ROUTING SLIP	DIVISION OF WILDL	IFE REFUGES DATE: May 26 194	7
MR. SALYER		SECTION OF HABITAT IMPROVEMENT:	
1. KRULUS	hx 9/1_	er. EITER PEG 6-	13
IR. DUMINT	PAD 7-2	_Dr. Bourn WSB 5/27	_
MISS BAUM		Miss Gook Juc 6-	19
SECTION OF OF	WRATIONS:	SECTION OF LAND MANAGEMENT:	

9.1. 3' 1787 7/2/47. Mrs. Ball

SECTION OF STRUCTURES:

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Mr. Kent	7K	1/2
Mr. Ackerkn	echt 00	27-23

STEHOGRAPHERS :

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REMARKS :

4.

CALHOUN NATIONAL WILDLIFE REFUGE NARRATIVE REPORT

JANUARY - APRIL 1947

and

Summary of Year's Activities

Return to: Miss Cook

Summarization of Activities on Calhoun Refuge May 1, 1946 to April 30, 1947

Weather throughout the year was slightly subnormal, with cool weather prevailing. This spring temperatures were cool and delayed spring growth of vegetation.

A heavy rain in late August broke a dry spell when 9" fell in 11 hours. In the fall period 17.61" of rain fell, while the spring period had 10.15". February was extremely dry.

Pool levels were fairly constant all year, with only mild fluctuations of less than 1' until the March rise of 9.9'. This exceeded the January 1946 rise by 2.2'. There was no winter drawdown.

Swan Lake is silting in badly and should be protected by dikes if it is to be maintained as a waterfowl area.

Wood ducks made up the bulk of nesting ducks. Thirty-eight broods were observed, totaling 321 young, compared to 462 in 1945. Only two broods of mallards were seen.

The fall flight through this area was much larger than in 1945. The peak concentration of 1,051,200 on November 3 exceeded the peak of 500,000 in 1945 by more than double the 1945 figure. A good idea of the waterfowl picture is illustrated by the fact that this spring only 400,330 birds appeared at peak concentration, compared to 540,800 in 1945. Coot were extremely low, with a peak of only 5,000, compared to 400,000 in 1945.

The goose flight was about the same, except for an increase in blues and snows.

On opening day of the duck season last fall 600 hunters were out in the vicinity of Swan Lake. Ninety-four were checked, and they averaged 1.21 birds each.

About 20,000 mallards overwintered in the open river between Swan and Gilbert Lakes.

Food and cover conditions were improved, with good stands of sago in Swan Lake. Good marginal stands of smartweed, millet, and rice cut-grass developed.

Fur animals continued low except for raccoon, which increased somewhat.

A minor outbreak of lead poisoning occurred in January, when several ducks were found dead. Eight violations were tried in State courts. Total fines of \$650.00 and total costs of \$23.00 were assessed.

٩.

Egrets continued common, and 1,200 occurred on Swan Lake during the summer peak.

## CALHOUN REFUGE NARRATIVE REPORT JANUARY, FEBRUARY, MARCH, APRIL, 1947

#### I. GENERAL

#### A. Weather Conditions:

Temperatures were cooler than for the same period last year, with maximum readings lower all four months and minimum readings lower in all months but April. February and March were much colder than in 1946.

#### Relative readings are shown below:

Month Year Maximum		Maximum	Minimum	Precipitation
	1946	60	5	
January	1947	56	2	1.60
	1946	68	24	
February	1947	59	5	.00
	1946	89	34	
March	1947	63	12	2.95
	1946	89	34	
April	1947	84	38	5.60
				10.15"

February was extremely dry.

#### B. Water Conditions:

High water did not occur this year until April, while January 1946 had high water. Prior to the April rise the river fluctuated mildly, from a few inches to one foot. Comparison with 1946 is shown in the following table:

	19	946	19	947	
	High	Low	High	Low	
January	21.7	14.0	15.4	14.6	
February	15.8	14.4	15.5	14.5	
March	19.4	14.9	15.9	14.5	
April	19.1	14.7	24.6	14.7	

The March rise of 9.9' was greater than the January 1946 rise, which reached 7.7'. In 1946, however, the January low of 14.0' was .7' less than the March 1947 low.

#### II. WILDLIFE

A. Migratory Birds:

1. Populations and Behavior:

(a) Waterfowl:

Waterfowl in general showed a decrease this spring, except in canvasback and scaup, where an increase was noted. Mallards overwintered, with 20,000 present in the area on January 2. The peak concentration of mallards was 150,000 on March 14 as compared with 200,000 last year. By April 25 most mallards were gone.

Decreases occurred in mallards, baldpate, pintail, blue-winged teal, and woodies, while increases were noted in green-winged teal, redheads, canvasback, and scaup. However, because of the limited number of birds represented in the latter category the increases are not significant.

The following table shows arrival dates, departure dates, peak concentration, and comparison with 1946:

			Increase or	Peak Con	centration
Species	Arrived	Departed	Decrease	1946	1947
Mallard	Winter				
	resident	April 25	decrease	200,000	150,000
Black duck	Feb. 7	April 4	same	1,500	1,500
Gadwall	March 13	March 18			500
Baldpate	March 13	March 31	decrease	25,000	10,000
Pintail	Jan. 27	April 8	decrease	300,000	200,000
G.W.teal	Jan. 27	March 28	increase		2,000
B.W.teal	March 6	still here	decrease	5,000	2,000
Wood duck	March 17	still here	decrease	4,000	1,000
Redhead	Jan. 2	Feb. 14	increase		30
Ring-neck					8,000
Canvasback	Jan. 2	April 7	increase	300	5,000
Scaup	Jan. 2	April 28	increase	5,000	20,000
Goldeneye	Jan. 2	April 7			300
			Decrease of		
TOTAL			139,470	540,800	400,330
Coot	March 15		Decrease	400,000	5,000

(b) Geese:

Although Canada geese did not stop at Swan Lake in any numbers good flights passed through. They were first observed on January 10. The peak concentration of 100 occurred on March 20.

Blue and snow geese showed an increase. The first arrival was February 18, and the March 20 peak concentration was 500, compared to 105 in 1946.

-2-

2. Food and Cover:

Food was plentiful for waterfowl this spring. Many machine picked cornfields were flooded and considerable corn was thus made available to ducks.

D. Fur Animals:

(a) Muskrats:

Muskrats, never very plentiful, are decreased somewhat over last spring and are only rarely seen.

(b) Minks:

The mink population continues very low.

(c) Raccoon:

This species increased somewhat. Because of low prices last year few were taken. The district ranger observed some trappers releasing raccoon after trapping them because of low fur value.

E. Predaceous Birds:

Hawks and owls remained static. Eagles were common, with 50 being observed in a single day.

#### VI. PUBLIC RELATIONS

B. Refuge Visitors:

January 9 -- Frank Bellrose, Illinois Natural History Survey, checked on lead poisoning.

January 14 -- Jerome H. Stoudt, Fish and Wildlife Service, checked on lead poisoning.

February 25 -- C. C. Swears, Pittman-Robertson, checked on leased land.

F. Violations:

In cooperation with State Wardens, four men were apprehended hunting ducks in closed season and possessing wild ducks. Upon entering pleas of guilty, each of the four men was fined \$100.00 and costs of \$3.00.

One man, apprehended shooting a duck with a rifle, plead guilty in State Court and was fined \$25.00 and costs of \$3.00.

#### VII. OTHER ITEMS

In January dead ducks were observed in the vicinity of Swan Lake. Sportsmen, thinking starvation was responsible, invested considerable money to buy feed. The district ranger, however, diagnosed the cause as lead poisoning and satisfactorily handled the public relations angle. No ducks examined showed evidence of starvation, and most were full of corn.

On January 14 the outbreak was checked by Biologist Jerome H. Stoudt. Eighteen mallards were examined and averaged 5.6 shot per duck. Many shot were worn down very thin, indicating that most of the lead had been assimilated. Mr. Davis, the district ranger, suggested that shot had been picked up in nearby Stump Lake, which has been heavily hunted in the past few years. Ducks from Swan Lake moved into Stump Lake after the hunting season closed.

-4-

Superintendent, Upper Mississippi River Wildlife and Fish Refuge.

May 16, 1947.

4.

APPROVED:

MAY 2 1 1947

3-17 Form (Nov	50 NR-1 . 1945) Refuge	Calhoun	() 	W	ATERFOWL	January	to	<b>April</b> , 19	: <u>aoitoubor9</u> :aoitoubor9	Total .
	(1)	(2 First	)eredmu	Inolitet (3	Penk(	(4	)	Voung	(6)	
	Species	FIISC	Seen	Feak Conc		Last D	661	Broods	Estimated	Estimated
	Common Name	Number	Date	Number	Date	Number	Date	Seen		for Period
I.	<u>Swans</u> : Whistling swan	this season	is aroas	ipal nesti	Prine					
TT	Cassa			1.1.1			2 2	-		
11.	Canada goose	15	1/10	100	3/20	100	3/20	0.00		115
	Cackling goose Brant	burnhil	ted by	Repo						
	White-fronted goose	50	2/18	200	3/20	200	1/20			950
	Snow goose	75	2/18	300	3/20	300	4/20			375
	DING ROOSA	in markenesses		andto mad	t no hala	he biteda 1	ay au	the al	menteer	(1)
	ad blunds mottest	Space Lainage	abrouga abhana i	tolanoroana	al babba	ad bluode	holiton m	report	.corougi	1+1
III.	Ducks:	.01	suificane	National s	ocal and	lo colooo	o those a	given		
	Mallard	20,000	1/2	150,000	3/14	20	4/25			250,000
	Black duck	200	2/7 000	1,500	3/14	reford for	4/14	The fl.	trat Seen:	2,000
	Gadwall	tobizer40	3/13	500	3/15	nees 10 mun	3/18/47	period,		1,000
	Baldpate	E 000	3/10	10,000	0/10	00	3/31			20,000
	Pintail .emit	0 0,000	3/6	200,000	3/10	ber of the	8/8	- The gra	eak Concentin	300,000
	Green-winged teal	200	4/3	1,000	4/9	25	4/28		10n:	2 425
	Cinnamon tool		-10	1,000			2/20	at am	unant former	6, 260
	Wood duck	10	8/17	1,000	3/20	2	4/28	botrog	. 1004 - 40	2,000
	Red head	25	1/2	30	2/14	30	2/14		1	100
	Ring-necked duck	Lautos bus	ervations	ado no bees	1 beouton	of young to	reduun be	I: Estimat	oung Produced	(3)
	Canvas-back	om 10 75 m	1/2 ad	5,000 m	2/21	. ane 6go	4/7	sentati		8,000
	Scaup bettime od bie	ta 001 t sho	1/2 00	20,000	3/28	int id 10 ani	4/28 add	10% of		30,000
	Golden-eye	50	1/2	300	2/24	2	4/7	-		400
	Buffle-head boling	arting the a	5 agules	adi yalan a	he specie	number of t	Injoj be	Estimat	otal:	E (a)
	Ruddy duck noqu and ba	tions, depe	salueonoo	A for peak	that use	a more than	nay not b	nay or		
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	the Summeria	alder lash	A TT Se	any of him	da boltano	patteoner	adt ot at	the tran e	Only column	no bet
	f the reat of the	alsylene	16 HO Der	ed villages	a are. nec		ilon sinc	nelis Lulei	regetve ca	
IV.	Coot:	4	3/15	5,000	3/28 (over)	12	4/28	I	form.	10,000

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Total Production:

Geese.....

# SUMMARIES

WATERFOWL

Total waterfowl usage during period 619,165

3-1760

(6) 15.441	Ducks	(4) Last Seen Youns	Peak waterfowl numbers 492,030
stimated	Coots	Number Date Seen	Areas used by concentrations Swan, Stump, Gilbert and
			Calhoun Points Lakes.
			Swane:
	1200		Principal nesting areas this season
		A STATE OF STREET, STR	Coeses:
		200 3 3/10	Canada 20059
			Reported by Edward A. Davis por solliono
			Brant
			White-fronted goose
003		881/8 0.098	INSTRUCTIONS BEDOG WORLD
		300 8/80	Bine E0088 300 3/20
(1)	Species:	In addition to the birds 1 reporting period should be given to those species of	isted on form, other species occurring on refuge during the added in appropriate spaces. Special attention should be local and National significance.
(2)	First Soon .	The first refuge record fo	or the species during the season concerned in the reporting
. 000	FIISt Seen.	period, and the number see	en. This column does not apply to resident species.
(3)	Posk Concentra	The greatest number of the	species present in a limited interval of time
(0)	tion:	The greatest number of the	species present in a rimited interval of time.
			Blue-winged teal 200 6/8 1,000 6/9
(4)	Last Seen .	The last refuge record for	the species during the season concerned in the reporting
(-1)	Labe been.	period.	she spectes during the season concerned in the reperting
100		por 100.	Red head 26 1/2 50 8/14
(5)	Young Produced:	Estimated number of young sentative breeding areas. 10% of the breeding habita	produced based on observations and actual counts on repre- Brood counts should be made on two or more areas aggregating at. Estimates having no basis in fact should be omitted.
			Golden-eye 60 1/2 800 8/24
(6)	Total:	Estimated total number of may or may not be more tha nature of the migrational	the species using the refuge <u>during the period</u> . This figure on that used for peak concentrations, depending upon the movement.
No	te: Only columns	applicable to the reporting	g period should be used. It is desirable that the <u>Summaries</u>
10.000	form.	Tur accention since these da	tta are necessarily based on an analysis of the rest of the

40

	() ()			(A) MI	GRATORY E	BIRDS		(2)			· · · ·		
(Nov. 1945)	. 1945) (other than waterf Refuge <b>Calhoun</b> Months of					terfowl) ofJanu	fowl) January to April, 1947						
Sp	(1) Decies	( First	2) Seen	(3 Peak Nu	i) mbers	Last	1) Seen		(5) Production	ob hegaly	(6) Total		
Comm	on Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # <u>Nests</u>	Total Young	Estimated Number		
I. <u>Water an</u> Blue her Egret Grebe	<u>ad Marsh Birds</u> : on	1 2 2	2/2 4/3 3/1	100 6 300	3/20 4/30 4/15	10 2 2	4/30 4/30 4/30	300		sine Ino	Duck b Hornsd Magols Raven Crov		
p in A.O.U.	and is large	y y	Seported	5.U. Cheo	MOITOURTE A eni ni	IN Bayon as	t names	the correct	ezU	peolea:	s (1) '		
II. <u>Shorebir</u> Terns:	ds, Gulls and	apecies of	e reporti to those	di galuad be given	n reluge	ourring of	ecies on	ca ledio	form				
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(1)	(	2)	0	(3)	tinn (	4)		(5)	(6)
II. <u>Doves and Pigeons</u> : Mourning dove		os. TENNA	owl) Romain	han wateri Months of	(other t			RefugeCalhoi	(Nov. 1945)
White-winged dove	(5)	1	(A)		(3)		(2)		[]
IV. <u>Predaceous Birds</u> : Golden eagle Duck hawk	tatoT tedmu task 1000	1/1	50	1/1	2	4/1	ii	i Mame	tonuoù
Horned owl Magpie Raven Crow	100	1/1	2,000	3/1	50	4/30	*1 61 60	EDIKC HEIAM	notari euli dergi dergi
								Edward & Dave	
(1) Species:	Use the cor order. Avc	rect name	s as fou 1 terms	INSTRUCTI Ind in the as "seagul	CONS A.O.U. Ch .1", "tern	ecklist,	1931 Edit In additio	ion, and list gr on to the birds	oup in A.O.U. listed on
- 11- - 2005	form, other priate spac significanc	r species bes. Spec be. Group	ial atte s: I. <u>W</u> II. <u>S</u> III. <u>D</u> IV. <u>P</u>	ng on refugention shou Nater and M Shorebirds, Doves and P Predaceous	de during ald be giv <u>larsh Bird</u> <u>Gulls an</u> <u>Pigeons</u> (C <u>Birds</u> (Fa	the repo ven to the d <u>s</u> (Gavii d <u>Terns</u> Columbifo alconifor	rting period ose species formes to (Charadrii rmes) nes, Strig	of local and N Ciconiiformes an formes) iformes and pred	ed in appro- ational d Gruiiformes) aceous
(2) First Seen:	The first r	refuge rec	ord for	the specie	es for the	e season	concerned.	10550111011	001
(3) Peak Numbers:	The greates	st number	of the s	species pre	esent in a	a limited	interval	of time.	

- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge <u>during the period</u> concerned.

.3-1752 Form NR-2 (April 1946)	Refuge <u>Calhoun</u>	U	UPLAND GAME BIRDS 1 Months of <u>January</u> to <u>April</u> , 1947											
(1) Species	(1) (2) Species (1) Density		(3) Young Produce	d Ra	(4) Sex Ratio		(5) emoval	isois Istia	(6) Total	(7) Remarks				
edd sk Sota ed Common Name bot	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd. Estimated	To tal ber	yd bede yd bede gyd teve bedaege centage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent inform specifically re List introduction	ation not quested. ns here.			
No upland game bi Laudos brus br	totomiand hardwoods idiife Manageme.sb I should be based o Survey method um Remarks.	and, ban od in W bouttte orena under	ulture la 11st gires m e sampla neicate	g agric a symbo le. Pi antaliv ld ba 1	revertin dard typ e poseib a repres eas shou	da, Stan when tha o r ar	rdwor tha used used reau	nd h te, d be a and ple s	awamp, upla grass prain No. 7 shoul observation size of can					
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Also	duanped.	area (	bion and allon and allong	popula on not	etimiete Lisanicio	b of £ Ju	boan rbžin	bind er ps	in station the ebulant	REMARKS	(7)			
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\* Only columns applieble to the period covered should be used.

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# 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.
- This column applies primarily to wild turkey, pheasants, etc. Include data on (4) SEX RATIO: other species if available.
- Indicate total number in each category removed during the report period. (5) REMOVALS:
- Estimated total number using the refuge during the report period. This may (6) TOTAL: include resident birds plus those migrating into the refuge during certain seasons,
- Indicate method used to determine population and area covered in survey. Also (7) REMARKS: include other pertinent information not specifically requested.

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

(1)

Form NR-4

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SMALL MAMMALS

Refuge\_

Calhoun

\_ April 30, 1947\_\_\_\_

(1) Species	(2) Density	in sont	Carrie	(3) Removals				(4) Disposition of Fur						(5)	
. Dán Histolik	Sudering Infine	the start	Section of	1 423	A DECEMBER OF	a Loga	For Research	Share Trapping		ge ed	1000	ed	oyed	Total	
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Hunting Fur Harvest	Predator Control	For Re- stocking		Permit Number	Trappers' Share	Refuge Share	Total Refu Furs Shipp	Refuge Income	Furs Donat	Furs Destr	tion
Muskrat alidog)	Most all bank rats. Cut grass, smartweed, wild millet, dead timber areas. 2900 acres in Swan and Gilbert Lakes.	19			State State	t os dab i tab i tab i tab i tab		in particular and the second of the matter the second of the second of	a light an ann an an ann an an an					M	150
Racsoon	Timber around the lakes.	29	n Ser		and in	1000 1000 1000 1000	tar to Jampo ta ab	in di cor dired in tor spr	nis ed min på Legimen				1		100
Mink	Timber around the lakes.	100	de p blue vane a be	in S in S in La in La	ng ng a No- a No- No- No-		toris dusta and an avend and a	abouta o Manag aboutd at eat, at eat,	el ban Libil Gapto I of spore						30
	C. Strigt storks bevore the public store going	NACE AND	00 m A.C.s	-	about a	notes rode	44	is esti a	and the second			IBJ	ven	12	(1)
	the total first and the second	Contraction Contraction Contraction Contraction Contraction		angla angla angla angla angla angla		and to be the second	and the second								

REMARKS:

## INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i.e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

(1) SPECIES:

Use correct common name. Example: Striped skunk, spotted skunk, shorttailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan. "List of North American Recent Mammals" by G. S. Miller, Jr., a very good reference, is now out of print, although a revision is scheduled for publication in the near future.)

(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, bottom land 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) REMOVALS: Indicate the total number under each category removed since April 30 of the previous year. Also show any removals not falling under heading listed.

(4) DISPOSITION OF FUR: On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market and the total income to the refuge by species, including share-trapped furs and furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.

(5) TOTAL POPULATION: Estimated total population of each species reported on as of April 30.

REMARKS 1

'Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

1