fur Animals, Predators, Rodents and other Mammals.

Raccoon: This species has shown a decrease over last year with an estimated population of 90 as compared to 150 in 1945. Only one was found with young and using the wood duck nesting boxes, this being in the vicinity of the South Levee. Most activity and population has been along our South and West Levee. It is possible that our repair program this past year on our South Levee has caused them to move elsewhere.

Mink: No Mink have been seen on the Refuge and few of their operations are observed on Quiver Creek Bottoms. The trappers have not caught any in this vicinity.

Red Fox: Only one Fox was observed this year. Tracks having been observed on three occasions during the past 10 days of heavy snow. A slight increase is noted in our rabbit population on and adjacent to the Refuge which is a good indication that they have migrated elsewhere.

Opossum: A small increase is noted in this species on the Refuge. They are most plentiful in areas surrounding the Refuge.

Woodchuck: They have been most noticeable in the past, along our Quiver Creek and South Levee. Few have been seen or their dens located since our working on the South Levee.

Muskrat: Rats have been most scarce in this area for several years, a few appear after the June high waters and then disappear about the end of July. Trappers in the Bottoms and Creeks North and South of the Refuge have had very poor results this season to date. Several good trappers have taken up their lines due to the few rats and the low prices for pelts.

Fox Squirrel: Although a consistent good yearly harvest is taken of Squirrel, they do not show a decrease and at present we have a good breeding crop.

Refuge ChautauquaYear 1946

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population as of Dec. 31	(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter Losses	Number	Source		Percentage
White Tailed Deer	Hardwoods and brush 300 acres	0	0	0	0	0	0	0	0	3	Illinois State conservate ion Depart- ment	2	One Buck and one Doe

Three Deer that were known to have used the Refuge during 1945, have disappeared. It is thought that free running days of the many resort owners have caused these Deer to move Northeast onto the Illinois State Forestry Division Preserve.

INSTRUCTIONS

Form NR-3 - BIG GAME

- (1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) exclusive of fenced herds. Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated total number of young produced on refuge.
- (4) REMOVALS: Indicate total number in each category removed during the year.
- (5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.
- (6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.
- (7) TOTAL REFUGE POPULATION: Give the estimated population of each species on the refuge as of December 31.
- (8) SEX RATION: Indicate the percentage of males and females of each species as determined from field observations or through removals.

Grey Squirrel: None of this species are known to populate this area.

Rabbits: Have been most scarce for a good ten miles area around Havana for some time. A slight increase is noted and being reported by others in this same area the past year.

Deer: Only one Buck and one Doe are known to be in this area, we had five last year. It is thought that the many dogs of the permanent and transient occupants of Baldwins, Chautauqua and Quiver Beaches, south of the Refuge on Quiver Lake have caused the Deer to move Northeast and onto the Illinois State Forestry Preserve.

D. Predaceous Birds, including Crows, Ravens and Magpies.

The Bald Eagle is the only bird of this class to be abundant, eleven (11), on the Refuge. The most numerous of the class are Crows and they are only on lands adjacent to the Refuge. Four Screech Owls are known to be using Wood duck boxes. Two Cooper, one Marsh and five Red-tailed Hawks and six Barred Owls have been seen on the Refuge.

E. Fish: Fishing results from records in this report for the calendar year 1946 have proven that unsatisfactory environments exist in our pool waters. This is reflected in the lack of plant growth for water-fowl food as well suitable conditions for fish culture. The cause in the opinion of this office is due to the heavy obnoxious silt deposit in the pool waters. We have suggested an increase of one foot of water to be added to our past three year summer pool water levels, in our separate 1947 Water Management Plan that was recently submitted for consideration. In Sport fishing results we find that:

	<u>1946</u>	<u>1945</u>
Fishing Parties	991	1287
No. Fishermen	2386	2817
No. hrs. fished	8667	6267
Total No. fish taken	9454	12,037

Commercial Fishing Results Show

	<u>1946</u>	<u>1945</u>
No. Permittees	18	11
pounds fish taken	32,733	73,675

Taken for restocking by the Illinois Conservation Department

	<u>1946</u>	<u>1945</u>
Total no. of fish	16,411	20,716

(1500 fishermen who fished 3657 hrs took nothing)

Refuge ChautauquaYear 1946

Species	Relative Abundance	Sport Fishing		Commercial Fishing		Restocking		Number removed for Restocking
		Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	
Crappie		991 fishing parties, or	1412	18				8345
Blue Gill		a total of	4948					3597
Sheepshead		2386 fisher-	519		496			
Yellow Bass		men fished a	356					490
Channel Catfish		total of 8667	74		393			112
Bullhead Catfish		hrs. of the	293		150			621
Black Bass L.M.		above totals	1000					841
Yellow Perch		1552 fisher-	458					490
Punkin Seed		men fishing						576
White Bass		a total of	31					
Sun Fish		3659 hrs.	101					
Dogfish		reported no	9					
Carp		catch of any	252		19,186			554
Buffalo		fish.			12,508			76
Eel			1					
Totals -			9454		32,733			*16,411

REMARKS: * These fish taken by the Illinois Conservation Department and used for restocking other public State waters, this is the total catch for the whole calendar year of 1946.

III Refuge Development and Maintenance

A. Physical Development - Levee Repairs.

Repairs to a serious low spot in our South Levee was completed during this period. A fill 1800 feet long, was brought up to authorized elevation of 440 feet, and required 9175 cubic yard of fill material that was taken off of refuge lands and hauled a distance of $2\frac{1}{2}$ miles. This fill was protected in the center, on the crown and both sides, for a distance of 600 feet with 796.46 cubic yards of rock. The balance of this levee is low and will require yearly operations to rebuild it to the proper elevations.

B. Plantings. No plants of any nature were made during this period.

C. Collection.

1. No seeds or plants were collected this period.
2. No wildlife, either alive or dead, were collected this period.

D. Receipts of Seed and Nursery Stock.

None were received this period.

IV. Economic Use of Refuge

A. Fur Harvest.

Due to the shortage in population of Muskrat, Mink and Raccoon, no trapping was done this period. This condition has existed since the excessive flood of 1942 and 1943.

V. Field Investigation or Applied Research

A. Bird Banding.

No bandings were made this period due to extensive levee repairs and the shortage of labor.

VI. Public Relations

A. Recreational Uses.

The only recreational use of the Refuge is for Sport Fishing. as will be noted in facts in preceding paragraph on Fish. Fewer fishing parties and fishermen spent 2400 more hours fishing during 1946 than in 1945 and their total catch in the number of fish was 2583 fewer fish taken in 1946 than ~~what~~ was taken in 1945.

B. Refuge Visitors.

<u>Name and Address.</u>	<u>Date</u>	<u>time spent</u>
Agent, John M. Martin, Peoria, Ill.	9-5	50 min.
Clair Robbings, Jr. Refuge Agent, Upper Miss. Refuge.	9-6	7 hrs.
American Ornithologist Union-46 on Field Trip	9-6	7 hrs.
R. O. Gustafson, Central Office, Equip. Engineer.	9-16	7 hrs.

PLANTINGS
(Marsh - Aquatic - Upland)

Refuge Chautauque Year 194 6

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Plant- ing	Survival	Cause of Loss	Remarks
None								

TOTAL ACREAGE PLANTED:

Marsh and aquatic _____
 Hedgerows, cover patches _____
 Food strips, food patches _____
 Forest plantings _____

Messrs Jesse Thompson and Nick Carter, Reg. Office	9-21	4 hrs.
Guy Hausley, Spec. Feat. Writer, Chi. Ill. "Sun"	9-23	2 hrs.
" " " " " " " "	9-24	12 hrs.
Mason County, Ill. Jr. Conservation Group "18"	10-20	3 hrs.
Agent John M. Martin and?	10-29	$\frac{1}{4}$ hr.
John Kecmeud - Deputy Game Agent	11-4	1 hr.
Dr. Frank and Prof. Marvel - U. of Ill. Urbana	10-27	2 hrs.
Dr. Kendeigh, U. of Ill. & class of 24 students	11-9	5 hrs.
Agent John Martin and Mr. Fred Gross of Chi. Ill.	11-21	$\frac{1}{2}$ hr.
Messrs Huey and Longley, Engr. Reg. Office	12-12	6 hrs.
Mr. G. Kibbe, Asst. Reg. Director, Reg. Office	12-14	1 hr.
W. C. Starrett, Technician, Ia. State College, Ames, Ia.	12-28	1 hr.
W. H. Stevens " " " " " "	12-28	1 hr.

C. Refuge Participation.

Refuge Personnel attended the following meetings as guest speaker.
 October 24, Sportsmens Group, Liverpool, Illinois.
 November 19, " " " "
 November 27, Optomist Club - Dinner 6:30 P.M., Havana, Illinois.

D. Hunting.

Duck hunters as a whole had very poor results. 1st., due to the shortage of birds; 2nd., due to the increase in the number of hunters, resulting in too many nervous hunters ruining some possible fair results by shooting too soon and keeping the few birds out working on the wing most of the time and flying high. This condition is no doubt why the birds stayed on the Refuge in the daytime during the open season and feeding only at night. 3. Some of the private clubs, after the season opened and results were poor, changed their shooting hours from about 8 A.M. to 2 and 3 P.M., missing a day or two a week, with the results that they had better results by not molesting the birds in the early dark hours of before sunrise.

E. Violations.

No hunting violations were observed or reported during this period. The State Enforcement Officers were cooperative and patrolled the area thoroughly. We had serious rallying and general disturbance of the birds on the Refuge by airplanes, before, during and after the open season. The numbers of three of the planes were secured and have been referred to agent Martin for his recommendations and for action of prosecution. No decision has been reported to date.

January 7, 1947

Approved: _____

Louis H. Ellebrecht
 Louis H. Ellebrecht
 Refuge Manager

APPROVED: _____

Acting

REGIONAL DIRECTOR

JAN 14 1947

В.И. Шенников

TABLE 1. Varietal

Notre Dame

