UNITED STATES DEPARTMENT OF AGRICULTURE BUREAU OF BIOLOGICAL SURVEY FORT NIOBRARA GAME PRESERVE IN REPLY REFER TO VALENTINE, NEBRASKA R-Fort Niobrara. Reports, Quarterly June 1st., 1938. Chief, Biological Survey, Washington, D. C. Dear Sir: I have herewith enclosed Quarterly Report for the months of January, February and March, 1938. Very truly yours, Lens allmines Geno A. Amundson. Refuge lanager. GAA/CA Encl. CC: Regional Office.

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UNITED STATES DEPARTMENT OF AGRICULTURE BUREAU OF BIOLOGICAL SURVEY

IN REPLY REFER TO

FORT NIOBRARA GAME PRESERVE.
VALENTINE, NEBRASKA

R-Fort Niobrara Reports.

March 31, 1938.

Chief, Biological Survey,

Washington, D. C.

Dear Sir:

Quarterly reports from January 1, to March 31, on the Fort Niobrara Reservation, Wildlife and activities appurtenant thereto:

- 1. Report on Wildlife observed during the period:
- 1. Buffalo. The buffalo have been retained in the east pasture during these three months. Along the middle of January they were visibly thinner than they were in the middle of December. However, at that time they started eating hay very well and by the last of this quarter they are again looking very good.

We had a scare this winter from a report that someone had found a buffalo head and entrails in a canyon along the Niobrara River about five miles east of the Refuge. All indications were that scmeone had stolen and butchered a buffalo, but upon investigation I found that the buffalo butchered by the Red Deer Ranch for meat purposes had been removed entrails and all and all the waste parts were placed in this canyon for coyote bait in connection with trapping.

- 2. 2. Elk. -- The elk wintered in very good condition. At the end of the quarter none of the bulls had lost their antlers. The herd of elk in the east pasture ate hay daily with the buffalo, and the elk herd in the north pasture were fed a little hay during the last part of the winter
- 3. Deer. -- We still have a number of wild native mule deer on the Refuge. Two old bucks were fenced in by constructing a new fence and since that time additional bucks and does have come in from the timbered area east of the Refuge. On January 2nd., we saw five mule deer in the north buffalo pasture, one buck, two old does, and apparently two does a year old.

The white tailed deer in the pond pasture east of the buildings ate corn daily this winter when we fed the ducks. They would wade out into the upper end of the pond where the springs kept the water open, and sometimes would submerge their heads to kick kernels of corn from the bottom.

4. Lexas Longhorns. -- All during this quarter the ten longhorns were retained in the pasture that includes the Stromberg and Jelly lands and a part of the west arm along the river. During good weather they are hay at the Stromberg windmill and grazed over the pasture, and in severe weather they took advantage of the new cattle shed constructed along a spring creek below a hill near the river.

5. Predatory, fur bearing, and rodent mammals.—
There were a great number of coyote tracks over the Refuge during these winter months, and after a fresh snow one could find the tracks of several pairs and a number of single coyotes. Bobcat tracks werenoticed in the timbered areas along the river and creeks.

On March 16th., having caught up with most of the back work in the office and feeling the need of getting out over the Refuge, I took upon myself to spend the mornings trapping some of the surplus rats and beavers on the ponds. In addition to taking these animals I sook several raccoon and one bobcat. By the end of the month I had taken up most of the traps. Not many weasels or mink were noticed during this quarter.

6. Reptile Life. — There were no activities of reptile life this month except that a weasel had gone into a snake den at the spring on Little Beaver Creek, just below Little Beaver pond. This weasel had dragged out several garter snakes and a large black water snake, some of these snakes were coiled up on the ice and dead, but some of them had reached the warm spring water where watercress grows all winter and were alive. I put them in a sack and brought them back to headquarters for observation.

counted some over 500 mallard ducks on the Big Beaver ponds in the north buffalo pasture. It seemed to me this year that there were a larger percent of females that spent the winter here than in former years. There seemed to be about 70% males this year and other winters I have noticed a small percent of females, as low as 10%. The ducks did not require much feed only during severe cold spells during which time the springs and creeks were frozen over and they would then consentrate on the feeding grounds at the ponds east of Headquarters.

A large number of prarie chickens and grouse stayed on the south and east portion of the Refuge, and in some very rough sandhills east of the south portion of the Refuge. I took the stomachs from two of these birds to the 'Denver office and found they were eating almost entirely buds from plums, chokecherries, sandcherries and some juniper tips.

Pheasants are rather plentiful over the Refuge especially on the west arm where there is some grain for them, and also on the pond areas over the Refuge. I noticed a small bunch of quail on the House ponds.

The first sign of spring in this section of the country is asually the latter part of February when the crows begin to migrate in from the south.

The first ducks that migrated in this spring at. the Refuge were pintails that were noticed on the second day of March. On the 16th of March a large flock of sandhill cranes flew over, this was very early I believe for this part of the country. By the 20th of March we had quite a number of meadowlarks, robins and redwing blackbirds.

II Other Activities:

- 1. Grazing .-- The grazing was very poor during this quarter and it was necessary to feed hay throughout the entire period, and it is hoped we will have a better year for grass to grow next season.
- 2. Protection. -- The Refuge was patrolled during the quarter by Myself and Sather and most of the time we had a large WPA crew working on the Refuge and had them distributed over a large portion of the Refuge, which afforded protection for those parts.
- 3. Improvements. -- A large amount of work was performed on the Refuge during this quarter, but very little of it was new improvements as most of our work now consists of maintenance of improvements and making improvements to cut down the future maintenance.

The cattle shed on the Stromberg place was completed except for the roofing composition, and we constructed a cattle shed at the former building site on the Christopher land. This cattle shed is intended to keep the longhorn calves.

We built a corral around this cattle shed taking in an flowing well under which we built a cement water trough.

This affords warm drinking water during the winter months for the young stock.

Considerable work was done on the roads in the north buffalo pasture, sand was removed from the road beds that had blown and drifted on the road, and we did considerable riprapping with beaver cut trees to prevent future blowing of sand onto the roads. Some crossdrains were made on the roads and the roads repaired in general by filling in washed out wheel tracks and ruts.

We started construction of a truck trail on the west arm of the Refuge, extending south from the Stromberg land on the east side of the river to the southwest boundary of the Refuge, where we had located a quary of rock which is very suitable for building material. This rock is called quartzite by the Nebraska Department of Roads. This road will be used for patrolling that portion of the Refuge and for making the rock quary accessible.

During the construction of the road on the west arm considerable rock was removed from the edge of the quary. This was broken up and piled at Headquarters for future use.

Considerable clay was hauled on the sandy portions of the Refuge roads during the quarter.

One man WPA Laborer who is handy with tools, with one to two assistants worked in the interior of the Museum most of this quarter. The floors were cleaned from plastering last quarter, a stairway was constructed into the basement, and specimen cases in both the upstairs and basement part were constructed and glass installed, and some painting on the interior of the cases was finished.

Quite a number of cedar trees were transplanted at the Headquarters site and the east side of the road leading west to the highway.

The fence at the west end of the elk exhibition pasture west of the highway was moved closer to the river, taking in additional pasture and timber area. Some changes were made in the plank entrance to the buffalo carrals, additional catwalk was constructed, and one of the gates remodled. Several outdoor toilets were constructed for placing on recreation areas.

- 4. Public Relations. -- The only activities were conducting people to see the game animals and through the Refuge Museum.
- 5. Miscellaneous Activities. -- Beaver cuttings and other dead trees were hauled to Headquarters and sawed, some of this material was used to heat the Museum where work was being carried on, the blacksmith and repair shop, and the Officers quarters where the men ate their noon lunch.

Some of the old buffalo drift fence was removed from north of the river, north of the buffalo corrals.

This fence was installed when the buffalo were first brought
from the north buffalo pasture and corraled. This makes a little
extra fencing material for use on other repair jobs.

Much time and labor was spent removing thistles from big game and stock fences and burning them, and on some of the food and cover plantings where ground was worked last year it was necessary to burn thistles.

The irrigation pump in the pond pasture was tested at the pump, and it was found that it produced 500 gallons per minute, which was the required amount at the pump, but this pump is too small and only produces 125 gallons per minute at Headquarters. We have a large supply of warm water available for irrigation purposes and considerable time and money would be saved if we had a pumping unit large enough to increase toe volume two or three times at the irrigating site.

on Big and Little Beaver Creeks were rather low, and during this quarter they started raising from increased spring flow and it was necessary to chop ice from around the overflow pipes because when the ponds raised the ice carried with them the docks supporting the overflow pipes.

A buffalo hide was transferred to the Pine Ridge Indian Reservation for exhibitional purposes.

We have had two teams of horses for use on construction work. These horses belong to nearby farmers and we
are permitted to use them daily for no rental charges, but for
feed and care of them, and they certainly have been very valuable
and have speeded up work as we are working the 40 or more WPA
men with practically no other equipment.

The racks formerly used on the Defiance truck for transporting game animals was reconstructed and made to fit our 12 ton Chevrolet truck. This is used in transporting animals from the corrals to the exhibition pastures.

The snow rumoff in March filled Big Beaver ponds numbers three and four. This is the first time these ponds have been filled with water since their construction.

Wells and windmills were checked and some repairs made and we find that it will be necessary to redrill the well on the Miller place as the sandpoint has filled in. A test at the Valentine Lakes Refuge shows that a large percent of our sand passes through a screen with 100 lineal holes to an inch, and our sandpoints have only 60 mesh screen. However, it may be possible to find the comment vein of sand.

About March 21st., we started working on food and cover plantings by discing, harrowing and leveling off lister rows and burning thistles.

In the northeast corner of the small inclosure northeast of the corrals we changed the fence and developed a spring which will permit us to retain animals in this pasture during disposal season and will permit us to keep the animals for disposal separated from the balance of the herds.

538 bushels of corn, and 74 bales of alfalfa hay were received at the Refuge from a Refuge in Missouri. 200 bushels of this corn was transferred to the Valentine Lakes Refuge.

The death of Mr. T. J. Dineen occured on January 21st., Mr. Dineen had been living on Refuge lands that was purchased from him. A permit had been given him to reside at his former home during the rest of his natural life.

On the evening of March 22nd., Regional Director, Mr. Maurek and his Assistant Mr. Furness came to the Refuge and spent the night and most of the next day. We drove over the Refuge during the forenoon and most of the afternoon, and spent sometime in the office during the middle of the day.

This visit was most appreciated and very beneficial, and we look forward to future visits from Mr. Maurek and his personnel in the Omaha Regional Office.

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Geno A. Amundson

U. S. Game Management Agent.

GAA/CA cc: Regional Office.

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Very truly yours,

Gono A. Amundson U. S. Game Management Agent

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