## UNITED STATES DEPARTMENT OF AGRICULTURE BUREAU OF BIOLOGICAL SURVEY

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IN REPLY REFER TO

R Niobrara Reports NIOBRARA GAME PRESERVE, VALENTINE, NEBRASKA.

April 3, 1936

Chief, Biological Survey, Washington, D. C.

Dear Sir:

With reference to the enclosed quarterly report covering the period January 1, 1936 to March 31, 1936. This report is very short, but because of the nature of work undertaken by the camp towards the winding up of the improvement of the refuge and because of all of the delay due to adverse weather conditions, there was really nothing more to discuss. Therefore, this report is very short.

Very truly yours,

Geno A. Amundson, U. S. Game Management Agent.

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GAA/ajm Enclosure Quarterly Report

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GAA/ajm Enclosure Quarterly Report



## UNITED STATES DEPARTMENT OF AGRICULTURE BUREAU OF BIOLOGICAL SURVEY

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Niobrara
Reports

NIOBRARA GAME PRESERVE, VALENTINE, NEBRASKA.

April 1, 1936

Chief, Biological Survey, Washington, D. C.

Dear Sir:

Quarterly report from January 1, 1936 to March 31, 1936 on the Niobrara Reservation Wild Life and activities appurtenant thereto:

I. Report on Wild Life observed during the period:

the end of this quarter, and with the exception of one real old cow, which is very thin, they are all in normal condition in spite of the severe winter weather and deep snow during a great share of this quarter. At the present time the entire herd is on the north side of the river in the 4,000-acre pasture. They were driven across the river the 19th of March, and they did not have to be asked twice to go as it seems they prefer the north pasture of the two pastures they run in. During the latter part of February and until they were moved to the north pasture, we fed them hay daily as the small pasture did not afford any hillside grazing and the grass became rather short.

The old buffalo bull, who is about 23 years of age, could not stand the severe winter and lay down and died at the upper

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end of one of the springs in the pond pasture just east of headquarters. His head and part of the hide was sent to Denver to be mounted into a head and shoulder mount, and I asked that he be mounted in the rough so that he will appear as near natural as possible.

for breeding and exhibition purposes in one of their parks, and one young bull was sent to South Carolina to the Park and Tree Commission.

Quite a number of the buffalo cows are getting very heavy and some new calves are expected next month.

and we have retained at headquarters for exhibition purposes in the small exhibition pastures the old buffalo cow, that was with the bull that died, and a pair of two-year-olds are in the pond pasture. Two bulls, a cow, and a heifer calf are in the exhibition pasture south of the pond pasture on the south side of the highway.

apparently are all in a good state of health. At headquarters we have two elk exhibition pastures, one of them just south of the headquarters buildings where we have two yearling bulls, and just west of this pasture on the west side of the highway we have two cows, two last spring calves, and one bull. This bull has shed his antlers, and in shedding his antlers he got rid of some barbed wire that he had tangled on them since last November. In the east pasture we have nine

head, and the balance of the elk are in the north pasture and on the river strip. Part of them were moved into the north pasture at the same time the buffalo were moved. If I am unsuccessful in getting the elk into one or the other of the pastures that are in the river strip, I plan to butcher the ones that might remain on the river strip next fall for the Indians, and then we should be able to keep the balance of the elk in one of the two pastures.

- fuge. Of the ten that formerly were in the antelope pasture just north of headquarters, five of them died from severe winter conditions last February, four males and one female. When found dead, they were laying in a normal position like they would lay down and go to sleep. They were found frozen stiff. Two of them were found soon enough so that their hides were good, and I had their heads mounted. Two of them were partly decomposed when found after the snow went off, and one of them has not been located. The animals were found to be as poor as snakes when skinned for mounting. This shows that close confinement does not agree with them as they were getting grain twice a day and had several hay stacks to eat from.
- 4. Deer. The white-tailed buck, doe, and the two last-year fawns in the pond pasture are getting along wonderfully well, and they come for their feed regularly twide daily. Because the

buck is so tame, the doe and the fawns are becoming quite tame.

During the fore part of this quarter two buck mule deer were seen in the north pasture near the Crooked Creek on the east side of the north pasture, and one was seen north of the river opposite the antelope pasture.

5. Predatory Animals. - Occasionally some of the men working on the job see a coyote on the refuge, and their tracks are quite evenly distributed, but there apparently are not enough animals to necessitate a hunter as long as we have the camp on the refuge.

Bob cat tracks have been seen during the heavy snows.

we have continued the trapping of small predatores and fur bearing animals, and during the winter season and up to date, we have taken seven skunks, eight civet cats, four house cats, three coon, two mink, and one hundred eighteen muskrats. During the greatest share of the winter there was so much deep snow and the weather was so cold that very little trapping was done. However, this spring since it has started to open up, the boys have had fairly good success in spite of being handicapped for transportation. They have to do most of their trapping by the use of horseback.

6. Reptile Life. - It is too early in the season to notice any reptile life. However, when one of the dams was completed on the west arm of the refuge, and the water was raised, a large

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number of garter and blue racer snakes were drowned out, and they were very active for a few days around the water's edge.

7. Birds. — Very few grouse and prairie chickens were noticed during the quarter. A few days ago I noticed 23 in a bunch, and I believe they were migrating. With this exception I have never noticed more than eleven birds and very rarely saw them.

Approximately 600 ducks fed on the refuge during the cold spell, and they consumed 175 pounds of feed daily during the most severe weather. At the present time there are approximately 200 mallards resting on the refuge and a very few pin tails and teal and also a few American merganzers. Twenty-six mallard ducks, mostly males, were trapped, and one wing was clipped, and part of them were liberated on the ponds in the north pasture and some of them in the pond pasture. It is hoped that they will encourage nesting on the refuge.

Of the three Canada goese we have, one pair of them have mated. I have not noticed any mating of the snow, cackling, or blue goese.

The golden eagles were quite numerous over the refuge during the quarter. Two golden eagles were mounted for the display building. One of them was caught in a trap set for a coon, and one of them was found electrocuted on the Interstate Power Company's high

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lines. I have them in one of the specimen cases. I found an eagle eating a fresh jack rabbit one day, and of course they eat a few ducks, but otherwise I do not believe it is necessary to destroy them locally. I only saw two bald eagles during the quarter.

A king rail was caught in a mink trap during the middle of January. It seems rather odd that he stayed so late in the season and was able to survive the weather.

The meadow larks, robins, kill deers, and a few black birds arrived about the middle of March, and to date there has been no loss due to heavy snows, but a year ago we lost a lot of them from starvation caused by snows in April.

Only two quails have been noticed since the snow melted off, and they were in the elk exhibition pasture west of head-quarters. The pheasants wintered wonderfully well taking advantage of the food patches, and not a bird was found dead, and I believe they all survived the 35 inches of snow and 35 days of sub-zero weather. Thirty birds were counted on the west arm at one time after the snow started to melt exposing a little bare ground. I believe these food and cover patches are a wonderful thing and should be followed up whenever possible.

## II. Other Activities:

l. Grazing. -- Grazing is very good over the refuge except in the east pasture from which the buffalo have been removed. In

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the north pasture there is an abundance of the three gramma grasses and some buffalo grass.

- 2. Protection. The refuge was given adequate protection, mostly by men working all over the refuge, and by personal patrol, and patrol by the foremen.
- 5. Improvements. -- Work on the display and office building progressed fairly good during the latter part of this quarter. We made a fair start on it during January by excavating for the basement and making the purchase of a carload of sand and 400 sacks of cement. At that time the severe weather struck us, and we were unable to do anything until March. We constructed the forms and put in the footings and poured the foundation and have removed the forms preparatory to moving the building on to the foundation. Some of the specimen cases have been constructed for the inside of the display portion of the building.

considerable road work has been accomplished in spite of the time lost because of the adverse weather conditions. It so happened there was not a particle of moisture in the ground to cause the ground to freeze up, and we were able to operate the bull dozer and grader all this quarter when weather conditions permitted the men to be out. When the cold weather struck the latter part of January, we had nearly completed our work in the north pasture, and because of

March 31, 1936 .

the cold weather we immediately moved all of the equipment near headquarters where it would be easier to get to and from work. We started construction and have completed a good share of the road leading from the point just north of the Minnechaduza bridge east across the Hobbs and Dineen land and staying down below the table land. This road will make a short cut to the big game pasture north of the river and will somewhat enable us to reach the north pasture quicker than by driving up over the table and crossing private owned land to gain entrance to the north pasture. A road was started and is nearly completed from the bridge towards the power plant adjacent to newly acquired land. The Interstate Power Company is furnishing all of the materials including blasting powder, and this has saved us considerable money as the blasting is furnishing us clay for surfacing our roads. The road along the west arm of the refuge on the east bank of the river will be completed as soon as the last dam has been constructed permitting the road to go over the dam.

Several miles of boundary fence has been constructed on newly acquired lands. One piece of fence was constructed from the highway entrance to headquarters north and down the hill to the river bridge. This was constructed out of new cedar posts and woven wire fence replacing an old delapidated fence. The north side of the Dineen and Hobbs land was fenced and the south and west side of the

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Christopher land also. Some of the west arm fence built under PWA was changed permitting us to construct dams and place the fences on one side of the dam. Bids were solicited to purchase corner and brace posts for construction of big game fence.

The dam on the west side of the river was completed on the Experimental Farm. This will afford us a road to patrol the west side of the river as it is necessary to cross the Experimental Farm, and prior to the construction of this dam it would have required a long roundabout way to get a very short distance. Two dams have been built and completed on the west arm below the newly acquired Stromberg land. Work has been started on an additional dam, and check dams are being built on one of the dams constructed by the Veterans. This is to prevent sand from washing in and filling the reservoir.

In spite of the cold weather we developed and reconditioned some wells on lands acquired by purchase and erected wind mill towers. One deep well is in the process of construction now in the southeast corner of the refuge in the sand hills. This work is all being done in the more remote and dry parts of the refuge to afford water for future game animals, and concrete reservoirs will be guilt enabling birds of all kinds to have water during the summer months.

4. Public Relations. - Under this item there was not a great deal during the quarter. I cooperated with the Chamber of

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Commerce and other parties interested in having the highways improved between the refuges and Valentine.

5. Miscellaneous Activities. — We have baled hay during the quarter as much as weather conditions would permit, and we have not baled more than half of the hay that was cut under fire hazard reduction last fall. We are storing this baled hay in piles eighteen feet high, having placed loose hay on the bottom of the pile and using some poor quality hay to cover the top. This hay will be preserved for future emergency use.

We attempted to gather a large quantity of cedar or juniper berries for the Shelter Belt people, but their request came so late that after attempting to gather some seed we learned that the birds that had migrated through during the early part of the winter had eaten most of the berries, and we had to discontinue our efforts. In return for our cooperation with the Shelter Belt people we have always been able to get some surplus trees, and this year we secured 150,000 trees, 50,000 of them were mulberry, and the balance native hardwoods, with the exception of a few osage orange trees that the Shelter Belt Director asked us to plant in protected locations for experimental purposes. During the next quarter we will plant several hundred acres of trees, most of the plantings being on newly acquired land. We have on hand at the present time 225,000 cottonwoods and a few of them are willows, 20,000 pine and cedar, and we expect to drive

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after the 150,000 hardwoods in a few days. In addition we have purchased fruit and berry bearing trees and shrubs to be planted around the food and cover patches.

Near headquarters we have four exhibition pastures, two of which have buffalo in, and two have elk in. Three of them have no timber, so we fenced a round area in each of these three exhibition pastures a couple hundred yards in diameter, and in the center of this we transplanted some two-year-old Chinese elm and will continue the plantings in the spring going from the center toward the outer edge by planting hardwoods, cedar, fruit bearing trees and shrubs, and the outside border will be plum thickets and lilac bushes. The design of these are somewhat on the order of the Shelter Belt plantings with the taller timber in the center and the shorter varieties toward the outside. These areas will be protected from the game animals until they have become well developed and established themselves well enough to stand the use of the small number of animals in each enclosure.

Because of the terribly slow process of land acquisition, it was necessary to secure temporary agreements with the following people with whom we had options: Eva Hobbs, Timothy Dineen, and George Christopher. This permitted us to fence the boundaries, construct roads over the land, and water development. Since that time the Hobbs tract has been paid for, but the Christopher and Dineen transactions are still incomplete.

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I might make a brief mention of the adverse weather conditions we were confronted with during the latter part of January and most of February. We had a total of 33 inches of snow which settled to 26 inches, and of course together with the heavy snow, we had high winds creating blizzards. The roads were blocked for days at a time, trains were annulled, and because all of our work was out on roads and dams and fence contruction, which are the final types of work left to complete under ECW, everything was at a standstill. The average temperature for 36 days was 4.4 degrees below zero. These weather conditions greatly delayed all of the work projects, and therefore this quarterly report is very short, compared to others in the past. Two different days we managed to get our trucks started by heating one with a torch and dragging the others around, and we helped the south camp haul in coal and other supplies to tide them over the severe winter storms which blockaded all of their highways and roads. It was necessary to dig out quite a lot of the big game pasture fence on the north side of the river to prevent the settling snow, which had drifted over it, from tearing out the staples and bending the wire.

The ice conditions became very alarming for a short period on the Niobrara River, and several bad gorges were threatened, and everyone was very much concerned, because at one time some years ago, ice gorges took out fourteen bridges in the County. However, two

April 1, 1936.

cold spells intervened during the thaw and the surplus water gradually ran off, and by dynamiting some of the gorges that formed no trouble was caused.

During the forepart of March we had 25 of our men transferred to the south camp. This hampered and delayed our work which had just nicely started after the delay caused by bad weather.

At the present time the enrollment of the camp is cut down to approximately 115 men because of failures to sign up for the 7th camp period, and the transfer of 25 men to BF-2. Because of the delay caused by bad weather and the shortage of enrollees at the present time, we will have a difficult task to complete all of our projects within the time the camp has been approved for retention on this refuge. However, it is hoped there will be some enrollment within a short time to bring the companies up a little stronger than they are. If we can soon regain a strength of 150 men or more, by the end of June we should have all of the projects completed that are now under operation, and everything should be developed to the fullest extent possible. Any further developing would, in my estimation, be considered overdevelopment, and would be unjustified, and we perhaps would be subject to future criticism.

April 1, 1936

I wish to thank each and all of the members of the Bureau who have cooperated and made possible the accomplishments of the projects undertaken on this refuge.

Very truly yours,

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Geno A. Amundson,

U. S. Game Management Agent.

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Third Rusrberly Report,

April 1, 1956

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Very truly yours,

Ceno k. wundson, U. S. Game Management Agent.

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