ROUTING SLIP	BRANCH OF VILDLIFE	REFUGES DATE:	9/19 1949
MR. SALYER MR. KRUMMES MR. DUMONT MISS BAUM		SECTION OF HABI' MR. GRIFFI' DR. BOURN MISS COOK	TAT IMPROVEMENT: THE RES 10-31
SECTION OF OPERATION. BALL MR. REGAN SECTION OF STRUCTU MR. TAYLOR MR. JOHNSTON	ley	SECTION OF LAND MR. KENT MR. ACKERK	
	NARRATIVE :	REPORT	
REFUGE:	MONTANA EA	SEMENTS (FORT PECK)	<u>a and a way</u>
PERIOD:	MAY - AU	GUST 1949	A CARLON POWERS A



WEATHER CONDITIONS	1				
WATER CONDITIONS	1,	2			
FIRES	2.				
MIGRATORY BIRDS	2,	3,	4,	5,	6
UPLAND GAME BIRDS	7				
BIG GAME ANIMALS	7				
FUR ANIMALS, PREDATOR, RODENTS, ETC	7,	8			
PREDACEOUS BIRDS	8				
FISH	8				
PHYSICAL DEVELOPMENT	8,	9			
PLANTINGS	9				
BIRD BANDING	9				
FISHING	10				
ITEMS OF INTEREST	11				

N. R. FORMS followed by PICTURES HAILSTONE NATIONAL WILDLIFE REFUGE HALFBREED NATIONAL WILDLIFE REFUGE LAKE MASON NATIONAL WILDLIFE REFUGE LAMESTEER NATIONAL WILDLIFE REFUGE

REFUGE NARRATIVE REPORT
May July

June

July August

1949

I. GENERAL

A. Weather Conditions.

As always at this time of year the one word connected with weather is "dry". However, the weather bureau station in Billings recorded 5.37 inches of rainfall during the first three months of this period against 4.34 inches for the entire period of one year ago.

The all important June rain came just in time to give whe wheat crop the boost it needed with scattered light showers through July, most ranchers "made a crop".

To date range land is badly in need of several good rains to green it up.

Both hail and electrical storms were fewer and of less intensity than usual and no serious loss is known to have resulted from wind.

B. Water Conditions.

Fortunately all areas went into the period with an average or above average amount of water as rainfall has had practically no effect in keeping them from steadily declining since early May.

As this is written ample water remains in all Easements to mature even late hatched birds.

Water levels as recorded on trips over the areas are tabulated below.

 Lake Moson
 June 3
 - 35" below spill

 July 14
 - 400 below spill

 August 9
 - 48" below spill

Willow Creek, the main source of water for Lake Mason was dry approximately 3/4 of this period. This is due to both dry weather and the amount of water being used above the Refuge for irrigation purposes.

Miller Lake
June 2

July 13 $53\frac{1}{2}$ below spill August 10 59 below spill

A rough check of the flow of the well which feeds this reservoir was made in June and found to be 120 gallons per minute, somewhat short of the necessary amount to maintain a constant level without some runoff.

 Halfbreed Refuge
 6" below spill

 July 12
 13½" below spill

 August 11
 21" below spill

 Hailstone Refuge
 86" below spill

 July 12
 96" below spill

 August 11
 101" below spill

At 101 inches below spill only 30 acres of water area remain. The old creek channel running thru the reservoir runs to a depth of six feet in spots precluding the possibility of the area going entirely dry.

Lamesteer Refuge

June 8 - 5** below spill

August 13 - 26** below spill

The drop of 21" here has comparatively little effect on the water area.

C. Fires.

None.

II. WILDLIFE

A. Migratory Birds.

1. Population and Behavior.

Four of the five areas made an excellent comeback in waterfowl production this year over last, Lamesteer being the exception and remaining in the same catagory as in the past several years, namely the rearing of a brood or two.

Brood counts were made on Lake Mason, Miller Lake, Hailstone and Halfbreed Areas in mid July and again one month later.

It was deemed inadvisable to make more than one trip to the Lamesteer Refuge for this purpose. This was combined with other work there and made on August 13.

Data on both adults and broods follow:

Lake Mason

Mallards Gadwall Baldpate Pintails G. W. Teal	June 3 130 210 18 250 5	July 14 900 2900 1800 1500	August 9 450 1000 300 750
B. W. Teal Shoveller Redhead Canvasback Scaup Bufflehead	36 190 26 24 36	1050 400 80 12 30	150 150 16 17 350
Golden-eye Ruddy	926	3 225	300
TOTALS	926	8900	3491

A lone Snow Goose was seen on June 3 and 650 $\underline{\text{Coots}}$ were present in July and $\underline{\text{August}}$.

		July 14						August	9		
Mallards	5	broods	30	young				la teles	3	a series	
Gadwall	7	broods	37	young			3	broods	13	young	
Baldpate	.6	broods	43	young			1	brood	3	young	
Pintail	11	broods	58	young		1	2	broods	9	young	
B. W. Teal	3	broods	19	young			1	brood	7	young	
Shoveller	1	brood	9	young							
Redhead	2	broods	7	young			2	broods	11	young	
Scaup	7	broods	43	young			2	broods	11	young	
TOTALS	42	broods	246	young	Av.	5.86	11	broods	54	young	Av. 4.5

On July 14 over an area 10 yards X 400 yards on the man-made island 83 nests were counted, principally Pintails, Gadwall and Blue-Winged Teal. Of these, 36 nests were being incubated and the remaining 47 had been abandoned, 50% of the later with all or a a great deal of the eggs destroyed. Much thought has been given this with no definate conclusion reached as to the cause. Terns, gulls and skunks all are present on the area but none in any heavy concentration. Water fluctuation is automatically ruled out and no adverse weather conditions at this time have been learned of.

Miller Lake

	Turno 2	7	turnet 10
	June 2	July 13	Lugust 10
Mallards	65	15	32
Gadwall	12	12	225
Baldpate	14		35
Pintails	60		175
G. W. Teal	6		
B.W. Teal	10		8

	June 2	July 13	August 10
Ruddy	5	2	
Scaup	0	2	
TOTALS	172	31	475

16 Canada Geese were present on June 2 and 8 on August 10, apparently the pinnioned flock is a drawing card. Four Coots were seen thruout the period.

	July	13	*			Augus	st :	10
Mallards	2 broods	11	young R	uddy	1	brood	3	young
Gadwall	2 broods	8	young					
Baldpate	1 brood	3	young		1	brood	2	young
B. W. Tal	2 brood	12	young		1	brood	2	young
TOTALS	7 brood	34	young		3	brood	7	young
			Av. 4.86				1	Av. 2.33

Here too, the island was the favored nesting area. Vegatation was sparce but better than anything the shoreline had to offer. One Gadwall nest and 5 blue-winged teal nests were observed in an area of 60 square feet.

HAILSTONE REFUGE

	June 6	July 12	August 11
Mallards	2.3	12	27
Gadwall	50	12	
Baldpate	9	3	
Pintail	55	35	13
G. W. Teal	3	6	
B. W. Teal	11	15	20
Shoveller	8	21	
Scaup	7		
Ruddy	2	3	
TOTAL	168	107	60

	July 12		August 11	
Mallards			2 broods	15 young
Baldpate	1 brood 1	2 young		
Gadwall			3 broods	12 young
Pintail	4 broods 1	5 young		
G. W. Teal	3 broods 1	6 young		
B. W. Teal	4 broods 1	7 young	1 brood	3 young
Shoveller		4 young		The state of the s
TOTAL	18 broods 11	4 young Av. 6.33	6 broods	30 Av. 5

Nine Canada Geese were using the area in early June. Only 2 Coots were seen thruout the period.

HALFBREED

	June 5	July 12	August 11	
Mallards	88	125	265	
Gadwall	135	250	125	
Baldpate	6	24		
Pintail	73	275	1600	
G. W. Teal	5	3		
B. W. Teal	54	30	550	
Shoveller	47	25	35	
Redhead	31	6	5	
Scaup	54		25	
Ruddy	2		40	
Buffle-head	1			
Canvasback			1	
TOTALS	496	738	2646	
	July	12	August 11	
Mallards	6 hroods	41 young	6 broods 28 young	
Gadwall	5 broods	31 young	5 broods 22 young	
Baldpate	2 broods	12 young		
Pintail	8 broods	43 young	9 broods 48 young	
G. W. Teal	1 broods	6 young		
B. W. Teal	7 broods	55 young	8 broods 36 young	
Shoveller	2 broods.	16 young		
Redhead	1 broods	2 young		
	32 broods	206 young Av. 6.44	28 broods 134 young Av. 4	.78

68 "Honkers", the largest number seen on any of the Easement Areas since the fall of 1945 were making themselves at home here in August and refused to leave although disturbed twice during one morning while making brood counts. This is unusual for our small areas, the rule being that when approached the first time they leave for distant resting places.

Lamesteer Refuge

	June 8	August 13
Mallards	150	125
Ruddy	6	55
B. W. Teal		20
TOTALS	156	200

As mentioned above and in previous reports, Lamesteer produces few, if any, waterfowl. One brood of five Class III Pintails were seen in mid-August.

Summarizing; On our July trip 99 broods were counted on four areas totaling 600 young for an average of a fraction below six per brood. In August 49 broods totaled 230 young giving an average of 4.69.

Peak concentration on all other migratory waterfowl observed will be found on N.R. Form lA in the back of this report.

The Tri-County Sportsmens Organization released the flock of 24 pinnioned geese from the island in Miller Lake this spring. They now have the run of the entire lake and appear quite contented.

Grain is still supplied them on the island by the sportsmen of Roundup and vicinity. However, they now are able to secure for themselves the necessary browse.

2. Food and Cover.

Lake Mson

Although this area supports as many waterfowl as the other Easements combined there is still much more food and cover than is used.

An excellent stand of emergents in the north east portion of the lake together with aquatics aver most of the remainder of the water area afford waterfowl all they desire.

Miller Lake

A small amount of emergents are spreading slowly, leaving much to be desired in the way of cover. Likewise the islands and shoreline are far from desirable as nesting covers.

The growth of Sago is ample for the number of birds using the area.

Hailstone Refuge

Excellent nesting cover to the waters edge surrounds the entire reservoir.

Halfbreed Refuge

With the area at spill elevation, as was the case this spring, food is everywhere. Principal cover used for nesting this spring was greasewood which surrounds the lake.

Lamesteer

Emergents continue to do very well but no sign of Sago was noted.

Refuge files show that a sago plant was made in 1945 and proved successful.

With a heavy fish population, especially carp, it is possible the fish have realized more benefit from the Sago than have waterfowl.

3. Disease.

Botulism:

A very mild outbreak of botulism was observed on the Lake Mason Refuge on August 9.

One sick and 8 dead ducks were found after an extensive search thru heavy cover on foot. Dead birds were removed from the water.

No evidence on any other area.

B. Upland Game Birds.

1. Population and Behavior.

Wallace Scott, the owner at Lamesteer reports seeing a brood of 12 pheasants in early August as well as 25 "Huns" and a "few" Sharp-tailed Grouse.

The former are possibly the offspring of one of the five birds released on the refuge in the spring of 1948 by the tenant there.

· Nothing more to report under this topic for other areas.

C. Big Game Animals.

1. Population and Behavior.

Miller Lake

In early June, 19 Antelope were counted as we approached the Refuge and 7 more within the boundary.

Fawns are dropped in the cover bordering Willow Creek and antelope are almost always on or around the Miller Lake tract.

Halfbreed

Seven antelope were using the area on June 5.

Hailstone

The antelope seem to run in sevens. There were that many here in June, two of which were twins, fawns, of about one week.

Six weeks later 5 large bucks and 4 does were on the west side of the reservoir and in August five does were seen.

Lamesteer

Two mule deer does came down for a drink while we were repairing the spillway in June. These are the first seen here since 1943 when six used the area but "mysteriously" disappeared one by one to the accompaniment of rifle fire.

In summary, the antelope population is growing by leaps and bounds and promises to become a problem to the State before much longer.

2. Food and Cover

Every animal seen was in splendid shape, proving that they have everything they need in the way of food and water.

D. Fur Animals, Predators, Rodents and others.

The average muskrat population for all Easements is not over six.

One coyote was heard at Hailstone and one dead was found along the east shore of Miller Lake.

2 Skunks were "given a bad time" at Lake Mason and there is one less badger to destroy duck nests at Miller.

P. Predaceous Birds, Including Crows and Magpies.

The predator gun, with the able assistance of Refuge Managers Hazeltine and Wolf, accounted for five magpies and a crow at Miller Lake. 7 additional crows and 2 magpies escaped. Apparently the tree plot is the attraction here for these birds to nest in.

F. Fish.

Two "passes" were made with a seine at the lower end of Lamesteer Reservoir last month (see photo #12) showing the following:

Fish	Percent	Average Length
Carp	20	8"
Sucker	10	10"
Brown Bullhead	10	411
Crappie	14	3 <u>1</u> n
Bluegill	1	311
Shinner	45	411

While checks were not extensive enough to give a definate picture the above figures do reveal that rough fish comprise a high percent of the total population. Fish are not present in any of the other Easements.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development.

Lake Mason. Cracks in the spillway were chiseled to a "V" and filled with concrete.

Levels were run from the spillway to the lake (3/4 of a mile) and a water gauge installed to replace the one lost last winter.

All wooden portions of the diversion structure were creosoted.

Miller Lake.

Repairs to the well house roof were made and all trim on the building was painted specification green. (See photo #13). Excess wire and steel posts located outside of the tree plot fence were salvaged and stored, two water gauges installed, cracks in the rubble masonary headgate made weather proof. (See photo #14) and the canal given a thorough cleaning including the removal of willows along either side. (See photo #15) As on each trip over this area, the trees were irrigated.

Hailstone. Fencing was repaired around the dam and the patrol cabin to

make these areas stockproof, excess fencing removed around the former and a new gate installed at the latter.

Cracks in the spillway were tarred and a water gauge installed.

Halfbreed.

Two posts at the north east corner of the refuge were set in concrete.

Again a water gauge was installed, repairs made to the spillway, and trash around the spillway burned. The wire gate at the entrance to the refuge was made useable.

Lamesteer.

Only minor repairs were necessary on the spillway this year. These were completed during the period. A water gauge installed and boundary posts checked and straightened where necessary. (See photo #17)

The "No Fishing" signs were removed from around the south portion of the reservoir which has an open season.

B. Plantings.

2. Trees and Shrubs.

Fifteen willow shoots from the Miller Lake area were transplanted to Hailstone, but due to excessive hot weather while enroute little success was experienced.

IV. ECONOMIC USE OF REFUGE

None: Privately owned lands.

V. FIELD INVES. OR APPLIED RESEARCH .

B. Bird Banding

Refuge personnel in cooperation with Montana Fish and Game employees banded the following ducks on Lake Mason in early August. (See photo # 16)

(occ buco	0 11 20)				
Number	Species	Age Class	Number	Species	Age Class
2	Pintail	A.	9	Scaup	J.
2	Pintail	Jo			
4	Gadwall	A.	1	Mallard	A.
2	Gadwall	J.	1	Shoveller	Jo
1	Baldpate	A.	1	B. W. Teal	A.
1	Baldpate	Ja	1	B. W. Teal	J•
			25 tota	l banded.	

It is regrettable that time did not allow this work to be accomplished one month earlier when 500-600 flightless birds were in the marsh area and could have been hereed into a banding trap with comparative ease.

VI. PUBLIC RELATIONS

E. Fishing.

Local residents of the Lamesteer area eased that "urge" to catch a fish when the season opened July 15 on the south portion of the reservoir.

Success was only fair and interest died away rapidly.

VII. OTHER ITEMS

A. Items of Interest.

Ken Roahen, Game Management Agent, siezed five Canada Geese from one Rose Watts of the Crow Reservation on July 13, 1949.

These were pinnioned and released at Miller Lake and so the flock there has grown to a total of 29 birds.

Respectfully submitted,

Refuge Manager

Approved Refuge Manager in Charge

Approved Regional Office

WATERFOWL

Refuge Hailstone Months of May to August 1949

	(1) Species	(2) First		Peak Conce		Last		Young P	5)	(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Perio
ī.·	Swans: Whistling swan					1			ALTERNATION	
A.	Geese: Canada goose Cackling goose Brant_ White fronted goose Snow goose Blue goose			•	6/6	F = 20	Park Theory	•	0	9
M.	Ducks:			27	8/11			2	20	65
	Ellack duck Gadwall			50	6/6			5	15	80
	Balkhate			9	6/8	Total Area		1	15	20
	Pintail			55	6/6 7/12 8/11			4	25	500
	Chresen-witnessi timal			6	7/12			3	12	12
	Album minged tenal			20	8/11				16	125
	Showeller Wood diek Rathead			21	7/12			Sam	45	60
	Aling-necked duck					The state of			Delica Prid	att free
	Snaup Golden-eye Burr le-Head			7	6/6			0	0	15
	Huddy duck			5	7/12		A SUPERIOR	0	. 6	10
W .	<u>Coot</u> €			2	7/12			0	0	żo

3-1750 (July 1946)

(over)

ota	l Production:	SUMMARIES SUMMARIES
C	eese 0	Total waterfowl usage during period 716 Peak waterfowl numbers 209
	coots 0	Areas used by concentrations entire water area
		Principal nesting areas this season channel at west on
	A THE STATE OF THE	Reported by Thomas garnets
To the		INSTRUCTIONS
1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.
2)	First Seens	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.
3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.
4)	Last Seen:	The last refuge percent for the species during the season concerned in the reporting period.
5)	Young Produced:	Estimated number of young produced based on 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 should be omitted.

Note: Only columns applicable to the reporting period should be used. It is desirable that the Summaries receive careful attention since these data are necessarily based on an analysis of the rest of the form.

of the migrational movement.

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 nature

(6) Total:

WATERFOWL

Refuge	Lamesteer	Months	of	My	to	August	194
THE RESERVED	والمستحدث والمستحدث والمنتقل والمستحدث والمستح	NAME AND ADDRESS OF TAXABLE PARTY.			سيالك سنست		

S	(1) Species	First S		Peak Conce		(4) Last S		Young F	75) Produced	(6) Total
	nmon Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. Swa	ins: Istling swan			STATE SACTOR	comunication of communication of the communication	ATTEN DO D		a Territor s	A MARKET	12
	ese:	ered:					1			
Cac	kling goose	a pret n		M 101-110	Coperat en	11 A 10 T	rudh roata s	ner m. a		
Sno	te-fronted goose w goose	Stores.		of the size	per Preside	in a line	ALESTES DES	7 65 2200		
	ne goose	STORY DE	cha storic	CL SPICE S	to commi	way tool	ibja so so	print on	ages :	
Ma]	eks: Llard lek duck			150	6/8	er entare		0	0	150
Gad	wall dpate	BOLD JUST		egy zo emp	op gener	the same of the sa		g on rot		
Pin	en-winged teal			50	8/13			1	5	75
Blu Cin Sho	ne winged teal nnamon teal oveller			25	8/13	No Bolive	pa in in	0	0	40
Red	od duck lhead ug-necked duck									
Can Sca	vas-back	•			Triging to	Suppose S	16-04 3-43	Manage 1		
Buf	fle-head dy duck			6	6/8	a) ja 686	. Such a group	0	-0	10
Diego					Charle ut	eriosi id	Dennis Tolland		803	
V. <u>Coo</u>	t s				1 20 28 7 10	MARION O	off congress	Alessan T	THE PARTY OF	

3-1750 (July 1946)

(over)

SUMMARIES

Tota	l Production:				
	leese		Total waterfowl usage during	period	275
I	oucks		Peak waterfowl numbers		281
C	coots		Areas used by concentrations_	East o	one-half
			Principal nesting areas this	season	
	Services von		Reported by		Thomas Garr
			2012	0	
		INSTRUC	TIONS		
(1)	Species:	In addition to the birds listed reporting period should be added given to those species of local	in appropriate spaces. Specia		
(2)	First Seen:	The first refuge record for the period, and the number seen. Th			
(3)	Peak Concentra- tion:	The greatest number of the speci	es present in a limited interva	l of time.	
(4)	Last Seen:	The last refuge pecerd for the s period.	pecies during the season concern	ned in the	reporting
(5)	Young Produced:	Estimated number of young produc sentative breeding areas. Brood 10% of the breeding habitat. Es	counts should be made on two or	r more are	as aggregating
(6)	Total:	Estimated total number of the sp may or may not be more than that			

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based on an analysis of the rest of the form.

of the migrational movement.

Refuge Miller Lake

Months of May

to August

__194_9

	(1) Species	(2 First		Peak Conc		(4) Last S		Young P		(6) Total
(2)	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I.	Swans: Whistling swan Geese: Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose	of the applications of the	CARLETON OF CARLET	16	6/2	(In additi	on to the	goose pi	lanted) 0	25
ш.	Ducks: Mallard Black duck Gadwall Baldpate Pintail Green-winged teal	postana postana postana		65 225 55 175	6/2 8/10 8/10 8/10	igner general	PROFESSORS	2 5 2 0 0	10 10 5 0	175 500 55 250 10
	Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck			10	8/10	L = 241,00	102	2		50
	Canvas-back Scaup Golden-eye Buffle-head	- 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		2	7/13			0	0	40 1
	Ruddy duck			5	6/2	es plant ne	2903	1	peners	85
IV.	Coot:			3	6/2	organizate of	1 Sept 1	0	0	25

3-1750 (July 1946)

(over)

SIMMARTES

ota	1 Production:	SUMMARILES	
(leese 0		
I	oucks 87	Peak waterfowl numbers 543	
(Coots 0	Areas used by concentrations N.W. end of lake.	
	Line makes max	Principal nesting areas this season Island	
	MARKET STORE	Reported by Thomas Capra	entt
		INSTRUCTIONS	
(1)	Species:	In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance.	
(2)	First Seen:	The first refuge record for the species during the season concerned in the reporting period, and the number seen. This column does not apply to resident species.	
(3)	Peak Concentra-	The greatest number of the species present in a limited interval of time.	
(4)	Last Seen:	The last refuge pecerd for the species during the season concerned in the reporting period.	
(5)	Young Produced:	Estimated number of young produced based on 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 should be omitted.	
(6)	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 natur of the migrational movement.	е

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based on an analysis of the rest of the form.

Halfbrood Refuge

Months of May

to August 194 9

	(1) Species	(2 First		Peak Conc		Last S		Young F	75) Produced	(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
ı.	Swans: Whistling swan	tot sus				ACC 10 1	4 20 10 100 0 10 10 100			ruh Z
ı,	Genses Ganada goose	Ligage		68	8/11			0	0	75
	Gaekling goode Brant White-fronted goose	a-yabe to	gelle, best	Way the spe	a salari es qu	A TANK OF THE PARTY OF	Service Copper	stated to the	Calmarett	
	Show goose	e diores	E Dissout	or spe abec	or history	76 9 272 6-00 VIII	and tursi	ANT OF STR		
.	Ducks: Mallard			265	8/11	THE PLE	TOTAL COL	10	55	\$00
	Black duck Gadwall	COLUMB 1	ertad alu	250	7/12	Pitted spin	cost Spec	7	85	300
	Baldpate Pintail Green-winged teal			1600	7/12 8/11 6/5	this the	NOS OCCUPA	15	10 65 4	75 2000 18
	Blue-winged teal Cinnamon teal			\$50	8/11			11	48	850
	Shoveller Wood duck			47	6/5	Becorre	o)	2	12	90
	Redhead Ring-necked duck			81	6/5			1	6	80
	Canvas-back Seaup Golden-eye Euffle-head	•		1 54	8/11 6/5	STA ENUS	Calle pay	0	0	20 120
	Ruddy duok			40	8/11	10 pt 100	\$ 15 to \$10 to \$10 to	0	. 0	100
71	Boots				\$6-51 (C. 416)	CALL SECTION				
7	8008			50	8/11	STATE DOOR OF	meter goods	2	15	70

3-1750 (July 1946)

(over)

Tota	1 Production:	Su	MMARIES	
(Seese 0	1 10	Total waterfowl usage during period_	4095
I	oucks 250		Peak waterfewl numbers	2965
C	coots 15		Areas used by concentrations	entire area
	Scientification of the Line of			
	CONTRACTOR TOTAL		Principal nesting areas this season_	Island
	Rechased Tring-monthly outh			
	Endaglier	**	Reported by	Thomas Gar
	Wir-Winged soni		TO TOTAL .	
N. S.	Cheen-Minney Casi	INSTRU	CTIONS	
(1)	Species:		on form, other species occurring on red in appropriate spaces. Special attemand National significance.	
(2)	First Seen:		species during the season concerned in his column does not apply to resident s	
(3)	Peak Concentra-	The greatest number of the spec	ies present in a limited interval of time	me.
(4)	Last Seen:	The last refuge pecerd for the period.	species during the season concerned in	the reporting
(5)	Young Produced:	sentative breeding areas. Broo	ced based on observations and actual cond counts should be made on two or more astimates having no basis in fact should	areas aggregating

Note: Only columns applicable to the reporting period should be used. It is desirable that the <u>Summaries</u> receive careful attention since these data are necessarily based on an analysis of the rest of the form.

of the migrational movement.

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 nature

(6) Total:

A PROPERTY OF										Maji kalaban kana kana kana kana kana kana kana
	(1) Species	(2 First 8		Plak Conce		(4 Last :			oduced	(6) Total
	Common Name	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I.	Swans:									
	Whistling swan				· ,					
II.	Geeses									
	Canada goose									
1	Cackling goose									
	Brant									
	White fronted goose									
	Snow goose			1	6/3			0	0	1
	Blue goose				0/0					
III.	Ducks:									
	Hallard			900	7/14				65	1500
	Black duck									1000
	Gadwall			2900	7/14			10	115	3500
	Baldpate			1800	7/15			7	90	2400
	Pintail			1500	7/14			13	125	3500
	Green-winged toal			8	8/9			0	0	25
	Blue winged teal			1050	7/14			4	75	1500
	Cinnamon teal								The Marie	
	Shoveller			400	7/14			-1	20	600
	Wood duck								78 16	The state of the s
	Redhead			80	7/14			4	35	180
	Ring-necked duck				T. S. Second	-	Townson Nove	ro moreone	Accordance (
	Canvas-bhak			24	6/3	m3 montelan	srees thi	0	0	75
	Seaup			350	8/9			8	90	500
	Golden-eye			3	7/14			0	0	
	Buffle-head			1	8/9 7/14 6/8 8/9	see da nos	seemple proj	0	0	1
	Ruddy duek			300	8/9			0	- 20	450
					Peak we	therford me	mpare		1007	
TW.	Coots			650	7/14		mulle quart		25	800

TA.	GooseO		020	Total waterfowl usage durin	& barrad	15,085	0.00
	Dueks 635			Peak waterfowl numbers		9967	
	Goots 25		200 T	Areas used by concentration	S En	tire Areas	450
	Goldon-oya Barria-head			1/24	0	0	
	gound		880	9/3	9	30	800
	Comved-back		50	Principal nesting areas thi	S SOLSON	Island	4.0
	Hodhend Bing-necked dack		80	7/14	9	182	180
	Shoveller Wood duck		600	7/16	1	Thomas Garra	esseld
	Green-winged teal Blue winged teal Cimmanon beal		1050	7/14	₹	75	85 1500
	Gadwall Baldhate Pintall		1800	7/14 7/15 7/14	10 7 13	115 90 185	3500 3400 3500
IXI.	Ducks: Milard Slack duck		800	7/24	8	68	1800
	gree Coope		1	0/2	0		1
	Mildo frented Books						
	Canada geose Cacaling geose						
II.	646561						
9*	United the same						
	Goometa Bases 447	Sunbar Dahe	Busher	Date Rusher Date	Broods	Satimated Total	Estimated for Forto
	Species	First Soon	Park Conc.		Tours	(5) Produced	(6) Total

WATERPORT.

Control of the last of the las	(5)			(4)		(3)		(2)		(1)	
orm NR-1A Nov. 1945)		Mason			GRATORY E than wa Months	terfowl)	May	Auene	1	09 6 608 94 90	
	(1) ecies	(2 First		(3 Peak Nu		Last			(5) Production	ob begain.	(6) Total
	on Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total #	Total Young	Estimated Number
I. Water and	d Marsh Birds:	Top			6/5					lawk l owl	
Rared Gre	be			950	8/9			1	60	100	1050
American		\$ 97		8	8/9	3				alwalf w	
Blue Hero	n			4	8/9	1				inal a'no	dereb Swain
. 38.		- Jud	Reported		1						
	1			215	STRUCTION						
		A STATE OF THE PARTY OF THE PAR							*		
no bejzi.	n, and list gro to the birds l	n addition	etc. I	O.U. Chec	in the A	as found terms as	general	r. Avoid	orde	pecies:	(1)
. <u>Shorebiro</u> <u>Terns</u> :	ds, Gulls and	n addition ing period	eto. I e report to thos	0.U. Chec ', "tern", during the c be given	A edt ni "seagull n refuge on shoul	as found terms as curring o l attenti	general pecies oc	r. Avoid	orde rioî	pecies:	(1)
Shorebird Terns: Common Te	ds, Gulls and the board to be a second to be a seco	addition ing period despecies	etc. I e report to thos (Gavilfo	0.U. Chec ', "tern" during the be given sh 121 ds	in the A "seagull" in refuge no.	as found terms as curring o L attenti L. Wate	general pecies of Species	r. Avoid , other :	orde		20 80
. Shorebird Terns: Comon To Black for Californi Franklin	ds, Gulls and M bas Isool 10	n addition ing period to species these to C: Daradriifo	etc. I e report to thes (Gaviifo Terns (C	12 na 55 na 60	7/14 8/9 6/3 6/3	as found terms as curring of a attenta I. Wate II. Shor	general pecies or Specie	r. Avoid , other s te spaces	orde		20
Shorebird Terns: Comon Te Black Tor Californi Franklin Wilson's Somipalm	ds, Gulls and the board to be a second to be a seco	n addition ing period to species of mes to Ci Daradriifo nes)	etc. I e report to thes (Gaviifo Terns (C umbiforme	12 64 55 64 80 66 35 64 400 2	7/14 8/9 6/3 6/3	as found terms as curring of attenti I. Wate II. Short III. Dove	general pecies od Specie Groups:	r. Avoid , other ; te apaces ifficance.	orde form pris sign	resZ jani	20 80 125 50 700
. Shorebird Terns: Common Te Black Ter Californi Franklin Wilson's Somipalma Avocets Yellowles	ds, Gulls and the second seco	n addition ing period to species these to C: Daradriifo	etc. I e report to thes (Gaviifo Terns (C umbiform oniforme	12 55 80 35 400	7/14 8/0 6/3 6/3 8/9 6/3 8/9	as found terms as ourring of a ttenti I. Wate II. Shor III. Dove IV. Prec	general pecies oc Specie Groups:	r. Avoid , other ; te apaces ifficance.	order form prize sign	1802 fark	20 80 125 50 700
Terns: Common Te Black Ter Californi Franklin Wilson's Semipalma Avocets Yellowleg Jack Snip Long Bill	ds, Gulls and the second seco	addition and a species of species	etc. I e report to thes (Gaviifo Terns (C oniforme	12 55 80 35 400 2 75 225	7/14 8/9 6/3 6/3 6/3 6/3 8/9 7/14	as found terms as curring of l attenti I. Wate II. Shor III. Dove IV. Pred d for the	general pecies oc Specie Groups:	r. Avoid to other s te spaces ificance.	fore fore sign sign sign sign sign sign sign sign	1802 fark	20 80 125 50 700 10 125 225 2
I. Shorebird Terns: Common Te Black for Californi Franklin Wilson's Somipalma Avocets Yellowles Jack Snip	ds, Gulls and ds, Gulls and day, Gulls and day, Gull day	n addition ing period species des to Ci des) des, Strigil des addition des addition	etc. I e report to thes (Gaviifo Terns (C oniform eason co imited i	12 55 80 35 400 2 75 225 1 9	7/14 8/9 6/3 6/3 6/3 6/3 8/9 7/14 7/14	as found terms as ourring of l attenti I. Wate II. Shor III. Dove IV. Prec d for the	general pecies oc Specie Groups: uge recon number of	r. Avoid to cher i te spaces ificance. first ref	order form pris sign sign ref: The	1802 jark .10	20 80 125 50 700 10

(1)		(2)	Thorac -	(3)		(4)		(5)	(6)
II. Doves and Pigeons		deugua .	W.	(iwoliaj	RATORY E than wa Months	MIC (other		mpenit o	Refuge	Form NR-1A (Nov. 1945
Mourning dove	*********			***************************************	CITO ILOM					
White-winged dove	(5)			(4		(3		(2)	(1)	
	tonpo.	9	Seen	Last	nbers	Peak Nu	een	First 1	pecies	
IV. <u>Predaceous Birds</u> : Golden eagle	otal Nests	Number '	Date	Number	Date	Number	Date	Number	non Name	001
Duck hawk Horned owl		-		1	6/3				nd Marsh Birds:	I. Water a
Magpie Raven	03	1		6	7/14	950			eder	Bared C
Crow Sparrow Hawk					6/3	8		1 31	Bitters	nożsomi.
Marsh Hawk Swainson's Hawk				7	6/3 8/9 8/9	2			no'	Blue Her
							Reported	by	Long gar	ratt.
				TN	STRUCTIO	NS			0	
(1) Species:	Use	the correct	ct names				cklist,	931 Editi	on, and list grou	p in A.O.U

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gavilformes to Ciconiiformes and Gruilformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. <u>Predaceous Birds</u> (Falconiformes, Strigiformes and predaceous Passeriformes)

Tolling Willet

(2) First Seen: The first refuge record for the species for the season concerned.

126

08

607

(3) Peak Numbers: The greatest number of the species present in 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.

3-1751 (I) MIGRATORY BIRDS Form NR-1A (Nov. 1945) (other than waterfowl) Lamostoer August Months of. Refuge ... (5) (6)(1) (2) (3)(4)First Seen Species Peak Numbers Last Seen Production Total Total # Estimated Number Total Common Name Number Date Number Date Number Date Colonies Nests Young Number I. Water and Marsh Birds: Iwo Ноглеф 8/13 Blue Heron 9 81/8 Markell Reported by INSTRUCTIONS Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. (1) Species: Avoid general terms as "seagull". no bejail abrid edj of noijibba tl .oje "mrej" . II. Shorebirds, Gulls and form, other species occurring on refuge during the reporting period Special attention should be given to those species of local and Marsant Terns Ring Billed Gull Oldingo O of com oldivso) significance. Groups: Terns (Charadriiformes) 6/8 s byod .III (Columbiformes) Wilson's Phalarope (Falconiformen, Strigilormes and pr Ellider Pemroliressq The first refuge record for the species for the season concerned. irst Seen: The greatest number of the species present in a limited interval o .emij eak Numburs: (4) benreonol nosses out minub second ed for broom eg der tasl ed T roduction: Estimated number of young produced based on observations and actual counts. Estimated to all number of the species using the refuge during the beriod concerned. : Lato (over)

j	RDS erfowl)	8/18	(other					Nov. 1945
						egi	Refi	
	(4)		(3		S)		(1)	
neen	Last S	Ders	Peak Nur	need	First		pecies	
Date (nldmuM	6/8etsq	Number	Date	Number		emaN nom	100
						Birds:	nd Marsh	TejsW .I
		8/25					Eron	Dlus I
			1					
	2	8/13		4			The Control of	evilor "
							31.0	22 112
				Reported	by	homas	gar	ne M
		Numb#r Date	Date 10 Numb Ir Date	Number Date \$\\ 8\\ 1.5	Date Number Date Numbir Date	Number Date Number Date (6) Numbir Date 1 Date 2 3 18 2 3 3 3 3 3 3 3 3 3	Number Date Number Date Numbir Date Birds:	mon Name Number Date Number Date Numbir Date of Num

(1) Species:

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

The greatest number of the species present in a limited interval of time. Peak Numbers:

The last refuge record for the species during the season concerned. Last Seen:

Production: Estimated number of young produced based on observations and actual counts.

Estimated total number of the species using the refuge during the period concerned. (6) Total:

3-1751 Form NR-1A MIGRATORY BIRDS (other than waterfowl) (Nov. 1945) Miller Lake August Refuge... Months of ... (5) (6)(1)(2)(3)(4)First Seen Peak Numbers Last Seen Production Total Species Number Total # Total Estimated Common Name Number Date Number Date Number Date Colonies Nests Young Number I. Water and Marsh Birds: Horned iggsM25 White Pelicen 6/2 18 WOT150 Bared Grebe 100 8/10 6/2 Western Grebe Blue Heron 8/10 3 Reported INSTRUCTION Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. "tern" etc. In addition to the birds listed on general terms as "seagull" II. Shorebirds, Gulls and form, other species occurring on refuge during telegraphic period Terns; and bus isool to seisegs esont of mevig ed bluods no inetts Isisegs California Gull golimos to of sem collivad) 35 significance. 75 7/18 de roda .II Common Tern 25 Long Billed Curlews (CO) umbiformes) 12 Wilson's Phalarope 7/15 12 Falconiformes, Stright 12 Killdeer emiolizessq Avocets The first reduge record for the 8/0/8 the reason concerned. irst Seen: Semipalmated Plover The greatest number of the species present in a limited interval of time. eak Numbers: The last refuge record for the species during the season concerned Last Seen 'Estimated number of young produced based on observations and actual counts. : nolioubori Estimated total number of the species using the refuge during the beriod concerned. (6) Total:

(1)		(2)	(3)	(4)		(5)		(6) 1-6
III. <u>Doves and Pigeor</u> Mourning dove		nua oj	ROS erfowl) ef				ler lake	I.Aeg	Ref	Form NK-1A (Nov. 1945
White-winged dov	(5)		(4) Last Seen	nbers	(3) Peak Nur		(2 First		(1) Species	
IV. <u>Predaceous Birds</u> Golden eagle	r Total #	Number Colonie	Number Date	Date	Number	Date:	дефшии		mon Name	Cot
Duck hawk Horned owl Magpie			2	5\0	28			Birds:		Tetal 10
Raven Crow	8		8	6/2	100					Harod O
2 6	1	8		\$\0.	8				eders	Wee bern
0				01/8	8				non	Blue He
						Reported	Бу	hana	o gar	alt.
			I	NSTRUCTION					/	

(1) Species:

SI

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. Doves and Pigeons (Columbiformes)

IV. <u>Predaceous Birds</u> (Falconiformes, Strigiformes and predaceous Passeriformes)

navely becaming

- (2) First Seen: The first refuge record for the species for the season concerned.
 - (3) Peak Numbers: The greatest number of the species present in 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.

3-1751 Form NR-1A MIGRATORY BIRDS (other than waterfowl) (Nov. 1945) Hailstone August Refuge..... Months of (1) (2) (3). (4) (5)(6)Species First Seen Peak Numbers Last Seen Production Total Total # Number Total Estimated Common Name Number Date Number Date Number Date Colonies Nests Young Number Duck hawk I. Water and Marsh Birds: Horned Magpi 6/6 Bared Grebes 70 1 Crow Storage and INSTRUCTIONS Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. (I) Species: II. Shorebirds, Gulls and other species occurring on refuge during the reporting period Terns; and lact local local species of those species of local and National Long Billed Curlews Of Of Rem Old YAR 7/12 Groups: 6/6 de lode .II Terns (Charadriiformes) Avocata 30 III. Doves 10/8 Killdeer umbiformes) 23 109 Wilson's Phalarppe semio iginiz semiolino La 45 IV. Pred 50 8/11 7/12 California Gulla 3889 10 The first refuge record for the species for the eason concerned. irst Seen eak Numbers: The greatest number of the species present in a limited interval of time. Denreono nosaes on gninub seices ent for broom ag pler tasl ent Estimated number of young produced based on observations and actual counts. roduction: Estimated total number of the Jecties using the lefuge during the beriod concerned. : [sjo]

	(1)	(2)	(3)	(4)		5) (6)
Mou	es and Pigeons:	decout.	waterfowl) water		-pandeLlot	(Nov. 1945) Refuge
Whi (6) Total	te-winged dove	(5) Produc	(4 Last See	(3) Peak Numbers	(2) First Seen	(1) Species
Gold	dateous bilus.	Number Total		Number 10/8	Number Date	Cormon Name I. Water and Marsh Birds
Mag Rave Cro	pie en	1 4		70 6/8		Barod Grebics
Ma	rsh Hawk		2	6/6		2.53/8
					Reported by	men ganasst
(1)	Species:	order. Avoid genform, other specifier	ames as found in eral terms as "s es occurring on	eagull", "tern" refuge during t	, etc. In addition t	and list group in A.O.U o the birds listed on hould be added in approlocal and National
6 80 45 50 50	8 81		oups: I. <u>Water</u> II. <u>Shoreb</u> III. <u>Doves</u>	and Marsh Birds irds, Gulls and and Pigeons (Co	(Gaviiformes to Cico Terns (Charadriiform	niiformes and Gruiifo <mark>rme</mark> es)
(2)	First Seen:	The first refuge	record for the s	pecies for the	season concerned.	
(3)	Peak Numbers:	The greatest numb	er of the specie	es present in a	limited interval of t	ime.
(4)	Last Seen:	The last refuge r	ecord for the sp	ecies during th	e season concerned.	
		The state of the s				

Estimated total number of the species using the refuge <u>during the period</u> concerned.

(6) Total;

3-1751 Form NR-1A MIGRATORY BIRDS (Nov. 1945) (other than waterfowl) Halfbrood Refuge..... Months of..... (3) (6)(1) (2)(4)(5)First Seen Species Peak Numbers Last Seen Production Total Total # Estimated Number Total Common Name Number Date Number Date Number Date Colonies Nests Young Number Duck hawk I. Water and Marsh Birds: White Pelican 8/11 2 8/13 Blue Heron 14 Rared Grebe 65 7/12 Western Grebe STRUCTION O.U. Checklist, 1931 Edition, and list group in A.O.U. Use the correct names as found in the A II. Shorebirds, Gulls and e reporting period curring on refuge during th other species or Terns: and local and using of Special attention should be given priate spaces 31 6/5 40 Gavilformes to Ci significance. 7/12 Avocets 13 85 II. Shor California Gull 8/11 175 200 III. Dove (mbiformes) 8/11 Yellowlegs 120 ormes and pre 85 coniformes Franklin's Gull 8/11 80 6/4 Killdeer 38 60 The first reluge record for the eason concerned. Wilson's Phalarope 120 8/11 200 Long Billed Dowithhes 7/12 15 15 imited interval o The greatest number of the spec eak Numbe Long Billed Curlow benreonce nosees off gnirul seloeds off Tol broom entire fast of The Est mated number of young produced based on observations and actual roduction Est mated to all number of the leading the lefuge during the leriod concerned. otal:

(1)	(2)		(3)	(4			(5)		(6)
III. <u>Doves and Pigeons</u> : Mourning dove	danson		(Iwoling	7/12	redio)		south fall	egs	Ref	(Nov. 1945
White-winged dove	q	neei	(4) Last	bers	(3) Peak Nur	пееп	(2) First ((1)	
IV. <u>Predaceous Birds</u> : Golden eagle	Number Colonies	Date	redmuM	Date	Number	Date	Number		mon Name	Con
Duck hawk Horned owl Magpie Raven Crow			1 5	7/12 8/11	2 14 65 8			: <u>Birds</u> :	ellosm ron rebe	I. Water a Milto E Milto E Milto E Morod O Moster:
						Reporte	1 by	home	a gal	red

Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)

II. Shorebirds, Gulls and Terns (Charadriiformes)

III. <u>Doves and Pigeons</u> (Columbiformes)

IV. <u>Predaceous Birds</u> (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first refuge record for the species for the season concerned.

120

(3) Peak Numbers: The greatest number of the species present in 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 during the period concerned.

Refuge Levestor	Year	194.
-----------------	------	------

	Sport Fishing			Commercial	Fishing	Res	Number re-	
Species	Relative Abundance	Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	moved for Restocking
roum Bullhead	Moderately	Amount of the second						
rappie	Ederately abunda		- A.					
luogill	Rare							
uoker	Moderately abunda	at						
arp	Abundant						Maria Central	
himers	Very abunda	nt.						
							1.64	

REMARKS:

Mild interest is shown in sport fishing the first few days of the open season. No other Easement Areas has fish of any kind.

to August, 1940

Months of

Easement Areas

Refuge

(3) (4) (1) (2) (5) (6) (7) Sex Young Density Species Removals Total Remarks Produced Ratio Number broods obs'v'd. Estimated Total For Research Biff For Restocking t es resenem esu'ti Estimated Hunting d . bedd hidua eono ver type fo Acres number Pertinent information not Cover types, total specifically requested. per using acreage of habitat Percentage Bird List introductions here. Common Name Refuge anesteer 250 seres of wheat stubble. TE 29' Ring-neck Pheasant 15 cores alfalfa 0 10 beer thions an The land owner reperted seeing r arras should b one brood the norming we inbedsealbak ele spected this area in August. ain soo lautos bas anolisvassoo noon beard beoutorg manucy to reduce besting (3) YOUNG PRODUCEDS a representative breeding habitat. ind a column applies rimerily to wild turney, pieseants, etc. Include data on (A) SEX RATIO Idallava ll asipaga madde .bolreq froger and garren bevomer tropedes no medium Isabe etsoling Estimated total number us ng the reluje during the report period. This ma anosase risites palve birds plus those migrating into the refuge during certain seasons. OBIA .vevrue ni berevo sera ana molifaligog enteresta of bere bodiem ejacibal bedseuper vilabilities den noldsmyoldt drenking veride ebufen. * Only columns applicable to the period covered should be used. Small numbers of Sharptails and Sage Home make off and on use of the Lamesteer Refuge. So upland game birds observed during this period on any other Rasement Areas. Leis

Form NR-2 (April 1946

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- Applies particularly to those species considered in removal programs (public DENSITY: 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 List introductions here, 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 he land comer roper had seeding observations and counts on representative sample areas. Survey method used and wal our anterior ody boors of 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.

Sund amended of Converged to the control of the con

baseds decreased character and and and anterest because abate

- (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.



#12
Sample of fish present in
Lamesteer Reservoir.
(Approximately 75% are
underirable species)
8/13/49
GARRATT

#13
Miller Lake well house
being painted.
6/2/49
HAZELTINE





#14
Repairing masonary at Miller Lake headgate (note cracks at right of structure) 6/2/49 ELLINGSON



#15
Clearing willows etc. from Miller Lake well canal.
6/3/49
HAZELTINE

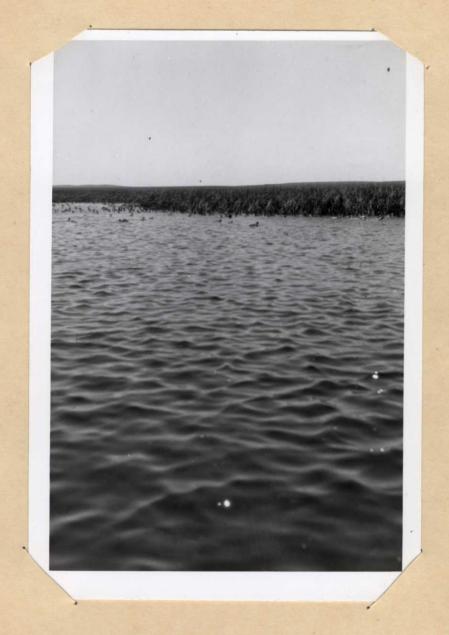


#16
Duck banding on Lake Mason.
8/9/49

GARRATT



#17
Minor repairs were made on Lamesteer Spillway.
6/8/49
ELLINGSON



#18
Small part of flightless ducks on Lake Mason.
(Note heavy growth of emergents)

7/14/49

GARRATT



WOLF

#19
Western Grebe nest on Miller Lake.
7/13/49



#20
Coot nest on Lake Mason, 1 out, 2 to go.
7/14/49
WOLF



#21
Avocet over Halfbreed Lake.

7/12/49 WOLF