

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY
NIOBRARA GAME PRESERVE,
VALENTINE, NEBRASKA.

IN REPLY REFER TO

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Niobrara
Reports

September 30, 1936

Chief, Biological Survey,
Washington, D. C.

Dear Sir:

Quarterly report from July 1, 1936 to September 30, 1936
on the Niobrara Reservation wildlife and activities appurtenant
thereto:

I. Report on Wildlife observed during the period:

1. Buffalo. -- The buffalo apparently are going to enter the winter in very good condition. They are all on the north side of the river except the animals in the exhibition pasture at headquarters and two old bulls along the river strip that went through the gate while the boys were working on the east approach of the river bridge.

2. Elk. -- The elk are fairly well bunched and have been for the past couple of weeks. They are in as good a condition as they ever get on this refuge. The old bull elk in the north pasture has seven points on one antler this year and has an enormous pair of antlers, and I would like to have his head mounted and placed in the museum as he is very thin this fall, and I would not be surprised, if we have a hard winter, that he probably would drop off as, no doubt, his teeth are badly worn.

The elk in the exhibition pastures at headquarters have certainly been on display this summer. Invariably they lay down on either side of the road in their respective pastures, and the public can see them at all times. Two calves born in the pasture west of the highway are still nursing their mothers. The two last year's calves or yearlings have grown so that it is very hard to detect them from their mothers when they are off a short distance. It will be necessary to remove these two yearlings because there now is a total of seven elk in that small enclosure.

We will be unable to count the elk until the leaves fall off the trees and they stay out of the timber.

3. Antelope. -- The antelope herd we have in the big antelope pasture south of headquarters are growing very rapidly now, and we have lost no more of ~~them~~ since the Government trapper has taken about fifteen coyotes from that part of the country.

It certainly has been a trying experience to raise these youngsters along with all of the other development problems on the refuge, and I believe I have learned a lot about raising them. I shall construct an enclosure of about 160 acres of land around the wind mill and small corral that they now occupy and plan to keep these youngsters within this enclosure during the winter because I feel if they drift all over the large pasture, we will have still further loss. I plan to continue feeding them grain throughout the winter at this wind mill site and will have a large stack of hay for their protection,

and they should come through in nice shape until the spring of the year when they can be let out into the large area. As soon as they have fully grown and matured, I believe they will be able to look out for themselves.

Another spring, I can arrange to get ten or fifteen head at a very moderate cost, getting a part of them from Buffalo, South Dakota, and probably a few from eastern Wyoming, and if we can bring them to the refuge without them ever getting started with the dysentery, I feel confident that we can raise them to maturity as we did the band received from Buffalo, South Dakota this year.

4. Deer. -- We still have the four deer fawns in the house yard, but expect to move them in the next few days to the pond pasture with the other deer. These little animals are very dear pets, and everyone that stops at the refuge admire them and marvel at how tame they are.

The two white-tailed fawns in the pond pasture are a little larger than their triplet sister that we have raised on a bottle.

Three of the fawns at the house are mule deer, and eventually we shall turn them into the north pasture where we already have two large mule deer bucks that were fenced into the refuge during the construction of the big game fence.

5. Texas Longhorns. -- The Texas longhorns have decided to call their new pasture home and very peaceably graze over the area

An antelope fawn was seen in small pasture north of headquarters in July.

and are very tame and can be driven right up to with a car, and a lot of people marvel over the lengths of the horns on the four-year-old steer.

6. Predatory, fur bearing, and rodent mammals. -- During the past three months, the coyotes have increased on the refuge until they got to the point where they started taking the young antelope fawns in broad daylight in the big antelope pasture. I called Dr. Ward M. Sharp at the Valentine Lakes Refuge and asked if he could spare Mr. Jack Boultinghouse, the Government trapper, and he stated he would send him right up, which he did. That was along about the middle of September, and since that time he has taken 19 coyotes and the most of them he has killed by shooting them with a rifle as he had very few traps to work with. However, traps are being shipped, and he will soon be able to use traps wherever there is need of them.

Mr. Adolph S. Hamm, District Agent from Cheyenne, Wyoming, came here with his assistant, Mr. Buell, and Mr. Hamm, Mr. Buell, the trapper, and our CCC boys poisoned a prairie dog town at the southwest corner of the refuge, and from all appearances they had very good results although it would seem that it is getting rather late in the season.

Occasionally there is a pocket gopher mound on the refuge showing up now this fall, but it is a pleasure to drive over the refuge and not see it entirely spotted with pocket gopher mounds as the surrounding country is.

The fox squirrels are becoming, I believe, too plentiful over the refuge. When I first came here six years ago, I very seldom saw a squirrel, but now they are very abundant as they are never hunted on the refuge, and I fear they will become too plentiful for the good of the nesting birds because of the birds and squirrels both being concentrated in the not very abundant timber we have on the refuge.

This year was an unusually good year for mice to multiply, and they certainly have. One can see indications of them working wherever he goes, and somehow or other they have started getting into the headquarters house. I am having a greater number of boxes constructed for placing poison grain into to try and control their numbers around the headquarters buildings as they could do a lot of damage if they moved into the buildings.

Rabbits also have increased this year, and they have already started coming to the headquarters site to eat the green grass growing near the shrubs and the shrubs, and it will be necessary to keep them shot down this fall when snow comes.

7. Reptile Life. -- There has been no noticeable increase or decrease of reptiles on the refuge except that not very many rattlesnakes were taken during the quarter, and upon examination of the rattlesnake den, I only saw one. However, I believe it is plenty early as they will start coming to the den quite rapidly after a heavy freeze, although I hope that we have nearly exterminated the snakes from the den at the lookout tower in the north pasture.

8. Birds. -- During the hot months of July and August, it was a pleasure to watch the birds come for water at the specially designed and constructed reservoir basins at each of the wind mills in the south portion of the refuge. Water is pumped from the wells into a seven or eight barrel stock tank, and then the overflow from this stock tank goes into a concrete basin that is built level with the ground, and it is about eight feet across. This basin has a gradual slope from the top down to the center, and it is only about twelve inches deep in the center, and birds of all kinds flock to these places and drink.

During the month of September, quite a number of ducks, herons, bitterns, rails, and other migratory waterfowl have moved on to the ponds over the refuge. The other day I saw 23 cranes drop down from the sky from a very high altitude and stop to rest and water on the west arm of the refuge.

I saw 124 magpies in one flock which is the largest gathering of them I have ever seen on the refuge or in this part of the country as not very many of them nest here.

We have a very large concentration of crows in this vicinity, and I believe a part of the time they roosted on the refuge. A rancher was here complaining the other day, and he stated that the crows had a roost on the refuge along the river and that early in the morning they would fly to his corn field and feed and then fly on northeast and return again to feed in his field at night before going

to roost. If these birds use the same roost, I shall plan to drive them away with a dynamite specially-made shell loaded with shot.

The insectivorous birds started arriving at the refuge on the migration south early in July this year, and it seems to me that they came in larger numbers and early in the season than they have in the past. I attributed this to the terrible dry country to the north. A majority of the insectivorous birds have now gone south.

The CCC enrollee, Mr. Nelson, has added quite a number of bird specimens to the refuge collection. He took a Swainsen Hawk, and as the hawk's stomach and throat was full of food, he emptied the contents into a pint jar and has preserved it with formaldehyde. I have not examined it thoroughly, but from just glancing at the jar, there are seven or eight small snakes of three or four different varieties visible. The contents of this jar is very interesting.

I have noticed a few golden eagles on the refuge that have returned from the north, and the 23 buzzards left about the 26th of September. *burny*
Swainson's hawk

II. Other Activities:

1. Grazing. -- Grazing conditions are not what I had anticipated they would be and what I thought they were a month ago. Since the recent frosts, the live grass has, of course, all turned brown and dried up, and upon close examination of the entire north pasture, I find that the grass has shriveled down to where it is very, very scarce. However, it seems to be of a good quality as we have had

no rain to bleach it, and the animals are gaining in flesh daily since the flies have quit bothering them and the rutting seasons are over. However, we need not worry as we have a couple of hundred tons of baled hay and also will have quite a lot of hay loose in the stack to feed them during the severest part of the winter. Hay has already been stacked in the exhibition pastures around the headquarters for winter feeding if necessary.

2. Protection. -- The refuge has had adequate protection from fire and poaching during the quarter, and we certainly were very fortunate in not having a fire so far this summer and fall. There has been a large number of prairie fires over the entire country including South Dakota where there was grass enough to burn. In addition to having men ride horseback over parts of the refuge, it has been patrolled by automobile, and, of course, we have CCC boys working fairly well distributed over the refuge.

3. Improvements. -- The first and most important improvement was the bridge over the Niobrara River giving us access to the north pasture with a very short drive east of headquarters. It has been quite a problem to construct this bridge with only CCC labor. All of the boys have been very enthused and ambitious and have worked hard on the construction of this bridge as they can see the large accomplishment. However, none of them have had any past experience in bridge construction, and it made it very difficult for the foremen to keep them going. However, at the end of this quarter, the floor is in

the bridge, the driveways are completed on each approach, the grading is practically done, and during the first half of the next month, the bridge will be practically completed including the painting.

The Bureau of Public Roads has kindly called upon us at regular intervals during the construction of this bridge and have offered suggestions whenever they were needed, and they also checked the shop plans and kept close track on the steel firm furnishing the structural steel and reinforcing steel, and saw to it that they carried out each and all of the specifications. Outside of the Bureau of Public Roads, no other assistance was had on the construction of the bridge.

The 125-foot lookout tower was completed at the headquarters site, and a platform was made at the top. This lookout tower is going to be of a lot of value here because it enables one to see clearly to the east, south, and west boundaries of the refuge and a good share of the big game pasture north of the river can be observed from it also. The tower is very spindly and weaves whenever one takes a step on the platform, and it certainly is no place for anyone who does not feel at ease in climbing high.

The office and display building has practically been completed during the quarter except for the finishing touches on the specimen cases and a few minor details. This building is very attractive looking both outside and inside. The basement specimen cases have all been completed, and fossils have been arranged in practically

all of the space, and residents of Valentine can hardly believe that these specimens were actually collected here. We will soon start moving in the collection of bird and mammal skins, reptiles, and insects to the upstairs specimen cases in the east end of the building. The display of prehistoric bones and present day mammals is going to be very interesting to the general public in this building.

Fence work during the quarter has consisted of rebuilding corners in the old big game fences, replacing the old posts in the old big game fence lines. Some boundary fence was constructed out of five barbed wires, etc., and we started to place the three barbed wires under ground around the big antelope pasture which consists of eleven sections on the southeast part of the refuge.

Not a terrible lot has been done during the past quarter on roads because of the bulldozer being laid up most of the time for repairs. A large fill was made at the west approach to the bridge over the river by the use of a Diesel Caterpillar loaned to us from the south camp and a four-yard Continental wagon scraper. We also used this some in cutting down the grade on the road leading north of the antelope pasture up on the Dineen land which is now part of the refuge. Some road work was done with horses and fresnos and by hand, and during the balance of the next quarter we expect to complete our road work.

An irrigation system is being made by using salvaged six-inch water main pipes and burying them in a ditch extending from

the ponds east of headquarters for 2900 feet. At the pond we have moved a building which will house the electric motor and centrifugal pump, and at the headquarters site we have installed hydrants on this water main, and the water will be available at the rate of 350 gallons per minute for both fire protection and irrigation during the hot, dry seasons of the year.

The telephone line has been placed under ground from a point out at the highway and into and through the headquarters site. This eliminates a lot of poles and wire being carried overhead. We have also made plans and arrangements to bury the power line.

4. Public Relations. -- Outside of the usual run of visitors to the refuge, there were no high school picnics or gatherings. However, there was a caravan of 54 cars here from Ainsworth, Nebraska, and they were taken through some of the exhibition pastures to see the game animals.

Dr. G. E. Condra from the University of Nebraska, who is at the head of the Department of Conservation and Soils, was here with Mr. Harold Brokaw, head of the Extension Service from the Agricultural College, and Dr. Anderson, Regional Director of the Resettlement Administration. Dr. Condra wanted these gentlemen to see the use that this land on the refuge was being put to. Both Mr. Brokaw and Dr. Anderson expressed themselves that the refuge was certainly a very well worth while establishment and that the lands contained therein were being put to a very good use.

Mr. Val Nicholson, president of the First National Bank at Valentine, was invited out to the refuge, and I took him over a part of it, spending several hours in the field. Mr. Nicholson was in the First National Bank and was partly responsible for the donation of funds to secure the first game animals on this refuge. He is a very interesting old gentleman, and he marveled at the abundance of improvements made since he visited the refuge a number of years ago.

5. Miscellaneous Activities. -- During September we cooperated with the Valentine Lakes Refuge and loaned them the cement mixer we used on the bridge whenever we did not need it. This helped them out greatly and saved the expense of getting another mixer.

Mr. William T. Krummes of Medicine Lake Refuge in Montana was here a very short time, and we gathered a number of sand hill wild plums that he wanted for seed to plant in the sand hill area of his refuge, and I later sent him a gallon of juniper or cedar berries which he plans to get started on his refuge.

Mr. Earl Ladd, who formerly worked on this refuge, and who has the past couple of years been at the Crescent Lake Waterfowl Refuge, stopped here on a short visit on his way to the Elk Refuge in the Jackson Hole, Wyoming, where he has been transferred to assist Mr. Nelson, in charge of the Elk Refuge. Mr. Ladd will make him a very good man as he certainly was very valuable to me when he worked here.

A marker was completed at the site of what was known as Old Deer Park where the first voting in Cherry County was done.

This was in cooperation with the Historical Society. The structure was made out of rock salvaged from the foundations of the old adobe buildings on the refuge.

During the first two months of the quarter, we had a very hard time to keep the lawns and shrubs alive on the entire headquarters landscaping site. The weather continued day in and day out above 100 in the shade and no rain. It was necessary to use our fire protection water supply system. However, as described under improvements, the new irrigation system will relieve the situation next year.

As usual, a number of ranchers were given permission to harvest hay on the south portion of the refuge. The hay was very thin and scarce this year, and they had to cover a lot of territory to get their allotted amounts. Each harvester has a padlock to the gate used by him, and he furnishes the refuge with a key to the padlock.

It was necessary to keep a check once or twice a week on the wind mills over the dry portion of the refuge to be sure they were all working and pumping water for the wildlife that was depending on them.

I had the CCC enrollees cut quite a number of stacks of hay for our own use during the next winter.

We gathered several hundred pounds of Juniper berries for the Soil Conservation Department who have in the past so generously furnished us with seedling trees for planting.

We made an attempt to locate a quantity of Mountain Ash seed during this quarter, and I found quite a lot of seed in north-east Minnesota and also some on a National Forest near Laramie, Wyoming. The Lake States Forest Experiment Station in Minnesota advised that we try and secure some Mountain Ash seed from Europe as they have a very hardy species there. I have had a letter from a firm in Denmark who state that they are interested in exchanging seed. That way they could have some of our Minnesota-grown seed and we could acquire some of the hardy species from that country. My attempts to secure this seed was as per suggestion of the Chief when he was here with Mr. Leo L. Laythe last spring, and as soon as I get authority to have a supply of this seed gathered or gather it myself and have it properly cured, we can have the Forest Service at Halsey, Nebraska, grow seedlings for planting on refuges.

The food and cover plantings on the refuge did not amount to much this season, and we should be in a position to grow grains in large enough quantities during good years of normal moisture so that we will have grain stored and made available for years when we are unable to grow it on the refuge, although we hope never to see as dry a season again as we had this year, and we should be able to grow a small amount each year.

Mr. Carey H. Bennett, formerly with the Land Acquisition Division, and now in charge of the WPA in the State, has been

here several times, and I have cooperated with him on his WPA work as much as possible.

The latter part of September, I made a trip to northern Knox County to inspect a proposed bird or mammal refuge, and I submitted a report on this to ~~my~~ Regional Director, Mr. Leo L. Laythe.

During the latter part of July, Mr. Amos B. Emery spent a very brief time here on the refuge which was very much appreciated and which was helpful and beneficial, and I certainly hope that he will get here again before the camp leaves.

During the quarter, I had hoped that some of the officials from my Division in Washington would be able to visit the refuge, but none of them have been here.

This report is rather brief as it only covers the first three months of the Fiscal Year, and as all of the ECW program practically has been on projects extended over from the forepart of the summer.

I want to thank all of my superiors for their wholehearted cooperation.

Very truly yours,



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

GAA/ajm

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