

BRANCH OF WILDLIFE REFUGES

NARRATIVE REPORT

ROUTING SLIP

DATE Oct. 16, 1951

Mr. Salyer _____

Mr. DuMont _____

Mr. Krummes _____

Miss Baum _____

SECTION OF OPERATIONS:

Mr. Ball _____

~~Mr. Morley~~ Law

Mr. Regan _____

SECTION OF HABITAT IMPROVEMENT:

Mr. Griffith DSG

Mr. Kubichek _____

Dr. Bourn WSB

Mr. Stiles WPS

SECTION OF LAND MANAGEMENT:

~~Mr. Ackerknecht~~ UA

Mr. Davis _____

STENOGRAPHERS:

REFUGE Crescent Lake

PERIOD May-August, 1951

CRESCENT LAKE NATIONAL WILDLIFE REFUGE

AND

NORTH PLATTE NATIONAL WILDLIFE REFUGE

REFUGE NARRATIVE REPORT

May, June, July, August

1951

PERSONNEL

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* * * * *
*
*   Lloyd R. Ramelli, Refuge Manager
*
*   Patrick J. Kennedy, Maintenance Man
*
*   Howard D. Woon, Refuge Clerk
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UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

ELLSWORTH, NEBRASKA

Best possible image.

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NARRATIVE REPORT

CRESCENT LAKE NATIONAL WILDLIFE REFUGE

Period ending August 31, 1951

I. GENERAL

A. Weather Conditions

The weather man has apparently been bent on showing us just what he "can do" during this period.

A dry winter and a cold dry spring had been anything but conducive to optimism for the sandhills area. Many people openly feared that the "seven lean years" of the dust bowl era were upon us again. Conditions remained unchanged and grass was practically non-existent through most of May or just long enough to require establishing reduced grazing and other economic use activities for the coming season.

Then it started to rain. Continual rains and warmer weather brought the grass up in a hurry and kept plant life growing throughout the period. This brought about a most beautiful and lucrative mantle of wildflowers and grass as the sandhills has ever known.

In addition to its eye catching appeal, food and cover values of this vegetation did much to heal many of the sandhills scars known as blowouts. With the copious amounts of seed produced we are confident that the year of 1951 will have far reaching effect in the future of the sandhills.

Following are the records taken from the weather station maintained at refuge headquarters.

	<u>Precipitation</u>		<u>Max. Temp.</u>	<u>Min. Temp.</u>
May	6.02		84	30
June	2.98		92	30
July	5.06		94	42
August	3.25		95	41
Total	<u>17.31</u>	Extr.	<u>95</u>	<u>30</u>

Precipitation during this same period of 1950 amounted to 12.99 inches.

We were quite fortunate in that we escaped all of the more serious hail storms that have frequented the Platte Valley during the summer. Likewise we were not visited by any of the tornadoes that occurred all too frequently in this section.

B. Water Conditions

Our well readings have indicated a general rise in water level during the past four months. Present ground water levels and indications for future levels are very good.

Many small potholes developed through the continued summer rains. Waterfowl were quick to utilize these scattered water areas.

C. Fires

There were no fires on the refuge during this period. We are hoping that autumn frosts will be delayed since a freeze is expected to kill much of the hill vegetation, making the country a veritable tinder box.

II WILDLIFE

A. Migratory Birds

1. Populations and Behavior:

Late migrations reduced initial populations of several species, but the bulk of the birds remained throughout the period. Paired birds were numerous and the prospects for a big hatch were good. However it was soon evident that all of our paired birds did not intend to nest.

With advent of the rains and consequent potholes, many breeding pairs left the lakes. At first we were of the opinion that we had lost a large portion of them, however closer study revealed these birds to be using the more secluded potholes and water areas.

We conservatively estimate that 400 pairs of ducks brought broods to the flying age. The following table indicates productive data for the period:

<u>Species</u>	<u>% nesting pop.</u>	<u>nesting pairs</u>	<u>young per brood</u>	<u>no. produced</u>
Mallard	17	68	6.52	443
Gadwall	3	12	7.09	85
Pintail	6	24	6.10	146
GW Teal	2	8	6.07	48
EW Teal	32	128	6.80	870
Shoveller	10	40	6.33	253
Redhead	14	56	6.31	353
Scaup	1	4	5.88	23
Ruddy	15	60	5.34	320
				<u>2,541</u>

Average number per brood as per Central Office instructions for computation of brood numbers.

In general we found that our averages per brood were approximately one bird below that average derived by the Central Office. By mid-august practically all of our birds were flying.

GEESE

Our efforts to establish a native flock of Canada Geese by use of pinioned captures did not materialize this year. Of the adult birds kept over, only six were noted since early summer. The fate of the other five has remained an unsolved mystery. The Gimlet enclosure is capable of withholding the various mammal predators with the exception of weasel. We did not have any eagles during the period. We have been unable to locate any signs of predation during our trips through the enclosure

During June 37 goslings were transferred from Utah. Upon arrival we penned the birds up for several days to allow the weaker to regain their strength. During this interval six of the youngest birds died, notwithstanding our efforts to revive them. Several of the larger and stronger birds responded too quickly as evidenced by the fact that two of them were able to fly out of the enclosure, no small accomplishment in itself.

The remaining 29 were pinioned and released on Gimlet Lake. They soon adapted themselves to their new surroundings. During former years pinioning was accompanied by a varying amount of mortality of young geese. In an effort to remedy this situation the wing was tied with suture in addition to cauterizing, to stop bleeding. We were rewarded by not losing a single bird from pinioning.

There were no wild geese on the refuge during this period.

MOURNING DOVES

Doves were found over all of the refuge and especially abundant in the trees around headquarters. In compliance with a recent request to band these birds, a trap was built. The doves were evidently not in agreement as they promptly migrated to points south. Reproduction was good and there were no evidences of losses beyond normal mortality.

GREAT BLUE HERON

These herons returned to the refuge and again nested in the rookery in old willow trees on Island Lake. There were 54 active nests this year. The young were more fortunate than their brethern of 1950 when a hail storm decimated the young herons.

LONG-BILLED CURLEWS

Curlews were common over the sandhills. After a successful nesting season they departed during mid August on their migration south.

2. Food and Cover:

Food and cover were ample throughout the period. A good supply of aquatic growth is available to the fall migrants.

3. Disease:

There were no indications of botulism, of lead poisoning or other diseases.

B. Upland Game Birds

1. Populations and Behavior:

From all indications nesting success of the various upland game birds on the refuge has been satisfactory.

Ring-necked Pheasants enjoyed a comparatively productive year. Six known broods were brought to a stage beyond that of usual juvenile mortality. We feel that we are being conservative in estimating that 15 broods averaging 6 young to the brood were reared during the past season.

Fortunately Garden County was spared a season on pheasants for this year. With a favorable hatch over the county, this seasons addition should prove valuable in attaining the populations maintained before the 1949 blizzard.

Sharp-tailed Grouse are seen quite frequently over the refuge. Due to lack of time and the elusiveness of the subject we are lacking in definite data on this years increase. We estimate that 15 broods were produced, with an average of 5 birds per brood brought to maturity.

Prarie Chicken has made definite progress this last year according to past records, and the general opinion of those acquainted with this bird. Based on broods observed and an estimate made we believe about 10 broods were produced on the refuge this year. There was approximately 6 chicks to the brood.

2. Food and Cover:

Food and cover for all upland birds were excellent throughout the period. Rainy weather was the greatest hazard to nesting birds and we were unable to find any positive indications where this factor had become acute.

3. Disease:

There were no signs of disease noted during this period.

C Big Game Animals

1. Populations and Behavior:

Rocky Mountain Mule Deer has increased considerably since 5 fawn were known to have arrived during the latter part of June. One pair of fawns arrived within the Gimlet enclosure, another set near secondary headquarters on Crane Lake and a single noted north of Island Lake.

At least 7 adult deer are known to be in and out of the lake area in the vicinity of headquarters. One of these is the grand-daddy of them all, a snuffy old monarch sporting 7 points to the side. He occasionally makes his appearance, just often enough to keep in the public eye but always within that area marked "verboden".

Bambi the pet deer that was reared by refuge personnel, has been turned out with his untamed friends. He is noted frequently within the enclosure and seems to be doing quite well in foraging for himself.

Antelope^s, the fleetfooted shadow^s of the prairies, are frequently noted over the east end of the refuge. An occasional fawn is observed however not in the number necessary to build the population to that which the range is capable of supporting. One of the mysteries of the area is that factor or factors holding these populations down.

The refuge was in receipt of another pet, "George" this time. "George" is a yearling antelope, very friendly and quite contented with his abode in the Gimlet enclosure. He is always on hand to welcome any and all visitors. Poor George is the brunt of all sorts of mistaken identity, he is frequently identified as a deer and even once as a goat. He was brought in by a rancher that had brought him up on a bottle.

2. Food and Cover:

Food and cover for our big game population has been more than ample. We do not have extensive amounts of the browse types desired by mule deer, however the supply is more than ample for present populations.

3. Disease:

There were no loss or indication of disease in our big game animals during the period.

D Fur Animals, Predators, Rodents and Other Mammals

Muskrat

We have not noted any indications that the muskrat disease so prevalent during the last trapping season to have been active during the period. This is not conclusive however since time was not available to make a thorough study.

Musk rats are quite active and in general populations are at a satisfactory level. Baring disease or unusual weather we anticipate a good trapping season.

Raccoon

Signs of racoon are noted from time to time on the water areas of the refuge. While our coon population is not excessive, numbers will require that we carry on an active control campaign during the trapping season. Fortunately, we do not have the excess populations experienced along the North Platte River.

Coyote

Coyote populations are such that little or no damage to our wildlife species resulted from this source, during the period. Our present requirements are to continue the control to prevent them from becoming excessively numerous again.

Pocket-gophers

These industrious mammals seem to prefer lawns for their workings, at least it so seem to refuge personnel. Invaders have been removed by traps throughout the period.

Bullsnakes

The bullsnake population has apparently decreased since only 23 of these snakes were trapped this year. It is only occasionally that one is noted and eliminated during our travels.

E Predaceous Birds

Fortunately our hawk populations are of the more desirable species. We did not observe any unwarranted depredations from this source. Crows and magpies were practically non-existent during the time of this report.

F Fish

There has not been any further action by the State or private interests towards removal of carp since the preceeding period. It will be recalled that the State seining crew made sample hauls of various lakes during the last period. The results were approximately 95% carp, 4% bullheads and 1% crappie. Crappie and bullhead were in poor condition due to over population of fish in the lakes. These lakes could be made into excellent fishing or rearing lakes if the carp were removed.

III REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development:

The major project during the period was complete renovation of the clerks quarters. A bedroom and bath were added and the original part of the house was cleaned throughout and then re-finished. A general cleanup and improvement of the residence and grounds continued throughout the period.

All of the refuge buildings were rewired to meet REA specifications. Upon completion we were "hooked up" and were once and for all through with a set of thoroughly worn out light plants.

Counting in cattle, checking on grazing and haying operations took all of the time we were able to find to devote to it. Such periodic work as reading wells, care for lawns, mowing weeds, and grading roads were accomplished as necessary.

While there were no major overhauls made in the shop, Joe was generally found busy with grease jobs and maintenance of vehicles and equipment. Several springs were replaced, as our sandhill trails do not come under the heading of improved roads.

B. Plantings:

There were no plantings made other than reseeding residence lawns during the period.

C. Collections:

There were no collections made during the period.

IV ECONOMIC USE OF THE REFUGE

A. Grazing:

Due to a retarded growing season during May, summer grazing was delayed until June 1, with grazing capacity set up as those for a normal year. This condition was soon alleviated by copious rains and warmer weather bringing an abundance of forage. Grazing permits were then amended to permit grazing as provided for a wet season. Stock have done exceptionally well and all in all this has been considered one of the better seasons known for this area.

B. Haying:

Haying operations were hampered continually by rains throughout the season. Surprisingly little hay was spoiled from rain though the quality was often lowered before it could be stacked. In all a good crop of hay was harvested leaving little apprehension as to the possibility of a severe winter. There were no other economic use activities this period.

V FIELD INVESTIGATION

On May 26th to 30th, Mr. Merrill Hammond, Region III Refuge Biologist visited the refuge to make a routine nesting study and to set up an experimental duck nesting project.

The object of the experiment was to determine if possible, the difference in nesting success between mowed and unmowed hay meadows, with respect to predators.

Sites were selected on lakes adjacent to the headquarters area and mock nests were made, placing 3 hens eggs in each nest. The eggs obtained were purposely small and approximated an average duck egg. The nests were plotted and varied as to distance from water, type of cover, amount of cover, ranging from 30 feet to 600 feet from the water. The end result was 30 nests in mowed meadows, 50 nests in unmowed meadows, and 20 hill nests, making 100 nests in all.

The nests were examined 5 times during the nesting season at irregular intervals because of other work being done during the same period.

Our greatest predator in previous years has been the bullsnake, which at one time destroyed approximately 90% of the nests located. A trapping program has greatly reduced their numbers, however, they are still the major predator. Only three bona-fide nests were discovered while setting out the experimental nests and later 2 of these were destroyed by bullsnakes and one by skunks.

The type of predation was determined as accurately as our knowledge would permit, allowing a source of probable error in at least some of the conclusions as to the fate of nests. In general a bullsnake will enter a nest, swallow the eggs and leave again without disturbing the nest or surroundings. As to nests torn apart and eggs scattered, the best means of identifying the predator was tracks left in the sand. Sometimes this was rather difficult if it had rained between the time of destruction and the time of observation. All in all we believe our deductions to be quite accurate.

Following is a summary of the results obtained from the study:

Unmowed meadows:

# of nests	# destroyed	Bullsnake	Mammal	Other
50	16	9	3	4
50	32%	18%	6%	8%

Mowed meadows:

30	6	4	1	1
30	20%	13%	3%	3%

Hill nests:

# of nests	# destroyed	Bullsnake	Mammal	Other
20	2	0	1	1
20	10%	0	5%	5%

All areas:

100	24%	13%	5%	6%
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Summary:

In general those nests in unmowed ungrazed meadows received the largest % of destruction in all respects. This is beleived due to their heavy cover affording protection to the predators, hence their greater abundance in these areas. This is particularly true of the bullsnake. The nests classed as being destroyed by "Other" were cracked eggs which were hollowed out by beetles. It is unkown as to what caused the fracture admitting the beetles, but they were obviously partaking of the contents.

The mowed meadows proved more desirable from a predation standpoint considering the number of nests destroyed and the amount of ducks which use these regions for nesting in respect to distance from water.

The hill nests of course were quite secure because of large open areas surrounding them and being some distance from the tall grass around the water which conceals many bullsnakes.

All the information to be gained from this sort of experiment has not yet been fully interpreted. Another year or so may prove to be more conclusive as to the end results.

VI PUBLIC RELATIONS

A. Recreational Uses:

Fishermen were frequently noted on the refuge throughout the summer. In general the luck of the estimated 150 fishermen was poor since the lakes are over-run by carp.

Small groups occasionally used the picnic area at headquarters. In all about 50 people made use of the facility. Rough sandy roads reduced sight-seers to a minimum, even so we frequently had people stop in on a Sunday drive.

B. Refuge Visitors:

In addition to neighbors and permittees who frequently dropped in for business, the following official visitors were redorded:

- 5-8 Mr. Wm. Main, County Agent
Dr. Helm, Extension Entomologist, 2 hrs., range and water conditions
- 5-9 Mr. Tom Turner, FWS-Pred. Animal and Rodent Control
Mr. Noble Buell, FWS-Pred. Animal and Rodent Control, 30 min, Gen. Insp.
- 5-11 Mr. Raymond Glahn, FWS-Pilot-Biologist, 8 hrs., Aerial census.
- 5-24,25 Mr. Forrest Carpenter, FWS-Asst. Reg. Director, $1\frac{1}{2}$ days, inspection.
- 5-24,25 Mr. Harvey Miller, Waterfowl Biologist, (State), $1\frac{1}{2}$ days, general orientation and waterfowl investigations.
- 5-25,30 Mr. Merrill Hammond, FWS-Refuge Biologist, $5\frac{1}{2}$ days, waterfowl studies
- 6-5 Mr. Peabody, REA-Inspector, 1 day, inspect refuge wiring.
- 6-7 Mr. Wm. Main, County Agent, 2 hrs, 4-H Group on orientation tour.
- 7-19 Mr. T.S. Kibbe, FWS- Asst. Reg. Director
Mr. E. Rodgers, FWS, 2 hrs, inspection of North Platte Refuge.
- 7-22-24, Mr. Merrill Hammond, FWS-Refuge Biologist, $2\frac{1}{2}$ days, waterfowl studies.
- 8-14 Mr. P. Smith, FWS-Game Mgt. Agent
Mr. Morgan, FWS-Game Mgt. Agent, 1 hr., patrol and orientation trip.
- 8-22 Mr. Harvey, Miller, State Waterfowl Biologist, 1 day, joint inspection of North Platte Refuge.

C. Refuge Participation:

Following are the various meetings attended during the period, and participation in each:

- 5-7 Oshkosh Rotary, 20 min. talk on refuge and waterfowl conditions.
- 5-21 Oshkosh Rotary, Show personally owned Kodachrome slides and talk on Red Rocks Lakes National Wildlife Refuge for $1\frac{1}{2}$ hrs.
- 5-21 Garden County Sportsmens Club, Show kodachrome slides and talk on Red Rock Lakes National Wildlife Refuge for 1 hr.
- 6-27 Nebraska Youth Club, Personally owned kodachrome and talk on Salton Sea National Wildlife Refuge for $1\frac{1}{2}$ hrs.

7-16 Garden County Sportsmens Club, Show personally owned Kodachrome slides and talk on Salton Sea National Wildlife Refuge for $1\frac{1}{2}$ hrs.

8-20 Garden County Sportsmens Club, Show personally owned Kodachrome slides and talk on Malheur National Wildlife Refuge for 1 hr.

D. Violators:

There were no violators apprehended during the period.

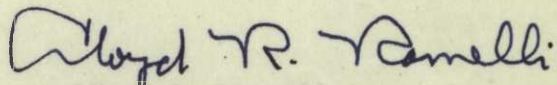
VII OTHER ITEMS

The nesting depredations study described under section V was carried on by Mr. Merrill Hammond, Refuge Biologist from Lower Souris Refuge and Mr. Howard Woon, Refuge Clerk. This section was prepared and written by Mr. Woon.

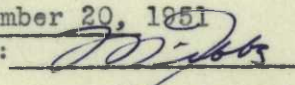
Photographs:

The enclosed photographs were taken by the manager with his own equipment and at his own expense.

Respectfully submitted:


Lloyd R. Ramelli
Refuge Manager

Date: September 20, 1951

Approved By: 
Acting Regional Director

WATERFOWL

REFUGE

Crescent Lake

MONTHS OF

Mayto August 31, 1951

(1) Species		(2) First Migrants Seen		(3) Peak Concentration		(4) Last Migrants Seen		(5) Young Produced		(6) Total
Common Name		Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
1. <u>Swans:</u>										
Whistling swan										
2. <u>Geese:</u>										
Canada goose										
Cackling goose										
Brant										
White-fronted goose										
Snow goose										
Blue goose										
3. <u>Ducks:</u>										
Mallard		1500	5/1	1500	5/1	750	End of period	68	443	1750
Black Duck										
Gadwall		250	"	250	"	25	"	12	85	250
Baldpate										
Pintail		100	"	100	"	10	"	24	146	250
Green-winged teal		100	"	100	"	75	"	8	48	175
Blue-winged teal		1200	"	1200	"	1000	"	128	870	2400
Cinnamon teal										
Shoveller		4000	"	4000	"	150	"	40	253	4000
Wood duck										
Redhead		400	"	4000	"	200	"	56	353	4000
Ring-necked duck		75	"	75	"	2	5/15			75
Canvas-back		75	"	75	"	1	6/1			75
Scaup		200	"	200	"	50	End of period	4	23	225
Golden-eye										
Buffle-head		15	"	15	"	15	5/1			15
Ruddy duck		400	"	400	"	350	End of period	60	320	400
4. <u>Coot:</u>										
3-1750		3000	"	3000	"	2000	"	150	520	3000

(June 1949)

(over)

Form NR-1

SUMMARIES

Total Production:

Geese 0Ducks 2541Coots 580Total waterfowl usage during period 14,915Peak waterfowl numbers 14,915Areas used by concentrations Lake areas west end of refugePrincipal nesting areas this season lakes and pathsReported by Lloyd R. RussellLloyd R. Russell
Refuge Manager

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 Concentration: 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 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 nature of the migrational movement.

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.

3-1751

Form NR-1A
(Nov. 1945)MIGRATORY BIRDS
(other than waterfowl)Refuge Crescent LakeMonths of May to August 31 1951

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total Estimated
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Number
I. Water and Marsh Birds:										
Pared Grebe	200	Prev. period	200	5/11	200	End of period			50	250
Western Grebe	300	"	300	5/1	300	End of period			50	350
White Pelican	250	"	250	5/10	50	End of period			0	250
Double Crested Cormorant	25	5/15	200	5/25	200	End of period 1		25	50	300
Black crowned night Heron	2	5/4	100	5/15	100	End of period				100
Great Blue Heron	150	Prev. period	150	period	150	End of period 1		54	100	250
American Bittern	40	"	40	period	40	End of period				50
II. Shorebirds, Gulls and Terns:										
Killdeer	1500	Prev. period	1500	period	50	End of period				1600
Long-billed Curlew	1200	"	2000	7/1	4	Aug. 15				2500
West rn Willet	100	"	150	7/1	150	End of period				250
Avocet	300	"	400	7/15	25	End of period				500
Ring-billed Gull	500	"	500	period	200	End of period				750
Forsters Tern	100	"	200	period	100	End of period				500
Black Tern	100	"	500	period	500	End of period				750

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove	1000	Prev. period	2000	8/1	50
White-winged dove				End of period	500
					3000
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Am. roughlegged Hawk	25	"	35	7/25	35
Marsh Hawk	50	"	65	7/20	65
				End of period	10
				End of period	15
					50
					75
Reported by <u>Lloyd R. Ramelli</u>					

INSTRUCTIONS

Lloyd R. Ramelli
Refuge Manager

- (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 Gruiformes)
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.
- (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 Crescent LakeMonths of May to August 31, 1945

(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.
Ring-necked Pheasant	40,000		15	90					150	
Sharp-tailed Grouse	40,000		15	90					1,550	
Prairie Chicken	40,000		10	60					1,050	

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.

REFUGE GRAIN REPORT

Refuge Crescent Lake

Months of May thru August 1945

(1) VARIETY	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) ON HAND END OF PERIOD	(7) PROPOSED USE		
				TRANS- FERRED	SEEDED	FED	TOTAL		SEED	FEED	SURP.
Corn	9	0	9	0	0	2	2	7		7	

- (8) Indicate shipping or collection points.....
- (9) Grain is stored at Refuge Headquarters.....
- (10) Remarks.....

REFUGEE GRAIN REPORT

NR-8a REFUGEE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)--55 lbs., Corn (ear)--70 lbs., Wheat--60 lbs., Barley--50 lbs., Rye--55 lbs., Oats--30 lbs., Soy Beans--60 lbs., Millet--50 lbs., Cowpeas--60 lbs., and Mixed--50 lbs. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

- (1) List each type of grain separately: Corn, wheat, proso millet, etc. Include only domestic grains; aquatic and other seeds will be listed on NR-9.
- (3) Report all grain received during period from all sources, such as transfer, share-cropping, or harvest from food patches.
- (4) A total of Columns 2 and 3.
- (6) Column 4 less Column 5.
- (7) This is a proposed breakdown by varieties of grain listed in Column 6.
- (8) Nearest railroad station for shipping and receiving.
- (9) Where stored on refuge: "Headquarters grainary", etc.
- (10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

(8) Indicate shipping or collection points
(9) Grain is stored at
(10) Remarks

NORTH PLATTE NATIONAL WILDLIFE REFUGE

REFUGE NARRATIVE REPORT

I GENERAL

A. Weather Conditions

The weather was cool and rainy throughout the period. We were quite fortunate in that the several tornadoes and hailstorms that devastated portions of the Scottsbluff area missed the refuge. Practically all bird life was eliminated in several of the strips that were hailed out. Curiously, these areas remained devoid of bird life for several weeks. Whether the birds were reluctant to enter the area or were influenced by current nesting responsibilities is not known.

B. Water Conditions

The Pathfinder Irrigation District regulates the water levels of the three units to suit the needs of the district.

The units were filled during the forepart of the year and the stores drawn down as needed throughout the summer for irrigation.

II WILDLIFE

A. Migratory Birds

1. Populations and Behavior

Waterfowl populations amounted to approximately fifty adult ducks throughout the summer. These birds were usually found concentrated on a pothole, one acre in size, located east of Winter Creek Lake. The remaining birds were found scattered over the canals and supply ditches of the irrigation system. Occasionally, a few ducks were noted resting and loafing on the sandy beaches of Lake Minitare or Lake Alice.

Populations were composed of 60% Mallards, 30% Bluewinged Teal

5% Pintail, and 5% Redheads. There were minor variations in both population and composition due to local movements to and from the Platte River.

There were three known Mallard broods totaling 17 ducklings and 2 Blue-winged Teal broods with a total of 13 ducklings. The two teal and one mallard broods were found on the forementioned pothole and the remaining two mallard broods were found on irrigation canals.

2 Food and Cover

Natural food and cover were noticeably absent as is characteristic of irrigation reservoirs with broad sandy beaches and high fluctuation of water level. The best cover and source of food is found on the pothole east of Winter Creek Lake. This pond is the most natural and complete waterfowl area on the refuge.

3. Disease

There were no indications of sickness or disease in the waterfowl.

B Upland Game Birds

1. Populations and Behavior

Ring-necked Pheasants were the only birds of this category that were observed during the period. There were approximately 30 adult birds on the refuge. Two known broods were produced with a total of 13 chicks.

2. Food and Cover

Food and cover for upland game birds is abundant and is capable of supporting a much larger population than we now have on the refuge.

C Big Game Animals

While Rocky Mountain Mule Deer were reported to have been using the refuge, we were unable to make any observations to confirm this data.

D Fur Animals, Predators

There were no sign of predators on the refuge and fur bearers were limited to an occasional muskrat noted along the irrigation canals.

E Predaceous Birds

The only predatory bird noted was the magpie. This bird is in need of control and steps along this line are planned for the coming winter. During the winter months these pests will be concentrated and more susceptible to bait.

F Fish

Fishing is especially popular on Lake Minitare with Wall-eyed Pike, White Bass and Trout the game fish most commonly taken. This lake also has an abundance of Carp.

III REFUGE DEVELOPMENT

A Physical Development

There were no active work programs carried on during the period. Refuge signs were replaced and straightened and other incidentals accomplished during visits to patrol the refuge.

IV ECONOMIC USE

This Service does not have control of any of the economic use activities on the refuge.

V PUBLIC RELATIONS

A Recreational Uses

Recreational use of the refuge is intensive since it is the only

area within easy traveling distance of the community offering boating, fishing, swimming and picnic facilities. The refuge is scenic and quite conducive towards these types of recreational uses.

Observations of recreational use were made during patrol trips. The data obtained was supplemented by information from reliable sources. This data indicates that an average of 1000 people utilized the refuge facilities per week throughout the period. During cold, stormy and mid-week days comparatively little use was made of the area. However, these periods were countered by as many as 1500 people visiting the area on a week end day when prompted by hot weather. This would put total usage at 18,000 visitors or an average of 135 visitors per day..

Probably 95% of the recreational use occurs on Lake Minitare. This is due to better roads, accessibility, better facilities for the various recreational uses and the restaurant operated by the boat club.

B Refuge Visitors

Mr Kibbe and Mr Rodgers of the Regional Office made an inspection of the refuge during the period.

Crescent Lake Refuge personnel visited the refuge 7 times during which the area was patrolled, observations and contacts made as necessary.

C Fishing

Fishing pressure is quite strong since this one of the few areas providing lake fishing for Wall-eyed Pike, White Bass and Trout in this sector of Nebraska. In common with other lakes of western Nebraska, this lake is over-run with Carp. The State carries on an active program for stocking game fish in these lakes.

D Violations

There were no apprehensions made. We did not find any indications of violations during the period.

VII OTHER ITEMS

A Photographs

The enclosed photographs were taken by the manager with his own equipment and at his own expense.

Respectfully submitted,

Lloyd R. Ramelli

Lloyd R. Ramelli
Refuge Manager

September 19, 1951

Approved: _____

[Signature]
Acting Regional Director

WATER FOWL

REFUGE North PlatteMONTHS OF July to August 31, 19 51

(1) Species		(2) First Migrants Seen		(3) Peak Concentration		(4) Last Migrants Seen		(5) Young Produced		(6) Total
Common Name		Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
1. <u>Swans:</u>										
Whistling swan										
2. <u>Geese:</u>										
Canada goose										
Cackling goose										
Brant										
White-fronted goose										
Snow goose										
Blue goose										
3. <u>Ducks:</u>										
Mallard		previous period		30	5/1			3	5	60 ✓
Black Duck										
Gadwall										
Baldpate										
Pintail		previous period		5	5/1					5
Green-winged teal										
Blue-winged teal		previous period		15	5/1			2	3	35 ✓
Cinnamon teal										
Shoveller										
Wood duck										
Redhead		previous period		5	5/1					5
Ring-necked duck										
Canvas-back										
Scaup										
Golden-eye										
Buffle-head										
Ruddy duck										
4. <u>Coot:</u>		previous period		25	5/1			2	5	45

3-1750

(June 1949)

Form NR-1

(over)

SUMMARIES

Total Production:

Geese 0Ducks 50Coots 18Total waterfowl usage during period 105Peak waterfowl numbers 55Areas used by concentrations Winter Lake pothole and
irrigation canals.Principal nesting areas this season Winter Lake potholeReported by Lloyd R. Ramelli
Lloyd R. Ramelli
Refuge Manager

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 Concentration: 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 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 nature of the migrational movement.

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.

3-1751
Form NR-1A
(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)

Refuge North Platte

Months of May to August 31 194 51

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total Estimated
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Number
I. Water and Marsh Birds:										
Western Grebe			50	throughout the period					25	75
Double Crested Cormorant			25	throughout the period						25
Black-crowned Night Heron			25	throughout the period						40
Great Blue Heron			25	throughout the period						40
II. Shorebirds, Gulls and Terns:										
Avocet			50	throughout the period						50
Ring-billed Gull	3000	8/22	3000	8/22						3000
Forsters Tern			500	throughout the period						750
Black Tern			500	throughout the period						750

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons</u> :					Form NR-1A (Nov. 1945)
Mourning dove					
White-winged dove					
IV. <u>Predaceous Birds</u> :					
Golden eagle					
Duck hawk					
Horned owl					
Magpie	previous period	500	throughout the period		750
Raven					
Crow					

Reported by

Lloyd R. Ramelli

Lloyd R. Ramelli
Refuge Manager

INSTRUCTIONS

- (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 Gruiformes)
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.
- (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 North PlatteMonths of May to August 31, 19451

(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'vd.	Estimated Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked pheasant			2	30					50	

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.
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- (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.



"reproduction of Mourning Doves was good"
(51-162) 7/15/51



"37 goslings were transferred from Utah . . ."
(51-145) 6/22/51



"the goslings were pinioned and released . . ."
(51-152) 6/25/51



"herons again returned to the refuge and nested in the old willow trees on Island Lake . . ." (51-167) 7/31/51



"fishing is poor since our lakes are over-run with carp . . ." (51-137) 6/11/51



Mallard Nest - Crescent Lake Refuge
(51-135) 6/7/51



Skunk Depredation, Mallard Nest - Crescent Lake Refuge
(51-130) 5/30/51



Woon and Hammond hunting for waterfowl nests.
(51-127) 5/29/51



A mock nest, experimental nesting-predation project.
(51-128) 5/30/51



"Counting in cattle" - Crescent Lake Refuge
(51-131) 6/2/51 and (51-132) 6/4/51



"the refuge buildings were rewired to meet REA specifications . . ."
(51-123) 5/15/51



"we were 'hooked up' and were once and for all through with a
set of thoroughly worn out light plants . . ."
(51-133) 6/5/51



An irrigation well was dug at headquarters.
(51-156) 7/6/51



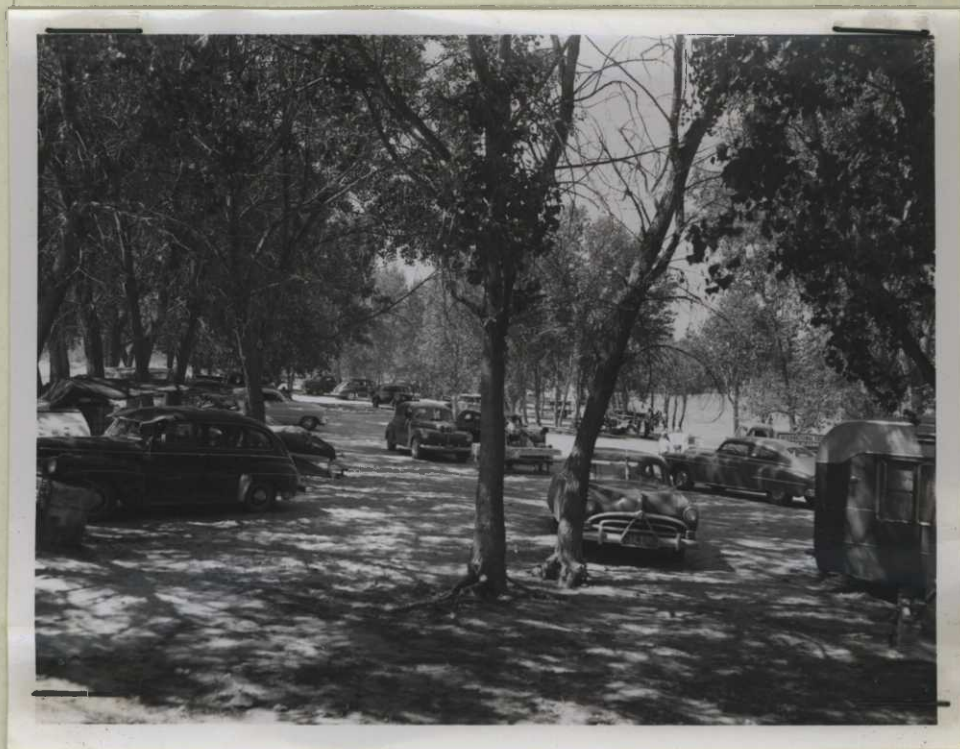
"a bedroom and bath were added to the clerks quarters . . ."
(51-142) 6/19/51



Roundup Lake - Crescent Lake Refuge.
(51-129) 5/30/51



Blow-outs in sandhills of Nebraska (Off of refuge).
(51-118) 5/11/51



Beaches on Lake Minitare - North Platte Refuge.
(51-175) 8/5/51 and (51-177) 8/5/51



A days catch - North Platte Refuge.
(51-174) 8/5/51



Recreational uses are many on North Platte Refuge.
(51-179) 8/5/51