

ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: May 24, 1948MR. SALYER

SECTION OF HABITAT IMPROVEMENT:

MR. KRUMHOLTZOK 7/20Mr. GriffithREG 6-1MR. DUMONTPAD 7-14Dr. BournWSB 7-14MISS BAUMMiss CookJWC 6-2

SECTION OF OPERATIONS:

SECTION OF LAND MANAGEMENT:

Mr. BallJ. H. B.Mr. KentJK 7/22Mr. BoganOK 7/20/48Mr. AckerknechtOK

SECTION OF STRUCTURES:

STENOGRAPHERS:

Mr. TaylorWWT 8/13OK 7-1-48Mr. Johnston

REMARKS:

FORT NIOBRARA NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT

JANUARY--APRIL 1948

Return to:

FORT NIOBRARA NATIONAL WILDLIFE REFUGE
Valentine, Nebr.

NARRATIVE REPORT-- January to April, 1948.

L. General.

A. Weather Conditions.

	<u>Snowfall</u>	<u>Precipitation</u>	<u>Max. Temp.</u>	<u>Min. Temp.</u>
Jan.	0.5	.15	56	-15
Feb.	7.6	.26	67	-14
Mar.	9.2	.50	76	-27
April.	0.0	1.68	87	19
Total.	<u>17.3</u>	<u>2.59</u>	<u>87</u>	<u>-27</u>
Normal.	25.6	3.93		

This period had extremes of cold altho the weather generally has not been disagreeable. The -27 degrees registered on March 11th, was the coldest record for March in the history of the local weather station. The period was very windy. Most of the precipitation fell during the last of April.

B. Water Conditions.

There was a large deficiency of moisture in the soil at the start of this period. The shortage of rainfall during the period and the evaporation from wind left the soil with little water content. The good rain the last of April has helped. More rain will be necessary for a good grass crop.

C. Fires.---- None.

II. Wildlife.

A. Migratory Birds.

1. Population & Behavior.

1500 mallards wintered on the Beaver Creek pond. These left the refuge during the last part of March. In early April approximately 500 ducks, all mallards except 11 mergansers, were observed on the ponds at headquarters. These were apparently migrants, altho they could have part of the ducks that wintered on the refuge. The refuge is used very little by migratory waterfowl, however, the number of ducks, geese, and cranes usually observed flying high over the refuge were not seen this year.

One pair of upland plover and one pair of mourning doves were observed on April 30.

B. Upland Birds.

The pheasants, grouse, and prairie chickens appear to have wintered well. The birds are nesting at present. The population of 50 pheasants, 150 grouse, and 100 chickens are enough to provide breeding stock with favorable conditions.

There was little snow on the ground at any time during the winter. Food was available at all times. The wild fruit is in bloom at present and looked favorable for a good crop this year. A freeze last night (May 3rd) may have killed all the blossoms. The late rain in April has given the vegetation a good start for this year. More rain is needed.

C. Big Game Animals.

Buffalo-- 168 yearlings and over, and 21 calves----- Total 189.

The ^{Buffalo} wintered most of the time in the north pasture where feed conditions were excellent. They were allowed access to the east pasture where they could be fed hay if necessary, but spent little time on this area.

The first buffalo calves were observed on April 22nd. This is later than usual. There have been 22 calves born to date with one loss. One calf has been born in the exhibition pasture and one more is expected. These are from new stock placed in the exhibition pasture last fall.

The buffalo came thru the winter in very good condition with the exception of two old cows which show the effects of too many winters. There was no hay fed to the buffalo this winter.

Elk. 57 head.

The elk wintered in the north pasture, except for 11 head which were in the east pasture. 10 head from the east pasture were moved to the pond pasture on April 8th for summer exhibition. There were no known losses this winter.

Texas Longhorn Cattle.--83 head of yearlings or over & 20 calves--Total 103.

The main herd of longhorn cattle were wintered on the winter range where there was good grazing and windrowed hay. They were fed a supplement of ear corn during January while they were cleaning up the last of the windrowed hay. Stacked hay was fed from January 21 to April 26. Hay was fed with the hay-sled constructed last fall. Feeding was done with less hard labor than ever before altho there were more cattle to feed.

Last year's calves and yearlings were fed in separate feed lots where they had good protection and where it was possible to give them

supplemental feeds of grain. All wintered in fine shape. The yearlings (1946 calves now coming 2 year-olds) were moved to the pasture north west of headquarters. It is planned to hold them in this pasture until June when they will be put in with the main herd. It is hoped that by keeping them in this pasture for a few months they will have good feed and improve the appearance of the area by keeping down the weeds.

20 longhorn calves have been born this period. The first arrived on April 8th. 6 more are expected. The calves show plenty of color.

It is planned to cull out part of the 2 year old steers this year and sell them at auction. There are now a good exhibition group of steers and only those showing promise of good type and horn growth should be held.

7 heifers are eligible for service this year. With this addition to the herd it is planned to surplus two of the poorer type cows.

Mule Deer. -- 30.

The deer on the refuge are utilizing the alfalfa plantings for feed. The largest herd is found along the river strip south of the headquarters where there is also a good growth of willows and good protection. They are not confined to the refuge but spend most of the time on the area. There are also a few deer in the north pasture which are occasionally seen.

D. Fur Bearers.

There are a few Beaver, muskrat, racoon, and skunk on the refuge. They are few in numbers.

E. Predacious Birds.

Magpie and crows appeared in fewer numbers this period than usual. There were few observed.

F. Fish.

The refuge has no fishing open to the public. The small ponds on the area are operated by the Nebraska Game, Fish, and Parks Department as rearing ponds.

III. Physical Development and Maintenance.

A. Physical Development.

This period the major part of the time of the refuge personnel was required to care for animals. All Government hay stacks were moved from the hay field and put in stack yards. The hay was put

in 3 stack yards where it was handy for feeding. It was felt that 3 yards would provide more protection in case of fire. All stack butts were cleaned up.

Stormy days were spent in reconditioning farm machinery and tools for next seasons work.

A grease pit was constructed in the barn to replace the outside rack which was unsafe. The new pit is much more satisfactory as greasing can be done under cover in bad weather.

A cross fence was constructed in the west pasture north of the calf shed to give more watering space in the calf pasture. Trees were removed from the fence along the river strip and all wire on the longhorn pasture checked and resteepled where necessary.

Posts at the headquarters entrance were replaced and painted.

A new floor and sills was put in the pump house over the well to replace the rotten floor.

A new gasoline pump was installed to replace the old pump which was worn out.

Repairs were made to a defective chimney in residence No. 1.

The slaughter house, scale house, and residence No. 3 have been painted. This included painting the roofs red as well as the walls white. Work is now in progress on residence No. 2. It is hoped that next year the shop and barn can be painted.

B. Plantings.

During the last month of this period several of the Juniper trees lining the drive into headquarters have died and several others show signs of fire at the tips of the branches. They have the appearance of drying up. This condition was reported to the Forest Ranger, Mr. Stavley, of the U. S. Forest Service. He suggested that the damage might be caused by pocket gophers or a soil condition. Since there was no sign of gopher activity, one of the trees were dug out to look for sign of mouse damage. There was no sign of mouse work. All tree ~~xxx~~ roots were in good condition as far as could be determined. The condition was discussed with Mr. Gordy Lord, retired Forest Ranger who has had 37 years experience on the Menzel Forest. It is Mr. Lord's opinion that the trees died last winter from lack of moisture in the soil during the dry fall and winter, and that the trees only showed signs of dying when warm weather arrived. Recent rains should prevent further loss if this is the difficulty. It was planned to water the trees, but rain saved the trouble.

IV. Economic Use of The Refuge.

There were no permits in effect this period other than for the

removal of hay harvested last year. All hay has been removed.

V. Public Relations.

404 persons registered at the museum this period. This is an increase of 171 over the same period last year.

The refuge manager attended meetings of Game officials at Lincoln and Chadron, Nebr. He also assisted with sponsoring and training a high school boxing team and assisted with 4H Club work.

Official visitors at the refuge this period-

4/13	Paul Smith	Game Mgt. Agent.-----	2 hrs.
4/22	Gene XXXXXXXX	Supt. Crawford hatchery-	2 hrs.
	Mason		

Respectfully,

John D. Connors
John D. Connors,
Refuge Manager.

RECEIVED: MAY 10 1948

J. W. [Signature]
Acting Regional Director

ANNUAL SUMMARY OF ACTIVITIES.

The past year was short of precipitation. The abnormal amount of moisture in the soil a year ago, along with the spring rain, produced one of the best grass crops known to this area. The situation does not look as good at present altho late April and early May rains are encouraging.

Cold, rain, snow, and freezing temperatures last May practically ruined the upland bird nesting. It is hoped conditions will be better for nesting this year as there is only a small breeding stock of pheasants, sharp-tailed grouse and prairie chickens on the refuge.

The buffalo herd has been held at approximately 160 head. 38 buffalo were disposed of last year which was the largest number disposed of from this refuge except for the drowth years when the main breeding herd was cut down. Last year's calf crop of 49 calves was the largest ever produced on the refuge. This will permit increase in animals to be declared surplus this year.

The elk herd has shown a good increase. It is planned to surplus not less than 20 elk this year in order to hold the herd to its present size.

The Texas longhorn cattle continued to increase satisfactorily. This year's calf crop will bring the total number of longhorns on the refuge to over 100 head, and will permit a closer selection of the animals to be kept for breeding and exhibition.

The demand for surplus animals is constantly increasing. More inquiries are being received for live animals than in the past. All buffalo hides from last years kill were disposed of at 20¢ per pound.

The range conditions were the best last year that they have been since the drowth years. Less hay was required for the animals than for several years past, altho there were more animals on the refuge. Approximately 80 tons of hay were carried over this year. None of this was disposed of due to the dry conditions of the soil at present. This carry over of hay is sufficient to insure feed for another year even tho there is a light grass crop this year.

Experiments were made with 24D to control the lead plant (Amorpha Nana) on the range. The experiments were not successful. However, the growth of this plant appears to be thinning out where it was thickest two years ago. It may take care of its self if given time. Talks with old timers in the country indicate that this plant is an old resident of the country and that it has never proven a serious menace to the range.

There was no trapping on the area the past year. A little beaver activity was noted during the winter. This was not enough to justify removals.

Fences have been maintained and are in fair condition. Further work of resteepling fence wire is constantly required. Short cross fences have been constructed to permit better utilization of water and easier corralling of animals.

The double garage was moved and a concrete floor laid in same.

The slaughter house, scale house, and residence No. 3 have been painted and roof painted. All other buildings have been kept in repair, with minor improvements such as grease pit and feed bins built in.

210 bushels of corn was harvested as the Government's share of farming on the Dineen tract under permit No. 16881. The crop was poor due to dry conditions. The old corn on hand and 80 bushels of the new crop were fed to cattle during the period.

A summary of the sale of refuge products during the past year is as follows-

4 grazing permittees grazed 365½ A. U. M.-----	\$182.75
19 haying permittees harvested 1620.41 tons hay	1620.41
11 Texas longhorn cattle sold-----	1297.26
Elk & Buffalo sold-----	3925.00
	<u>\$7025.42</u>

With the increase requested in economic use rates and the increased number of surplus animals to be sold this year this refuge should be practically self supporting as to current expenses.

Respectfully,

John D. Connors
John D. Connors,
Refuge Manager.

WATERFOWL

Refuge Fort Niobrara Months of January to May 1948

(1) Species Common Name	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Young Produced		(6) Total
	Number	Date	Number	Date	Number	Date	Broods Seen	Estimated Total	Estimated for Period
I. <u>Swans:</u> Whistling swan									
II. <u>Geese:</u> Canada goose Cackling goose Brant White-fronted goose Snow goose Blue goose									
III. <u>Ducks:</u> Mallard Black duck Gadwall Baldpate Pintail Green-winged teal Blue-winged teal Cinnamon teal Shoveller Wood duck Redhead Ring-necked duck Canvas-back Scaup Golden-eye Buffle-head Ruddy duck	1500	1/1/48	1500	1/1/48	2	4/30/48			2,000
IV. <u>Coot:</u>									

SUMMARIES

Total Production:

Geese _____

Ducks _____

Coots _____

Total waterfowl usage during period 2,000Peak waterfowl numbers 1500Areas used by concentrations Ponds.

Principal nesting areas this season _____

Reported by John D. Connors.

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 Fort Niobrara

Months of January to April 1948

(1) Species		(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name		Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. Water and Marsh Birds:											
II. Shorebirds, Gulls and Terns:											
Upland Plover		2	4/30/48								2

(over)

(1)	(2)	(3)	(4)	(5)	(6)
III. Doves and Pigeons:					
Mourning dove	2	4/30/48			
White-winged dove					
IV. Predaceous Birds:					
Golden eagle					
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Reported by.....					John D. Connors.

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 Fort NiobraraMonths of January to April, 1948

(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.
Shapr tailed grouse	Grass	100							150	
Prarie chicken	Grass	150							100	
Ring necked pheasant	Weeds & brush	40							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.
- (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.

Form NR-4
(June 1945)

SMALL MAMMALS

Refuge Fort Niobrara

Year ending April 30, 1948

(1) Species	(2) Density	(3) Removals					(4) Disposition of Furs					(5) Total Popula- tion	
Common Name	Cover Types & Total	Acres Per Animal	Hunting Fur Harvest	Predator Control *	Fur Re- stocking	Fur Re- search	Share Trapping			Total Refuge Furs Shipped	Furs Donated	Furs Destroyed	
	Acreage of Habitat						Permit Number	Trappers Share	Refuge share				
Muskrat													few.
Beaver													20
Raccoon													20
Skunk													few
coyote													15

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

(3) REMOVALS: Indicate the total number under each category removed since April 10 of the previous year, including any taken on the refuge by Service Predator Animal Hunter. Also show any removals not falling under headings listed.

* List removals by Predator Animal Hunter

* List removals by Predator Animal Hunter

REMARKS:

John D. Connors.

Reported by

INSTRUCTIONS

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

(1) SPECIES:

Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)

(2) DENSITY:

Applies particularly to those species considered in removal programs. Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.

(3) REMOVALS:

Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headings listed.

(4) DISPOSITION OF FUR:

On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprime-ness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.

(5) TOTAL POPULATION:

Estimated total population of each species reported on as of April 30.

REMARKS:

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

3-1570
NR-8a

REFUGE GRAIN REPORT

Refuge.....Fort Niobrara.....

Months of January thru April 1948..

(1)	(2)	(3)	(4)	(5)				(6)	(7)		
VARIETY	ON HAND BEGINNING OF PERIOD	RECEIVED DURING PERIOD	TOTAL	GRAIN DISPOSED OF				ON HAND END OF PERIOD	PROPOSED USE		
				TRANS- FERRED	SEEDED	FED	TOTAL		SEED	FEED	SURP.
Corn	290	--	290	----	----	160	160	130	----	130	0
Wheat	75	---	75	---	---	15	15	80	---	60	0

(8) Indicate shipping or collection points.....Valentine, Nebr.....

(9) Grain is stored at Fort Niobrara Refuge.

(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

NARRATIVE REPORT--LAKE ANDES REFUGE.
LAKE ANDES, SO. DAKOTA.

January 1 to April 30, 1948.

There has been no one on duty at this refuge during this period and therefore no information as duck flights, water levels, or general conditions.

A trapping permit was issued to Walter Engel to trap rats on a share basis on the ~~Washburn~~ Gov. owned Owens Bay area. Due to the congestion of ducks on the area he pulled his traps after catching two rats. The Gov. share was not picked up to date as it was not considered worth driving 320 miles to collect.

When reporting on the trapping Mr. Engel stated that the two wells put down by the State Game Department were in operation and that the Owens bay pond was now up to its maximum level.

Respectfully,

John D. Connors
John D. Connors,
Refuge Manager.